DCA24LA097

AIR TRAFFIC CONTROL

Group Chairman's Factual Report - Attachment 8

ZBW Facility SOP and Training Order

September 30, 2025

BOSTON ARTCC

STANDARD OPERATING PROCEDURES

FOREWORD

ZBW 7110.33DD CHG 1

This order establishes standard operating procedures (SOP) to be used by Boston Air Route Traffic Control Center (ARTCC) Personnel to accomplish position related duties and responsibilities. It will serve as a single source reference document for numerous operational tasks. The procedures are designed to assist operational Boston ARTCC Personnel to maintain a safe operation in accordance with Federal Aviation Administration (FAA) Joint Order 7110.65.

Topics covered are those most likely to be encountered on a daily basis. A number of seldom used, but important procedures are addressed in greater detail to aid in understanding and application. Where appropriate, cross-references to other local publications will be referenced.

This document is designed to be easy to use as well as maintain. Your suggestions to change or improve this document are welcomed and requested. Forward your suggestions to the Airspace and Procedures Office through your Operations Supervisor, and Operations Manager-in-Charge (OMIC).

TARAH R PARK

Digitally signed by TARAH R PARK
Date: 2023.11.14 12:00:31 -05'00'

Tarah R. Park
Air Traffic Manager
Boston ARTCC

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CHAPTER 1. INTRODUCTION

1-1. PURPOSE

This order standardizes the duties and responsibilities of ZBW personnel. The content of this order clarifies operating procedures that must be followed by ZBW personnel during their daily operational assignments. The specific duties and responsibilities set forth herein are supplementary to the duties and responsibilities in FAA JO 3120.4, 7110.10, 7110.65, 7210.3, Letters of Agreement, Facility Orders, Notices, supplements, and amendments to these documents.

1-2. DISTRIBUTION

This order is available for viewing on the ZBW Facility Directives Repository at http://loa.faa.gov, and in the operational areas in the Enroute Information Display System (ERIDS).

1-3. CANCELLATION

ZBW Order 7110.33DD, Boston ARTCC Standard Operating Procedures, dated April 20th, 2023 is cancelled.

1-4. EFFECTIVE DATE

This Order is effective on **November 15th, 2023.**

1-5. RESPONSIBILITY

All personnel are required to be familiar with the provisions of this order that pertain to their operational responsibilities and to exercise their best judgment when encountering situations not provided herein.

1-6. EXPLANATION OF CHANGES

Except for cross-references added throughout the SOP and minor editorial changes, all changes will be denoted through dark change bars on the left side of each change. Listed are the explanations of changes. References to section numbers are to the current SOP publication numbers.

Notice Changes:

- N ZBW 7110.308 Candidate NOTAM System
- N ZBW 7110.309 TEAM-CEDAR Updates
- N ZBW 7110.310 SOP KPSMKSFM Routing Procedures
- N ZBW 7110.311 TMU updates
- N ZBW 7110.312 Area Initiated Dynamic Adjustments to MAP Values
- N ZBW 7110.313 VOR-MON and Area C Holding Pattern Amendments
- N ZBW 7110.315 NAV CANADA ICAO Phraseology
- N ZBW 7110.316 Areas B and D SOP Sector Binder Changes

New Changes: Editing of A3-2 GENOT and RENOT Procedures to remove reference to a no longer valid ZBW Notice.

Bulletin only Changes:

None.

Notable editorial changes:

- All Sector maps and nodes updated to current specifications.
- Various grammar, punctuation, and formatting changes.

1-7. SUBMISSION CUTOFF AND EFFECTIVE DATES

TABLE 1-7-1 Publication Schedule

Basic or Change	Cutoff Date for Submission	Effective Date of Publication
ZBW 7110.33EE	2/17/2024	05/07/2024
ZBW 7110.33EE Change 1	8/24/2024	11/12/2024
ZBW 7110.33FF	2/15/2025	5/6/2025

1-8. RECOMMENDATIONS FOR PROCEDURAL CHANGES

a. Personnel should submit recommended changes in procedures to their Operations Supervisor (OS), OMIC or National Air Traffic Controllers Association (NATCA) Representative.

b. Recommendations from workgroups, Article 114 groups, and other sources should be submitted to the Airspace and Procedure (ZBW-530) office.

CHAPTER 2. GENERAL OPERATIONS

2-1. SECTOR/POSITION MANAGEMENT

2-1-1. DUTY FAMILIARIZATION AND THE TRANSFER OF POSITION RESPONSIBILITY

a. Prior to assuming any position identified in paragraph b. as requiring operational continuity, all personnel must accomplish duty familiarization for each shift.

1. Complete assigned Prior-to-Work MBIs for affected positions.

2. View and listen to the recorded Center Weather Service Unit (CWSU) briefing, when available, through CEDAR, which will normally be updated at the following local times: 0555, 1230 and 2045.

b. Transfer of position responsibility, for operational continuity, must be accomplished at the following positions:

1. OMIC
2. OS/CIC
3. STMC
4. All Traffic Management Unit (TMU) positions
5. R
6. RA
7. H
8. A
9. Flight Data Unit (FDU)

NOTE: In addition to the step-by-step process outlined in FAA JO 7110.65 Appendix A (SOP for the Transfer of Position Responsibility), each specialist must follow the appropriate checklist for the position being assumed. Refer to Appendix 2 for checklists. Position relief briefings for all positions identified in paragraph b, must be recorded to the maximum extent practicable.

2-1-2. SIGN-ON/OFF AND IN/OUT PROCEDURES

a. When transferring position responsibility, the relieving individual is responsible for the position sign off/sign on as described in FAA JO 7110.65 Appendix A. An Enroute Automation Modernization (ERAM) Sign in/Sign out (SISO) command must be used at ERAM operational positions.

b. Cru-X/ART is the official time and attendance system for both signing in/out for a shift and on/off position. It is the responsibility of the OS/CIC/STMC/TMCIC to ensure the accuracy of the personnel log for time, attendance, and productivity recording. Time and Attendance (T&A) information must be entered into and maintained within the ART system approved. It is the responsibility of the Quality Control Office (ZBW-505) to evaluate compliance.

1. Employees who report to work at their scheduled shift start time will not be required to sign in. If an employee reports to work at other than their scheduled shift start time (e.g., flex in, take leave at the beginning of their shift, etc.), the employee will be required to make the appropriate entries into CRU-X/ART.

2. Employees will not be required to sign out at the end of their shift unless they are assigned these duties as CIC, or they take leave at the end of their shift.

NOTE: Employees are not prohibited from signing in/out.

c. When Cru-X/ART is not operational, personnel must log their time on position on FAA Form 7230-10 in accordance with JO 7210.3 section 4-6-6. An FAA Form 7230-10 must be prepared for R, RA, H, A, TMU, Flight Data (FD), STMC, OS and OMIC positions. When the Cru- X/ART computer becomes operational, the OS/CIC STMC/TMCIC must input the collected data into Cru-X/ART. The OMIC must collect FAA Forms 7230-10 and forward them to the Quality Control Office (ZBW-505).

2-1-3. STATUS INFORMATION AREA (SIA)

The SIA is a manual or automated display of the current status of the area, position related equipment, and operational conditions or procedures. Responsibility for the SIA is a joint responsibility of the specialists and the OS/CIC/STMC/TMCIC. Positions that post a Position SIA and are located in an area that also posts an Area SIA, must maintain familiarity with both.

a. Area SIA.

1. Each Area of Specialization will utilize the Enhanced Status Information System (ESIS) for the Area SIA.
2. In the event of an overhead display outage, the ESIS must have priority over any other display.
3. The accuracy of information posted on ESIS is the responsibility of the OS/CIC.
4. Rapidly changing information such as real-time activation of Military Airspace, PIREPs, etc., should not normally be included on the Area SIA, but should be included on the sector/position SIA.
5. The Sector Team must notify the OS/CIC if updated information obtained through GI or other source has not been updated on ESIS.
6. SIA information may be obtained from many sources but is not limited to GI, PIREPs, and ERIDS.
7. When combining the OS position to the OMIC, the ESIS should normally be set to have all information to go directly to the “Restrictions” box.
8. Each Area of Specialization determined what information will be displayed on the Area SIA, as follows:

NOTE: Information of a sensitive nature, such as VIP movement, must be displayed using the minimum amount of information needed to inform daily operations.

(a) Area A SIA (ESIS):

(1) Traffic Situation Display
(2) Traffic Management Initiatives-Airspace Flow Programs, SWAP routes, Ground delays or stops, Metering, In-Trail Restrictions, etc.
(3) Equipment status/outages
(4) Airport conditions and closures
(5) Primary Runways for BOS and MHT arrivals
(6) Special Activities not related to displayed SAA—airshows, TFR, VIP movement, PAJA

(b) Area B SIA (ESIS)

(1) Traffic Situation Display

(2) Restrictions: Metering, In-Trail Restrictions, Descend Via
(3) Ground stops and EDCT
(4) Reroutes
(5) General info including—
  i. Flight Plan Drop Time
  ii. Radar outages
  iii. Primary runways for BOS and MHT

(c) Area C SIA (ESIS)

(1) Traffic Situation Display
(2) Traffic Management Initiatives-Airspace Flow Programs, SWAP routes, Ground delays or stops, Metering, In-Trail Restrictions,
(3) Equipment status/outages
(4) Airport conditions and closures
(5) Primary Runways for BOS arrivals
(6) Special Activities not related to displayed SAA—airshows, TFR, VIP movement, PAJA.

(d) Area D SIA (ESIS)

(1) Traffic Situation Display
(2) Traffic Management Initiatives-Airspace Flow Programs, SWAP routes, Ground delays or stops, Metering, In-Trail Restrictions, etc.
(3) Special Activity Airspace (SAA)-scheduled and active
(4) Equipment status/outages
(5) Airport conditions and closures
(6) Primary Runways for BOS arrivals and BOS Metering information
(7) Special Activities not related to displayed SAA—airshows, TFR, VIP movement, PAJA

(e) Area E SIA (ESIS)

(1) Traffic Situation Display
(2) Traffic Management Initiatives-Airspace Flow Programs, SWAP routes, Ground delays or stops, Metering, In-Trail Restrictions, etc.
(3) Special Activity Airspace (SAA)-scheduled and active
(4) Equipment status/outages
(5) Airport conditions and closures
(6) Special Activities not related to displayed SAA—airshows, TFR, VIP movement, PAJA, glider activity

(f) TMU Area SIA (ESIS and Traffic Situation Display)

(1) Traffic Management Initiatives-Airspace Flow Programs, SWAP routes, Ground delays or stops, Metering, In-Trail Restrictions, etc.
(2) Special Activity Airspace (SAA)-scheduled and active
(3) Airport conditions and closures
(4) Primary Runways for MHT and BOS arrivals
(5) Special Activities not related to displayed SAA—airshows, TFR, VIP movement
(6) The Traffic Situation Display

NOTE: The Traffic Situation Display, while not physically located on the TMU ESIS, is still included as part of the Area SIA.

(g) FDU SIA

(1) EQUIPMENT STATUS
A. ERAM
B. AISR
C. VSCS/PHONES
D. ERIDS
E. TFMS
F. LAN/PC

(2) SYSTEMS

A. NADIN
B. FNS/NES
C. AISR
D. WMSC/ASOS
E. GUARD

(3) DAILY ITEMS

A. ALNOT/INREQ
B. NOTAM COORDINATION
C. TFR NOTAMS / AIRSHOWS / PUBLIC EVENTS / POLICE ACTIVITY
D. NEW READ & INITIAL ITEMS
E. WEATHER / RADAR OUTAGES / PIREPS
F. ZBW FLIGHT PLANS

(4) SPECIAL EVENTS

A. MILITARY EXCERCISES
B. ZBW EVENTS

(5) COMSEC

A. SECURITY CONTROL POINT
B. EQUIPMENT

b. Sector/Position SIA

1. Each position that is required to maintain operational continuity will maintain a sector or position SIA of all relevant information not present on the Area SIA.
2. The Sector/Position SIA is the combination of informational sources, which are defined in the Area's SOP, chapters 4-9. Each area determined what specific information will be included.
3. Multiple operational positions that are located at a single sector may collectively maintain a single sector SIA. For example, the R, RA, and H positions working at the same sector are not required to each maintain a separate SIA. However, all positions at a single sector share responsibility to maintain the sector SIA.

4. Hand-written information and flight strips that are physically posted at the sector must be readily visible. Binders or other paper reference must be readily accessible.
5. Information displayed on ERAM via computer graphics, annotations or other display must be set to be readily visible. On other computer displays, if the information is not visible at all times, it must be readily retrievable.
6. The accuracy of hand-written or rapidly changing information posted on the sector SIA is the responsibility of the specialist(s) working the position. Sector controllers are responsible for coordination agreements that are arranged by them.
7. Sector controllers are responsible for the accuracy of information on PIREPs recorded by them. The accuracy of other weather information is the responsibility of the entity that records it.
8. The accuracy of information on ERIDS is the responsibility of the entity that publishes it.
9. The accuracy of information in reference binders or other paper materials is the responsibility of the entity that publishes it. It is the responsibility of the Airspace and Procedures Area Boston District Support Manager to ensure reference binders are up to date.
10. It is the responsibility of the specialist to relay updates to his/her supervisor when they become aware of changes to those items in the Sector SIA that they do not have the ability and/or responsibility to update.
11. When sectors or positions are combined all pertinent information from any and all sectors and positions need to be addressed, communicated and adhered to.

2-1-4 DYNAMIC ADJUSTMENTS TO MAP (MONITOR ALERT PARAMETER) VALUES

a. In situations where functional positional capabilities may be constrained, the dynamic adjustment of MAP values may be requested. Requests to adjust MAP values must be approved by the OMIC, with input from the STMCIC/TMCIC and the OSIC/CIC of the affected Area(s).

2-1-5. SECTOR COMBINING/DECOMBINING

a. Sectors/positions may be combined or de-combined in order to provide optimum service to the user. If a need to combine/de-combine sectors/positions arises and the OS/CIC is not readily available, (e.g. midshift operations) ATCS should initiate action to combine/de-combine the sectors/positions, and advise the OMIC as soon as possible.

b. Ensure that Voice Switching and Control System (VSCS) calls are forwarded to the appropriate position.

c. Unstaffed sectors must be combined to a staffed sector.

d. Position combining/de-combining messages may be accomplished at any Air Traffic Work Station (ATWS) or directly at the sector.

e. Sectors are combined/de-combined by the Combine Sector (CS) messages listed in the ERAM Controller Quick Reference Card TI 6110.108. A sector airspace assignment request command (RC) may be used to view current sector and Fixed Airspace Volume assignments.

f. Sectors/positions must be combined and de- combined according to the appropriate checklist in Appendix 2.

2-1-6. OPENING/CLOSING OF PART-TIME APPROACH CONTROL AIRSPACE

a. Approach control FAVs must be combined with ZBW FAVs whenever ZBW assumes responsibility for the approach facility airspace. When approach FAVs are combined with ZBW

FAVs the following must occur:

1. Conflict alerts and E-MSAW alerts within approach airspace will be displayed to the ZBW sector assuming the airspace.

2. Approach strips will be automatically routed to ZBW sector assuming the airspace.

3. The radar team must notify appropriate ARTCC sectors after approach FAV combining or de-combining has been accomplished.

b. General procedures for opening an approach facility not covered by Letter of Agreement (LOA);

1. At the ZBW sector transferring the airspace to approach facility:

(a) When the approach control is scheduled to open, the approach ATCS will call the ZBW sector to receive a transfer of control briefing and accomplish the transfer of the airspace. Ensure the information in the Opening/Closing Approach Control Briefing Checklist in Appendix 2 is exchanged.

(b) If a call is not received by the scheduled time of opening, the radar team must inform the OS or OMIC/STMC.

(c) If there are any flight plans that should be retained during this transition, sector team should use the "Keep" function in the Enroute Decision Support Tool (EDST), prior to authorizing the OMIC/STMC to make the ATWS text entry.

(d) Sector team must inform the OMIC/STMC either directly via a recorded line, or through the OS, that ZBW has released the airspace so that OMIC/STMC may make the appropriate text entry.

2. At the OMIC/STMC position:

(a) If advised by the ZBW controller that ZBW has released the approach airspace, execute the following immediately. If advised by an approach facility that they are requesting to open, first coordinate with appropriate ZBW sector(s) to ensure ZBW has released the airspace prior to executing the following.

(1) Select and execute the appropriate Text File entry to turn on the automation associated with the airspace and assign the approach FAVs to approach facility.

NOTE: Feedback that Text File executed correctly will be in the form of a GI message. Example "1031 GI E3 Text File EXAMPLE complete"

c. General procedures for closing an approach facility, not covered by an LOA:

1. At the ZBW sector receiving airspace from approach facility:

(a) Prior to closing, each facility will call the appropriate ZBW sector to transfer the airspace back and provide a briefing of any pertinent operations.

(b) If a call is not received by the scheduled time of closing, the radar team must inform the OS or OMIC/STMC.

(c) The radar team must ensure that all of the information on the Opening/Closing Approach Control Briefing Checklist in Appendix 2 is exchanged.

(d) The ZBW sector team must inform the OMIC/STMC either directly via a recorded line, or through the OS, that ZBW has assumed the airspace so that OMIC/STMC may make the appropriate text entry.

(e) If a call is not received at the normal time of opening or closing of the approach facility, the Radar Team must call the facility. If no answer is received, advise the OS/CIC or OMIC.

2. At the OMIC/STMC position:

(a) If advised by the ZBW controller that ZBW has assumed the approach airspace, execute the following immediately. If advised by an approach facility that they are requesting to close, first coordinate with appropriate ZBW sector(s) to ensure ZBW has assumed the airspace prior to executing the following.

(1) Select and execute the appropriate Text File entry to turn on the automation associated with the airspace and assign the approach FAVs to ZBW.

2-1-7. TRAFFIC MANAGEMENT INITIATIVES

The sector radar team must adjust traffic to comply with any Traffic Management Initiatives (TMIs) in effect, in accordance with FAA JO 7110.65, Traffic Management Procedures.

NOTE: TMIs may include but are not limited to Departure Sequencing Program (DSP), Arrival Sequencing Program (ASP), Miles-in-trail/Minutes-in-trail (MIT/MINIT), Tower En-route Control (TEC), Severe Weather Avoidance Plan (SWAP), and Meter Times. TMIs do not have priority over maintaining separation of aircraft or procedural integrity of the sector/position.

a. Ensure that all aircraft departing airports under your IFR jurisdiction depart and are routed in accordance with all TMU programs and/or coordinated routes that are in effect. If you are unable to comply with this requirement, notify the OS/CIC.

b. Coordinate with TMU to verify necessary holding or airborne delays before issuing clearance to airborne aircraft requesting an IFR clearance to an airport included in a TMI program.

c. Coordinate with TMU before rerouting any aircraft included in a TMI program.

d. Advise the OS/CIC of any aircraft that requires a ground delay at an airport that is under your IFR jurisdiction.

e. Holding:

1. Inform the OS/CIC when any aircraft under your control enters airborne holding.

2. When flights are cleared to HOLD, enter appropriate ERAM commands to record holding instructions and track holding delays.

3. When flights exit HOLD, enter appropriate ERAM commands to cancel the HOLD status.

4. If ERAM hold functionality is unavailable, utilize flight progress strips to annotate holding instructions. Notify OS/CIC when delays are expected to reach 15 minutes, and any change in delays in increments of 15 minutes until reported delays are less than 15 minutes. OS/CIC must notify TMU of delays of 15 minutes or greater.

f. Advise the OS/CIC when any sector/position is unable to maintain procedural integrity, and/or comply with the requirements of any TMI that is in effect.

2-1-8. NON-RVSM EXCEPTION AIRCRAFT REQUESTING ENTRY INTO/OR TRANSITIONING THROUGH RVSM AIRSPACE

a. Notify OS/CIC:

1. Of Non-RVSM requests prior to clearing aircraft into RVSM airspace.

2. When a non-RVSM exception flight is denied clearance into RVSM airspace or is removed from RVSM airspace.

3. When non-RVSM aircraft are transitioning through RVSM airspace.

4. Of altitude deviations of 300 feet or more in RVSM airspace.

2-1-9. ENROUTE DECISION SUPPORT TOOL (EDST)

a. Outages

1. When EDST is not operational, flight progress strips must be posted, retained, and marked in accordance with (IAW) FAA JO 7110.65 and section 2-1-10 of this document.

2. Handle specific ERAM outages which impact the EDST as directed in the ERAM Outage Job Aid 6110.107.

b. General

1. EDST is a radar associate tool and must be set up and managed by the radar associate controller. The EDST screen must be positioned so that all members of the sector team can view the display. The brightness settings may be adjusted so long as the information remains visible to both members of the radar team.

2. The “N” in the checkbox column indicates a new entry. It must be removed after the flight plan has been checked and determined to be accurate and correct.

(a) Route Action Notification (RAN) coding can appear either with or without blue Embedded Route Text (ERT). The presence of ATC Preferred Routes (APR), ERAM route processing errors (XXX or ???) and/or ERT can trigger the RAN blue box around the route.

(1) When RAN appears, the sector team must examine the flight plan, issue proper routing, and acknowledge in EDST.

(2) RAN of an Airborne Reroute (ABRR) TMI must be initiated by the first controlling sector to receive the notification. If the sector controller rejects, modifies or fails to issue an Airborne Reroute (ABRR), the reason must be coordinated with the Area

OS/CIC and then the Area OS/CIC must communicate with TMU.

EXCEPTION: The issuance of PDR/PDAR departure routes is the responsibility of terminal facilities unless ZBW has assumed control of terminal airspace.

3. The EDST Drop Track Delete function may be selected only in the following sectors: Area A – 08/09; Area B – 52/53; Area D – 01/02/15/17. The drop track delete function should only be utilized after successful handoff of aircraft to Canadian Automated Air Traffic System CAATS.

4. Color settings on the EDST monitor must not be adjusted.

5. All ZBW sectors with the exception of sectors 20 and 31 are authorized to use EDST Inappropriate Altitude for Direction of Flight (IAFDOF) manual mode.

6. Plain language markings in the Free Text Area are authorized only in situations where the abbreviations and EDST Equivalent Symbols in FAA JO 7110.65 tables are not adequate to record information.

7. The EDST Coordination Menu or flight progress strips must be used to annotate status of manual coordination with all external facilities IAW the FAA JO 7110.65.

c. Airspace Configuration Elements --The only Airspace Configuration Elements permitted to be manipulated by the sector team are those that pertain to Special Activity Areas (SAAs).

1. Special Activity Airspace (SAA)

(a) The TMMC has primary responsibility for scheduling and activating the following SAAs:

(1) All restricted areas, except R5202 A
(2) All MOTS
(3) AEGIS stationary ALTRV
(4) Deepwoods MOA
(5) All glider areas
(6) W-105 during scheduled activity

Note: TMMC has primary responsibility for scheduling W105 so it will be activated automatically at the appropriate time per 9-1-13 once the required 20-minute notice is received from GIANT KILLER.

(b) The OMIC has the secondary responsibility for scheduling the SAA activity in paragraph 2-1-9 c.1.(a). of this directive.

(c) Sector responsibilities

(1) Except in paragraph c.1.(a). of this section and as otherwise directed in the sector-specific sections of this directive, the sector that clears the aircraft into the SAA has primary responsibility for activation of the SAA, or notifying the OS/CIC if unable.

(2) The controller must activate the SAA in EDST and update altitude information when an aircraft is cleared into the airspace.

(3) If the primary position is unable to activate the SAA, the OS/CIC has secondary responsibility for activating the SAA.

Note: This is to include the real-time activation of W-105, R5202 A/B, Range 1/2/3, W-102/103/104, all ATCAAs and MOAs (excluding Deepwoods).

2. Airport Stream Filter (ASF) — The Airspace and Procedures Department (ZBW-530) has the primary responsibility for activating and deactivating ASF. The OMIC has the secondary responsibility.

3. Adapted restrictions— The Airspace and Procedures Department (ZBW-530) has the primary responsibility for activating and deactivating adapted restrictions. The OMIC has the secondary responsibility.

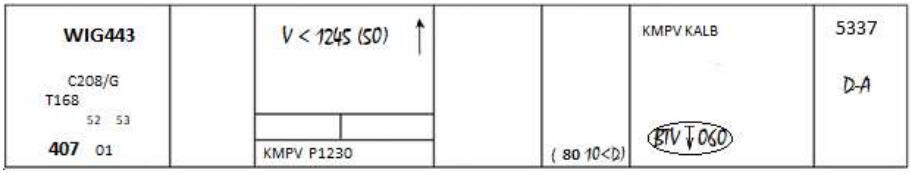
2-1-10. FLIGHT PROGRESS STRIPS

a. Sector teams must post flight progress strips for all non-RADAR flights IAW with FAA JO 7110.65, as well as for all flights when EDST is not operational. Airports where ZBW provides approach control services must be considered non-RADAR for flight strip posting/marking purposes.

b. At a minimum, departure and arrival strips must contain:

1. Departure Flight Progress Strips
   i. Clearance Limit
   ii. Clearance Void Time
   iii. Time to Expect Requested Altitude
   iv. Coordinated altitude blocking (if applicable)

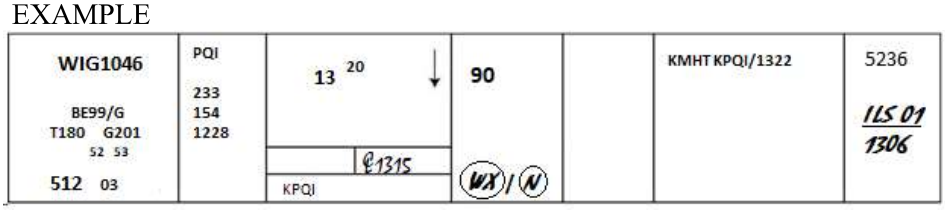
EXAMPLE



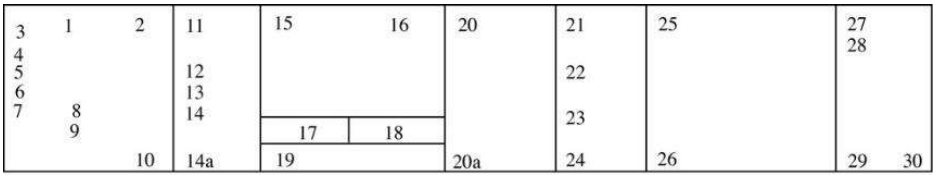
NOTE: After aircraft is RADAR identified, use of the flight progress strip must be discontinued.

2. Arrival Flight Progress Strips
   i. Type of Approach
   ii. Time Cleared for Approach
   iii. Receipt of Weather
   iv. Receipt of NOTAMs
   v. Flight Plan Cancellation Time
   vi. Coordinated altitude blocking (if applicable)

EXAMPLE



c. In addition to that contained in FAA JO 7110.65, the following local strip marking is authorized:



1. Block 20 - Unless training is being conducted at the sector or special handling of an aircraft is required, "X R" may be used to indicate any crossing restriction covered by LOA, SOP, test procedure or other local directive.

2. Block 20a – Receipt of Weather and NOTAMs:

   (a) After the pilot has acknowledged the receipt of the current arrival airport weather or the current weather has been issued to the pilot, write WX and circle it.

   (b) After the NOTAMs have been issued in accordance with FAA 7110.65 4-7-12, write N and circle it.

   NOTE: WX and N may be written on strip prior to issuance of the weather and NOTAMs. Circling this annotation indicates the issuance of weather and NOTAMs.

   (c) For arrival airports operating with a VFR tower, after receipt of the current ATIS code, write and circle ATIS code.

3. Block 25 – Indicate entry and acceptance of routing into the computer with a check after the routing.

4. Block 26 – Space permitting, this block must contain the following entries:

   (a) Transfer of communications instructions.

   (b) Radar vector information, except when coordinated via 4th line data entry.

   (c) Indicated airspeed information - A "+" following the assigned airspeed indicates a clearance of speed (knots or Mach No.) or greater. A "-" following the assigned airspeed, indicates a clearance of speed (knots or Mach No.) or less, except when coordinated via 4th line data entry.

   (d) Use the letter "D" with a direction indicator through the D, in order to indicate that a route deviation has been approved, e.g., D→ to mean “deviation east of course approved,” except when coordinated via 4th line data entry.

   (e) Circle point out or blocking information in black after approval has been received.

5. Blocks 12, 14, 14a, 22, 23, 24 and 28 are authorized as additional blocks for point out/radar vector or speed adjustment information that cannot fit into Block 26.

6. Block 27 - Underline the discrete beacon code when it must be assigned to the aircraft.

7. Block 30 - Enter traffic count adjustment information, i.e. TC with a check mark.

8. General - The sector/facility identifier(s) requesting a change, or to whom a request was made, must be noted and enclosed within coordination circles.

d. All strips must be stored in the strip bins located in the Areas after operational use is complete.

e. Manual Strip Preparation - When automated flight data processing is not available, the assigned ATCS must prepare flight progress strips as follows:

1. Ensure that a minimum of 1 strip is available at the sector.

2. One additional strip will be prepared and delivered to the succeeding sector. This strip must contain all required information except fields 15 and 19.

3. The sector receiving a manually prepared flight progress strip must complete Fields 15 and 19.

2-1-11. COORDINATION

a. Prior to issuing a departure clearance, verbally coordinate with the receiving sector if the aircraft is within 5 minutes of the sector boundary.

EXCEPTION: When using non-RADAR separation, increase to 15 minutes.

b. Other coordination and flight data handling must be IAW FAA JO 7110.65.

c. Whenever pointing out an aircraft to an approach control, that does not have defined sectors or procedures for internal coordination in the LOA (specifically A90), confirm that they will take care of any additional internal point outs, or hand the aircraft off to the TRACON.

2-1-12. FOURTH LINE DATA BLOCK USEAGE

Procedures for fourth line coordination are prescribed in FAA JO 7110.65, and the entry formats for the commands are prescribed in the Quick Reference Controller Card (TI 6110.108). The following non-standard fourth line entries are locally defined for use in managing a sector, but must not be used to forward control information.

a. Speed Adjustment: QS or 4th line button /+dd; /-dd

EXAMPLE: /+20; or /-20.

b. Free Text Entries:

Use the clear weather symbol O to prefix free text entries. (NO SPACE).

1. Aircraft assigned maximum forward airspeed: OFF
2. Aircraft assigned minimum practical airspeed: OSS

2-1-13. ALTERNATE METHODS FOR RELAYING INFORMATION

Request to relay instructions and essential information in a timely manner as follows:

a. When the primary communications line is out of service, utilize alternate methods such as handoff lines, FTI or commercial telephones.

b. When experiencing frequency problems utilize:

1. Back-up equipment.

2. Aeronautical Radio Incorporated (ARINC).

(a) For domestic flights, call San Francisco ARINC.

(b) For international flights, call East Coast ARINC.

3. For general aviation flights, call Honeywell. The number is maintained in facility phone book, under airlines, “n” aircraft.

4. VOR voice through an Automated Flight Service Station (AFSS).

5. Relay through another aircraft.

6. Relay through other facilities with tunable radios (e.g., LEB TWR).

7. Relay through company/tactical frequencies.

8. Previous frequency.

9. Use another sector with frequency capability.

2-1-14. SINGLE LETTER AIRPORT IDENTIFIERS

The following is a list of identifiers for destination airports and the associated single letter adapted to be displayed in Field E1 of the Full Data Block:

A	ALB/KALB	N	DCA/KDCA
B	BOS/KBOS	O	ORD/KORD
C	BED/KBED	P	PIT/KPIT
D	DTW/KDTW	Q	ACK/KACK
E	EWR/KEWR	R	CLE/KCLE
F	PHL/KPHL	S	CVG/KCVG
G	PVD/KPVD	T	ALT/KATL
H	HPN/KHPN	U	MDW/KMDW
I	IAD/KIAD	V	MVY/KMVY
J	JFK/KJFK	W	BDL/KBDL
K	BWI/KBWI	X	ISP/KISP
L	LGA/KLGA	Y	YUL/CYUL
M	MHT/KMHT	Z	CLT/KCLT

2-1-15. SINGLE LETTER HANDOFF FEATURE

Certain Terminal Facilities and Centers may be addressed with single letter handoff feature. The assigned letters and the associated directed handoff codes are as follows:

FACILITY /3 LETTER	SINGLE LETTER	SPECIFIC SECTOR	DIRECTED HANDOFF
ALB ALA	A	EAST	A1E
	A	WEST	A1W
A90 (BOA)			
BOS AREA	B	SAT BED	B1B
	B	INIT DEPT	B1D
	B	FINAL FUSED 1	B1F
	B	FINAL FUSED 2	B1I
	B	LYNCH	B1L
	B	PLYMOUTH	B1M
	B	ROCKPORT	B1R
	B	LINCOLN	B1U
CAPE AREA	B	ACK ARRIVAL	B1A
	B	ACK DEPT	B1K
	B	CAPE NORTH	B1N
	B	OTIS	B1O
	B	CAPE SOUTH	B1S
	B	MVY	B1Y
MHT AREA	B	EAST	B1E
	B	TOMMY	B1J
	B	EAST LOW	B1P
	B	WEST	B1W
	B	FITZY	B1Z
ZOB C(dd)	C	(dd)	C(dd)
Y90 BDA	D	WEST	D1Z
	D	BRISTOL	D1B
	D	ORH	D1W
BGR BGA	G	BGR	G1B
	G	BHB	G1H
GTB GTA	L		
N90			
AREA 1 LGA/HPN	N	HAARP	NNN1V
	N	NOBBI	NNN1X
	N	NYACK	NNN1Y
	N	HPN F/V	NNN1Z
	N	SPARE	NNN1R
AREA 2 JFK	N	LENDY	NNN2E
	N	JFK DEPT	NNN2J
	N	ROBER	NNN2K
	N	JFK SAT	NNN2M
	N	ILS MON	NNN2O
	N	ILS MON 2	NNN2T
AREA 3	N	BEADS	NNN3B
	N	ISP	NNN3H
	N	BEADS LO	NNN3I
	N	CCC	NNN3N

SEALL/ VIKKY	N	VIKKY	NNN3O
	N	SEALL	NNN3R
	N	LOVES	NNN3Z
	N	SPARE	NNN3U
AREA 4 EWR/ EWR SATS	N	NOR ARR	NNN4A
	N	METRO	NNN4H
	N	EWR SAT	NNN4I
	N	22 FINAL	NNN4M
	N	EWR DEPT	NNN4N
	N	ARD	NNN4P
	N	4 FINAL	NNN4Q
	N	ZEEBO	NNN4S
	N	MUGZY	NNN4U
	N	SPARE	NNN4O
AREA 5 LIBERTY/ CATSKILL	N	EAST	NNN5E
	N	CATSKILL	NNN5H
	N	SOUTH	NNN5S
	N	NORTH	NNN5T
	N	WEST	NNN5W
AREA 7 TMU	N	TMU	NNN7A
	N	TMU (LIBERTY CAP)	NNN7M
	N	NOM	NNN7S
ZNY N(dd)	N	(dd)	N(dd)
PVD NCA	O		O1J
			O1H
			O1R
PWM PWA	P	CASCO	P1S
	P	LEW	P1L
SYR SYA	S	SYR	S1V
	S	RME	S1E
BTV BTA	T		
ZDC W(dd)	W	(dd)	W(dd)
		VACAPES	W00

2-1-16. GENERAL INFORMATION MESSAGES

a. GI messages are authorized only for operational matters.

b. Scan the radar associate display for electronically distributed information, evaluate the information, and take action as appropriate.

c. Sector team must electronically acknowledge all messages after appropriate action has been taken.

NOTE: While hazardous weather information is commonly distributed via the SIGMET View, it is possible to receive the information via the GI View.

2-1-17. DATA BLOCKS

a. A local interim altitude may only be used during an inter-facility handoff unless otherwise specified by a facility directive.

NOTE: The local interim altitude is used to reflect the actual status of the aircraft in the controlling facility while allowing the coordination of a different altitude with an external facility.

b. ZBW requires radar teams to monitor computer identification, and beacon code/ground speed. Radar Teams may suppress locally required items to prevent data block overlap.

c. Do not use information in data blocks displaying "CST" or "FRZN" in the application of either radar or non-radar separation.

2-1-18. OTHER DISPLAY REQUIREMENTS

a. To reduce scope clutter and increase operational efficiency, limit data on display maps to the following:

1. Airport/helicopters.
2. Runway centerline extension and/or final approach course.
3. Hospital emergency landing areas.
4. NAVAIDs and fixes.
5. Reporting points.
6. Airway/route centerlines.
7. Boundaries (control, special use areas, terminal buffer areas, outer fix holding pattern airspace areas, no transgression zones, etc.).
8. Hand-off points.
9. Obstructions.
10. Prominent geographic features (islands, mountains, etc.).
11. Map alignment indicators.
12. Range accuracy marks.
13. Minimum IFR Altitudes.

b. When the visual indication of communication status in ERAM is unavailable, controllers must indicate the communication status of all aircraft using other methods. Visual indicators can include, but are not limited to:

1. Dwell lock
2. Flight data block offset/leader line length
3. Highlighting flight plan in EDST
4. Flight progress strip marking

2-1-19. QX/RX/RS MESSAGES

a. QX message – drops data block from display, leaves flight data intact in ERAM. Does not impact other facilities.

b. RX message – removes data block & flight data from local ERAM. Does not impact other facilities.

c. RS message – removes data block & flight data from local and down route ERAM. Removes data from other facilities.

2-1-20. MANUAL HANDOFFS

The following intra-facility procedure must be used in the event radar contact cannot be established:

a. The transferring radar team must verbally coordinate the aircraft's position and altitude prior to the aircraft entering the receiving controller's airspace.

b. Where an automated handoff cannot be completed, radar teams must enter a drop track message for those aircraft that have been handed off to another facility after the aircraft has entered the receiving facility's airspace except as noted in 2-1-21 below.

2-1-21. AIRCRAFT TRANSITING MONTREAL CENTRE

When a UTM is received for aircraft flight planned to transit from ZBW through ZUL and back into ZBW:

a. Once control responsibilities are no longer required, and after the aircraft enters ZUL airspace, using the CID, or track ball entry, enter an RX message on the flight. For logic processing, confirm the input by entering Y.

b. The downstream Sector, in turn, will initiate a new track using either the Code, Aircraft Identification (ACID) or CID on the flight using the flight plan transmitted from ZUL.

c. An RX (NAS Cancellation Message) only removes the flight plan from the ZBW database and not from the ZUL computer. Therefore, the receiving sector will receive only the second flight plan from ZUL.

NOTE: DO NOT USE the RS message, which removes the entire flight plan from ZUL and downstream ZBW sectors.

2-1-22. ROUTE AMENDMENTS

a. Improper routes must be amended/corrected prior to or on departure or when entering the initial estimate into the ERAM. Coordinate as required in paragraph 2-1-13, of this Order.

b. Aircraft on an RNAV procedure must remain on an RNAV procedure, including reroutes. When exiting the hold, clear aircraft to resume the RNAV procedure.

2-1-23. CAATS/ERAM DATA EXCHANGE

Montreal Centre (ZUL) and Toronto Centre (ZYZ) use an automated interface which provides dynamic flight plan updates (altitude, route, time, etc.) until either of the following conditions occur:

a. The aircraft track has crossed into the receiving facility's airspace: CAATS/ERAM no longer transmits updated data to the downstream facility.

b. Upon completion of a manual/verbal hand-off: ZYZ/ZUL controller changes the hand-off status in the CAATS computer. This prevents CAATS from sending/receiving updates.

NOTE: To prevent flight plan overwrite, the receiving facility must only make changes to the electronic flight plan once they have the handoff of the aircraft. If the receiving facility needs to make changes to the flight plan prior to handoff, they need to coordinate with the transferring controller.

2-1-24. VFR FLIGHT PLANS

Flight plans with VFR in Field 8 are processed at 10,000 feet MSL. The radar associate ATCS should input the VFR cruising altitude in field 8 to ensure correct flight processing, e.g. VFR/115.

NOTE: ZBW neighboring facilities process VFR flight plans at various altitudes. Example ZNY processes VFR flight plans at 15,000 as a default.

2-1-25. INVALID MODE C READOUT

The radar team must advise the OS/CIC when a pilot has been instructed to turn off altitude reporting due to an invalid Mode C readout.

2-1-26. PHONETICALLY SIMILAR SOUNDING CALL SIGNS

To alleviate any potential misunderstandings of aircraft identifications caused by duplicate, phonetically similar sounding, or hard to distinguish registration numbers or call signs operating in the same area, ATCSs must:

a. Notify each pilot concerned when communicating with aircraft having similar sounding identifications.

b. Advise the OS/CIC.

c. Complete the "Report Similar Sounding Call Signs" form via CEDAR or provide information to the OS/CIC to complete the form.

2-1-27. CONTROLLED AIRSPACE INTRUSIONS

The following guidance must be adhered to for the tracking and identification of aircraft that enter Class A or B airspace without authorization, or Class C or D airspace without establishing communications with ATC.

a. When asked to track an unknown aircraft, the radar team must obtain the necessary information (code, observed heading, position, etc.) and commence monitoring the aircraft.

b. The radar team must initiate a track on the aircraft and keep the OS/CIC informed of all pertinent information, i.e., lost radar, and transfer of radar identification to another ATCS, etc.

2-1-28. RESPONSIBILITY FOR ISSUING ADVANCE APPROACH INFORMATION

a. When conditions exist, the sector that transfers communication to the approach control must forward advance approach information to the aircraft.

b. When conditions exist, the RA must display the following information in the sector SIA:

1. Automatic Terminal Information Service (ATIS) not available at (name) airport, expect (type) approach.

2. Current visibility and ceiling.

2-1-29. VECTOR TO FINAL APPROACH COURSE

Vectoring to the final approach course is predicated on intercepting the approach course at the MIA, prior to the perpendicular vector line displayed on the GPS, VOR, ILS, or localizer course. By intercepting the approach course at the MIA prior to the perpendicular vector line aircraft will intercept the approach course glide path from below, while maintaining the appropriate descent gradient.

NOTE: The approach gate is that point on the localizer where the solid line changes to a dashed line.

2-1-30. ICAO

Departures –

a. RIEE (Route ICAO Equipment Eligibility) – RNAV SIDS, Q-Routes, T-Routes, RNAV STARS

1. Filers requesting RNAV restricted routes must file an ICAO flight plan, even for domestic flights.

2. Required RNAV (RNAV Values):

(a) Advanced RNAV Restricted SID's – RNAV D 1

(b) Advanced RNAV Restricted Enroute segments (Q-Routes, T-Routes) RNAV E 1 or 2

(c) Basic RNAV Point to Point (PTP)– RNAV E 99

(d) Advanced RNAV Restricted STAR's– RNAV A 1

NOTE: A value of "0" or no value stated after any segment means the flight is not eligible for RNAV restricted routing for that segment of flight.

3. For any aircraft that may fly an RNAV restricted route, changes to equipment qualifiers need to be done in the EDST ICAO template, to avoid eliminating previous ICAO equipment data.

(a) Quick Reference for re-entering Flight Plans after an ERAM outage

4. NAS equipment qualifiers **G, L, I, Z,** , enter:

(a) Proposal: RNAV Value

(b) Active flight: RNAV Value

5. NAS equipment qualifiers **Y, C, W,** Proposal or active flight enter: RNAV E 99.

6. All other NAS equipment qualifiers: No ICAO equipment or RNAV values required.

Phraseology –

a. The terms "Radar Contact" or "Identified" are interchangeable for the purpose of acknowledging acceptance of a handoff with NAV CANADA.

2-1-31. DEPARTURES FROM ZBW UNCONTROLLED OR ZBW TOWER CONTROLLED AIRPORTS

At the time a clearance is issued for an aircraft departing an uncontrolled airport or releasing an aircraft from a tower-controlled airport that ZBW provides terminal services for:

a. Depart the flight plan using the clearance void time or expected departure time.

NOTE: If the proposed flight plan has a non-discrete beacon code, departing the flight plan using the clearance void time or expected departure time will generate a discrete beacon code that must be issued with the departure clearance. REFERENCE FAA JO 7110.65, Discrete Environment, Para 5-2-2a.

b. Start a full data block at the departure airport with an interim altitude showing assigned altitude if different than requested altitude.

2-1-32. WEATHER INFORMATION

a. When operational, weather information should be automatically updated. When the current weather information is not available from the computer, utilize FSSs or the facility meteorologist for this information.

b. The ATCS must pass the weather information to the FDU for computer entry or input the information directly into the computer using the following format:

1. WX – Weather Entry.
2. REPORT TYPE – METAR for hourly observation or SPECI for special observation.
3. ICAO Location Identifier - 4 alphanumeric numbers.
4. DATE/TIME – 6 digits + Z.
5. MODIFER – COR (correction) or AUTO (fully automated station w/out ASOS).
6. WIND
7. VISIBILITY
8. RVR
9. WEATHER & OBSCURATIONS
10. SKY CONDITIONS
11. TEMP/DEW PT
12. ALTIMETER
13. REMARKS

EXAMPLE METAR FORMAT		
2-REPORT TYPE	**3-LOC ID**	**4-DATE/TIME**
METAR	KOKC	011955Z
5-MODIFIER	**6-WIND**	**7-VISIBILITY**
CORR	22015G25KT	¾ SM
8-RVR	**9-WEATHER & OBSCURATION**	**10-SKY CONDITIONS**
R17L/2600FT	TRSA	OVC010CB
11-TEMP DEW POINT	**12-ALTIMETER**	**13-REMARKS**
18/16	A292	RMK LTGIC

2-1-33. ADAPTED SURVEILLANCE SORT CELL ALTIMETER SETTINGS

When NAS Stage A is operational, altimeter information should be automatically updated. The following procedure must apply on those occasions when it is not:

a. The RA, at the following designated sectors, must ensure that, as a minimum, the following altimeter information is updated hourly:

NOTE: These altimeter stations are used in ERAM Mode C correction factors below the lowest usable flight level (LUFL) per adapted Surveillance Sort Cells.

SECTOR	ALTIMETER
05	SWF
06	POU
07	BDL
08	ART
15	AUG/HUL/BGR/PQI
16	PWM
18	HYA
22	ALB/GFL
23	RME/SYR
32	JFK
34	PVD
36	BOS/BDL/ALB
37	CON/VSF
47	BOS
52	MPV/BTV

The RA will attempt to identify the current setting and enter it into ERAM using the following format:

1. AS – Altimeter Setting.

2. Time Entry – The time field must be 4 digits. The first 2 digits (hours) must not exceed 23, and the last 2 digits (minutes) must not exceed 59.

3. Reporting Station Identifier (consists of 2-5 alphanumeric numbers).

4. The altimeter setting – This field contains 3 digits or the character M.

   (a) If the character M is entered, the altimeter setting for the associated reporting station is missing.
   (b) When 3 digits are used, an implied leading digit of the altimeter is understood as follows:

      (1) 000 – 499 implies 30.00 – 34.99.

      (2) 500 – 999 implies 25.00 – 29.99.

EXAMPLE: AS 2350 PVD 992.

b. If one or more altimeter is not automatically updating in ERAM, and a current setting is not available for manual entry, the RA must inform the OS/CIC.

c. The OS/CIC must inform OMIC of the missing altimeter.

d. OMIC must inform Tech Ops of the missing altimeter.

NOTE: When the following altimeters are not available either via automated or manual updates, ERAM will automatically use backup altimeters as listed, after an adapted time.

ALTERNATE ALTIMETER SETTINGS	
UNAVAILABLE STATION	**ERAM BACKUP**
ALB	GFL
ART	SYR
AUG	BGR
BDL	BAF
BOS	BVY
BTV	MPV
CON	MHT
HYA	MVY
GFL	ALB
HUL	PQI
JFK	ISP
MPV	LEB
POU	SWF
PQI	HUL
PVD	EWB
PWM	BXM
RME	SYR
SWF	POU
SYR	RME
VSF	LEB

2-1-34. NOTAMs

NOTAMs are notices containing information concerning the establishment, condition or change in any aeronautical facility, service, procedure or hazard, the timely knowledge of which is essential to personnel concerned with flight operations.

a. ERIDS is the PRIMARY means for NOTAM dissemination. The following procedures are established for the processing of NOTAMs when ERIDS is out of service:

1. FDC NOTAMs - A NOTAM regulatory in nature, transmitted by USNOF and given system wide dissemination.

NOTE: The FDC NOTAM must be tracked by NOTAM number for reference and cancellation.

(a) The Flight Data Communications Specialist (FDCS) must forward a copy of the FDC NOTAM to the OS/CIC for each area affected by the FDC NOTAM.

(b) The OS/CIC must distribute FDC NOTAMs to the appropriate sectors.

(c) Sector ATCSs must post FDC NOTAMs in the sector SIA or approach binder until cancelled.

(d) The Airspace and Procedures Office must review the FDC NOTAMs for procedural impact, and, as necessary, coordinate any procedural changes with appropriate areas/facilities.

(e) When an FDC NOTAM is cancelled, a FDCS must advise affected OS/CICs by telephone (e.g., FDC 3/4321 cancelled by FDC 3/8765).

2. NOTAM (D) - A NOTAM given both local and distant dissemination.

(a) During an ERIDS outage, the FDCS must print Area specific NOTAM Summaries on an hourly basis and deliver them to the OS/CIC in each area.

(b) The OS/CIC must use the NOTAM summaries to verify that current NOTAM (D)s are posted at each affected sector.

(c) The sector ATCS must post applicable NOTAMs at the sector and retain for the duration of the NOTAM. The NOTAM must be tracked by the NOTAM number for reference and cancellation.

NOTE: NOTAM Format can be found in Chapter 11.

2-1-35. NOTAM SYSTEM OUTAGE PROCEDURES

The FAA has identified a need to establish Air Traffic Contingency Procedures for Air Traffic Control (ATC) facilities in the event of a Notice to Air Missions (NOTAM) system outage. To address this operational need, the Candidate NOTAM System was created to function as the backup NOTAM contingency tool. The tool will be implemented when the National Airspace System (NAS) Aeronautical Information Management Enterprise System (NAIMES) has identified a complete outage of the NOTAM system. Any NOTAMs published prior to the outage will remain in the En Route Information Display System (ERIDS) and via the Federal NOTAM System website (https://notams.aim.faa.gov).

NOTE: NOTAMs published or cancelled during the outage will appear on the Candidate NOTAM System's webpage. For the integrity of the NAS, the webpage will only be accessible and activated during an outage, via the following link https://notambackup.faa.gov.

In the event of a NOTAM system outage, the ATCSCC will issue an "ALL CALL" Notification and Advisory Message of the NOTAM system outage to all Air Route Traffic Control Centers (ARTCC) Traffic Management Units (TMU). The message will inform facilities to use the Candidate NOTAM site. After notification from the ATCSCC, the ARTCCs must notify all underlying facilities, to include FAA Contract Towers (FCT), in their district.

a. Roles and Responsibilities:

1. OMs/OMICs

(a) Enter the internal and external start and end time notification after all underlying facilities are notified of the outage and completion of the outage on 7230-4 Facility Log.

(1) Use the following GI format to send notification via GI message to underlying facilities:
GI C D T A o Primary NOTAM System is out of service. Previously published NOTAMs will remain on NOTAM Search and ERIDs. Monitor the Candidate NOTAM System (CNCS) for new NOTAMS at HTTP://NOTAMBACKUP.FAA.GOV.
ZBWOMDDHHMMOI. – PF Key CTRL-F6

Or

GI C D T A o Primary NOTAM System has returned to service, please continue to monitor both systems until all NOTAMs have been reconciled.
ZBWOMDDHHMMOI. – PF Key CTRL-F7

(b) Identify and utilize additional air traffic personnel that can assist the FDU and OSICs/CICs during the NOTAM system outage.

(c) Ensure contingency procedures are being followed by the FDU, the TMU, OSICs/CICs of each area, and any additional air traffic personnel.

(d) Monitor NOTAM workload for the FDU, TMU, OSICs/CICs, and any additional air traffic personnel.

2. The TMU

(a) Enter outage on daily National Traffic Management Log (NTML), log ATCSCC Notification start and end times of NOTAM outage.

(b) Log OM notification of the "ALL CALL" message.

(c) Notify the FDU of the NOTAM system outage.

(d) If needed, utilize the shared email box (9-ANE-ZBW-TFR@FAA.GOV) to notify the appropriate Coordination Center(s) to submit TFR requests to the appropriate ARTCCs when the NOTAM system is unavailable. Provide phone contact information to the local Coordination Center(s) for confirmation of email receipt.

(e) Ensure SAA/TFR NOTAM submission requests are sent to the SOSC via e-mail (9-ATOR-HQ-SOSC@FAA.GOV) using the format found in Appendix A6-14.

NOTE: When submitting an SAA/TFR NOTAM request, a facility group email address must be included on the cc line. The SOSC will confirm receipt of the NOTAM via email and enter it into the Candidate NOTAM website.

(1) After system restoration, the SOSC will notify the ARTCCs via e-mail of the active and

cancelled NOTAMs that need to be processed through the normal NOTAM distribution applications.

(2) After the NOTAM is entered into the appropriate application, e-mail SOSC the NOTAM number.

(3) After the NOTAM is cancelled in the appropriate application, e-mail the SOSC the task completion.

3. The FDU

(a) When notified of the NOTAM outage will:

(1) Transition to the Candidate NOTAM System webpage, **HTTP://NOTAMBACKUP.FAA.GOV** and;

i. Distribute any new NOTAMs to the OSICs/CICs of the affected areas.

ii. Notify underlying facilities that a new NOTAM is available on the Candidate NOTAM System's webpage.

(2) Continue monitoring alternative methods to obtain published NOTAMs (i.e., NOTAM Search, AISR, ERIDS, etc.)

(3) Request assistance from the OMIC when workload requires it.

4. OSICs/CICs

(a) Upon receipt of a new NOTAM or NOTAM cancelation from the FDU disseminate it to the appropriate sector.

(b) When FD is not available to do so, use the Candidate NOTAM System website for distribution and dissemination of all NOTAMs not available on ERIDS.

(c) Monitor for updated NOTAM information on aircraft inbound to uncontrolled airports under the area's jurisdiction.

(d) Request assistance from the OMIC when workload requires it.

b. Additional Information:

1. For reference, PDFs containing briefing information can be found in ERIDS under the following:
ATC DOCS – BROWSE LOCAL DOCUMENTS – AT – CANDIDATE NOTAM SYSTEM BRIEFING GUIDES

2. NOTAMs going active 8 hours or more from the start of using the Candidate NOTAM System will not be processed using the Candidate NOTAM System's webpage. The requestor should process the NOTAM once the NAIMES system is operational.

Operational Contingency Level (ATC ZERO – ATC Limited) NOTAMs must still be processed through the Flight Service Station and the United States NOTAMs Office

(USNOF). If a NOTAM needs to be submitted to USNOF, please email USNOF at 9-AWA-NOTAMS@faa.gov. Otherwise, facilities should coordinate ATC ZERO/ATC Limited in the same manner that the facility currently coordinates those NOTAMs.

2-1-36. EMERGENCY PROCEDURES CHECKLISTS

a. Automated Emergency checklists are available for ATCSs at each sector of operation. These checklists are also available in printed form at each sector of operation and at the OS/CIC desk.

b. Quality Control (ZBW-505) is responsible for reviewing and making revisions to all Emergency Checklists.

2-1-37. AREA MBI BOARD

All current bulletins must be maintained in TEAM.

2-1-38. EQUIPMENT

a. Protection of Electronic Equipment - Beverages brought into the control room must be kept in spill-proof containers away from all electronic equipment.

b. Whenever radar clutter affects the operation of a sector and it is determined to be excessive, ATCSs may request corrective action from the OMIC through the OS/CIC. The OMIC must coordinate with the NOM to determine the best course of action.

2-1-39. TRAFFIC COUNT

a. Automated counts of traffic activities are the preferred methods during use of EDST.

1. Traffic count notations must be entered on flight progress strips in accordance with standard strip marking procedures.

2. For those operations not automatically counted by EDST, the following traffic count procedures must be manually accomplished at the sector where the example of events occur:

(a) Aircraft conducts multiple non radar approaches
(b) Aircraft changes from VFR to IFR
(c) Overs that are pointed out to facility with no EDST data
(d) Aircraft makes an IFR exit from a VR route

3. Traffic Count must be entered using the "TC" computer input message with the format "___+" where the first 4 blanks are filled with the codes listed below and the last 3 blanks are the number of operations using 3 digits, e.g., ACDD+003.

ACDD	Air Carrier Departure
ATDD	Air Taxi Departure
GADD	General Aviation Departure
MIDD	Military Departure
ACDO	Air Carrier Over
ATDO	Air Taxi Over
GADO	General Aviation Over
MIDO	Military Over

2-1-40. CURRENCY REQUIREMENTS

a. It is the responsibility of the employees to work in conjunction with their supervisors to ensure they adhere to the requirements JO 7210.3.

b. Operations Supervisors must:

1. To the extent possible, monitor the radar position frequencies when signed on the radar Assistant (RA) position.

2. Physically reside at the position where they are maintaining currency.

3. Plug into the position and receive a recorded position relief briefing.

4. Provide a recorded briefing when exiting the position.

5. Ensure CRU-ART reflects the position that you are working.

c. The following must not be counted towards operational currency:

1. Direct monitoring

2. Quality Control operational safety assessment

3. Skill checks

4. Check rides or any other supervisory function when observing an employee's performance.

2-1-41. NEXRAD WARP ALTITUDE FILTER KEY SETTINGS

To provide a comprehensive presentation of pertinent precipitation sector must ensure the NEXRAD (Next Generation Radar) WARP (Weather and Radar Processor) Altitude Filter Key Settings are set as delineated in the tables below. When sectors are combined, the greater WARP Altitude filter value must be selected.

Sector	Altitude Limits	WARP Altitude Filter Key
01 MILLINOCKET	FL290-600	FL240-600
02 AUGUSTA	FL240-600	FL240-600
05 STEWART	060-FL190	000-FL240
06 PAWLING	060-FL190	000-FL240
07 CHESTER	110-170	000-FL240
08 WATERTOWN	000-FL270	000-FL600
09 UTICA	FL280-600	FL240-600
10 ROCKDALE	FL280-600	FL240-600
15 SURRY	000-FL280	000-FL600
16 PARSO	000-FL230	000-FL240
17 NANTUCKET	000-FL600	000-FL600
18 CAPE	000-FL600	000-FL600
19 DANBURY	110-FL270	000-FL600
20 KINGSTON	FL180-600	000-FL600
21 CANAN	110-170	000-FL240
22 ALBANY	110-FL230	000-FL240

23 HANCOCK	000-170	000-FL240
24 DELANCEY	FL180-270	000-FL600
31 HAMPTON	FL200-310	000-FL600
32 CLIPPER	000-FL240	000-FL240
34 PROVIDENCE	110-FL230	000-FL240
36 GARDNER	000-FL230	000-FL240
37 CONCORD	000-FL230	000-FL240
38 ATHENS	FL240-600	FL240-600
39 CAMBRIDGE	FL240-600	FL240-600
46 BOSTON	FL240-600	FL240-600
47 BOSOX	110-FL230	000-FL240
49 SOUTHIE	FL280-600	FL240-600
52 MONTPELLIER	000-FL230	000-FL240
53 PLATTSBURG	FL240-600	FL240-600

2-1-42. DESCENT OF ARRIVALS

Unless otherwise specified, sectors that overlie an arrival's destination or the position of crossing restriction on the arrival route mandated in the Letter of Agreement must descend the arrival to that sector's lowest available altitude and handoff to either the underlying, transition sector or approach control facility as appropriate.

2-1-43. DESCEND VIA PROCEDURES

The use of descend via RNAV procedures must be in accordance with F A A JO 7110.65 and the sector specific procedures outlined within this order. Sectors authorized to issue descend via clearances must be identified within this order. Sectors utilizing descend via procedures must maintain a sector SIA that identifies the primary landing runway for airports that utilize runway transitions.

2-1-44. OPERATIONAL AREA

a. The operational area is defined as the portion of the Control Room located beyond the "cell phone/wireless device off sign," and includes Areas A through E, Traffic Management Unit (TMU) and the TMU Metering Workstation.

b. The following task/activities are prohibited within the operational area.

1. Schedule bidding.

2. Bidding of Prime Time Annual Leave.

3. Schedule building or creation.

4. OJTI debriefing that does not require access to the operational area.

c. All OJTI debriefings should be removed from the operational area or deferred in the event they become operationally distracting:

d. The tasks or activities that have been identified as operationally distracting may be accomplished in the administrative areas of the facility.

2-1-45. AUTOMATED POINT OUT DISPLAYED ALTITUDE

If a controller utilizes an intra-facility automated point-out, the requirement for the data block to reflect what the aircraft is currently doing may be waived. Instead, the controller may enter the altitude that is intended to be coordinated in the point-out, regardless of whether this is the altitude to which the aircraft has currently been cleared. After an automated point out is approved, any changes must be verbally coordinated.

2-1-46. SPECIAL ACTIVITIES MISSION SUPPORT

a. Information received regarding special activities such as Laser Operations, COAs, Photo Missions, GPS jamming, and Electronic Attach (EA) Chaff will be placed on the J: Drive for operational access as follows:

1. Notice of Proposed Outdoor Laser Operations:
   ZBW Shared (J:) → AirSpace Public → 0_Current Laser and COAs → Notice of Proposed Outdoor Laser Operations → (Company Name or Call Sign)

2. Certificate of Waiver or Authorization (COA) for Rocket and Balloon Launch Sites:
   ZBW Shared (J:) → AirSpace Public → 0_Current Laser and COAs → (Launch Site)

3. Certificate of Waiver or Authorization (COA) for Unmanned Aerospace Systems (UAS):
   ZBW Shared (J:) → AirSpace Public → 0_Current Laser and COAs → (Area, Operator Name or Specific Location)

4. Photo Missions:
   ZBW Shared (J:) → AirSpace Public → 0_PHOTO Missions → Year → (Company Name or Call Sign)

5. Electronic Attack (AE) and GPS Jamming:
   ZBW Shared (J:) → DATA GRP → Operations Mgrs → Watch Desk → c-UAS GPS Jamming → (Event Identification)

b. Electronic Attack (EA), Chaff, and GPS Jamming (c-UAS) Concurrence Messages list pertinent information concerning a specific test site. Each Concurrence Message lists the type of testing, dates, location, affected altitudes, Stop Buzzer phone numbers, and time of day for the approved testing.

1. If an anomaly is experienced, locate the "Reporting Sheet" in the associated folder and take the following actions:
   (a) Print out the sheet and fill in the anomaly.
   (b) Report the information as listed on the sheet.
   (c) Enter an MOR on FAA 7230-4
   (d) Forward reporting sheet to ZBW-530

c. Reporting UAS Activity - If a report of UAS activity is received, the OMIC must use the Facility UAS Checklist located in Appendix 3-3 to confirm whether the UAS is to be considered suspicious

and further actions to be taken.

2-1-47. QUICK ACTION CARDS

Quick Action Cards are located on a single binder ring above each Radar position. The cards, containing time-critical information, are needed in emergency situations or have been deemed necessary in this form by the Area.

Airspace and Procedures (ZBW-530) is the responsible office for keeping record and updating the Quick Action Cards in each Area, with each Area having the authority to add and remove cards as necessary. In order for an Area to add or remove cards from the ring, a request must be made with ZBW-530, who will create the card if needed, and make record of the change so that the cards may be kept up to date.

2-1-48. ELECTRONIC HORSECOLLAR CHECKLISTS

Changes to the Electronic Horsecollar Checklists can be made only on the 28 day chart day cycles. Requests to change an Area's Electronic Horsecollar Checklist(s) must be submitted in writing to ZBW Airspace and Procedures no later than 21 days prior to the chart date. Requests submitted after this date will be processed for the following chart date.

2-1-49. RADAR VIDEO MAP MINIMUM IFR ALTITUDE (MIA)

ERAM video maps can display two altitudes for the MIA. In some cases, the requirement to establish an MIA that is 300 ft. above the floor of controlled airspace will result in an exceptionally high MIA (e.g., in areas where the floor of controlled airspace is 14,500 MSL). When operationally required, a second altitude that provides obstruction clearance only may be established. This obstruction clearance altitude must be uniquely identified on the map; for example, an asterisk (*). Where these altitudes are displayed on video maps, the left number is the MIA, the right number is the obstruction clearance altitude (e.g., 060*050).

2-2. GENERAL MILITARY PROCEDURES

2-2-1. SEPARATION MINIMA

a. Radar Teams must assign altitudes to aircraft in accordance with FAA JO 7110.65, Paragraphs 4-5-2 and 4-5-3, which is at least 500 feet MSL (above FL290 – 1000 feet MSL) above/below the upper/lower limit of the Prohibited/Restricted/Warning Area/MOA/ATCAA.

b. Provide radar separation of 3 miles (FL600 and above - 6 miles) from the SUA/ ATCAA/ Stationary Altitude Reservation (ALTRV) lateral boundary.

2-2-2. AUTONOMOUS/MRU PROCEDURES

a. Coordination for the "Real-Time" activation of SUA/ATCAA is the responsibility of the controller issuing the first ATC clearance to the first aircraft/formation flight entering the SUA/ATCAA. The controller must coordinate with adjacent sectors/facilities prior to activation, whether the airspace is autonomous or under MRU control.

b. An "As Filed" departure clearance does not constitute a clearance to enter/exit/delay in an SUA/ATCAA. Aircrews are required to receive a clearance to enter and exit SUA/ATCAA.

c. MRUs may schedule SUA/ATCAA but the airspace is not activated until the first aircraft/formation flight has received a clearance to delay in such airspace.

d. Coordination for the "Real-Time" deactivation of SUA/ATCAA is the responsibility of the controller issuing the ATC clearance to the last aircraft/formation flight exiting the SUA/ATCAA. After deactivation of autonomous airspace, the controller must coordinate with adjacent sectors/facilities.

NOTE: The MRU is required to cancel the SUA/ATCAA with the Traffic Management Military Liaison (TMML) during MRU operations. The TMML is responsible for notifying the appropriate sectors of the cancellation. If the MRU is unable to cancel with the TMML, the MRU will cancel with the sector ATCS, who is then responsible for coordinating the cancellation with the TMML.

e. Transfer of flight information.

1. Controllers must accomplish a “Transfer of Flight Information” with the MRU.

2. Upon completion of the transfer of flight information, controllers must terminate radar on the aircraft prior to entering SUA/ATCAA.

3. When aircraft are expecting to exit SUA/ATCAA the MRU must conduct a transfer of flight information with ATC. Controllers upon receiving a request for the transfer of flight information must issue an ATC Clearance to the MRU, which the MRU must repeat verbatim.

4. Controllers must re-identify the aircraft.

5. The following information should be passed when conducting a Transfer of Flight information:

(a) Call Sign
(b) Altitude
(c) Position (e.g., 20 East of JFK)
(d) Beacon Code
(e) Pertinent Remarks (If any)

2-2-3. ACTIVE AIR DEFENSE MISSION

a. FAA JO 7110.65 and FAA JO 7610.4 Chapter 4 and 6, describe the procedures used in active air defense missions and Emergency Security Control of Air Traffic (ESCAT). These procedures may be used during a Hijack, Escort or Track of Interest operations.

b. ZBW and Eastern Air Defense Sector (EADS) and other facilities may require special handling. This may involve a declaration of "AFIO" or "Due Regard" by military aircraft.

2-2-4. AIR PATROLS (APs) & TEMPORARY FLIGHT RESTRICTIONS (TFRs)

a. Air Patrols (APs)

1. Air Traffic Control Assigned Airspace (ATCAA)

2. Required lateral separation: 3nm lateral.

3. Class A Airspace (Altitudes at and above FL180).

4. Boston Center controls aircraft in all APs except the YANKEE AP.

5. Controlling sector for non-standard APs will be determined prior to activation.

b. Temporary Flight Restrictions (TFRs)

1. Required lateral separation: none, non- participating aircraft cannot penetrate.

2. Not in Class A Airspace – (Altitudes below FL180)

c. Depicting APs / TFRs on the Main Display Monitor (MDM). Controllers must display active APs/TFRs on the MDM as follows:

1. Choose the Create Circle Annotation Pick Area.

2. Enter the fix name, fix radial distance or latitude/longitude that defines the center of the AP/TFR into the Circle Location Input Area.

3. If the center point of the AP/TFR is not an adapted fix or contains "Seconds" in the L/L point, the radius of the displayed circle must be one 1-NM larger than the radius of the AP/TFR.

NOTE: To protect APs and TFRs with a center point that is not a fix or formatted (4203N/07050W or the last characters contains seconds such as 420315N/0705035W) the 1 NM "Rounded Up' buffer ensures the drawn video circle covers the actual AP or TFR airspace.

2-2-5. MIDSHIFT SCRAMBLE PROCEDURES

a. Huntress/EADS will call the OMIC on the Scramble Phone. (Black phone on right in bank of three on wall)

b. OMIC will copy the Active or Practice Scramble Order to include-- Call Sign, Number of aircraft, Heading, Requested Altitude, Track of Interest (example: Bearing 270, 200 miles).

c. Immediately relay the Scramble Order to the controlling sector.

d. Coordinate with Huntress/EADS if the Active Scramble clearance will be delayed.

e. Ensure the Scramble Flight Plan is entered into the NAS computer.

2-3. SPECIAL FLIGHTS

2-3-1. PRESIDENTIAL AIRCRAFT

The OMIC must assign an OS/CIC to monitor the flight from entry into the facility's airspace until exit from the facility's airspace. The OS/CIC assigned to monitor the flight must:

a. Be present at each sector providing ATC service to the aircraft.

b. Monitor the flight to ensure that separation, control, and coordination are accomplished.

2-3-2. FOREIGN AIRCRAFT AND SPECIAL INTEREST FLIGHTS (SIFs)

a. Refer to FAA JO 7610.4 for current national direction.

b. When applicable, TMU will provide a list of all SIF aircraft routed through ZBW to impacted Areas' OS/CIC in the morning.

1. Only the following deviations are authorized for any SIF:

(a) Controller-initiated deviations for safety of flight. Controllers must inform OS/CIC of these deviations as soon as possible.

(b) Pilot-requested weather deviations. Controllers must inform OS/CIC of these deviations as soon as possible.

(c) Vectoring arrivals and departures for preferred routing. Controllers are not required to inform OS/CIC.

c. OS/CICs are responsible for determining if the SIF deviation reported to them meets requirements for reporting to the DEN.

1. Refer to the list of SIF provided by TMU in the morning, and FAA JO 7610.4, to identify SIF that require approved routing. Only deviations by these aircraft must be reported to the DEN.

2. Inform the OMIC as soon as possible of any aircraft requiring DEN reporting.

d. All SIF flights require monitoring for suspicious activity. Any suspicious activity must be reported immediately to the DEN.

2-4. VOICE SWITCHING COMMUNICATIONS SYSTEM (VSCS) and VSCS TRAINING AND BACK-UP SYSTEM (VTABS)

2-4-1. VOICE SWITCHING COMMUNICATIONS SYSTEM

Intra-facility Land Lines:

POSITION	DIAL CODE
STMC	0340
TMU METER	0377
WEATHER	0366
MILITARY	0334
TMU DSP 1	0332
TMU DSP 2	0330
TMU WX RERTE	0326
OMIC	0327
NOM DESK 1	0358
NOM DESK 2	0353
FLIGHT DATA 1	0356
FLIGHT DATA 2	0357

2-4-2. VSCS TRAINING AND BACK-UP SYSTEM (VTABS)

VTABS is designed to provide an independent backup for critical VSCS ground-to-ground (G/G) and air-to-ground (A/G) communications. When activated, VTABS provides the same VSCS position functionality, but only to the RA position. The R, A, H and Supervisory positions are inactive during VTABS operation. VTABS and VSCS cannot operate concurrently. If a decision is made to switchover to VTABS, the whole facility will operate under VTABS. The OMIC and the NOM are responsible for the determination of a VSCS to VTABS (or VTABS to VSCS) transition.

a. After transition to VTABS, a pink banner will be displayed in the system message area on each RA position's VDM. The message "VTABS PEM now operational," will not time out after 30 seconds like other system messages, this banner must be acknowledged by the controller and until acknowledged, will prevent any other messages from being received at that position.

b. The controller at each position should verify that all holler lines (Type 9) are operating correctly, and that all Call Forwards are intact as appropriate. In the case of the holler lines, verify that an incoming call is heard in the G/G loudspeaker. If the Call forward is not functioning correctly, remove the Call Forward at the initiating sector, and reestablish.

c. When operating in a VTABS environment, if traffic and workload at a sector require more than 1 controller, VTABS must be operated in a Split-Mode operation. Split-Mode operation is the only method that will provide each sector with independent A/G and G/G capability for 2 controllers.

   1. To enable Split Mode, you must have a headset/handset plugged into each Dual Jack Module (DJM).

   2. R controllers will plug in to the RA position DJM (jack) that is closest to the R-console.

   3. Once both DJMs have a headset/handset plugged in, Split-Mode may be selected on your VDM Utility Screen.

d. VTABS will only support Position and Multiple Position level mapping. Facility and Area Level maps do not exist in VTABS.

e. While operating in VTABS, Flight Data is unable to perform clearance relay due to equipment limitations. During these times, when an IFR clearance request comes into Flight Data, the flight information will be recorded by Flight Data and the call will be forwarded to the appropriate OS/CIC phone number. The OS/CIC is expected to coordinate with the appropriate sector controller and issue the clearance to the pilot per FAA 7110.65.

2-5. TIME BASED METERING

2-5-1. TIME BASED METERING SECTOR INFORMATION MANAGEMENT

a. Sector Teams at Metering Sectors must display at least one of the following metering displays:

   1. Traffic Management Advisor (TMA) Meter List

   2. Scheduled Time of Arrival (STA)

   3. Delay Countdown Time (DCT)

   NOTE: Meter times are displayed in reference to the Meter Sector’s ARC Name as listed in the METER SECTORS AND RELEVANT FIX/ARCS Tables.

b. Sector Teams must ensure that the designated TMA Meter List, STA or DCT reflect the current arrival sequence.

c. When the current arrival sequence is changed for operational advantages, the Sector Team must swap metering times to reflect the new arrival sequence.

EXCEPTION: Sectors 16, 19, 34, 36 and 37 are not required to update the order of the arrival list for BOS arrivals.

NOTE: Sector Teams may be called on to manage multiple meter lists.

d. Input commands to update arrival sequences:

METER LIST COMMANDS	
FUNCTION	**INPUT**
• Turn on Meter List	Select **CTAS** Button
• Move the Meter List	1. Select the PVD Key 2. Type **R (Trackball enter)**
• Manually swap 2 aircraft in the Meter List	**MW CID CID (enter)**
• To re-sequence 3 to 5 aircraft in the Meter List (Input the CIDs in the desired order)	**SQ CID CID CID (CID) (CID) (enter)**
NOTE: As **SQ** input will generate an error message if a re-sequenced aircraft cannot physically arrive at the airport using the new time.	
• To drop 1 to 5 aircraft from the Sector Meter List	1. Select the PVD Key 2. Type **R CID (CID) (CID) (CID) (CID) (enter)**

NOTE: A negative symbol (-d) associated with the Delay Time Value indicates that the aircraft is behind it's Scheduled Time of Arrival (STA).

2-5-2. METERING SECTOR RESPONSIBILITIES

a. Traffic Management Initiatives, which include Time Based Metering, do not have priority over maintaining separation of aircraft or procedural integrity of the sector. (Reference: FAA JO 7110.65 Para. 11-1-2.)

b. Metering Sector Teams must initiate control actions to ensure aircraft absorb any delay, within plus or minus one (1) minute, at the airport's relevant Meter ARCS Name as listed in the METER SECTORS AND RELEVANT FIX/ARCS Tables.

NOTE: Negative (-d) Delay Times - Do not initiate control actions to adjust a negative meter time such as increasing the aircraft's speed.

NOTE: Zero (0) Delay Times - A delay of zero (0) in the TMA Meter List or DCT does not indicate that the aircraft can be delivered with less than standard separation or out of compliance with any LOA or SOP. Aircraft with zero delay must be sequenced longitudinally, not vertically, with other arrival traffic.

c. If unable to comply with a metering time within plus or minus one (1) minute, the Sector Team must advise the OS/CIC. The OS/CIC must then advise the appropriate Metering Position for alternate instructions as appropriate.

d. Delay exceptions for metering of:

1. BOS Arrivals:

(a) Sectors 8, 9, 10 and 24 will show the total delay time for the AUTUM Meter Fix and must initiate control actions to decrease the meter time by at least (2) minutes, unless otherwise coordinated.

(b) Sector 19 must initiate control action (e.g. reduce speed) on BOS jet arrivals to assist ZBW34 in achieving meter times.

2. EWR Arrivals:

(a) Sector 01 and Sector 02 must ensure that aircraft exit the sector with a remaining delay of three (3) minutes or less.

(b) Sector 06 must assist ZBW05 in achieving the SHAFF meter time.

2-5-3. METER SECTORS AND RELEVANT FIX/ARCS TABLES

a. METER SECTORS AND RELEVANT FIX/ARCS FOR BOS ARRIVALS.

NOTE: ZBW TMU controls BOS Metering program.

BOS ARRIVALS					
METERING SECTOR	**METER ARC NAME**	**METER ARC LOCATION**	**AIRCRAFT TYPE (JET/PROP)**	**METER TIME "FREEZE POINTS"**	**DELAY EXCEPTIONS**
Sector 02	**OOSHN**	OOSHN	**JET**	140 NM from OOSHN	**None**
Sector 07	**WHATE**	WHATE	**PROP**	100 NM west of LOBBY (Vicinity of PWL)	**None**
Sector 8	**AUTUM**	AUTUM	**JET**	240 NM west of AUTUM	**See note***
Sector 9	**AUTUM**	AUTUM	**JET**	240 NM west of AUTUM	**See note***
Sector 10	**AUTUM**	AUTUM	**JET**	240 NM west of AUTUM	**See note***
Sector 24	**AUTUM**	AUTUM	**JET**	240 NM west of AUTUM	**See note***
*Sectors 8, 9, 10 and 24 will show the total delay time for the AUTUM Meter Fix and must initiate control actions to decrease the meter time by at least (2) minutes, unless otherwise coordinated.					
Sector 16	**OOSHN**	OOSHN	**JET**	(J) 140 NM from OOSHN	**None**
Sector 16	**OOSHN**	OOSHN	**PROP**	(P) 50 NM from OOSHN	**None**

Sector 17	**OOSHN**	OOSHN	**JET**	(J) 140 NM from OOSHN	**None**
Sector 17	**OOSHN**	OOSHN	**PROP**	(P) 50 NM from OOSHN	**None**
Sector 19	**MAD**	MAD	**JET**	15 NM south of BDR	**See note****
*Sector 19 must initiate control action on BOS jet arrival to assist Sector 34 in achieving Meter Times.					
Sector 22	**LOBBY**	LOBBY	**PROP**	100 NM west of LOBBY (Vicinity of ALB)	**None**
Sector 34	**PROVI**	PROVI	**JET**	15 NM south of BDR (Already Frozen)	**None**
Sector 36	**LOBBY**	LOBBY	**PROP**	100 NM west of LOBBY (Already Frozen)	**None**
Sector 36	**AUTUM**	AUTUM	**JET**	240 NM west of AUTUM (Already Frozen)	**None**
Sector 36 **RUNWAY 15R ONLY**	**BADCA**	BADCA	**JET**	240 NM west of BADCA (Already Frozen)	**None**
Sector 37	**CON**	CON	**JET**	30 NM from CON	**None**
Sector 37	**CON**	CON	**PROP**	30 NM from CON	**None**
Sector 38	**AUTUM**	AUTUM	**JET**	240 NM west of AUTUM (Already Frozen)	**None**
Sector 38	**LOBBY**	LOBBY	**PROP**	100 NM west of LOBBY (Vicinity of ALB)	**See note***
***Meter times at Sector 38 for BOS PROPs are informational only. Sector 38 is not required to decrease delay times for BOS PROP arrivals.**					

b. METER SECTORS AND RELEVANT FIX/ARCS FOR EWR ARRIVALS.

NOTE: N90 TMU controls EWR Metering program.

EWR ARRIVALS					
METERING SECTOR	**METER ARC NAME**	**METER ARC LOCATION**	**AIRCRAFT TYPE (JET/PROP)**	**METER TIME "FREEZE POINTS"**	**DELAY EXCEPTIONS**
Sector 01	**HANAA**	HANAA	**JET**	110 NM from HANAA (Vicinity of BML)	**See note***
Sector 02	**HANAA**	HANAA	**JET**	110 NM from HANAA (Vicinity of BML)	**See note***
*Sectors 01 and 02 must ensure that aircraft exit the Sector with a remaining delay of three (3) minutes or less.					
Sector 05	**SHAFF**	SHAFF	**JET**	230 NM from SHAFF (Already Frozen)	**None**

Sector 06	**SHAFF**	SHAFF	**JET**	230 NM from SHAFF (Already Frozen)	**See note****
**ZBW06 must assist ABW05 in achieving the SHAFF Meter Time.					
Sector 07	**PWL**	ZBW06/07 common boundary	**JET**	230 NM from SHAFF (Already Frozen)	**None**
Sector 07	**SHAFF**	SHAFF	**JET**	230 NM from SHAFF (Already Frozen)	**See note****
**ZBW07 must assist ZBW05 in achieving the SHAFF Meter Time.					
Sector 17	**WIMPY**	ZBW46/17 common boundary (15 east BOS)	**JET**	65 NM east of BOS	**None**
Sector 21	**TALCO**	TALCO	**JET**	140 NM north of ALB (Already Frozen)	**None**
Sector 21	**SHAFF**	SHAFF	**JET**	140 NM north of ALB (Already Frozen)	**None**
ZBW21 must assist ZBW05 in achieving the SHAFF Meter Time.					
Sector 22	**ZBW22**	ZBW21/22 common boundary	**JET**	140 NM north of ALB (Already Frozen)	**None**
Sector 23	**HNK**	HNK	**JET**	West of ZOB/ZBW boundary (Already Frozen)	**None**
Sector 24	**HNK**	HNK	**JET**	West of ZOB/ZBW boundary (Already Frozen)	**None**
Sector 39	**HANAA**	HANAA	**Jet**	110 NM from HANAA (Vicinity of BML)	**None**
Sector 46	**EWR**	ZBW07/47 common boundary	**JET**	65 NM east of BOS	**None**
Sector 47	**EWR**	ZBW07/47 common boundary	**JET**	65 NM east of BOS	**None**
Sector 52	**HANAA**	HANAA	**JET**	110 NM from HANAA (Vicinity of BML)	**None**
Sector 53	**HANAA**	HANAA	**JET**	110 NM from HANNA (Vicinity of BML)	**None**

c. METER SECTORS AND RELEVANT FIX/ARCS FOR PHL ARRIVALS

NOTE: PHL TMU controls PHL Metering program

PHL ARRIVALS					
METERING SECTOR	**METER ARC NAME**	**METER ARC LOCATION**	**AIRCRAFT TYPE (JET/PROP)**	**METER TIME "FREEZE POINTS"**	**DELAY EXCEPTIONS**
Sector 02	**PHL46**	ZBW31/46 common boundary	**JET**	**None**	- ZBW02 will display the entire delay that ZBW46 displays the PHL 46 Arc. - ZBW02 must ensure the aircraft depart the sector with a remaining delay of three (3) minutes or less.

Sector 08	**PHLDNYJ PHLDNYP**	DNY	**JET TURBO PROP PROP**	**None**	ZBW08 will display entire delay that ZBW23/24 shows and will coordinate delay loss internally.
Sector 9	**PHLDNYJ PHLDNYP**	DNY	**JET TURBO PROP PROP**	**None**	ZBW09 will display entire delay that ZBW23/24 shows and will coordinate delay loss internally.
Sector 17	**PHL18**	ZBW31/18 common boundary	**JET**	**None**	ZBW17 will display the entire delay that ZBW18 displays at the PHL 18 Arc. Coordinate delay loss with ZBW18.
Sector 18	**PHL18**	ZBW31/18 common boundary	**JET**	**None**	None
Sector 22	**PHLDNYJ PHLDNYP**	DNY	**JET**	**None**	ZBW22 must ensure that aircraft exit the sector with a remaining delay of one (1) minute or less.
Sector 23	**PHLDNYJ PHLDNYP**	DNY	**JET TURBO PROP PROP**	**None**	None
Sector 24	**PHLDNYJ**	DNY	**JET**	**None**	None
Sector 31	**PHL31J**	DUNEE	**JET**	**None**	None
Sector 32	**PHL32J PHL32T**	DUNEE	**JET TURBO PROP PROR**	**None**	None
Sector 38	**PHLDNYJ**	DNY	**JET**	**None**	- ZBW38 will display the entire delay that ZBW24 displays at the PHLDNY Arc. - ZBW53, ZBW39 and ZBW38 will coordinate delay loss between the sectors.
NOTE: ZBW38 must ensure that aircraft exit the sector with a remaining delay of one (1) minute or less. When this cannot be accomplished, ZBW38 must initiate control actions to assist ZBW24 in meeting the DNY meter time.					

d. METER SECTORS AND RELEVANT FIX/ARCS FOR PHL ARRIVALS (continued)

NOTE: PHL TMU controls PHL Metering program

PHL ARRIVALS*					
METERING SECTOR	**METER ARC NAME**	**METER ARC LOCATION**	**AIRCRAFT TYPE (JET/PROP)**	**METER TIME "FREEZE POINTS"**	**DELAY EXCEPTIONS**
Sector 39	**PHLDNYJ**	DNY	**JET**	**None**	- Sector 39 will display the entire delay that Sector 24 displays at the PHLDNY Arc. - Sector 53, Sector 39 and Sector 38 will coordinate delay loss between the sectors.

					- Aircraft must exit Sector 38 with a delay of one (1) minute or less.
Sector 46	**PHL46**	Sector 31/46 common boundary	**JET**	**None**	None
Sector 52	**PHLDNYJ**	DNY	**JET**	**None**	- Sector 52 will display the entire delay Sector 23/24 displays at the PHLDNY Arc. - Sector 52 will coordinate delay loss between the sectors.
Sector 53	**PHLDNYJ**	DNY	**JET**	**None**	- Sector 53 will display the entire delay that ZBW24 displays at the PHLDNY Arc. - Sector 53, Sector 39 and ZBW38 will coordinate delay loss between the sectors. - Aircraft must exit Sector 38 with a delay of one (1) minute or less.

e. METER SECTORS AND RELEVANT FIX/ARCS FOR JFK ARRIVALS

NOTE: N90 TMU controls JFK Metering program

JFK ARRIVALS					
METERING SECTOR	**METER ARC NAME**	**METER ARC LOCATION**	**AIRCRAFT TYPE (JET/PROP)**	**METER TIME "FREEZE POINTS"**	**DELAY EXCEPTIONS**
Sector 01	**JFK46**	Sector 02/46 common boundary	**JET**	360 NM from CCC	Sector 01 will display the same delay that Sector 02 displays and will coordinate loss with Sector 02.
Sector 02	**JFK46**	Sector 02/46 common boundary	**JET**	360 NM from CCC	None
Sector 06	**LOVES**	LOVES	**PROP**	150 NM from LOVES	None
Sector 09	**HNK/JFK**	HNK	**JET**	390 NM from LENDY	Sector 09 will display the same delay that Sector 10/24 shows and will coordinate loss internally.
Sector 10	**HNK/JFK**	HNK	**JET**	390 NM from LENDY	None
Sector 17	**JFK046**	Sector 17/46 common boundary	**JET**	360 NM from CCC	None
Sector 18	**JFK32**	Sector 18/32 common boundary	**JET**	360 NM from CCC	None
Sector 20	**LOLLY**	LOLLY	**JET**	390 NM from LENDY	None

Sector 22	**JFKIGN**	Sector 20/22 common boundary	**JET**	390 NM from LENDY	None
Sector 23	**LOVES**	LOVES	**PROPR**	150 NM from LOVES	ZBW23 will display the same delay that ZBW06 shows and will coordinate the loss with ZBW06.
Sector 24	**HNK/JFK**	HNK	**JET**	390 NM from LENDY	None
Sector 32	**CCC**	CCC	**JET**	360 NM from CCC	NONE
Sector 38	**JFKIGN**	Sector 20/38 common boundary	**JET**	390 NM from LENDY	None
Sector 39	**JFKIGN**	Sector 20/38 common boundary	**JET**	390 NM from LENDY	- Sector 39 will display the same delay that Sector 38 displays. - Sectors 53, 39 and 38 will coordinate delay loss between the sectors.

JFK ARRIVALS (CONTINUED)					
METERING SECTOR	**METER ARC NAME**	**METER ARC LOCATION**	**AIRCRAFT TYPE (JET/PROP)**	**METER TIME "FREEZE POINTS"**	**DELAY EXCEPTIONS**
Sector 46	**TRAIT**	TRAIT	**JET**	360 NM from CCC	None
Sector 52	**JFKIGN**	Sector 20/22 common boundary	**JET**	390 NM from LENDY	- Sector 52 will display the same delay that Sector 22 displays and will coordinate the loss with Sector 22.
Sector 53	**JFKIGN**	Sector 20/38 common boundary	**JET**	390 NM from LENDY	- Sector 53 will display the same delay that Sector 38 displays. - Sectors 53, 39 and 38 will coordinate delay loss between the sectors.

2-6. THREE NAUTICAL MILE SEPARATION OPERATIONS

2-6-1. GENERAL

a. The adoption of Track Based Display Mode (TBDM) at Boston Center has allowed for the efficient use of airspace by allowing the expanded use of 3NM separation standards.

b. The use of 3NM separation is authorized IAW FAA JO 7110.65 within the approved areas as depicted in Para 2-6-4 and 2-6-5.

1. The approved areas for ADS-B 3NM separation are depicted in Para 2-6-4 and are displayable via the "3-Mile" button, as needed. These areas are eligible for 3NM separation

for aircraft equipped with ADS-B and surveillance is returning a reduced separation symbol (golf ball).

2. The approved areas for radar-supported 3NM separation are depicted in Para 2-6-5 and are displayable via the "CONTIG" button, as needed. These areas are for aircraft that are not ADS-B equipped, or for all aircraft in the event of an ADS-B failure, as long as surveillance is returning a reduced separation symbol (golf ball).

c. The target symbol for adequately equipped aircraft, in defined reduced separation areas, will change from a "beacon slash" to a golf ball shape.

d. The conflict alert parameters automatically convert to a 3-mile alert for equipped aircraft and 5-mile alert for non-equipped aircraft in defined areas of 3NM separation.

NOTE: To standardize the identification of the sensor for AT and TECH OPS, when referencing a radar sensor site, use the 3-letter identifier and the name of the radar sensor listed in Para 3-4-10.

2-6-2. ADS-B SURVEILLANCE 3NM SEPARATION

a. ADS-B surveillance allows controllers the use of reduced separation between ADS-B equipped aircraft and is approved IAW 7110.65 section 5-5-4.

b. Due to differences in aircraft equipment and/or differences in operational surveillance equipment (i.e. ground based radar or ADS-B radios), it is possible for certain aircraft to display a beacon slash target and be ineligible for 3 mile separation, even inside defined reduced separation airspace.

c. When ADS-B is providing reduced separation, the target's update rate is the same as that of the primary radar providing coverage for that aircraft. Target history for the aircraft will reflect the update rate.

NOTE: The Update Rate for ASRs is 4.6 Seconds. The Update Rate for ARSRs is 12 Seconds.

2-6-3. SURVEILLANCE FAILURES OR OUTAGES

a. Various types of surveillance failures/outages and how each will affect reduced separation procedures are discussed below. It is not expected that the controller will know how the reduced separation target is derived (via radar or ADS-B), but it is critical to understand that a change in normal, expected target display requires action:

NOTE: It is important to remember that the controller may be the first person to notice a sensor anomaly. Always report the anomaly immediately to the OS/CIC, during the MID shift report it to the OMIC. OMIC reports anomalies to the NOM.

NOTE: The OMIC must display any pertinent radar outage or contingency situation on the Enhanced Status Information System (ESIS) and forward the information to the appropriate operational areas via GI. Operations Managers, Operations Supervisors, Controllers-in-Charge and TMU specialists must ensure that this information is displayed appropriately and in a timely manner.

b. ADS-B failure: (Reduced separation provided by radar-only)

1. When you become aware of, or are advised of, an ADS-B failure, discontinue use of the ADS-B 3NM separation map in Para 2-6-4 (‘3-Mile’ button on scopes)

2. Radar-only reduced separation may be continued in the approved areas designated in Para 2-6-5 (‘CONTIG’ button on scopes)

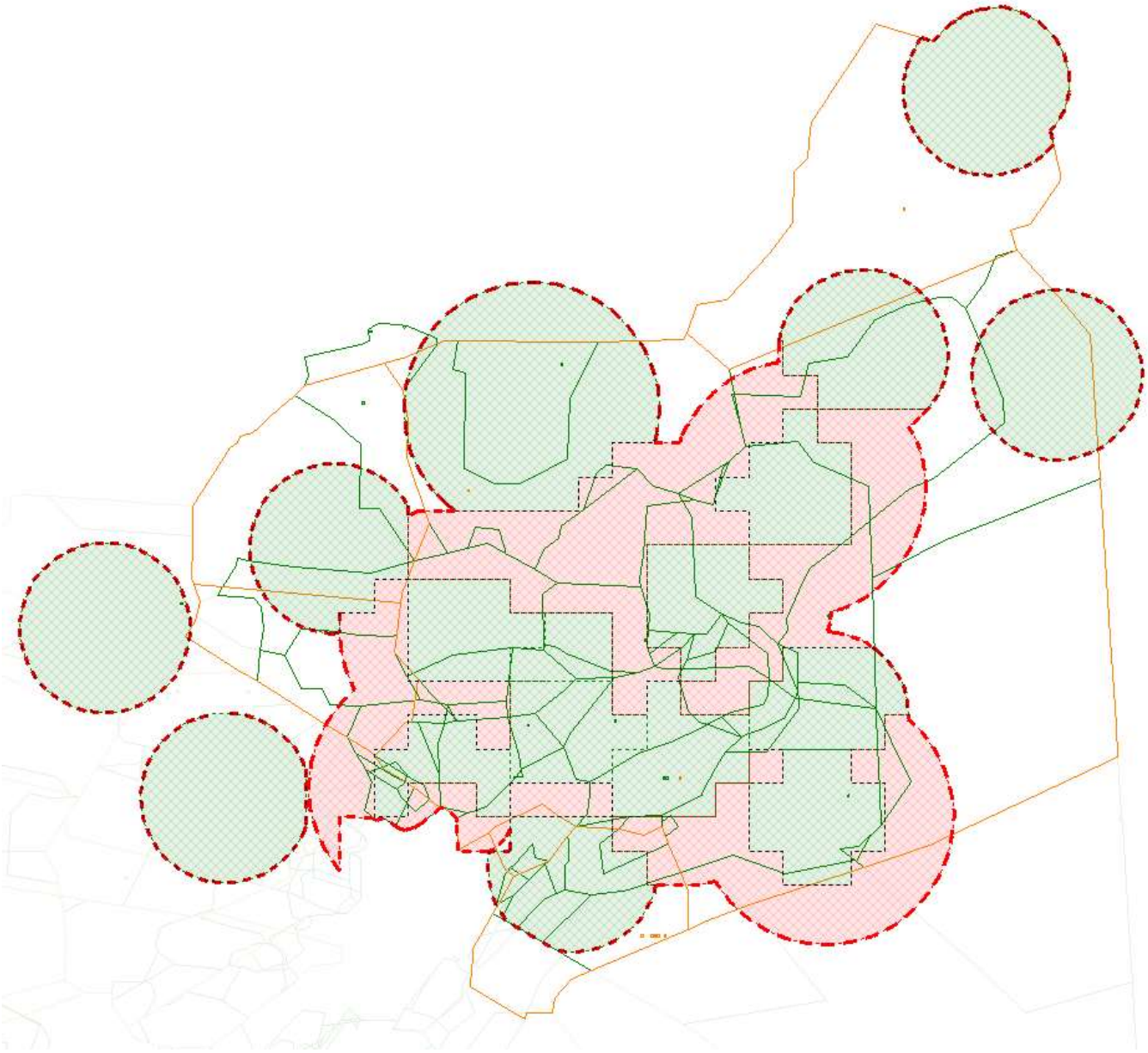
NOTE: Due to redundant coverage, a single ADS-B radio station outage does not constitute an ADS-B failure.

c. Primary radar outage: (Reduced separation provided by ADS-B only)

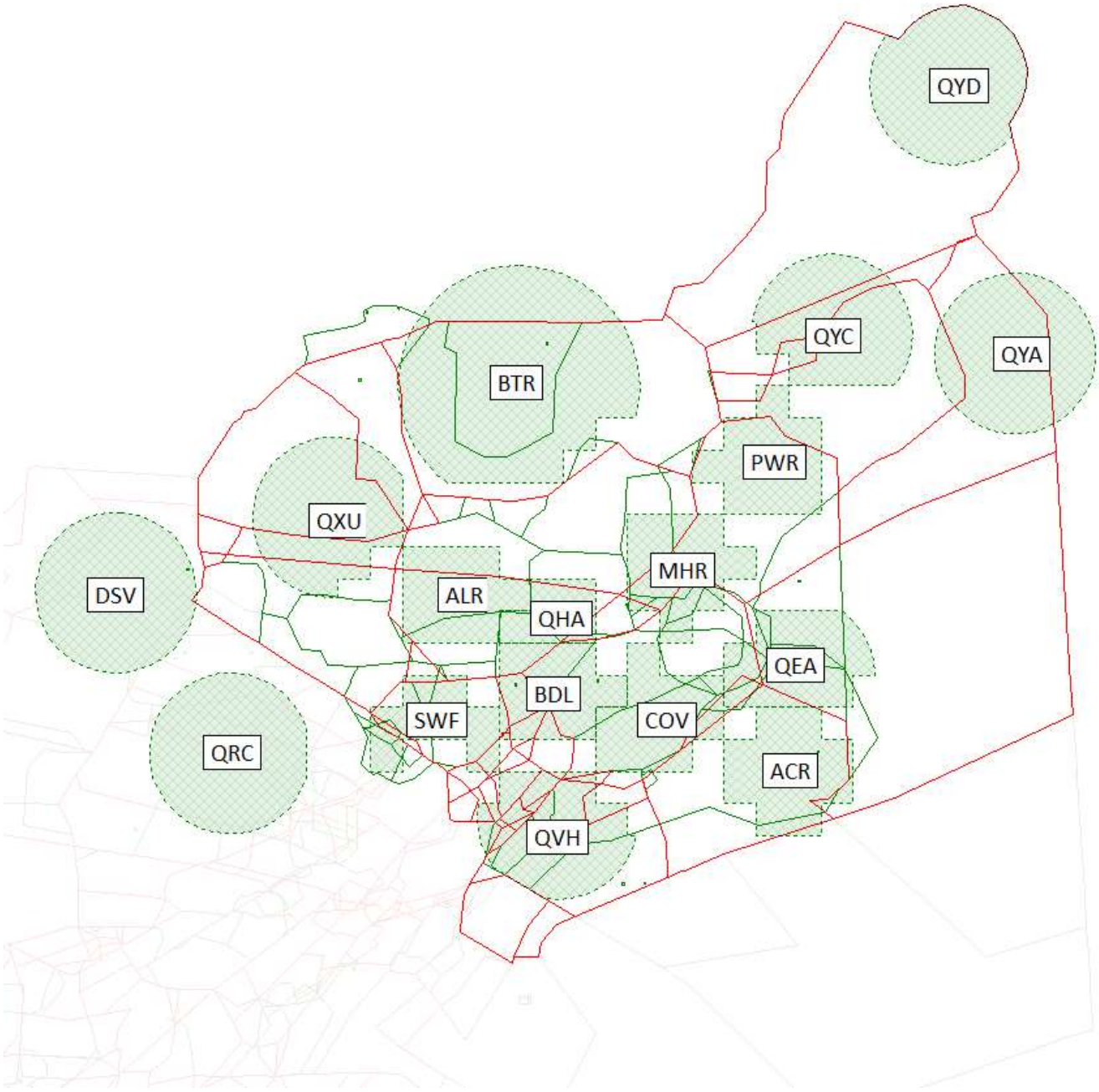
1. When you become aware of, or are advised of, a primary-radar outage or failure, discontinue use of radar-only 3NM separation in the affected area(s) as depicted in Para 2-6-5. ADS-B equipped aircraft may continue 3NM separation in these areas.

2. Radar-supported reduced separation may continue in the approved areas not affected by the outage designated in Para 2-6-5 (‘CONTIG’ button on scopes).

2-6-4. OPERATIONALLY APPROVED ADS-B 3NM SEPARATION AREAS



2-6-5. OPERATIONALLY APPROVED RADAR SUPPORTED 3NM SEPARATION AREAS



CHAPTER 3. OPERATIONS MANAGEMENT

3-1. WATCH SUPERVISION

3-1-1. OPERATIONAL SUPERVISORS/CONTROLLER-IN-CHARGE RESPONSIBILITIES

a. The first duty priority is to provide general supervision that is actively engaged in air traffic operations.

b. Operational Supervisors (OS) and Controllers- in-Charge (CIC) must meet Boston Center resource management goals through the assignment of controllers to positions of operation or other duties as required.

c. Sectors/positions may be combined or de-combined as appropriate for traffic and/or weather so as to provide optimum service to the user while maximizing available resources. The ultimate staffing goal is to ensure safety while providing maximum service to the user.

1. During peak traffic periods, extra consideration should be given to staffing the Tracker/Handoff position.

2. When a non-area rated developmental is working the radar position, the radar Associate position must be staffed, unless approved by the OMIC.

3. During periods of low traffic, when staffing does not allow for the position to be independently staffed, the OS/CIC position may be combined at an operational sector within the same Area under the following conditions:
   (a) The OMIC has approved the OS/CIC position being combined at an operational sector within the same Area.
   (b) The OS/CIC position is combined at the sector/position with the lowest activity/workload.
   (c) A position relief briefing must be recorded at the operational sector taking the OS/CIC position.
   (d) The OMIC must make a -4 entry both when the sector is combined to an operational sector and again when it is de-combined.
   (e) The OS/CIC telephone is forwarded to the OMIC position during the time the OS/CIC position is combined at an operational sector.
   (f) The OMIC must verbally pass any pertinent information to the operational sector that the OS/CIC position is combined at, either in person or via the VSCS.
   (g) Upon de-combining the OS/CIC position from an operational position, the OS/CIC must receive a recorded position relief briefing both from the operational position and the OMIC position.

d. Manage the operational environment with a goal towards eliminating distractions. In order to maintain a safe and efficient operation it is imperative that control room personnel remain focused on the control and separation of aircraft.

e. Maintain a situational awareness of traffic activity and operational conditions including but not limited to:

1. Sector workload
2. Sector configuration

3. Scheduled and unscheduled equipment or NAVAID outages
4. Ensuring coordination is accomplished with the TMU concerning traffic flow initiatives
5. Weather avoidance procedures
6. Current and forecasted weather
7. Adjacent facility status
8. Back-up systems status
9. Military operations

f. ENHANCED STATUS INFORMATION SYSTEM (ESIS)

1. At the beginning of day shift, set "Auto-Accept Target" to INBOX.
2. Monitor Inbox & post messages as needed to appropriate box.
3. At conclusion of evening shift, set "Auto- Accept Target" to RESTRICTIONS (This will place all incoming TMIs into the RESTRICTION window during the midshift and early morning hours).

g. Position SIA: Maintain awareness of the position SIA as contained in section 2-1-3 of this document.

h. Brief controllers on guidance and goals for individual shifts as conveyed in the morning and afternoon stand-up briefings. This includes but is not limited to, restrictions, weather patterns, resource management goals, weather products, etc.

i. Ensure controllers are briefed on new procedures, policies, rules, and regulations prior to the established due date.

j. Computers in the operational quarters must be used for operational purposes only.

k. Ensure that controllers comply with Traffic Management Initiatives (TMIs) in accordance with FAA JO 7110.65.

NOTE: TMIs may include but are not limited to DSP, ESP, MIT/MINIT, TEC, SWM, ASP and METER TIMES. TMIs do not have priority over maintaining separation of aircraft or procedural integrity of the sector/position.

1. Advise the STMC/TMCIC when any sector/position is unable to maintain procedural integrity and/or comply with the requirements of any TMI that is in effect.

2. Notify STMC/TMCIC when delays are expected to reach 15 minutes, and any change in delays in increments of 15 minutes until reported delays are less than 15 minutes.

l. Rotate controllers through positions of operation and administer breaks in accordance with FAA JO 7210.3 and Contractual obligations.

NOTE: The CruART Duty Board is a tool to assist OS/CICs in determining the rotational plan of position assignments.

m. Ensure compliance with position relief briefing requirements.

n. Provide on-the-spot corrections as necessary.

o. Airspace Patrols/Temporary Flight Restrictions. Ensure that Controllers accurately display active APs/TFRs on the MDM using the drawing tool.

p. Special Interest Flights (SIF):

1. Review the SIF daily list that is delivered by TMU and maintain awareness of SIF that will enter the Area.

2. When advised by a controller of a deviation or vector of a SIF, handle IAW section 2-3-2 of this document.

3. Advise OMIC of any suspicious activity of SIF.

q. Ensure that OJT conducted on multiple sectors conforms to approved sector configurations as contained in Appendix 7 of the Boston Center Training Order, ZBW 3120.343.

r. Assist Developmentals and Controllers-IT (Certified Professional Controllers in Training) in meeting currency requirements following certification on one (1) operational position. Developmentals must work operationally at the sector just certified for a minimum of five (5) workdays following certification on that position. OJT may resume upon completion of this "seasoning" requirement. Currency requirements must be maintained IAW FAA JO 7210.3.

s. When possible, On-the-Job Familiarization (OJF) must be conducted by a developmental observing a member of their training team performing controller duties.

t. Monitor Presidential aircraft movement (IAW 7210.3 Chap 5).

u. Provide guidance and/or instructions to employees on both work and administrative matters.

v. Promptly notify the OMIC of any change in single site radar limitations.

w. Reduced Vertical Separation Minimum (RVSM) Procedures: Be aware of non-RVSM aircraft within area of specialization. All RVSM operations must be handled IAW FAA JO 7210.3.

x. Upon notification of loss of inter-facility automation, the OS/CIC of the affected areas must ensure that the EDST status of adapted altitude and speed restrictions is in accordance with existing Letters of Agreement.

y. In the event of EDST failure at a sector, or other sector specific contingency, the OS/CIC can enable or disable flight strip printing for any authorized FAV. This function is enabled at the OS ATWSs in the areas and at the OMIC's ATWS.

EXAMPLE: PA ON Text file will enable flight strip printing. **PA OFF** Text file will suppress flight strip printing**.**

SECTOR AUTHORIZED FOR FLIGHT STRIP PRINTING SUPPRESSION		
FAV	**SECTOR/CONFIGURATION**	**AREA**
0901	Utica	A
1001	Rockdale	A
2401	Delancey	A
3801	Athens	B
3901	Cambridge	B
5301	Plattsburg	B

0101	Millinocket	D
0201	Augusta	D
1709	Nantucket (AOA FL240)	D
1809	Cape (AOA FL240)	D
2001	Kingston	E
3101	Hampton	C
4601	Boston High	C
4602	Boston High	C
4603	Boston High	C
4609	Boston High	C
4909	Southie	C

NOTE: If an FAV with flight strip suppression is combined at an FAV with flight strip printing enabled, strips will print out for both FAVs. Conversely if an FAV with flight strip printing enabled is combined at an FAV with flight strip suppression, no flight strips will be printed.

z. Keep the Operations Manager-in-Charge (OMIC) informed of all significant operational issues including but not limited to:

1. Early/Late opening or closing of non-24-hour facilities.

2. When advised by the radar team, that an aircraft has been instructed to turn off an invalid MODE C forward the aircraft call sign, date, time, assigned altitude, the Mode C reported altitude of the occurrence and location to the OMIC.

3. All altitude deviations of 300 feet or more in RVSM airspace.

4. Notify the OMIC and affected facilities of all pertinent information concerning aircraft involved in controlled airspace intrusions.

5. Ensure that accidents and incidents are reported in accordance with applicable directives.

aa. At the close of each evening shift, each OS/CIC must complete the duties listed in A2-2-3 CLOSE POSITION CHECKLIST. The OMIC must assume all telephone coordination responsibilities for the individual areas.

3-1-2. ACTIONS REQUIRING OMIC APPROVAL

a. OS/CIC/STMC/TMCICs must obtain OMIC approval for the following assignments and employee requests:

1. Earning of time outside of shift to include Overtime, Compensatory Time, or Travel Compensatory Time.

2. Assigning of additional resources to mid-shifts when such requests will increase staffing above what the schedule was posted with for the Area.

3. Any Leave Without Pay (LWOP) requests.

4. Allowing a non-Area rated developmental, CPC-IT or employee needing eight (8) hours of currency per month (OS, TMU Specialists, etc.) to work a sector alone.

5. Combining the OS/CIC Position at an operational sector.

b. The prime responsibility of the OS/CIC/STMC/TMCIC is to ensure we provide the highest amount of service with the lowest amount of risk.

1. Only CICs/TMCICs who are assigned "full shifts" (see paragraph c.1.) are authorized approval authority for requests for leave, shift changes, shift swaps, and earning of credit hours. This approval authority is for such requests that are within the next two calendar days. Other requests must be coordinated with the OMIC for approval.

2. CICs/TMCICs may not approve future detail assignments. If requests are presented, coordination with the OMIC must occur.

3. CICs/TMCICs may not approve requests for excused absence, with the exception of, employees who are unable to make it in to work because of hazardous geological/weather conditions (IAW the NATCA/ FAA CBA ART 19).

c. Staffing of the OS/CIC/STMC/TMCIC Position.

In accordance with the FAA/NATCA CBA, the following process was collaboratively discussed concerning the assignment of CIC/TMCIC:

1. When it is known in advance that a CIC/TMCIC is needed for the opening, closing, or for a full shift (4 hours or greater), the assignment of such responsibilities will be made, when practical, utilizing the CIC Roster available at the time of the assignment.

(a) Notification of this assignment to the CIC/TMCIC will normally occur utilizing the following processes:

(1) For tactical assignments (e.g., day of, next day), the assignment should be verbally communicated as soon as feasible.

(2) During schedule posting, the Scheduling Operations Supervisor (OS) will capture all CIC/TMCIC assignments made during the posting of the watch schedule and create an Informational Briefing Item containing the planned CIC/TMCIC assignments for the Area/TMU. This Briefing Item will be placed in TEAM for the affected Area/TMU.

(b) It is intended that the individual assigned as CIC/TMCIC will retain the responsibilities for that period of time with the exception of breaks, unless otherwise coordinated with the OMIC/OS/STMC.

NOTE: IAW FAA JO 7210.3 Para. 2-8-6, Individuals who have used medically disqualifying substances withing a 24-hour period before assumption of duty must not be assigned watch supervisor duties.

d. With OMIC approval, Operations Supervisors may provide watch supervision in their two approved areas simultaneously providing the following conditions are met:

1. During periods of low activity, when the operational needs allow for the area to be simultaneously supervised.

2. The Operations Supervisor has direct line of sight of both operational areas for which they are providing watch supervision.
3. Between the hours of 0630 Local and 2230 Local.
4. The Operation Supervisor is certified in the areas to be simultaneously supervised.

3-2. OPERATIONS MANAGER IN CHARGE

3-2-1. OPERATIONS MANAGER IN CHARGE

The OMIC is responsible for the control room operation. The OMIC will provide management and oversight for all matters that affect operations. During times when an OM is not available, a STMC, SM or an OS may be designated as the OMIC.

3-2-2. GENERAL OMIC DUTIES AND RESPONSIBILITIES

a. Effective teamwork is essential; therefore, the resolution of differences among team members is a first priority.

1. Time permitting, conflicts between STMCs and OS/CICs will be decided by the OMIC.

2. When time does not permit, the situation will be temporarily resolved in the following manner:

(a) Follow the decision of the OS/CIC if the situation only involves one area of specialty.

(b) Follow the decision of the STMC if the situation involves other areas/facilities.

(c) OMIC will make final decision as soon as practical.

b. Direct Center operations through the STMC and OS/CICs.

c. Conduct a stand-up briefing with OS/CIC, STMC, TMML, and Center Weather Service Unit (CWSU) at 0800 local and 1545 local as follows:

1. The STMC must brief on TMIs, delays, and NAVAID outages.

2. The TMML must brief on active or proposed military missions, survey flights, photo flights or other operations within the ARTCC airspace.

3. The CWSU must brief on current and forecast weather for Boston ARTCC Area.

d. Maintain the Daily Record of Facility Operation, FAA Form 7230-4, IAW FAA JO 7210.3

1. Log early/late closings/openings of non-24-hour facilities.

2. Log incidents of aircraft being advised to turn off altitude reporting of invalid Mode C readout on FAA Form 7230-4 and forward the information to Quality Control, ZBW-505.

3. Log the commencement and conclusion time of OS providing supervision of two areas simultaneously (Cross Area Supervision).

e. Maintain awareness of the following position SIA

1. AT Workstation
2. TEAM
3. CEDAR
4. Weather products such as graphical displays, briefing items, PIREPs, etc.
5. Playbook
6. Staffing: training, leave, details
7. Flight schedule monitor
8. National traffic management log
9. SAMS
10. Operational Info System

f. Coordinate radar outages, NAS releases/activations and facility security with the NOM. The OMIC must coordinate with the OSIC/CIC of areas affected for release of communications equipment, radar systems and transitions between ERAM Channels. Make FAA Form 7230-4 entry for radar Outages and ERAM Channel transitions.

g. Coordinate scheduled outages of major components of the NAS with the ATCSCC. Report NAS Enroute computers, radar/computer systems at all daily NAS reportable airports (Ref 6040.15), NAVAIDs, Runways/taxiways at NAS reportable airports, include reason for outage.

h. Upon loss of inter-facility automation, notify the STMC/TMCIC (Traffic Management Coordinator-in- Charge) and the affected operational area(s) of the loss.

i. Coordinate and direct emergency operations as necessary.

j. Conduct lost aircraft procedures through the TMU and OS/CICs IAW FAA JO7110.65 Chapter 10 Section 3. An Alert Notice (ALNOT) envelope located in the file cabinet at OMIC desk.

k. Report and complete Aircraft Accident and Incident Notification, Investigation and Reporting and FAA JO 1030.3–Initial Event Response. Instructions and packages are located in file cabinet at OMIC desk.

l. Complete Mandatory Occurrence Reports (MOR) in accordance with FAA JO 7210.632 - ATO Occurrence Reporting.

m. Authorize deviations from LOAs/LOPs during emergency conditions or unusual circumstances.

n. During administrative hours, forward all CLASSIFIED MESSAGES (Secret/Top-Secret) directly to Airspace and Procedures, ZBW-530. During non-administrative hours process classified documents IAW 3-2-8 of this order.

o. During Non-Administrative hours, or when the Air Traffic Manager (ATM) is off-site, the OMIC will serve as the designated official to approve LWOP.

p. Approve/Disapprove CIC requests for the following employee requests/assignments: any absence from work (including but not limited to annual leave, sick leave, or LWOP), exchange of shifts or RDOs, individual requests for a shift and/or RDO change, overtime, and requests for union official time.

q. If the Watch Desk is notified of an Air Patrol (AP) going active during non-administrative hours, this information can be found at J\DATA.GRP\AP-TM- MO\PUBLIC\VIP APS-SSI then look for

the specific name of the AP. OMICs must print, and distribute to each affected area, a copy of available Air Patrol (AP) information prior to AP activation and coordinate any subsequent changes with the affected OS/CIC.

r. The OMIC must be responsible to coordinate all TFRs (Temporary Flight Restrictions) and any subsequent changes with the effected operational area OS/CIC. The OMIC will distribute a description of the TFRs to the OS/CIC. TFRs must be handled IAW FAA JO 7210.3

s. Direct ESCAT (EMERGENCY SECURITY CONTROL OF AIR TRAFFIC) procedures when implemented. IAW FAA JO 7610.4, Chapter 6.

t. When an OS/CIC indicates that an SIF has deviated or been vectored from their route, coordinate with the DEN IAW FAA JO 7610.4.

u. RVSM (Reduced Vertical Separation Minimum) Procedures. OMICs must:

1. Maintain an operational awareness of RVSM impacts, specifically any non-RVSM aircraft being worked within RVSM airspace.

2. Ensure proper coordination is accomplished between the STMC/TMU and the OS/CICs regarding the accommodation and handling of any non-RVSM aircraft.

3. Ensure, in conjunction with the Traffic Management Officer, that monitor alert values are addressed with RVSM impacts considered.

4. Ensure all height deviations of 300 feet or more are recorded and forwarded to the FAA Technical Center in Atlantic City, New Jersey at NAARMO@faa.gov.

v. Emergency Checklists concerning OMIC duties must be maintained at the OMIC position. The OMIC must confirm that the area checklists are in the appropriate position each Sunday morning.

w. Airspace and Procedures, ZBW-530 must maintain a listing of ZBW personnel with pilot licenses and their qualifications. This list must be kept at each Area and the Watch Desk. OM must notify ZBW-530 when this list needs updating.

x. Tarmac Delay Operations

1. When notified that an aircraft has exceeded the "Three/Four-Hour Tarmac Rule", document the incident on FAA Form 7230-4 as a QAR, indicating the time the tarmac delay request was made.

2. When notified that an aircraft has exceeded the "Three/Four-Hour Tarmac Rule", notify the Washington Operations Center (WOC) through the Regional Operations Center (ROC) as soon as possible. Notification should include the date, time, location, and identification of the aircraft involved.

3. When notified that an aircraft has exceeded the "Three/Four-Hour Tarmac Rule", notify the Quality Control Office. Notification should include the date, time, location, and identification of the aircraft involved. The Quality Control Office will then retain voice recordings relevant to the event for one year.

3-2-3. OMIC RELIEF BRIEFING CHECKLIST

The OMIC must utilize the Position Relief Briefing checklist as defined in Appendix 2 and record the briefing when transferring position responsibility.

3-2-4. DAY AND EVENING SHIFT DUTIES AND RESPONSIBILITIES

a. Review Daily Record of Facility Operation, FAA Form 7230-4.

b. Check OMIC daily folder for action items.

c. Open/Close/Combine Tower/Approach control airspace when requested, utilizing appropriate entries (see 3-2-5).

d. Monitor control room to check operations. Note workload, staffing, and work environment (i.e. papers, non-spill proof cups etc.).

e. Verify accuracy of CruArt IAW FAA JO 7210.3, Chapter 2.

f. Approve/disapprove NOM requests for Radar/NAVAID outages after coordination with affected areas. Reference 3-2-2 and 3-4-2 for Radar and 3-2-2 for NAVAIDS.

g. Review Traffic Management Initiatives (TMIs) and messages received.

h. Complete equipment checklist items and enter WCLC (Watch Check List Complete) on FAA Form 7230-4 when completed, IAW FAA JO 7210.3.

1. Daily: Check on all frequencies in all areas.

2. Sunday day shift: verify Areas have emergency checklists at all sectors.

3. Check VTABS when scheduled. (Ref.3-4-9).

i. Prepare staffing sheet for next day (print 1 copy for next day's file).

j. Brief the ATM on all unusual or noteworthy occurrences.

k. Stuck flight plan removal must occur at 1200z.

NOTE: ERAM is scheduled to generate a printout of flight plans that exceed 10 system hours. OMIC will collect the printout from the NOM and present it to flight data for analysis. Any flight plans identified by flight data warrant investigation to determine if they are active. Flight plans identified as inactive are to be removed from ERAM via RS message.

l. OMIC assumes the duties of the Traffic Management Unit (Chapter 9) and the Flight Data Unit (Chapter 11) when these positions are not staffed.

3-2-5. MID SHIFT DUTIES AND RESPONSIBILITIES

The MID Shift OMIC must:

NOTE: The Mid Shift OMIC assumes the duties of the Traffic Management Unit (Chapter 9) and the Flight Data Unit (Chapter 11) when these positions are not staffed.

a. Monitor control room operations. Note staffing, workload, and work environment. Ensure the sectors are operational to meet traffic demands. Area staffing may be reduced to one fully certified ATCS.

b. Check CruArt for accuracy IAW FAA JO 7210.3, Chapter 2.

c. The NOM will coordinate for computer outages and certification of the NAS computer. Make log entries on any changes to the operating system on ZBW Form 7230-4.

NOTE: NAS certification notification is disseminated via GI message

d. Opening/Closing of part-time Approach Control airspace: General procedures not covered by an LOA or Test agreement. Refer to section 2-1-5.

e. Coordinate impending equipment outages / anomalies with area controllers.

1. Radar (References 3-4-2, 3-4-3 and 2-6)

2. NAVAID (Reference 3-2-2 and 3-4-7)

3. COMMUNICATIONS (Reference 3-4-8)

f. Ensure notification to Enroute and terminal facilities interfaced with ZBW of any system-related outage.

g. On chart dates, conduct an operational analysis to identify an appropriate time, and assign personnel in each area to install new overhead maps. New map products must be installed prior to the end of shift. Personnel working operational positions will not be assigned these duties. Once installation of the maps is complete in all areas, log the completion on the Facility FAA Form 7230-4.

h. At midnight local make the following ATWS Text file entries:

1. Turn off tower printers: **TMUTWRSCLOSE**

NOTE: Items listed on FAA Form 7230-4 that are not closed at the end of a day must be identified as a “carry-over” item at the beginning of the next day’s log.

i. Verify/Print/Sign the automated Daily Record of Facility Operations Log, FAA Form 7230-4.

j. Open next day’s FAA Form 7230-4 by changing date under ‘edit’ function. Close log and reopen. New date will appear on log. Sign in on new log and note any carryovers from previous day’s log.

k. Collect the following forms/logs, check for accuracy and completeness, and put in package for ZBW-1.1:

1. OMIC Daily Record of Facility Operation logs (7230-4).
2. FAA Forms 3120-25/3120-32/3120-36, (Training Reports).

l. Certify CruArt for TMU/FD/OM/A/B/C/D/E.

m. Post next day's assignment sheet at OMIC position.

n. Authorize leave for specialists assigned mid/day shifts.

o. At 0400L, turn on TMU printer & tower printers within Boston Center's airspace with the following ATWS Text file entry: **TMUTWRSOPEN**

3-2-6. MID SHIFT FLIGHT DATA DUTIES.

The OMIC assumes Flight Data duties when Flight Data is not staffed. (Reference Chapter 11)

a. Receive phone calls, update proposal times, and amend flight plans as requested.

b. Forward all flight plan cancellations and clearance requests via the VSCS to the appropriate sector.

c. In the event of an ERIDs failure, distribute NOTAMs hourly to each area of specialization.

d. Ensure dissemination of all AIRMETs and Canadian SIGMETS that impact Boston ARTCC by utilizing ERAM GI message or computer printout

e. Must monitor the Aeronautical Information Service Replacement (AISR) for ALNOTs & AIRMETs. ALNOTs must be acknowledged.
NOTE: The following are instructions for log on via https://www.aisr.nas.faa.gov/AISR/
User ID and Password are maintained at the Watchdesk.

After logging in, any ALNOTs addressed to ZBW will pop up on a window. You may also monitor "Search and Rescue" under the "Messages" tab.

3-2-7. MID SHIFT TMU DUTIES.

When TMU is not staffed the OMIC is responsible for the following (refer to Chapter 9 for additional information):

NOTE: Ensure OMIC VSCS chimes are on when TMU is closed.

a. ELTs -Forward ELT reports to Langley AFB - Complete FAA Form 7210-8 and record the tracking number issued by Langley RCC. Langley will advise of any follow-up action. Outstanding ELT reports from the previous shift are the responsibility of mid watch OMIC for follow-up action. [Langley RCC for inland and BOSTON SEARCH (Coast Guard) for over water].

b Weather Coordinator Duties: The OMIC is responsible for performing all weather coordinator duties as outlined in Chapter 9 of this Order. The OMIC must also ensure the inter/intra-facility dissemination of AIRMETs, SIGMETs, CWAs, MISs, and PIREPs as outlined in the Chapter 12 of this Order.

c. ALTRVs:

1. Missions - The STMC/TMML (Traffic Management Military Liaison) will provide the OMIC with an ALTRV envelope when a mission occurs on the midshift. The midshift OMIC must distribute ALTRV strips to appropriate sectors.

2. Messages - The midshift OMIC must review ALTRV messages received on the midshift to determine if action is necessary. Messages will state on the third line either ALTRV Approval Request (APREQ) or ALTRV APPVL. Item F will indicate the departure date and time and this will determine if action is required during the midshift. Messages indicating ALTRV APREQ or ALTRV APVL on future dates must be initialed and forwarded to the STMC.

3-2-8. CLASSIFIED DOCUMENT (Secret/Top Secret) HANDLING DURING NON-ADMINISTRATIVE HOURS

a. Sign for receipt on the log that the FDCS prepares.

b. Determine if the classified message requires immediate action. When necessary notify ZBW-530 immediately.

c. Secure the message in the Control Room safe. The OMIC must enter the appropriate information on the Custody Tracking Log located in the safe.

NOTE: The far-right hand column is used by ZBW- 530 personnel to acknowledge the transfer of custody to ZBW-530.

d. Send e-mail to advise ZBW-530 that a message is in the safe. Annotate the "Opened By", "Closed By" and "Checked By" blocks on Standard Form 702, which is located on the outside of the control room safe.

e. Except for personnel with a Need to Know, DO NOT ADVISE OR DISCUSS WITH ANYONE INFORMATION PERTAINING TO THE CLASSIFIED MESSAGE. ALL CLASSIFIED MATERIAL MUST PASS THROUGH THE SECURITY CONTROL POINT (ZBW-530).

3-2-9. SINGLE PERSON MIDNIGHT OPERATIONS.

During the hours of 0000L to 0500L, in the event no response is received from the facility in which coordination is attempted using automated hand-off and/or the normal voice activated or indirect dial communication lines, the controller must immediately contact the OMIC to take action on determining the status of an unresponsive controller.

When notified that a facility is not responding to automated handoffs or normal voice activated or indirect dial communication lines, the following procedure must be utilized to determine the status of any unresponsive controller.

a. Use the call table below to contact the following facilities

New York ARTCC	OMIC [redacted]
Cleveland ARTCC	OMIC [redacted]
Washington ARTCC	OMIC [redacted]
Moncton ACC	[redacted]
Toronto ACC	[redacted]
Montreal TCU	[redacted]
Ottawa TCU	[redacted]

3-2-10. MIDSHIFT SCRAMBLE PROCEDURES

a. Huntress/EADS will contact the OMIC on the Scramble Phone. (Black phone on right in bank of three on wall)

b. OMIC will copy the Scramble Order noting: Active or Practice, Callsign, Number of aircraft, Heading, Requested altitude, Track of Interest (example: bearing 270, 200 miles).

c. Immediately notify the controlling sector.

d. Advise Huntress/EADS if the active scramble may be delayed.

1. Ensure the Flight Plan is entered into ERAM computer.

2. If needed, recall additional area personnel to the control room.

e. Authorization for Fighter Interceptor Operations (AFIO). If AFIO is invoked for departure of active scramble aircraft, Boston Center will assure control of the Alert Aircraft as soon as potential traffic situations have been resolved.

3-3. ATC SYSTEMS

3-3-1. ZBW SYSTEM FAILURES

a. Consider declaring Boston Center ATC Alert Status. Do not divest airspace but utilize ATCSCC to notify surrounding facilities of potential degraded service. The ATC Alert/Zero binders are in the cabinet above the Watch Desk.

b. When ERAM experiences loss of a channel, there is a loss of redundancy and therefore no valid backup channel available. The NOM will execute a channel promotion, if necessary, to restore operations.

c. When unexpected loss of the ACTIVE channel occurs and the NOM has executed an IMMEDIATE channel promotion, instruct the Areas to switch to the newly ACTIVE channel and stay there until further advised. Reminder that the following occurs when an ERAM channel promotion is executed:

1. Six second lock out at each ERAM position

2. Loss of a backup channel for unspecified duration

3. Loss of connectivity to external facilities (will take up to two minutes to reconnect.)

4. Flush of all unexpired flight progress strips reprinted at outlying facilities

d. Notify adjacent facilities of ERAM Channel Promotion.

e. ERAM is designed to be self-healing and will, in many cases, recover itself from outages. Depending on the software or hardware problem incurred, recovery can take anywhere from a few seconds to a few minutes. Relay pertinent information to the OSICs/CICs (sector controllers during midshift).

f. When the NOM advises the OMIC that a channel promotion has taken place and the newly ACTIVE channel is ready for use, instruct the operational Areas to ensure all sectors have the

newly ACTIVE channel selected for use. Also, the AT Specialists Workstations will also have to be switched to the ACTIVE channel.

g. The 8-1-1 Job Aids should be utilized to assist Tech Ops and Air Traffic in determining the correct course of action in dealing with system outages. The specific steps for each outage should be considered however the document cannot cover all solutions. The NOM and the OMIC should use their best discretion with system recovery.

h. When the NOM advises that ERAM is stable, instruct the Operational Areas to transition back to ERAM with a reminder to update any missing data and enter any necessary flight plans. For entry of ICAO flight plans reference 2-1-30.

3-3-2. SCHEDULED ZBW ERAM UPDATES

a. ERAM is designed to never (voluntarily) take a full release of the ERAM system. Channel releases will be routine maintenance for software upgrades or hardware maintenance. In the event of an ERAM channel release, the ACTIVE channel will then be the only ERAM channel available.

b. Software updates are loaded on the BACKUP channel in ERAM, when the BACKUP channel is promoted to the ACTIVE channel the updated software is active.

c. Prior to channel promotion:

1. Determine time for promotion with SOC.

   NOTE: **Normally, Channel promotions should be accomplished on the midshift during periods of low traffic/workload.**

2. Coordinate agreed upon time with OS/CICs, controllers and Flight Data (if staffed) prior to promotion.

3. Coordinate with external facilities prior to promotion to minimize operational impact, ensuring scheduled channel promotions occur at a different time than neighboring facilities (ZOB, ZNY, and ZDC). Offsetting promotion times minimizes the risk of unexpected data reconstitution impacts.

   (a) Verbally coordinate promotion time with neighboring ARTCC's and ACC's - ZNY, ZDC, ZOB, ZQM, ZUL, and YYZ.

   (b) Terminal Facilities during a Mid - Send GI message 15 minutes prior to promotion time.

   (c) Terminal Facilities Day and Night shifts - Send GI, and if time permits verbally notify underlying Terminal facilities: PVD, MHT, ALB, ACK, MVY, BED, PWM, BGR, SYR, BTV, A90 and Y90. Consider asking TMU for help in coordination.

   NOTE GI Format for (b) and (c): GI C D T A o ZBW will execute channel promotion at XXXXZ…ZBWOMIC (Ctrl F1 on Keyboard)

4. Preplanned/Coordinated Channel Promotion: Direct OS/CICs and controllers to switch channels from the ACTIVE Channel to the BACKUP Channel prior to promotion time.

NOTE: **Controllers are directed to switch channels for the position they are working. OS/CICs or OMIC's are responsible to ensure closed sectors are switched.**

(a) If a position is not switched to the BACKUP Channel prior to promotion it will be locked out for approximately 6 seconds

(b) During a channel promotion, interfaces are not functional for about 6 seconds.

(c) Data must be reconstituted upon recovery, which takes about 1 minute.

(d) During reconstitution, message processing may take longer than normal.

(e) ERAM-to-ERAM handoffs during the channel promotion will show "FAIL" in the data block.

5. For non-preplanned or coordinated Channel Promotions where OS/CICs and controllers don't receive advance notice**- Utilize Internal Page (*402)** and provide countdown to promotion. Suggested verbiage "*Boston Center Channel Promotion in 5, 4, 3, 2, 1. Verify on ACTIVE Channel* "(Use Clock on DSR display for synchronized time).

6. After Channel Promotion, OMIC/OS/CICs ensure all positions and workstations have been switched to the ACTIVE Channel, this includes closed positions.

   (a) Controllers are responsible to switch the position they are working.

7. **See ERAM 8-1-1 Outage Job Aid.** After Channel Promotions, the OMIC must execute the text file: **ALLSAON** then execute the text file:**-NEWROUTE**.

   (a) Verify each sector's configuration. ("RC" command).

   (b) Notify Front Office, if you have a problem-"page it out". (Event Email)

   (c) In the event of an urgent promotion, the SOC will promote the channel and notify the OMIC when complete.

3-3-3. ADJACENT FACILITY TRANSITIONS FROM/TO ERAM/CAATS OPERATIONS

a. When an adjacent Enroute facility, either NAS or Canadian, advises that the connection between the facilities will be shutdown, amend the appropriate Active Boundary Crossing Time (ABCT) and Proposed Boundary Crossing Time (PBCT) to 90 minutes (maximum time) to permit "flushing" of flight plan data.

   1. ATWS entry to Change Parameter (CP) (i.e., flush flight plan data):

      CP ABCT (computer facility ID) 90 [enter]

      CP PBCT (computer facility ID) 90 [enter]

   2. Upon notification that the adjacent facility has returned to normal operations, reset adjacent centers ABCT/PBCT values as follows (use the CP format above):

FACILITY	Computer Facility ID	ABCT	PBCT
New York ARTCC (ZNY)	ZCN	30	10
Cleveland ARTCC (ZOB)	ZCC	30	5
Washington ARTCC (ZDC)	ZCW	45	5
Montreal ACC (ZUL)	ZUL	45	20
Moncton ACC (ZQM)	ZQM	20	20
Toronto ACC (ZYZ)	ZYZ	45	10

b. Coordinate a time at which FDB fourth line data transfer (FFLE) will be disabled (ZNY/ZDC/ZOB only – FFLE is not available with Canadian Centres).

NOTE: If the facility advises that they are transitioning to EBUS because of a ERAM system failure the coordinated time is not applicable, and verbal coordination of fourth line data begins immediately.

c. Advise affected area OS/CICs or sector controller (during midshift), that verbal coordination of FDB fourth line data transfer (FFLE) will be required, with the particular facility, beginning at the coordinated time (if applicable) and continuing until further advised.

ZNY	AREAS A/B/D/C & E
ZOB	AREA A
ZDC	AREA C

d. Enter the ATWS command to disable fourth line data transfer to a single facility at the coordinated time, (or immediately in the case of an ERAM system failure).

ZNY	CP FFLE ZCN OFF
ZOB	CP FFLE ZCC OFF
ZDC	CP FFLE ZCW OFF

e. When the adjacent facility advises that their HOST/ERAM system is operational and stable they will coordinate a time to resume fourth line data transfer.

f. Advise OS/CICs or sector controllers (MID Shift) that fourth line data will be eligible for non-verbal coordination at the coordinated time.

g. Enter the ATWS commands to enable fourth line data transfer to a single facility at the coordinated time.

ZNY	CP FFLE ZCN ON
ZOB	CP FFLE ZCC ON

ZDC	CP FFLE ZCW ON

3-4. EQUIPMENT

3-4-1. OPERATIONAL RISK MANAGEMENT PLAN (ORMP)

The Operational Risk Management Plan (ORMP) is a formal document used to review and approve planned equipment outages to protect continuity of Air Traffic services. ORMP must be used in conjunction with other local procedures to complete ORM maintenance activities and projects. This section is supplemental to procedures outlined in FAA JO 7210.3 – Air Traffic Service During Planned and Unplanned Outages.

a. Maintenance activities requiring an ORMP are established in FAA Orders 6000.50 National Airspace System Project Implementation Risk Planning and 6000.15 General Maintenance Handbook for National Airspace System Facilities. Tech Ops will submit an ORMP on these projects and notify the Air Traffic POC/Reviewer position.

b. Certain maintenance tasks not established per 3-4-1.a may still have the potential for operational consequences. Air Traffic and Tech Ops have the authority to jointly identify additional maintenance tasks that require ORMP.

c. Per the requirements set forth in FAA Order 7210.3, the Air Traffic ORMP Team Members are as follows:
   1. Air Traffic POC/Reviewer Position - Operations Manager POC for Plans and Programs Department (ZBW-510) or another Designee as assigned by ATM
   2. Air Traffic Approver Position - Plans and Programs Support Manager (ZBW-510) or another Designee as assigned by ATM
   3. Air Traffic Primary Stakeholders:
      - ZBW NATCA Primary Facility Representative or Designee
      - Operations Manager of affected Area
   4. Additional members designated as necessary by the positions listed above.

d. Communication on all ORMP projects should be done via email or the ORMP tool. It is the responsibility of the Air Traffic POC/Reviewer to ensure all Air Traffic ORMP Team Members and affected Air Traffic parties have been notified in a timely manner. If necessary, any ORMP Team Member may request a formal meeting between the Air Traffic and Tech Ops ORMP Team Members.

e. Most maintenance activities will not require an ORMP. These activities shall follow pre-established local procedures while adhering to the Principles of ORM contained in FAA Order 7210.3 - Air Traffic Service During Planned and Unplanned Outages.

3-4-2. RADAR.

To standardize and avoid any misunderstandings between AIR TRAFFIC and TECH OPS personnel, use the common radar sensor identifiers or 3-letter codes (per Table 3-4-10) when discussing or coordinating sensor activity. Radar sensors occasionally fail or provide erroneous data for display processing. Sensor failures may go unnoticed on the radar display as the displayed data within a Surveillance Sort Cells (SSC) is automatically processed using primary and secondary returns from

several sensors. Reduced Separation areas defined in Para 2-6 Controllers will receive an instantaneous modification to the position symbol on the display.

NOTE: Cone-of-silence is a phenomenon that exists over all radar sites in varying forms and degrees, unique to that site, and can create target loss over, or in close proximity, of the sensor. Part of the functionality of mosaic radar is to lessen these effects. A scheduled sensor outage may create a lack of coverage affecting the cone-of-silence arc or target display issues. Unlike HOST, within the cone-of-silence of a single site adapted sensor, ERAM will not lose the beacon target, only eligibility for reduced separation standards. You will still be able to observe the target over the radar sites cone-of-silence. ERAM will automatically determine eligibility for reduced separation. Because of this improvement in how ERAM handles sensor cone-of-silence, we have no need to adapt the display squares that were displayed directly over ALR, BDL, MHR, PWR, QEA and OVH sensors in HOST.

3-4-3. RADAR FAILURES INVOLVING SINGLE SITE ADAPTED SENSORS

These failures impact the procedures used with Single Site adapted sectors and coordination between the impacted areas and the facility's Service Operations Center (SOC) is critical (see Table 3-4-10).

a. A TOTAL failure results in the loss of both primary and secondary data. ERAM is designed to automatically replace lost radar data with data from adapted back up site via fusion. In Single Site Separation areas, adapted SSCs will automatically process radar from back-up sensors and ERAM will then process targets in those SSCs mosaically. Aircraft in a defined reduced separation are beacon slash. The targets and history will convert to its native state of 4.6 second to standard Enroute parameters (set at 12 seconds) updates.

1. When a sensor has TOTAL failure, the NOM will get an alarm and notify the OMIC.

2. Immediately advise OS/CIC of all affected areas that reduced separation areas is suspended until further advised and to ensure that the impacted sectors depress the CONTIG map button from their map menu, if needed.

3. Single Site operations and separation minimums can be resumed once the sensor is returned to operational service.

b. A BEACON ONLY failure results in the loss of secondary radar data. During this type of sensor failure, the ERAM will automatically detect the loss of returns and replace radar data with an adapted back up. This will result in loss of radar targets in any of the adapted SSC that the sensor is the primary (and only) source for coverage. This type of outage may first be observed by the radar teams that are using the sensor for Single Site operations.

1. When advised that a Single-Site adapted sector is not processing BEACON data by the:

(a) NOM

(1) Immediately advise the appropriate OS/CIC that Single Site operations and separation minimum are suspended until further advised.

(2) Single Site operations and separation minimums can be resumed once the sensor in returned to operational service.

(b) OS/CIC

(1) Ensure the effected Reduced Separation Areas have suspended 3-mile minima's until further advised.

(2) Advise the NOM of the reported outage or changes to the display position symbol in Reduce Separation Volume Area (golf ball vs. beacon slash).

3-4-4. SCHEDULED OUTAGES

a. Tech Ops will coordinate with the appropriate areas for a release request of a radar sensor as per 3-4-10.

b. Advise OS/CIC of all affected areas that single site separation minimum is suspended for the duration of the planned outage. Ensure that the impacted sectors display the appropriate CONTIG map, if needed (any sectors that use multiple single site sensors).

NOTE: ERAM will automatically adjust eligibility for reduced separation minima as indicated by the radar target.

c. Single Site operations and separation minimums can be resumed once the sensor is returned to operational service.

3-4-5. SENSOR STATUS

a. Generate a GI message regarding a radar sensor outage.

NOTE: There are canned messages on the PF-Keys across the top of the ATWS keyboard for sensors that are Single Site adapted. Activate the appropriate message and fill in the times of the outage.

EXAMPLE: PF-Key Message

QEA RADAR WILL BE RELEASED TO MAINT FROM HHMMZ TO HHMMZ. SINGLE-SITE PROCEDURES ARE SUSPENDED WITHIN THE AFFECTED AREAS OF SECTORS. PLEASE CHANGE TO CONTIG MAP DURING THIS OUTAGE. ZBW OMIC.

b. If the radar is not a Single Site adapted sensor, ensure the message includes the site's 3-letter identifier, the times of the outage if scheduled or the start time and "until UFA" if the return to service is unknown.

c. **ESIS**. The Enhanced Status Information System (ESIS) displays must always display any pertinent radar outage or contingency situation. Operations Managers, Operational Supervisors, Controllers in Change and TMU specialists must ensure that this information is displayed appropriately and in a timely manner.

3-4-6. FAV / SECTOR RELOCATION

ZBW has a "dummy" FAV to allow for non-standard airspace assignments: 0150, 0750, 0850, 4950 and 5350.

EXAMPLE: Area E has a long-term outage at sector 19, decision was made to relocate sector 19 airspace to an available sector 07 proceed as follows:

a. CS 07/07 opens the available sectors.

b. CS 07/0150 combines the “dummy” FAV at sector 07.

c. CS 0150/1901 combines sector 19 FAV with dummy FAV.

d. Proceed with VCSC LOGICAL-TO-PHYSICAL to reconfigure frequencies and landlines.

3-4-7. NAVAIDS.

a. Coordinate with the appropriate OS/CIC, STMC, adjacent facility(s) and AFSS for a release or failure of NAVAIDs listed in 3-4-11.

b. Transmit appropriate GI Message.

EXAMPLE: GI C A T D 0 ACK VORTAC RELEASED TO MAINTENANCE UFA. OMIC10260000SO.

3-4-8. COMMUNICATIONS

a. Coordinate with the applicable OS/CIC for release of a frequency as listed in 3-4-12.

b. Transmit appropriate GI Message.

EXAMPLE: GI C A T D 0 AUG 134.95/307.0 RELEASED TO MAINTENANCE UFA. OMIC10260000SO.

3-4-9. VSCS

a. Ensure the OMIC position chimes are on when TMU is closed.

b. VSCS/VTABS TRANSITION CHECKLIST

1. Coordinate requested time of transition with NOM.

2. Coordinate the transition time with the OS/CICs, TMCs, and the FDU.

3. Initiate countdown to switch over from the NOM position, via the control room page. Dial *402 and announce, “The control room will switch to VTABS in 5, 4, 3, 2, 1”.

4. Once transition is complete, survey the OS/CICs and STMC to ensure reliability and identify deficiencies.

5. Determine if configuration changes, and/or, temporary modifications are required.

NOTE: VSCS or VTABS temporary modifications can be input at the VSCS or VTABS Workstations opposite the high-speed printers, located between the Flight Data Unit and the TMU Meter position.

6. If the transition is due to equipment failure, follow the steps within the “ZBW ATC Alert” procedures.

7. To return to normal configuration, reverse the steps shown above. If "ZBW" ATC Alert" was initiated, when operations return to normal, follow the steps within "ZBW ATC Alert" for appropriate notifications and cancellation of the "ZBW ATC Alert".

c. LOGICAL-TO-PHYSICAL (Step by Step)

1. Select RECONFIGURE from the SUMMARY STATUS screen.

2. Select LOGICAL TO PHYSICAL from the pull-down menu.

3. Select the appropriate areas from the AREA SELECTION screen and select OK.

4. The LOGICAL TO PHYSICAL ASSIGNMENT screen is displayed.

5. Select (by double clicking) the positions that will be reconfigured from the list.

NOTE: It is a good idea to write down the current positions and the associated VCEs before you begin.

6. The selected positions will be displayed in the UNASSIGNED POSITIONS window, either ATC or NON-ATC. The VCEs are displayed in the MODIFY LOGICAL TO PHYSICAL window as SPAREs.

7. Select the new VCEs from the MODIFY LOGICAL TO PHYSICAL window.

8. Select the new positions from the UNASSIGNED POSITIONS window.

9. The new VCE/Position assignments are now listed in the MODIFY LOGICAL TO PHYSICAL window.

10. Select the RECONFIGURE button to initiate the reconfiguration.

11. The **RECONFIGURATION PROCESS STATUS** screen appears.

12. Select **CONTINUE RECONFIGURATION**.

13. CHANGING SECTOR CONFIGURATIONS.

	LOGIN	PASSWORD
OMIC	[redacted]	[redacted]
AREA A		
AREA B		
AREA C		
AREA D		
AREA E		

3-4-10. RADAR RELEASES/OUTAGES COORDINATION

The following is a list of which Area(s) need to be coordinated with for any RADAR outages / releases

- Send out a GI when RADAR sites are released / returned.
- Compose new ESIS message and forward to appropriate Area(s)
- For PRIMARY RADAR releases / outages the F4 Function Key on the OMIC ATWS contains a pre-set message. ADS-B 3NM Separation is still available in the affected area during outages.

Radar Site Coordination and LST2 NTAP Site Number

NTAP Site #	Site	Identifier	A	B	C	D	E	Advisory
17	Albany, NY	ALR	◆	◆			◆	F4
9	Benton, PA	QRC	◆				◆	F4
15	Bradley, CT	BDL	◆	◆	◆		◆	F4
19	Burlington, VT	BTR	◆	◆				F4
1	Bucks Harbor, ME	QYA				◆		F4
10	Caribou, ME	QYD				◆		F4
13	Coventry, RI	COV			◆	◆		F4
16	Cumberland, ME	PWR		◆		◆		F4
6	Dansville, NY	DSV	◆				◆	F4
14	Gibbsboro, NJ	QIE			◆		◆	F5
4	Cummington, MA	QHA	◆	◆	◆		◆	F4
11	Manchester, NH	MHR		◆	◆	◆		F4
18	Nantucket, MA	ACR			◆	◆		F4
8	North Truro, MA (*)	QEA		◆	◆	◆		F4
7	Riverhead, NY	QVH			◆	◆	◆	F4
5	Skowhegan, ME	QYC		◆		◆		F4
2	St. Albans, VT (**)	QHB	◆	◆				F5
12	Stewart, NY	SWF	◆				◆	F4
3	Utica, NY	QXU	◆	◆			◆	F4

* - Coordinate with TMU affects Metering

** - Coordinate with ZUL affects their staffing requirements

3-4-11. NAVAIDS

Coordinate with OS/CIC/STMC/AFSS/Adjacent AT facilities for release or failure of these NAVAIDs.

NAV	TYPE	FSS	AREA COOR	FACILITY COOR	NAV AID	TYPE	FSS	AREA COOR	FACILITY COOR
ACK	VOR/DME	BDR	C-D	A90	**HUO**	VOR/DME	ISP	E	N90-ZNY
ALB	VORTAC	BTV	A-B-E	ALB/ZNY/ ZCC	**HVN**	VOR/DME	BDR	E	N90-ZNY
ART	VORTAC	BTV	A	SYR/GTB	**IGN**	VOR/DME	ISP	E	N90-ZNY
AUG	VOR/DME	BGR	D	PWM	**JFK**	VOR/DME	ISP	C-E	N90-ZNY
BAF	VORTAC	BTV	A-C-E	Y90	**LEB**	DME	BGR	B	LEB ATCT
BDR	VOR/DME	BDR	E	N90-ZNY	**LFV**	VOR/DME	BDR	C-D	A90
BGR	VORTAC	BGR	D	BGR-ZQM	**LGA**	VOR/DME	ISP	E	N90-ZNY
BOS	VOR/DME	BDR	B-C-D	A90	**LWM**	DME	BDR	B	A90
BTV	VOR/DME	BTV	B	BTV-ZUL	**MAD**	VOR/DME	BDR	C-E	Y90-N90-ZNY
CAM	VOR/DME	BTV	A-B	ALB	**MHT**	VOR/DME	BGR	B	A90
CCC	VOR/DME	ISP	C	N90-ZNY	**MLT**	VOR/DME	BGR	D	BGR
CMK	VOR/DME	ISP	E	N90-ZNY	**MPV**	VOR/DME	BTV	B	BTV
CON	VORTAC	BGR	B	A90	**MSS**	TACAN	BTV	A	YUL
CTR	VOR/DME	BGR	A-B-E	Y90	**MVY**	VOR/DME	BDR	C-D	A90
DNY	VOR/DME	BUF	A-E	ZNY-BGM	**ORW**	VOR/DME	BDR	C	PVD
DPK	VOR/DME	ISP	C-E	N90-ZNY	**PQI**	VOR/DME	BGR	D	YQM
EEN	TACAN	BGR	B	Y90	**PSM**	VOR/DME	BGR	B-D	A90
ENE	VORTAC	BGR	D	PWM-A90	**PUT**	VORTAC	BDR	C	Y90-PVD
FMH	TACAN	FMH	D	A90	**PVD**	VORTAC	BDR	C-D	PVD-A90
GDM	VOR/DME	BDR	B	A90-Y90	**PWL**	VOR/DME	ISP	E	N90-ZNY
GGT	VORTAC	BUF	A	ZNY-SYR	**RKA**	VOR/DME	BUF	A	ZNY
HFD	VOR/DME	BDR	B-C-E	Y90-N90-ZNY	**SEY**	VOR/DME	BDR	C-D	PVD-A90
HNK	VOR/DME	BUF	A-E	N90-ZNY-ZCB-BGM	**SLK**	DME	BTV	B	
HTO	VORTAC	ISP	C-D	N90-PVD-ZNY	**SYR**	VORTAC	BUF	A	SYR-ZNY-ZOB
HUL	DME	BGR	D		**GON**	VOR/DME	BDR	C	PVD-N90
					UCA	TACAN	BUF	A	SYR

3-4-12. FREQUENCY ASSIGNMENT CHART. Coordinate with Area/Sector for release.

a. MAIN FREQUENCIES

SITE	VHF	UHF	SECTOR
ART	121.5	243.0	R24
AUG	134.95	307.0	02 D
	121.5	243.0	02 R/D, 15 T
BDR	128.1	353.675	06 E
	126.275	306.3	Spare E
	134.0	317.7	19 E
	125.575	290.35	20 E
	121.5	243.0	R5, R31
BGR	243.0	321.3	D
	120.25	346.4	15 D
	128.05	319.1	01 D
	124.25	290.5	15 D
BML	135.7	282.2	52 B
BTV	121.5	243.0	
CCC	124.52	254.375	31 C
	132.3	346.3	49 C
	135.8	292.15	32 C
CON	128.32	348.7	39 B
EWB	128.75	290.3	18 D
	243.0	321.3	B,C,D
	132.9	307.3	Spare C/D
GDM	123.75	338.2	36 B
	134.7	269.475	37 B
GFL	135.32	360.6	38 B
	128.32	348.7	39 B
	121.35	257.85	22 A
	133.625	354.1	Spare B
HIE	121.5		R52
HUL	120.25	346.4	15 D
	128.05	319.1	01 D
	121.5	243.0	01 R/D, 15 T
HYA	133.45	269.3	17 D
IGN	134.3	256.9	05 E
LEB	134.7	269.475	37 B

SITE	VHF	UHF	SECTOR
LEB	121.5	243.0	R37, D46
MEL	127.97	341.7	Spare C/D
	133.325	353.7	Spare B
MLT	134.95	307.00	01 D
MPV	135.7	282.2	52 B
	121.5	243.0	R52
MSS	121.5	243.0	R09
PNN	121.5		R/D18, T15, R/D17
PQI	121.6		15 D
PUT	133.425	307.9	47 C
	124.85	269.2	34 C
	127.65	257.925	07 E
	135.325	360.6	38 B
	118.425	277.4	Spare C
PVD	126.65		Spare C
PWM	118.55	273.45	Spare D
	128.2	263.05	16 D
ORH	126.225	370.9	46 C
QEB	133.45	269.3	17 D
QHA	132.65	379.1	21 E
QHB	120.35	342.25	52 B
	118.825	251.075	53 B
QXU (ARSR)	124.125	273.55	10 A
QYA		290.5	15 D
QYD	124.75	239.05	15 D
	121.5	243.0	D
RKA	127.375	353.925	24 A
	133.25	279.5	23 A
RME	243.0	321.3	A, B
	120.35	342.25	52 B
	135.25	377.1	08 A
	133.25	279.5	23 A
	123.875	323.0	09 A
ZBW	121.5	243.0	B, C, D

a. BUEC FREQUENCIES

SITE	VHF	UHF	SECTOR
ACK	128.75	290.3	18 D
BDR	134.0	317.7	19 E
	128.1	353.675	06 E
HTO	132.3	346.3	49 C
	124.525	254.375	31 C
	135.8	292.15	32 C
MLT	128.05	319.1	01 D
PQI	124.75	239.05	15 D
PWL	135.325	360.6	38 B
	132.65	379.1	21 E
	134.3	256.9	05 E
PWM	128.2	263.05	16 D
QHA	127.65	257.925	07 E
	128.325	348.7	39 B
	124.85	269.2	34 C
	125.575	290.35	20 E

SITE	VHF	UHF	SECTOR
ORH	118.425	277.4	46 C
QYA	133.45	269.3	17 D
QHB	135.7	282.2	52 B
QXU	121.35	257.85	22 A
	120.35	342.25	52 B
	135.25	377.1	08 A
	123.875	323.0	09 A
	133.25	279.5	23 A
	127.375	353.925	24 A
QYC	134.95	307.0	02 D
UCA	124.125	273.55	10 A
ZBW	123.75	338.2	36 B
	126.225	370.9	46 C
	134.7	269.475	37 B
	133.425	307.9	47 C

3-4-13. RECORDED TELEPHONE LINES.

In accordance with FAA JO 7210.3, every effort should be made to conduct conversations regarding ATC services, aircraft accidents, incidents and contingency operations on a recorded line listed below:

Recorded Telephone Lines			
Area	Phone Number	Area	Phone Number
Operations Manager (OMIC)	[redacted]	Flight Data Unit (FDU)	[redacted]
Area A		Traffic Management Unit (TMU)	
Area B			
Area C			
Area D			
Area E			
Systems Operations Services (SOC)			

CHAPTER 4. AREA A

4-1. WATERTOWN SECTOR 08

4-1-1. GENERAL DESCRIPTION

This sector shares a common boundary with four different Canadian facilities. The Watertown Sector controls various military activities including IRs, VRs, ARs, MOAs, ATCAAs, and Restricted Areas. The Watertown Sector controls from the surface to FL 270 except for the airspace delegated to Syracuse ATCT, Wheeler Sack ATCT, Montreal Area Control Center, and that airspace underlying the Utica Sector. The sector is responsible for IFR approaches and departures to MAL, MSS, YCC, OGS and PTD airports.

4-1-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chapter 3-4-12).

1. Primary Frequency – 135.25/377.1
2. Backup Frequency – 123.87/323.0
3. Backup Emergency Communications (BUEC) – 135.25/377.1
4. Position Combining – The VSCS must be utilized in combining positions. When combining, Sector 08 is normally combined at Sector 09. Surrounding sectors must be advised to use frequency 123.87/323.0.

b. Map Information:

1. Pre-Set Map – AREAA
2. Alt. Map – ZBWMAP

c. Backup printer: Sector 24

d. Sector SIA

1. ERAM-status, outages, drawings and annotations, GI, and weather messages
2. ERIDS including pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. White boards
5. Flight progress strips (arrivals and departures)
6. Printed messages on strips such as GI, hazardous weather
7. Special mission information
8. Written notes

4-1-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector:

(a) Sector 52 must verbally coordinate with Sector 08 prior to issuing an IFR departure clearance at SLK that will enter Sector 08.

(b) ALB Approach turbojet departures flight planned over SYR must be pointed out to Sector 23 by Sector 22, when a westbound turn on course could enter Sector 23 airspace. Sector 08 has control for turns on course for these aircraft.
(c) When Sectors 08 and 09 are split, BOS arrivals being handed off from Sector 08 or 24 to Area B must be routed via the appropriate STAR and five miles in-trail, regardless of altitude.
(d) When Sectors 08 and 09 are split, Sectors 53 and 39 must clear aircraft landing CYOW to enter Sector 08 at or below FL270.
(e) When Sectors 08 and 09 are split, PHL and PHL satellite airport arrivals must enter Sector 08 at or below FL260.
(f) Sector 08 has control to issue a discretionary descent for CYUL and CYOW terminal arrivals to meet arrival restrictions with Sector 09.

2. Exiting the Sector:

(a) Burlington Terminal Area arrivals must enter Sector 52 at or below FL230, descending to FL190.
(b) BOS arrivals being handed off from Sector 08/09/10 to Area B must be routed via the appropriate STAR five miles in-trail, regardless of altitude.
(c) When Sectors 08 and 09 are split, BOS arrivals being handed off from Sector 08 or 24 to Area B must be routed via the appropriate STAR and five miles in-trail, regardless of altitude.
(d) KBOS arrivals via the JFUND STAR:
(1) When KBOS is landing runway 15R arrivals must be cleared via ALB direct ONDEC, ONDEC transition.
(2) For all other landing configurations arrivals must be cleared via the PONCT transition.
(e) Sectors 08 and 09 have sequencing responsibility for westbound traffic entering ZOB west of but not including J59. Coordination between Sector 08 and Sector 09 must be accomplished as necessary to meeting sequencing requirements.
(f) MHT and ASH arrivals from Sector 08, 09, 10 must enter Sector 38/39 in-trail, at or below FL290.

b. AIT Procedure: The following AIT is authorized for ALB terminal arrivals at or above 11,000 feet MSL between Sectors 08, 22 and 23: [Ref. ZBW 7110.33, A6-2]

1. Sector 08 or 23 must issue an altitude clearance that complies with the restrictions stated in the Boston ARTCC/Albany Tower LOA, then initiate a handoff to Sector 22.
2. Sector 22 accepts the handoff, then initiates a handoff to Albany ATCT.
3. After observing an acceptance of the handoff by Albany ATCT, Sector 08 or 23 transfers communications to Albany ATCT.

c. Standard Instrument Approach Procedure (SIAP): Operations conducted in mixed radar and non-radar environments allow various separation standards to be applied. Between common IAFs, feeder routes overlapping and course difference with RNAV routes, once lateral separation can be applied several SIAPs may be conducted simultaneously. Refer to Chapter 6 of FAA JO 7110.65 for guidance in applying non-radar separation. Refer to Chapter 5, Section 5 of FAA JO 7110.65 for guidance applying separation between radar-identified aircraft and those that are not radar-identified.

d. Coordination Requirements:

1. CNL3 – When an approach to Brockville, Ontario has been coordinated, protect a 20NM radius of the CNL3 airport at and below the coordinated altitude.

2. MSS – Verbally coordinate with Sector 52 prior to issuing a departure clearance that will enter that sector.

3. SLK:

   (a) Sector 52 must coordinate with Sector 08 prior to issuance of a departure clearance to a SLK departure that will enter Sector 08.

   (b) Sector 52 must coordinate with Sector 08 prior to issuance of the following approach procedures into SLK:

   (1) RNAV (GPS) RWY 9
   (2) RNAV (GPS) RWY 5

4. LKP – Sector 52 must coordinate for Sector 08 to block when aircraft are executing the LKP RNAV (GPS) RWY 14 SIAP.
   NOTE: Both the hold-in-lieu and missed approach hold are at PUGRE.

5. K09:

   (a) TUPPER SOUTH MOA and RNAV (GPS) RWY 04 or IFR departure operations not simultaneous authorized unless vertical separation is applied to MOA traffic above the SIAP's MAP or the published ODP.

   (b) Coordinate with Sector 52 and Albany ATCT for aircraft requesting the RNAV (GPS) RWY 04.

   (c) Coordinate with SYR ATCT prior to issuing a departure clearance.

e. Military.

1. ADIRONDACK AIRSPACE COMPLEX – Used for intercept / air-to-ground combat training. The Boston ARTCC/EADS LOA combines the individual MOAs and ATCAAs into grouped areas with seasonal altitude and use restrictions. The seasonal periods are 5/1 thru 10/31 and 11/1 thru 4/30 except for VIPER WEST (year-round use which has no altitude / use restrictions). Sector 08 is the controlling sector except when the airspace is wholly contained within Sector 09.

MARSA applies between all aircraft scheduled for the areas. Control within the areas may be assigned to a Military Radar Unit or Autonomous Control. Sector 08 is the controlling sector. Activation/deactivation procedures are contained under Par. 2-1-9 and 2-2.

(a) ADIRONDACK AIRSPACE COMPLEX			
VIPER ALL (VPR0A)			
(*Portions Conflicts W/AR609, Variable Altitudes)			
		Altitudes	
Includes Airspace:	**Code**	**11/1 thru 4/30**	**5/1 thru 10/31**
ADIRONDACK A	ADKA1	060B500	
ADIRONDACK B	ADKB1	025B500	

ADIRONDACK C	ADKC1	001B500	
ADIRONDACK D	ADKD1	050B500	
TUPPER WEST	TPRW1	060B500	080B500
TUPPER EAST	TPRE1	120B500**	
**TUPPER EAST Real Time Request 100B500			
TUPPER CENTRAL	TPRC1	060B500#	080B500
TUPPER SOUTH*	TPRS1	060B500#	080B500
# TUPPER CENTRAL/SOUTH			
CRANBERRY MOA	CRNB0	005B060	NA
CANTON ATCAA	CNTN0	180B500	
POSTDAM	PTSD0	180B500	
CARTHAGE EAST	CTHE1	001B500	
CARTHAGE WEST*	CTHW1	060B500	
LOWVILLE*	LWVL0	001B500	
(b) ADIRONDACK AIRSPACE COMPLEX			
VIPER EAST (VPR0E)			
(Variable Altitudes, *Portions Conflicts W/AR609)			
		Altitudes	
Includes Airspace:	**Code**	**11/1 thru 4/30**	**5/1 thru 10/31**
TUPPER WEST	TPRW1	060B500	080B500
TUPPER EAST	TPRE1		120B500**
**TUPPER EAST Real Time Request 100B500			
TUPPER CENTRAL	TPRC1	060B500#	080B500
TUPPER SOUTH*	TPRS1	060B500#	080B500
# TUPPER CENTRAL/SOUTH			
CRANBERRY MOA	CRNB0	005B060	NA
POTSDAM ATCAA	PTSD0	180B500	
(c) ADIRONDACK AIRSPACE COMPLEX			
All Year No Seasons			
VIPER WEST (VPR0W)			
(Variable Altitudes, *Conflicts w/ AR609)			
Includes airspace:	**Code**	**Altitudes**	
ADIRONDACK A	ADKA1	060B500	
ADIRONDACK B	ADKB1	025B500	
ADIRONDACK C	ADKC1	001B500	
ADIRONDACK D	ADKD1	050B500	
CARTHAGE EAST	CTHE1	001B500	
CARTHAGE WEST*	CTHW1	060B500*	
LOWVILLE*	LWVL0	001B500*	
CANTON ATCAA	CNTN0	180B500	
(d) ADIRONDACK AIRSPACE COMPLEX			
VIPER NORTH (VPR0N)			
(Variable Altitudes, Clear of AR609)			
		Altitudes	
Includes Airspace:	**Code**	**11/1 thru 4/30**	**5/1 thru 10/31**
ADIRONDACK A	ADKA1	060B500	
ADIRONDACK B	ADKB1	025B500	
ADIRONDACK C	ADKC1	001B500	
ADIRONDACK D	ADKD1	050B500	
CARTHAGE EAST	CTHE1	001B500	
CANTON ATCAA	CNTN0	190B500	
TUPPER WEST	TPRW1	060B500	080B500
TUPPER EAST	TPRE1	120B500**	

**TUPPER EAST Real Time Request 100B500			
TUPPER CENTRAL	TPRC1	060B500#	080B500
# TUPPER CENTRAL			
CRANBERRY MOA	CRNB0	005B060	**NA**
POTSDAM ATCAA	PTSD0	180B500	
(e) ADIRONDACK AIRSPACE COMPLEX			
VIPER SOUTH (VPR0S)			
(Variable altitudes up to FL180. Additional altitudes available but must remain 1,000' below AR609 to remain clear when AR609 is in use.)			
Includes Airspace:	**Code**	**Altitudes**	
		11/1 thru 4/30	**5/1 thru 10/31**
TUPPER SOUTH	TPRS1	060B180#	080B180
# TUPPER CENTRAL/SOUTH			
CARTHAGE WEST	CTHW1	060B180	
LOWVILLE	LWVL0	001B180	

2. ADIRONDACK AIRSPACE COMPLEX RANGES – Primarily used for Air-to-Ground combat training in association with Restricted Areas 5201, 5202A and 5202B. The seasonal periods, 5/1 thru 10/31 and 1/11 thru 4/30, apply ONLY to RANGE3.

(1) ADIRONDACK AIRSPACE COMPLEX RANGES		
All Year		
RANGE ONE (RNGE1)		
(Variable Altitudes)		
Includes airspace:	**Code**	**Altitudes**
ADIRONDACK B	ADKB1	025B500
ADIRONDACK C	ADKC1	001B500
ADIRONDACK D	ADKD1	050B500
RANGE TWO (RNGE2)		
(Variable Altitudes)		
Includes airspace:	**Code**	**Altitudes**
ADIRONDACK B	ADKB1	025B500
ADIRONDACK C	ADKC1	001B500
ADIRONDACK D	ADKD1	050B500
CARTHAGE EAST	CTHE1	001B500
R5201/5202A & B		
(Variable Altitudes)		
Includes airspace:	**Code**	**Altitudes**
R-5201	R5201	000B230
R-5202A	5202A	230B290
R-5202B	5202B	060B290
(2) ADIRONDACK AIRSPACE COMPLEX SEASONAL RANGES		
RANGE THREE (RNGE3)		
5/1 THRU 10/31		
(Seasonal, Variable Altitudes)		
Includes airspace:	**Code**	**Altitudes**
ADIRONDACK A	ADKA1	060B500
ADIRONDACK B	ADKB1	025B500
ADIRONDACK C	ADKC1	001B500
ADIRONDACK D	ADKD1	050B500
CARTHAAGE EAST	CTHE1	001B500
TUPPER WEST	TPRW1	080B500
RANGE THREE (RNGE3)		
11/1 THRU 4/30		

(Variable Altitudes)		
Includes airspace:	**Code**	**Altitudes**
ADIRONDACK A	ADKA1	060B500
ADIRONDACK B	ADKB1	025B500
ADIRONDACK C	ADKC1	001B500
ADIRONDACK D	ADKD1	050B500
CARTHAAGE EAST	CTHE1	001B500
TUPPER WEST	TPRW1	080B500
CRANBERRY MOA	CRNB0	005B060

3. AKS ATCAA – This area contains autonomous or MRU refueling operations for AR609. Sector 08 must verbally coordinate with Sectors 52, 53, 39 and 09 that this area is going active prior to issuing a clearance, and then again when the area becomes inactive.

   NOTE: AKS ATCAA contains the protected airspace of AR609, however, AR609 operations do not require the activation of AKS.

4. East entries into ADIRONDACK AIRSPACE COMPLEX/AKS – While activation of these areas is normally conducted by Sector 08, East entries from Sector 52 or 53 are conducted as follows:

   (a) MRU operations – Sector 52 or 53 must initiate a Transfer of Flight unless sector 08 is unable to release the airspace.

   (b) Sector 08 must enter interim altitude information to the MRU. The initiating sector is responsible for the coordination and clearance as outlined in paragraph 2-2-2. If Sector 08 is unable to release airspace to the MRU, Sector 52 or 53 must handoff and transfer communications of the military aircraft requesting the airspace to Sector 08.

   NOTE: Sector 08 must conduct all required coordination with GTB.

   (c) Autonomous operations – Sector 52 or 53 must initiate a hand off to Sector 08. Sector 08 is responsible for the coordination and clearance as outlined in paragraph 2-2-2.

5. OSWEGO ATCAA – Used to extend VIPER ALL and/or MISTY MOA. They may be used to enable an MRU to transition between VIPER ALL and MISTY without coordination with ATC. Sector 08 must verbally coordinate with ATC. Sector 08 must verbally coordinate with Sector 09 and ZOB as necessary to activate and deactivate the areas.

6. MISTY and R5203 – Areas lie entirely in ZOB area except for the small portion of R5203 in the ZBW airspace. The areas are used for air defense training and may be assigned to an MRU. [Ref. Cleveland ARTCC/Boston ARTCC/Buffalo Tower/Niagara Tower/Northeast Air Defense Sector/174th Fighter Wing LOA.

   (a) Transfer control of the data block on participating aircraft to ZOB when the airspace is not assigned to an MRU and the aircraft will exit the block directly into ZOB.

   (b) Handoff directly to the MRU that has control of the airspace.

   (c) Aircraft operating in the MISTY MOAs under fighter control must be issued a Niagara altimeter prior to entering the block.

7. LIGHTNING ATCAAs – Used by the 158FW and accompanied mission essential units for tactical air-to-air training, air-to-ground training, and orbital close air support. MARSA applies between all

aircraft scheduled for the LIGHTNING areas and any concurrent use airspace (e.g. - VIPER). Control within the areas may be assigned to a Military RADAR Unit or Autonomous Control. (See ZBW ARTCC/224th ADS/158FW Letter of Agreement)

(a) LIGHTNING 1/2/3 - Plattsburgh Sector (53) is the controlling sector. Activation/deactivation procedures are contained under Par. 2-1-9 and 2-2.

(b) LIGHTNING 4 - Watertown Sector (08) is the controlling sector. Activation/deactivation procedures are contained under Par. 2-1-9 and 2-2. Sector 08 must verbally coordinate with adjacent sectors prior to activating the airspace, and again when the area becomes inactive.

NOTE: When clearing aircraft into LIGHTNING 4 and concurrent use airspace, the Watertown Controller can expect aircraft entering from Area B to have a clearance to operate in LIGHTNING 1/2/3 as previously coordinated prior to communications transfer.

8. Aerial Refueling Routes [Ref. DOD Flight Information Publication, AP/1B]:

(a) AR206(H/L):
(1) Air Refueling Initial Point (ARIP) – SYR094035
(2) Air Refueling Control Point (ARCP) – SYR273064
(3) Exit Point – FNT107105
(4) AR206H – FL250/270 or FL280/310
(5) AR206L – FL190/230
(6) Refueling prohibited between 1130-1500 and 1900-0000 UTC. [Ref. DOD Flight Information Publication, AP/1B].

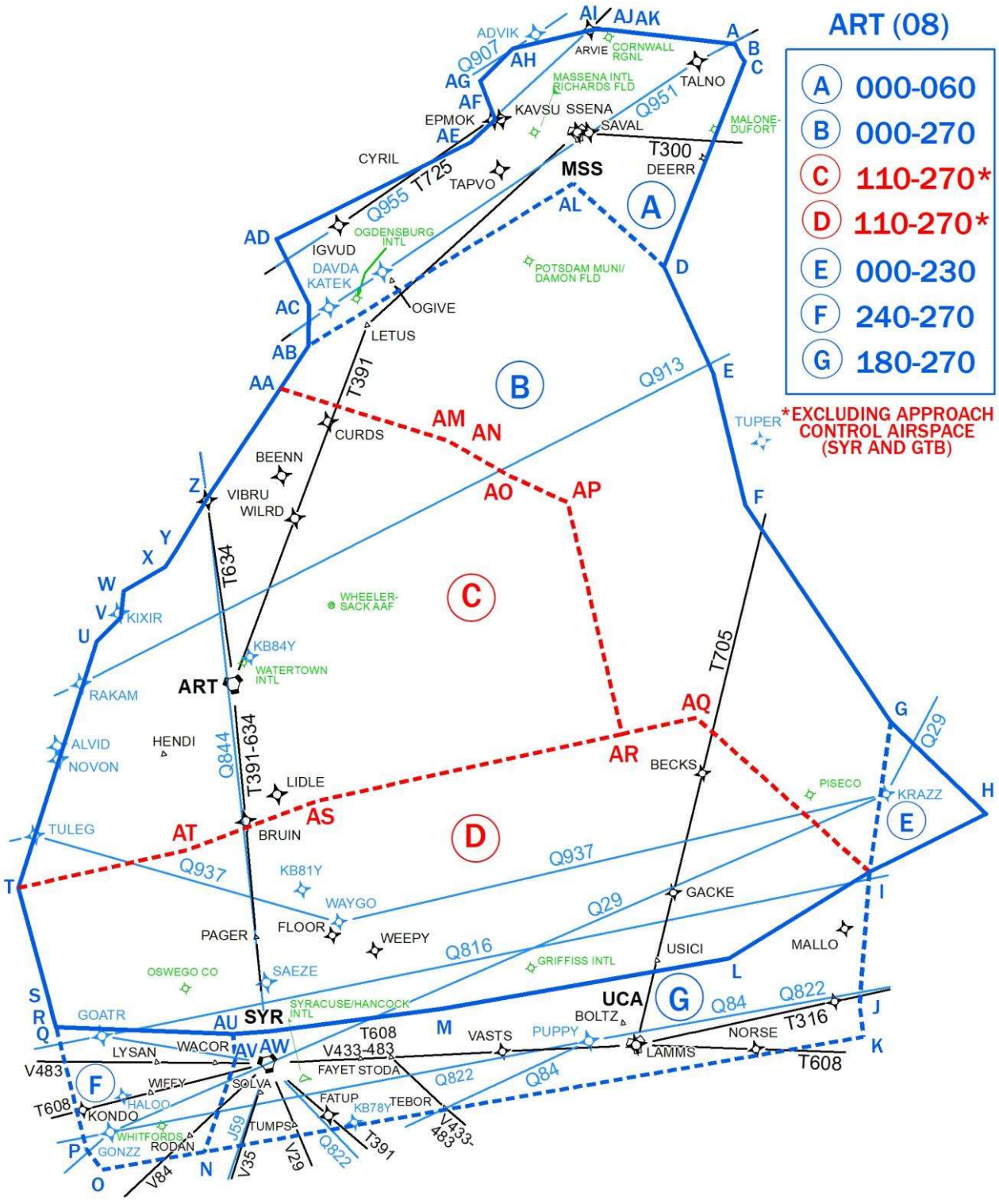
(b) AR609 (contained in AKS ATCAA):
(1) Entry/Anchor Point – SYR087075
(2) ARIP – SYR045019
(3) Exit Point – ALB356043
(4) Altitudes: FL180-280

(c) AR631 (located within LASER SOUTH):
(1) Entry/Anchor Point – ENE271046
(2) ARIP – ALB051043
(3) Exit Point – ENE261030
(4) Altitudes – FL200/260

f. ART Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	C6AH	K	C4AM	U	A6AA	AE	B6AI	AO	A7AD
B	C7AD	L	C5AH	V	A6AB	AF	C6AA	AP	A7AA
C	C7AE	M	B5AD	W	A6AC	AG	C7AA	AQ	C5AG
D	C6AL	N	A5AU	X	A6AD	AH	C7AB	AR	A7AE
E	C6AK	O	A5AI	Y	A6AE	AI	C7AC	AS	B5AB
F	C6AD	P	A5AA	Z	B6AA	AJ	C7AG	AT	A5AF
G	C5AN	Q	A5AB	AA	AA96	AK	C7AJ	AU	A5AK
H	D5AN	R	A5AE	AB	B6AC	AL	C6AB	AV	A5AD
I	C5AE	S	A5AG	AC	B6AD	AM	A7AB	AW	A5AQ
J	C5AB	T	A5AC	AD	B6AE	AN	A7AC		

WATERTOWN SECTOR



4-2. UTICA SECTOR 09

4-2-1. GENERAL DESCRIPTION

The Utica Sector controls FL280 to FL600. It shares a common boundary with two ZOB sectors and four ZBW sectors. The sector's primary traffic flow is westbound. This traffic includes aircraft landing at ORD, DTW, CLE and MSP. There is also traffic transitioning through the sector with Canadian facilities. This includes traffic to and from YUL, YOW, YMX, JFK and Trans-Atlantic traffic. Most traffic crosses at SYR, making this the hot spot in the sector.

4-2-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chapter 3-4-12)

1. Primary Frequency – 123.87/323.0

2. Backup Frequency – 135.25/377.1

3. Emergency Frequencies – 121.5/243.0

NOTE: At least one sector per area must monitor the emergency frequency.

4. BUEC – 123.87/323.0

5. Special Use Frequency – 321.3

b. Map Information:

1. Pre-Set Map – AREAA

2. Alt. Map – ZBWMAP

(a) Backup Printer: Sector 22

c. Sector SIA

1. ERAM-status, outages, drawings and annotations, GI and weather messages
2. ERIDS including Pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. White boards
5. Flight progress strips (arrivals and departures)
6. Printed messages on strips such as GI, hazardous weather, ALNOTS, GENOTS
7. Read-and-sign folders
8. Written notes

4-2-3. SECTOR OPERATIONS

a. Enroute Procedures.

1. Entering the Sector.

(a) Area B must not route aircraft direct GOATR, GONZZ, SYR, HANKK, JOSSY or points

beyond at or below FL370 south of Q82 without prior verbal coordination with Sector 10 or 24.

(b) Sector 22 must not clear aircraft direct GOATR, GONZZ, SYR HANKK, JOSSY or points beyond without prior coordination, first with Sector 38 and then with Sectors 10 or 24.

2. Exiting the Sector:

(a) Sectors 08/09 have sequencing responsibility for westbound traffic entering ZOB west of but not including J59. Coordination between Sector 08 and Sector 09 must be accomplished as necessary to meet sequencing requirements.

(b) BOS arrivals being handed off from Sector 08/09/10 to Area B must be routed via the appropriate STAR at or below FL390 and five miles in-trail, regardless of altitude.

(c) KBOS arrivals via the JFUND STAR:
(1) When KBOS is landing runway 15R arrivals must be cleared via ALB direct ONDEC, ONDEC transition to enter sector 38/39 at or below FL 350 descending to FL330.
(2) For all other landing configurations arrivals must be cleared via the PONCT transition to enter Sector 38 at or below FL390.
i. Aircraft flight planned via the JFUND STAR may be routed direct MNSTA if north of J49
ii. Aircraft flight planned via the JFUND STAR proceeding direct MNSTA must not be routed through Sector 39 without prior approval.

(d) Clear PSM/CON/SFM arrivals to enter Sectors 38 or 39 at or below FL290.

(e) Must clear CYUL and CYOW terminal arrivals descent to FL280 and hand-off to Sector 08. Sector 08 has control to issue a discretionary descent to meet arrival restrictions.

(f) Aircraft landing CYUL and YUL Terminal Arrivals, must enter Sector 53 at or below FL310, descending to FL290.

(g) MHT and ASH arrivals from Sector 08, 09, 10 must enter Sector 38/39 in-trail, at or below FL290.

b. Military:

1. ADIRONDACK AIRSPACE COMPLEX – Used for intercept/air-to-ground combat training. The Boston ARTCC/EADS LOA combines the individual MOAs and ATCAAs into grouped areas with seasonal altitude and use restrictions. The seasonal periods are 5/1 thru 10/31 and 11/1 thru 4/30 except for VIPER WEST (year-round use which has no altitude/use restrictions). Sector 09 is the controlling sector when the airspace is wholly contained within Sector 09.

NOTE: MARSA applies between all aircraft scheduled for the areas. Control within the areas may be assigned to a Military radar Unit or Autonomous Control. Sector 08 is the controlling sector. Activation/deactivation procedures are contained in Sections 2-1-9 and 2-2.

(a) ADIRONDACK AIRSPACE COMPLEX			
VIPER ALL (VPR0A)			
(*Portions Conflicts w/ AR609, Variable Altitudes)			
Includes Airspace:	Code	Altitudes	
		11/1 thru 4/30	5/1 thru 10/31
ADIRONDACK A	ADKA1	060B500	
ADIRONDACK B	ADKB1	025B500	
ADIRONDACK C	ADKC1	001B500	
ADIRONDACK D	ADKD1	050B500	
TUPPER WEST	TPRW1	060B500	080B500
TUPPER EAST	TPRE1	120B500**	
# TUPPER EAST Real Time Request 100B500			
TUPPER CENTRAL	TPRC1	060B500#	080B500
TUPPER SOUTH*	TPRS1	060B500#	080B500
# TUPPER CENTRAL/SOUTH			
CRANBERRY MOA	CRNB0	005B060	NA
CANTON ATCAA	CNTN0	180B500	
POTSDAM ATCAA	PTSD0	180B500	
CARTHAGE EAST	CTHE1	001B500	
CARTHAGE WEST*	CTHW1	060B500	
LOWVILLE*	LWVL0	001B500	

(b) ADIRONDACK AIRSPACE COMPLEX			
VIPER EAST (VPR0E)			
(Variable Altitudes, *Portions Conflicts w/ AR609)			
Includes Airspace:	Code	Altitudes	
		11/1 thru 4/30	5/1 thru 10/31
TUPPER WEST	TPRW1	060B500	080B500**
TUPPER EAST	TPRE1	120B500**	
# TUPPER EAST Real Time Request 100B500			
TUPPER CENTRAL	TPRC1	060B500#	080B500
TUPPER SOUTH*	TPRS1	060B500#	080B500
# TUPPER CENTRAL/SOUTH			
CRANBERRY MOA	CRNB0	005B060	NA
POTSDAM ATCAA	PTSD0	180B500	

(c) ADIRONDACK AIRSPACE COMPLEX		
All Year No Seasons		
VIPER WEST (VPR0W)		
(Variable Altitudes, *Conflicts w/ AR609)		
Includes airspace:	Code	Altitudes
ADIRONDACK A	ADKA1	060B500
ADIRONDACK B	ADKB1	025B500
ADIRONDACK C	ADKC1	001B500
ADIRONDACK D	ADKD1	050B500
CARTHAGE EAST	CTHE1	001B500
CARTHAGE WEST*	CTHE1	001B500
LOWVILLE*	LWVL0	001B500*
CANTON ATCAA	CNTNO	180B500

(d) ADIRONDACK AIRSPACE COMPLEX
VIPER NORTH (VPR0N)
(Variable Altitudes, Clear of AR609)

Includes Airspace:	Code	Altitudes	
		11/1 thru 4/30	5/1 thru 10/31
ADIRONDACK A	ADKA1	060B500	
ADIRONDACK B	ADKB1	025B500	
ADIRONDACK C	ADKC1	001B500	
ADIRONDACK D	ADKD1	050B500	
CARTHAGE EAST	CTHE1	001B500	
CANTON ATCAA	CNTN0	180B500	
TUPPER WEST	TPRW1	060B500	080B500
TUPPER EAST	TPRE1	120B500**	
# TUPPER EAST Real Time Request 100B500			
TUPPER CENTRAL	TPRC1	060B500#	080B500
# TUPPER CENTRAL			
CRANBERRY MOA	CRNB0	005B060	NA
POTSDAM ATCAA	PTSD0	180B500	

(e) ADIRONDACK AIRSPACE COMPLEX			
VIPER SOUTH (VPR0S)			
(Variable altitudes up to FL180. Additional altitudes available but must remain 1,000' below AR609 to remain clear when AR609 is in use.)			
Includes Airspace:	Code	Altitudes	
		11/1 thru 4/30	5/1 thru 10/31
TUPPER SOUTH	TPRS1	060B180#	080B180
# TUPPER CENTRAL/SOUTH			
CARTHAGE WEST	CTHW1	060B180	
LOWVILLE	LWVL0	001B180	

2. ADIRONDACK AIRSPACE COMPLEX RANGES – Primarily used for Air-to-Ground combat training in association with Restricted Areas 5201, 5202A and 5202B. The Seasonal periods, 5/1 thru 10/31 and 11/1 thru 4/30, apply ONLY to RANGE3.

(a) ADIRONDACK AIRSPACE RANGES		
All Year		
RANGE ONE (RNGE1)		
(Variable Altitudes)		
Includes airspace:	Code	Altitudes
ADIRONDACK B	ADKB1	025B500
ADIRONDACK C	ADKC1	001B500
ADIRONDACK D	ADKD1	050B500
RANGE TWO (RNGE2)		
(Variable Altitudes)		
Includes airspace:	Code	Altitudes
ADIRONDACK B	ADKB1	025B500
ADIRONDACK C	ADKC1	001B500
ADIRONDACK D	ADKD1	050B500
CARTHAGE EAST	CTHE1	001B500

(b) ADIRONDACK AIRSPACE SEASONAL RANGE		
RANGE THREE (RNGE3)		
5/1 thru 10/31		
(Seasonal, Variable Altitudes)		
Includes airspace:	Code	Altitudes
ADIRONDACK A	ADKA1	060B500

ADIRONDACK B	ADKB1	025B500
ADIRONDACK C	ADKC1	001B500
ADIRONDACK D	ADKD1	050B500
CARTHAGE EAST	CTHE1	001B500
TUPPER WEST	TPRW1	080B500

RANGE THREE (RNGE3)		
11/1 thru 4/30		
(Variable Altitudes)		
Includes airspace:	**Code**	**Altitudes**
ADIRONDACK A	ADKA1	060B500
ADIRONDACK B	ADKB1	025B500
ADIRONDACK C	ADKC1	001B500
ADIRONDACK D	ADKD1	050B500
CARTHAGE EAST	CTHE1	001B500
TUPPER WEST	TPRW1	060B500
CRANBERRY MOA	CRNB0	005B060

3. AKS ATCAA – This area contains autonomous or MRU refueling operations for AR609. Sector 08 must verbally coordinate with Sectors 52, 53, 39 and 09 that this area is going active prior to issuing a clearance in accordance with Paragraph 2-1-9 and 2-2 of this Order, and then again when the area becomes inactive.

NOTE: AKS ATCAA contains the protected airspace of AR609, however, AR609 operations do not require the activation of AKS.

4. East entries into ADIRONDACK AIRSPACE COMPLEX/AKS – Activation of these areas are normally conducted by Sector 08. East entries from Sector 52 or 52 are conducted as follows:

   (a) MRU operations – Sector 52 or 53 must initiate a Transfer of Flight unless sector 08 is unable to release the airspace.

   (b) Sector 08 must enter interim altitude information to the MRU. The initiating sector is responsible for the coordination and clearance as outlined in paragraph 2-2-2. If Sector 08 is unable to release airspace to the MRU, Sector 52 or 53 must handoff and transfer communications of the military aircraft requesting the airspace to Sector 08.

NOTE: Sector 08 must conduct all required coordination with GTB.

   (c) Autonomous operations – Sector 52 or 53 must initiate a handoff to Sector 08. Sector 08 is responsible for the coordination and clearance as outlined in paragraph 2-2-2.

5. OSWEGO ATCAA – Used to extend VIPER ALL and/or MISTY MOA. They may be used to enable an MRU to transition between VIPER ALL and MISTY without coordination with ATC. Sector 08 must verbally coordinate with Sector 09 and ZOB as necessary to activate and deactivate the areas.

6. MISTY and R5203 – Areas lie entirely in ZOB area except for the small portion of R5203 in the ZBW airspace. The areas are used for air defense training and may be assigned to an MRU. [Ref. Cleveland ARTCC/Boston ARTCC/Buffalo Tower/Niagara Tower/Northeast Air Defense Sector/174th Fighter Wing LOA.]

   (a) Transfer control of the data block participating aircraft to ZOB when the airspace is not

assigned to an MRU and the aircraft will exit the block directly into ZOB.

(b) Handoff directly to the MRU that has control of the airspace.

(c) Aircraft operating the MISTY MOAs under fighter control must be issued a Niagara altimeter prior to entering the block.

(1) Aerial Refueling Route – AR206H:

i. ARIP – SYR094035
ii. ARCP – SYR273064
iii. Exit Point – FNT107105
iv. AR206H – FL250/270 or FL280/310
v. Refueling prohibited between 1130-1500 and 1900-0000 UTC. [Ref. DOD Flight Information Publication, AP/1B].

7. LIGHTNING ATCAAs – Used by the 158FW and accompanied mission essential units for tactical air-to-air training, air-to-ground training, and orbital close air support. MARSA applies between all aircraft scheduled for the LIGHTNING areas and any concurrent use airspace (e.g. - VIPER). Control within the areas may be assigned to a Military RADAR Unit or Autonomous Control. (See ZBW ARTCC / 224th ADS/ 158FW Letter of Agreement)

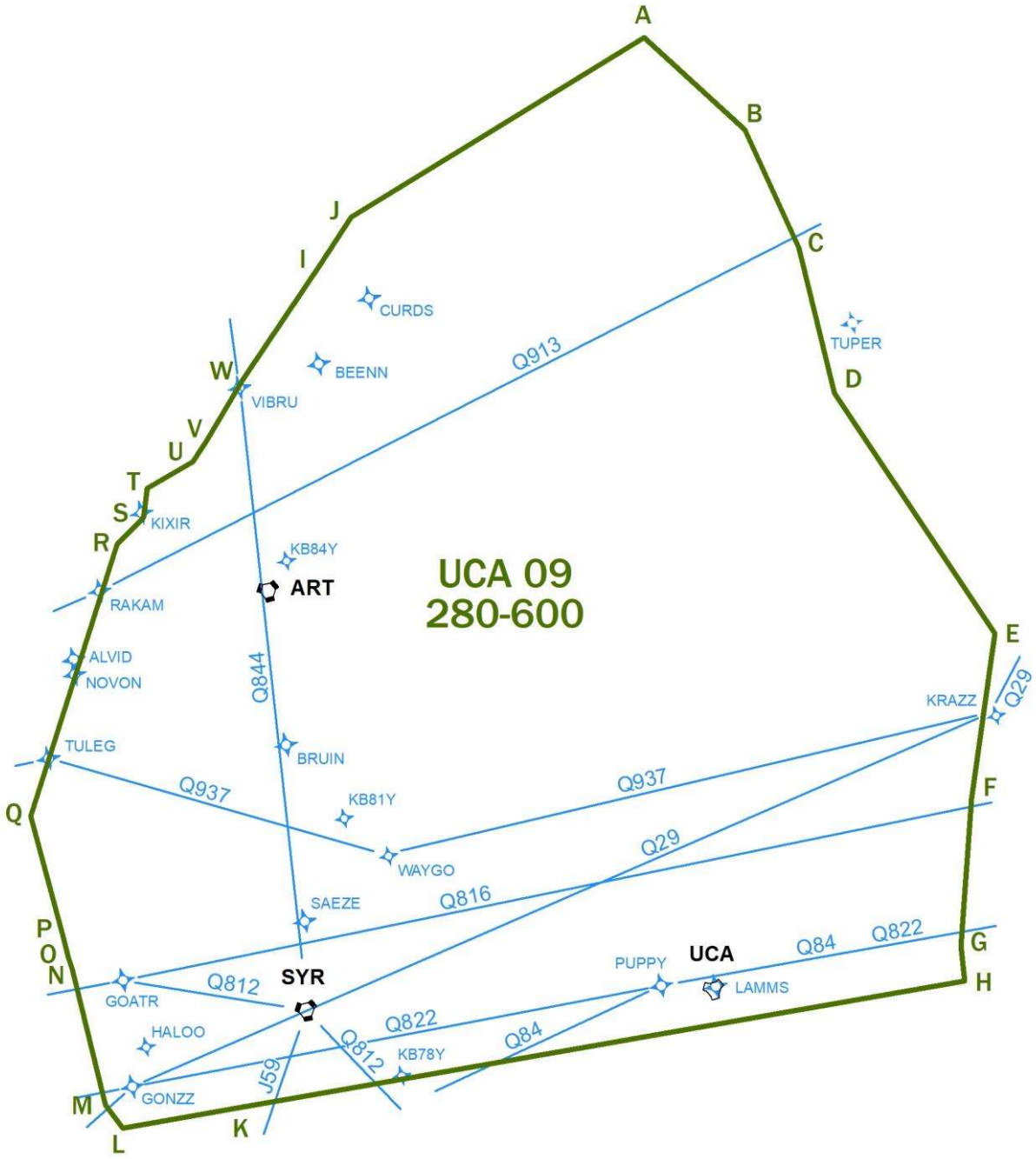
(a) LIGHTNING 1/2/3 - Plattsburgh Sector (53) is the controlling sector.

(b) LIGHTNING 4 - Watertown Sector (08) is the controlling sector.

c. UCA Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	C6AB	E	C5AN	I	AA96	M	A5AA	R	A6AA
B	C6AL	F	C5AE	J	B6AC	N	A5AB	S	A6AB
C	C6AK	G	C5AB	K	A5AU	O	A5AE	T	A6AC
D	C6AD	H	C4AM	L	A5AI	P	A5AG	U	A6AD
						Q	A5AC	V	A6AE
								W	B6AA

UTICA SECTOR



4-3. ROCKDALE SECTOR 10

4-3-1. GENERAL DESCRIPTION

The primary traffic flow through the sector is east bound. The sector's primary purpose is to sequence traffic to BOS, BDL, PVD and PIT. The three main hot spots in this sector are HNK, just east of RKA, and south of SYR. At HNK, PIT and PVD arrivals cross with JFK arrivals and departures. South of SYR, aircraft flight planned toward JHW conflict with IAD and YUL arrivals, and all of these traffic flows conflict with eastbound traffic from ZOB. The Rockdale Sector controls FL280 and above. It shares a common boundary with two ZOB sectors, one ZNY sector and six ZBW sectors.

4-3-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chapter 3-4-12)

1. Primary Frequency – 124.12/273.55

2. Backup Frequency – 123.87/323.0

3. Emergency Frequency – 121.5/243.0

NOTE: At least one sector per area must monitor the emergency frequency.

4. BUEC – 124.12/273.55

5. Position Combining – The VSCS must be utilized for sector combining. During midnight operations, Sector 10 is normally combined at Sector 09.

b. Map Information:

1. Pre-Set Map – AREAA

2. Alt. Map – ZBWMAP

(a) Backup Printer: Sector 09

c. Sector SIA

1. ERAM-status, outage, drawings and annotations GI and weather messages
2. ERIDS including pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs
4. White boards
5. Flight progress strips
6. Printed messages on strips such as GI, hazardous weather
7. Written notes

4-3-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector

(a) Area B must not route aircraft direct GOATR, GONZZ, SYR, HANKK, JOSSY or points beyond at or below FL370 south of Q82 without prior verbal coordination with Sector 10 or 24.

(b) Sector 22 must not clear aircraft direct GOATR, GONZZ, SYR, HANKK, JOSSY or points beyond without prior coordination, first with Sector 38 and then with Sectors 10 or 24.

2. Exiting the Sector:

(a) BOS arrivals being handed off from Sector 08/09/10 to Area B must be routed via the appropriate STAR at or below FL390 and five miles in-trail, regardless of altitude.

(b) Sector 10 releases control to sector 38 for turns up to 30 degrees on all KBOS arrival aircraft within 15NM of the Sector 10/Sector 38 boundary.

(c) KBOS arrivals via the JFUND STAR:

(1) When KBOS is landing runway 15R arrivals must be cleared via the ONDEC transition to enter sector 38/39 at or below FL 350 descending to FL330.

(2) For all other landing configurations arrivals must be cleared via the PONCT transition to enter Sector 38 at or below FL390.

i. Aircraft flight planned via the JFUND STAR may be routed direct MNSTA if north of J49.

ii. Aircraft flight planned via the JFUND STAR proceeding direct MNSTA must not be routed through Sector 39 without prior approval.

(d) BOS Satellite arrivals:

(1) BED, LWM and BVY arrivals must be cleared via the ZELKA STAR and enter Sector 38 at or below FL310.

(2) Aircraft not capable of the flying the ZELKA STAR and all other BOS Satellite arrivals must be cleared via ALB GDM V431 LOBBY and enter Sector 38 at or below FL290.

(e) PVD and PVD Satellite arrivals – Clear via HNK (or ALB) WIPOR STAR, to cross 55NM west of PONEE or 30 NM west of ALB at or below FL290.

(f) ISP and FOK jets arrivals – Clear via HNK (or ALB) NELIE STAR to cross 55 NM west of PONEE or 30 NM west of ALB at or below FL290.

(g) Clear JFK and satellite jets and high-performance turboprop (AOA 250kts) arrivals via the IGN STAR to enter Sector 20 at or below FL280.

(h) BDR/HVN/OXC and Satellite arrivals – Clear via the DENNA STAR/BDR STAR, and handoff to Sector 24.

(i) MHT and ASH arrivals from Sector 8, 9 or 10 must enter Sector 38/39 in-trail, at or below FL290.

(j) HPN/DXR arrivals:

(1) Jet and high-performance turboprop arrivals – Clear via DNY VALRE STAR, and handoff to Sector 24.

(2) Prop arrivals – Clear via DNY (or RKA) NOBBI STAR, and handoff to Sector 24.

(k) Clear PSM/CON arrivals to enter Sectors 38 or 39 at or below FL290.

(l) Sector 24 has control from Sector 10 to issue a crossing restriction or a pilot's discretion descent for traffic assigned FL290.

(m) Sectors 08/09 have sequencing responsibility for westbound traffic entering ZOB west of but not including J59.

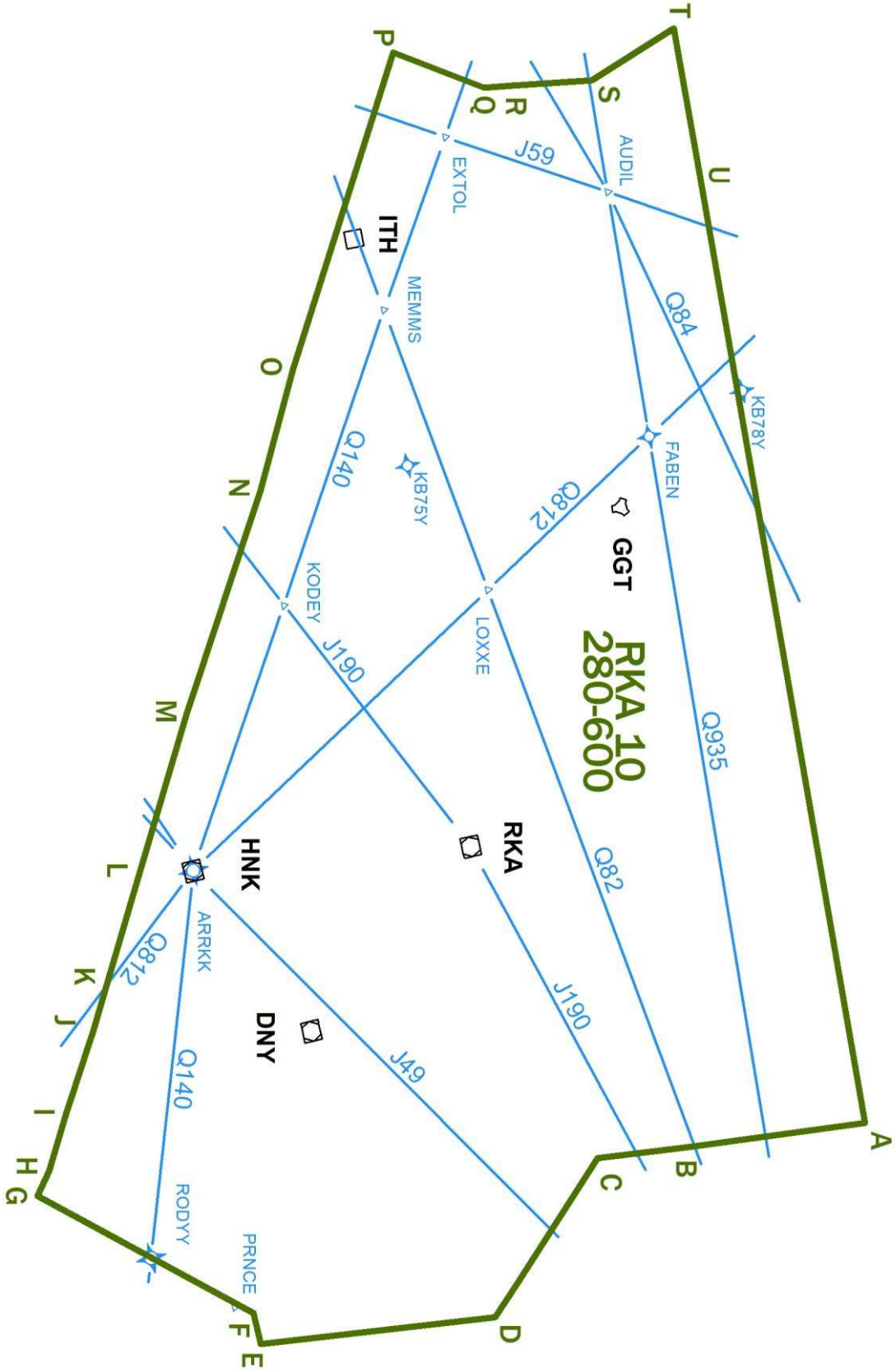
b. Holding:

1. RKA – (Published above FL180) – RADAR HOLDING – Hold NW on RKA R-313, left turns, 1 ½ - minute legs. The protected airspace (non-radar) of this pattern remains clear of Sector 08 and Sector 09 when the aircraft remains below FL350 and is assigned a maximum speed of 265 knots.

2. KODEY – (Published above FL180) – Hold NW on HNK R313, left turns, 1 ½ - minute legs. The protected airspace for this holding pattern conflicts with ZNY. Coordination with ZNY is not required as long as the aircraft remains under radar surveillance and does not spill out of the holding pattern.

c. RKA Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	C4AM	F	BN69	K	NB10	P	BN35	U	A5AU
B	C4AW	G	BB03	L	BN51	Q	BN00		
C	C4AJ	H	BB02	M	NY08	R	BN34		
D	C4AS	I	BB01	N	BN52	S	A4AG		
E	C4AT	J	1024	O	BN39	T	A5AI		


ROCKDALE SECTOR
RKA 10
280-600
ITH
GGT
HNK
RKA
DNY
EXTOL
AUDIL
MEMMS
FABEN
KODEY
LOXXE
ARRKK
RODYY
PRNCE
KB75Y
KB78Y
J59
Q84
Q140
Q812
Q935
Q82
J190
J49
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4-4. ALBANY SECTOR 22

4-4-1. GENERAL DESCRIPTION

Departure traffic flows consist of all jets off Albany requesting flight levels and prop departures going north, east, or west. Bradley jet departures routed over CTR also traverse this sector. Enroute traffic flows include eastbound traffic on T608, westbound traffic on T316, northbound on V487, and south bound over ALB. Arrivals to EWR, PVD, ISP, HPN, BDL, LGA, MHT, SYR and ALB are descended through the Albany Sector. The Albany Sector controls from 110 to FL230. It overlies about half of Albany ATCT and shares a common boundary with fourteen ZBW sectors. This sector is a departure, Enroute, and arrival sector. Albany Sector is authorized to utilize single-site radar separation IAW applicable Directives.

4-4-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Main Frequency – 121.35/257.85

2. Backup Frequency – 133.62/354.1

(a) Monitored in Area B.

3. UHF Emergency – 243.0/321.3 on VSCS.

(a) Main/Standby – Sector 22

(b) Must be monitored at all times.

4. BUEC – 121.35/257.85

5. Position Combining – The VSCS must be utilized to combine sectors. During midnight operations, Sector is normally combined at Sector 09.

b. Map Information:

1. Pre-Set Map – AREAA

2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 09

d. Sector SIA

1. ERAM-status, outage, drawings and annotations GI and weather messages
2. ERIDS including pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs
4. White boards
5. Flight progress strips
6. Printed messages on strips such as GI, hazardous weather
7. Read and sign folders
8. Written notes

4-4-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector:

(a) Sector 38 must clear aircraft landing PVD and ISP to cross 15NM W of PONEE at FL240.

(b) Sector 24 must clear aircraft landing BDL to enter Sector 22 at or below FL230 descending to LUFL.

(c) When Sectors 08 and 09 are split, BOS arrivals being handed off from Sector 08/24 to Area B must be routed via the appropriate STAR and five miles in-trail, regardless of altitude.

(d) BOS Satellite arrivals:

(1) BED, LWM, and BVY arrivals must be cleared via the ZELKA STAR.

(2) Aircraft not capable of the flying the ZELKA STAR and all other BOS Satellite arrivals must be cleared via ALB GDM V431 LOBBY.

(e) Sector 39 must clear HPN/SWF/POU/EWR and EWR Satellite jets and high-performance turboprops to cross 25 NM N ALB at FL240.

(f) Sector 38 must clear:

(1) ASH/CON arrivals to cross 55 NM west of KEYNN at FL240.

(2) MHT arrivals via the ROZZE STAR to cross 20NM west of QUINZ/MUCOW at FL240.

(3) MHT arrivals on a route other than the ROZZE STAR to cross 55 NM west of KEYNN at FL240.

(g) Sector 38/39 must clear aircraft landing SYR to be descended to FL240 and transferred to Sector 22 in a manner to allow Sector 22 to descend below Sector 08/24.

(h) Sector 22 has control for turns with Sector 07 not to exceed 30 degrees on Y90 departures via CAM.

NOTE: Sector 22 has point out responsibility to Sector 36.

2. Exiting the Sector:

(a) LGA Jets and High-Performance turboprops – Enter Sector 6 at LUFL. Sector 06 has control to turn LGA jet arrivals direct IGN/BASYE within 50 NM of PWL VOR.

(b) Sector 22 must clear MHT and ASH arrivals in-trail via KEYNN, to enter Sector 36 descending to the lowest available altitude between FL190 to FL210. Sector 36 has control for descent and speed at QUINZ and MUCOW for aircraft established on the ROZZE STAR via the QUINZ or MUCOW transitions.

(c) EEN arrival aircraft – Enter Sector 36 descending to 11,000 feet MSL or below.

(d) Sector 22 must clear PSM/SFM arrivals to enter Sector 36 descending to the lowest available altitude from FL190 to FL210.

(e) ALB Departures filed via J6 must be established on J6 prior to entering Sector 20.

(f) ALB Terminal Area turbojet departures flight planned over SYR must be pointed out to Sector 23 by Sector 22 when a westbound turn on course could enter Sector 23's airspace. Sector 08 has control for turns on course on these aircraft.

(g) Sector 21 has control for right turns and descent with Sector 22 on aircraft landing KBDL and KBDL satellites south of an ALB-SWEDE line. For aircraft delivered descending to LUFL, if the aircraft is turned off FP route by Sector 21 a non-discretionary descent must be issued.

(h) PVD, PVD Satellites, ISP and ISP Satellites.

(1) May be cleared direct NELIE to enter Sector 47 between PONEE and VEERS without coordination.

(2) Must cross 20 NM NW NELIE at or below FL210 to maintain FL190.

(i) Y90 departures, requesting FL240 or above and filed over CAM, must be handed off to Sector 39.

(j) Area B must not route aircraft direct GOATR, GONZZ, SYR, HANKK, JOSSY or points beyond at or below FL370 south of Q82 without prior verbal coordination with Sector 10 or 24.

(k) Sector 21 has control for 30 degrees left turns on KEWR arrival traffic south of ALB.

(l) KEWR arrivals delivered descending to 16,000 feet. MSL or lower, Sector 22 must ensure aircraft will cross ACOVE at or below 16,000 feet MSL.

b. AIT Procedures – The following AIT is authorized for ALB terminal arrival aircraft at or above 11,000 feet MSL between Sectors 08, 22 and 23: [Ref. ZBW 7110.33, A6-2]

1. Sector 08 or 23 must issue an altitude clearance that complies with the restrictions stated in the Boston ARTCC/Albany Tower LOA, and then initiate a handoff to Sector 22.

2. Sector 22 accepts the handoff, and then initiates a handoff to Albany ATCT.

3. After observing an acceptance of the handoff by Albany ATCT, Sector 08 or 23 transfers communications to Albany ATCT.

c. Holding –

1. HANAA (Published FLOSI STAR) – Hold NE, right turns, 10 DME legs.

d. Military –

1. The following procedures must be followed for military operations in LASER SOUTH.

(a) When the block is under autonomous control, the aircraft must be handed off to Sector 37. Sector 37 must clear the aircraft into the block.

(b) When the block is under the control of an MRU, Sector 22 must handoff to the MRU. Control of the data block should be given to Sector 37.

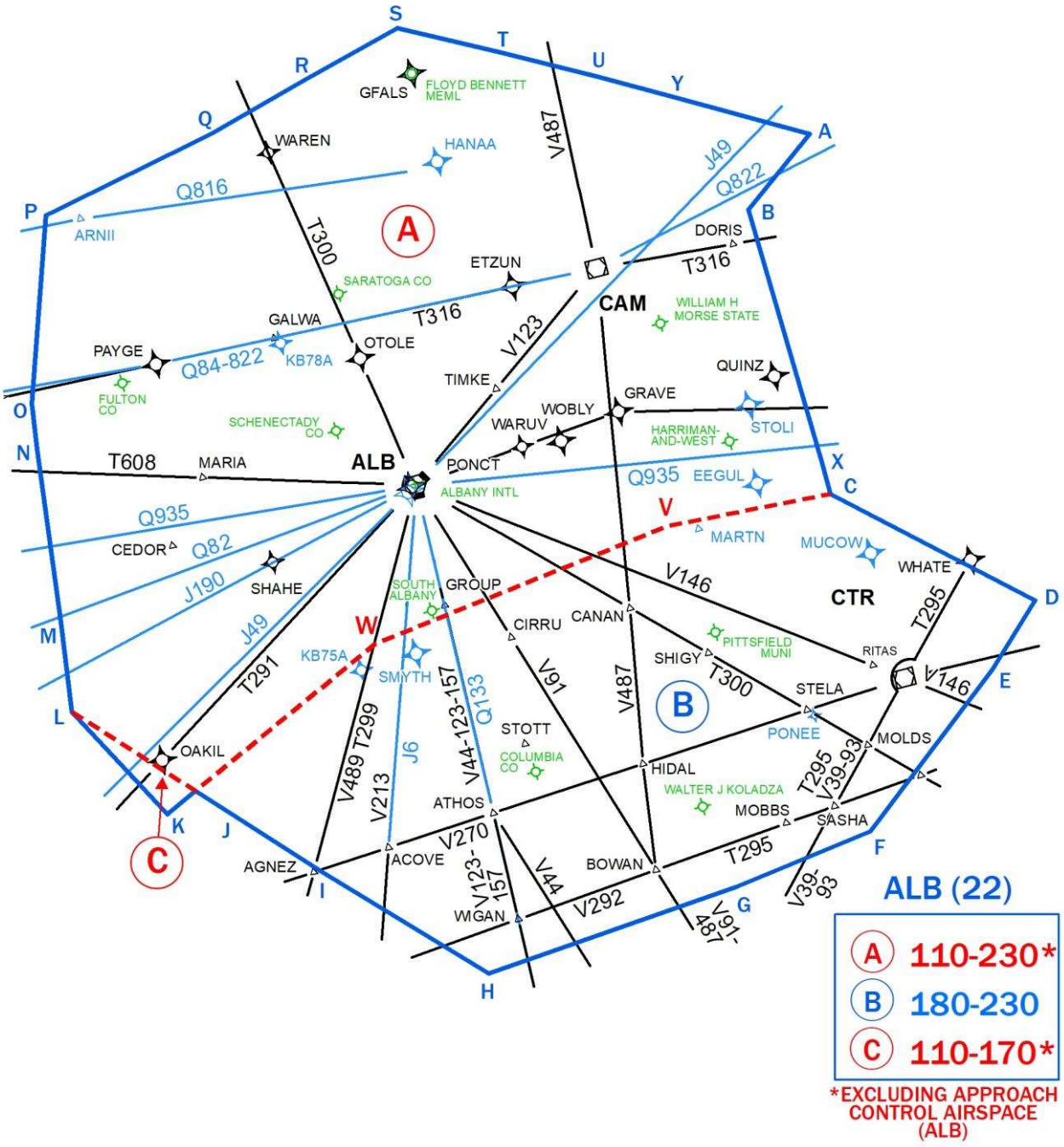
2. AR631 (located within LASER SOUTH):

(a) Entry/Anchor Point – ENE271046
(b) ARIP – ALB051043
(c) Exit Point – ENE261030
(d) Altitudes – FL200/260

e. ALB Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	E5AI	F	D4AE	K	C4AD	P	C5AE	U	D5AL
B	E5AQ	G	D4AI	L	C4AJ	Q	D5AN	V	D4AB
C	D4AC	H	C4BC	M	C4AW	R	D5AG	W	C4AK
D	E4DB	I	C4AB	N	C4AM	S	D5AO	X	D4AD
E	E4DR	J	C4AS	O	C5AB	T	D5AK	Y	D5AM

ALBANY SECTOR



4-5. HANCOCK SECTOR 23

4-5-1. GENERAL DESCRIPTION

This sector controls both arrivals and departures from SYR, UCA, and BGM. It is also responsible for IFR approaches and departures to and from OIC, N66, and N23. The major traffic flows include arrivals to ALB, V167 traffic to EWR, V433 traffic to New York area airports, T608 traffic eastbound, and T316 traffic westbound. The Hancock Sector hot spots occur where SYR departures cross Q935, also where T291 traffic crosses V167, DNY, and V433. The Hancock Sector controls from the ground up to 17,000 feet MSL. It shares a common boundary with Syracuse ATCT, Binghamton ATCT, Albany ATCT, AVP ATCT, New York Approach, two ZNY sectors, one ZOB sector, and five ZBW sectors.

4-5-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Main Frequency – 133.25/279.5

2. BUEC – 133.25/279.5

3. Position Combining – The VSCS must be utilized to combine sectors. When combining sectors, Sector 23 is normally combined at Sector 09.

b. Map Information:

1. Pre-Set Map – AREAA

2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 24

d. Sector SIA

1. ERAM-status, outage, drawings and annotations GI and weather messages
2. ERIDS including pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs
4. White boards
5. Flight progress strips
6. Printed messages on strips such as GI, hazardous weather
7. Read-and-sign folders
8. Written notes

4-5-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector – Reserved.

2. Exiting the Sector.

(a) BOS Satellite arrivals:

(1) BED, LWM, and BVY arrivals must be cleared via the ZELKA STAR.

(2) Aircraft not capable of the flying the ZELKA STAR and all other BOS Satellite arrivals must be cleared via ALB GDM V431 LOBBY.

(b) Must clear DXR/LGA/HPN and Satellites props/turboprop arrivals via the NOBBI STAR.

(1) Sector 23 must clear LGA, HPN, and DXR prop/turboprop traffic to enter Sector 05 either in-trail, or if less than radar separation exists, LGA arrivals must be on top.

(2) LGA, HPN, and DXR traffic prop/turboprop traffic must enter Sector 05 at or below 15,000 feet MSL.

(c) Must clear SWF and Satellite arrivals to enter Sector 05 at or below 11,000 feet MSL.

(d) Must clear EWR jet and high-performance turboprop arrivals via appropriate STAR to cross the Sector 05/23 lateral boundary at or below the LUFL. Sector 24 must sequence all EWR jet arrivals via HNK with EWR jet arrivals in Sector 23.

(e) Must clear props to EWR and all aircraft to EWR Satellites via HNK V167 V489 COATE and enter Sector 05 at or below 15,000 feet MSL (props) and at or below 17,000 feet MSL (jets). In cases where aircraft cannot be delivered in-trail, jets must be above props.

(f) Sector 5 has control for right turns on EWR turbojet/HPTP arrivals routed via HNK at the Sector 05/23 lateral boundary.

(g) Sector 5 has control for speed on EWR turbojet/HPTP arrivals routed via HNK on contact. The receiving controller will assume responsibility for any spacing lost due to speed adjustments.

(h) ALB Approach turbojet departures flight planned over SYR must be pointed out to Sector 23 by Sector 22 when a westbound turn on course could enter Sector 23's airspace. Sector 08 has control for turns on course on these aircraft.

(i) MHT and ASH Arrivals – Clear via appropriate STAR or ALB KEYNN MANCH ASH.

(j) Sector 05 has control for right turns on all aircraft on V270 east of DNY.

(k) Sector 05 has control for right turns on all SWF arrivals.

NOTE: SWF controller must realize that the aircraft may have a crossing restriction at DNY. SWF must reiterate the assigned altitude.

(l) JFK and FRG props/turboprops via PWL STAR – Enter Sector 21 at or below 15,000 feet MSL.

(m) BDR, HVN, OXC and Satellite prop/turboprop traffic via DENNA STAR – BDR Satellites include SNC, N04 and 42B. Enter Sector 21 at or below 15,000 feet MSL.

(n) ISP prop/turboprop arrivals via LOVES STAR to enter Sector 21 at or below 15,000 feet MSL.

(o) BDR, HVN, OXC, 3B9, and 42B turbojet arrivals to enter the lateral boundaries of Sector 05/23 at or below 17,000 feet MSL via PETER V433 PWL V44 DENNA (BDR STAR) direct destination.

b. AIT Procedures – The following AIT is authorized for ALB terminal arrival aircraft at or above 11,000 feet MSL between Sectors 08, 22 and 23: [Ref. ZBW 7110.33, Para. A6-2]

1. Sector 08 or 23 must issue an altitude clearance that complies with the restrictions stated in the Boston ARTCC/Albany Tower LOA, and then initiate a handoff to Sector 22.

2. Sector 22 accepts the handoff, and then initiates a handoff to Albany ATCT.

3. After observing an acceptance of the handoff by Albany ATCT, Sector 08 or 23 transfer communications to Albany ATCT.

c. Holding Data – RKA (Published on STAR at or below 17,000 feet) – Hold NW, left turns, 10 DME legs.

d. Standard Instrument Approach Procedure (SIAP): Operations conducted in mixed radar and non-radar environments allow various separation standards to be applied. Between common IAFs, feeder routes overlapping and course difference with RNAV routes. Once lateral separation can be applied, several SIAPs may be conducted simultaneously. Refer to Chapter 6 of FAA JO 7110.65 for guidance in applying non-radar separation. Refer to Chapter 5, Section 5 of FAA JO 7110.65 for guidance applying separation between radar-identified aircraft and those that are not radar-identified.

e. SIAP Adjacent Facility Coordination

1. OIC departures and the VGC RNAV (GPS) RWY 35 conflict until the VGC arrival is 2 NMs of ACAFO inbound.

2. Coordinate with SYR ATCT for aircraft requesting:

(a) VGC arrivals via RNAV (GPS) RWY 35

(b) RNAV (GPS) RWY 1 to OIC (MAP)

(c) RNAV (GPS) RWY 19 to OIC (IAFs)

(d) RNAV (GPS) RWY 24 to N66

(e) Departure clearance from OIC that will enter SYR ATCT's airspace.

NOTE: OIC RWY1 departures using the published Obstacle Departure Procedure may enter SYR airspace.

3. Coordinate with BGM ATCT for aircraft requesting:

   (a) RNAV (GPS) RWY 1 to OIC (IAFs)

   (b) RNAV (GPS) RWY 19 to OIC (MAP)

   (c) RNAV RWY 7 to N23 (IAFs)

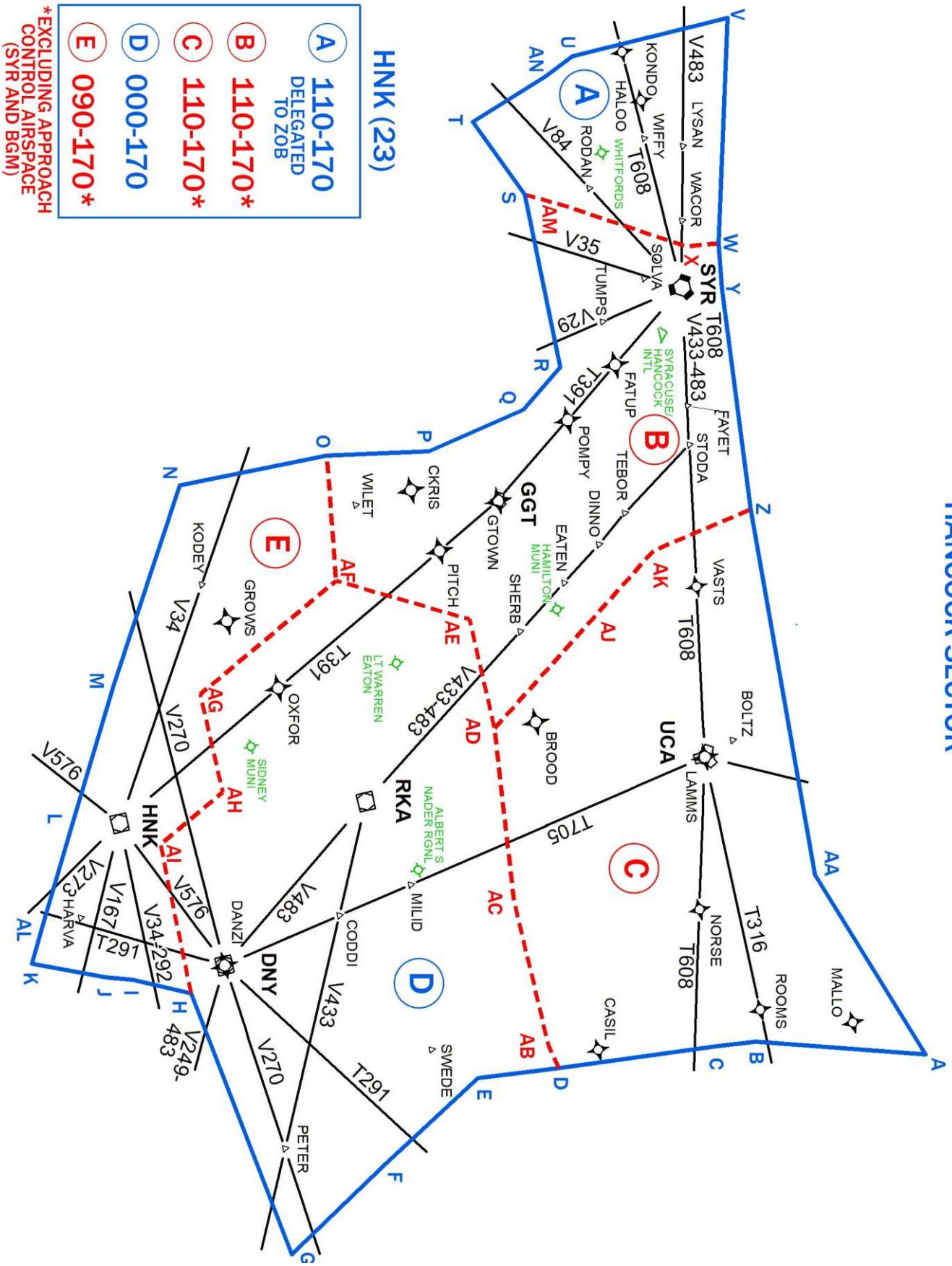
   (d) RNAV RWY 25 to N23 (MAP)

   (e) Departure clearance from N23 that will enter BGM ATCT's airspace.

NOTE: N23 RWY25 departures using the published Obstacle Departure Procedure may enter BGM ATCT's airspace.

f. HNK Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	C5AE	I	BN67	Q	A5AW	Y	A5AQ	AG	BN06
B	C5AB	J	1102	R	A5AX	Z	B5AD	AH	BN10
C	C4AM	K	1024	S	A5AL	AA	C5AH	AI	BN11
D	C4AW	L	BN51	T	A4AG	AB	C4AU	AJ	B5AK
E	C4AJ	M	NY08	U	A5AA	AC	C4AV	AK	B5AC
F	C4AD	N	BN52	V	A5AB	AD	B4AS	AL	NB10
G	C4AC	O	BN02	W	A5AK	AE	B4AJ	AM	A5AU
H	BN70	P	A5AV	X	A5AD	AF	BN08	AN	A5AI


HANCOCK SECTOR
HNK (23)
A 110-170 DELEGATED TO ZOB
B 110-170*
C 110-170*
D 000-170
E 090-170*
*EXCLUDING APPROACH CONTROL AIRSPACE (SYR AND BGM)
SYR
SYRACUSE HANCOCK INTL
GGT
GTOWN
EATEN HAMILTON MUNI
LT WARREN EATON
SIDNEY MUNI
RKA
ALBERT S NADER RGNL
UCA
HNK
DNY
FATUP
POMPY
TEBOR
DINNO
FAYET
STODA
VASTS
BOLTZ
LAMMS
BROOD
SHERB
PITCH
CKRIS
WILET
KODEY
GROWS
OXFOR
SØLVA
TUMPS
RODAN
WHITFORDS
HALOO
KONDO
WIFFY
LYSAN
WACOR
NORSE
ROOMS
MALLO
CASIL
SWEDE
MILID
CODDI
DANZI
PETER
HARVA
T608
T391
T705
T316
V483
V433
V433-483
V84
V35
V729
V34
V270
V576
V167
V273
T291
V292
V249
AA
AB
AC
AD
AE
AF
AG
AH
AJ
AK
AL
AM

4-6. DELANCEY SECTOR 24

4-6-1. GENERAL DESCRIPTION

The Delancey Sector is responsible for sequencing and descending aircraft destined to ALB, PHL, EWR, HPN, LGA, and BDL. Most conflicts occur in the area from HNK to DNY to RKA and back to HNK. This is where most of the aircraft in this sector will be crossing and descending. The Delancey Sector controls from FL180 to FL270. It shares a common boundary with two ZOB sectors, four ZNY sectors, and eight ZBW sectors.

4-6-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Primary Frequency – 127.37/353.92

2. Backup Frequency – 123.87/323.0

3. Emergency Frequency – 121.5/243.0

NOTE: At least one sector per area must monitor the emergency frequency.

4. BUEC – 127.37/353.92

5. Position Combining – The VSCS must be utilized for combing sectors. When combining sectors, Sector 24 is normally combined at Sector 23 or Sector 10.

b. Map Information:

1. Pre-Set Map – AREAA

2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 08

d. Sector SIA

1. ERAM-status, outage, drawings and annotations GI and weather messages
2. ERIDS including pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs
4. White boards
5. Flight progress strips
6. Printed messages on strips such as GI, hazardous weather
7. Read-and-sign folders
8. Written notes

4-6-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector:

   (a) Sector 38 must clear aircraft landing MDT, PHL, and PHL Satellites (ACY, DOV, PNE, TTN, ILG, ABE and MQS) to enter Sector 24 at or below FL260.

   (b) Sector 24 has control from Sector 10 to issue a crossing restriction or pilot's discretion descent for traffic assigned FL290.

   (c) Area B must not route aircraft direct GOATR, GONZZ, SYR, HANKK, JOSSY, or points beyond at below FL370 south of Q82 without prior verbal coordination with Sector 10 or 24.

   (d) Sector 22 must not clear aircraft direct GOATR, GONZZ, SYR, HANKK, JOSSY, or points beyond without prior coordination, first with Sector 38 and then with Sectors 10 or 24.

2. Exiting the Sector:

   (a) PVD and Satellites – Via HNK (or ALB) WIPOR STAR.

   (b) ISP and Satellites jets – Via HNK (or ALB) NELIE STAR.

   (c) Clear HPN/DXR jets and high-performance turboprop arrivals to cross the lateral boundary of Sector 05/23 via the VALRE STAR at LUFL.

   (d) LGA jets and high-performance turboprops. Clear to enter Sector 06 via the HAARP STAR at LUFL. Sector 06 must have control of these aircraft for right turns after the CYPER intersection. Sequence LGA jet and high-performance turboprops with LGA jets and high-performance turboprops in Sector 23.

   (e) Must clear LGA/HPN/DXR and Satellite props/turboprops via the NOBBI STAR and handoff to Sector 23.

   (f) Must clear JFK and satellite jets and high-performance turboprop (AOA 250 kts) arrivals via the IGN STAR to enter Sector 20 between FL200 and FL280.

   (g) Must clear JFK/FRG props/turboprops via the PWL STAR and handoff to Sector 23.

   (h) Must clear BDR/HVN/OXC and Satellite prop/turboprops via the DENNA STAR and handoff to Sector 23.

NOTE: BDR Satellites include 3B9, N04, and 42B.

   (i) Must clear ISP prop/turboprop arrivals via the LOVES STAR and handoff to Sector 23.

   (j) Must clear BDR, HVN, OXC, 3B9, N04, and 42B turbojet arrivals to enter the lateral boundaries of Sector 05/23 at or below 17,000 feet MSL via PETER V433 PWL V44 DENNA (BDR STAR) direct destination.

   (k) Must clear BOS arrivals via the appropriate STAR and five miles in trail.

   (l) KBOS arrivals via the JFUND STAR:

(1) When KBOS is landing runway 15R arrivals must be cleared via the ONDEC transition.

(2) For all other landing configurations, arrivals must be cleared via the PONCT transition.

i. Aircraft flight planned via the JFUND STAR may be routed direct MNSTA if north of J49.

ii. Aircraft flight planned via the JFUND STAR proceeding direct MNSTA must not be routed through Sector 39 without prior approval.

(m) Must clear BOS Satellite arrivals:

(1) BED, LWM, and BVY arrivals must be cleared via the ZELKA STAR.

(2) Aircraft not capable of flying the ZELKA STAR and all other BOS Satellite arrivals must be cleared via ALB GDM V431 LOBBY.

(n) Sector 24 must clear EWR jet and high-performance turboprop arrivals to cross the lateral boundary of Sector 05/23 at or below the LUFL. Sequence all EWR jet and high-performance turboprops via HNK with EWR jets and high-performance turboprops in Sector 23.

(o) Sector 5 has control for right turns on EWR turbojet/HPTP arrivals routed via HNK at the Sector 05/23 lateral boundary.

(p) Sector 5 has control for speed on EWR turbojet/HPTP arrivals routed via HNK on contact. The receiving controller will assume responsibility for any spacing lost due to speed adjustments.

(q) Must clear BDL arrivals to enter Sector 22 at or below FL230 descending to LUFL.

b. Holding:

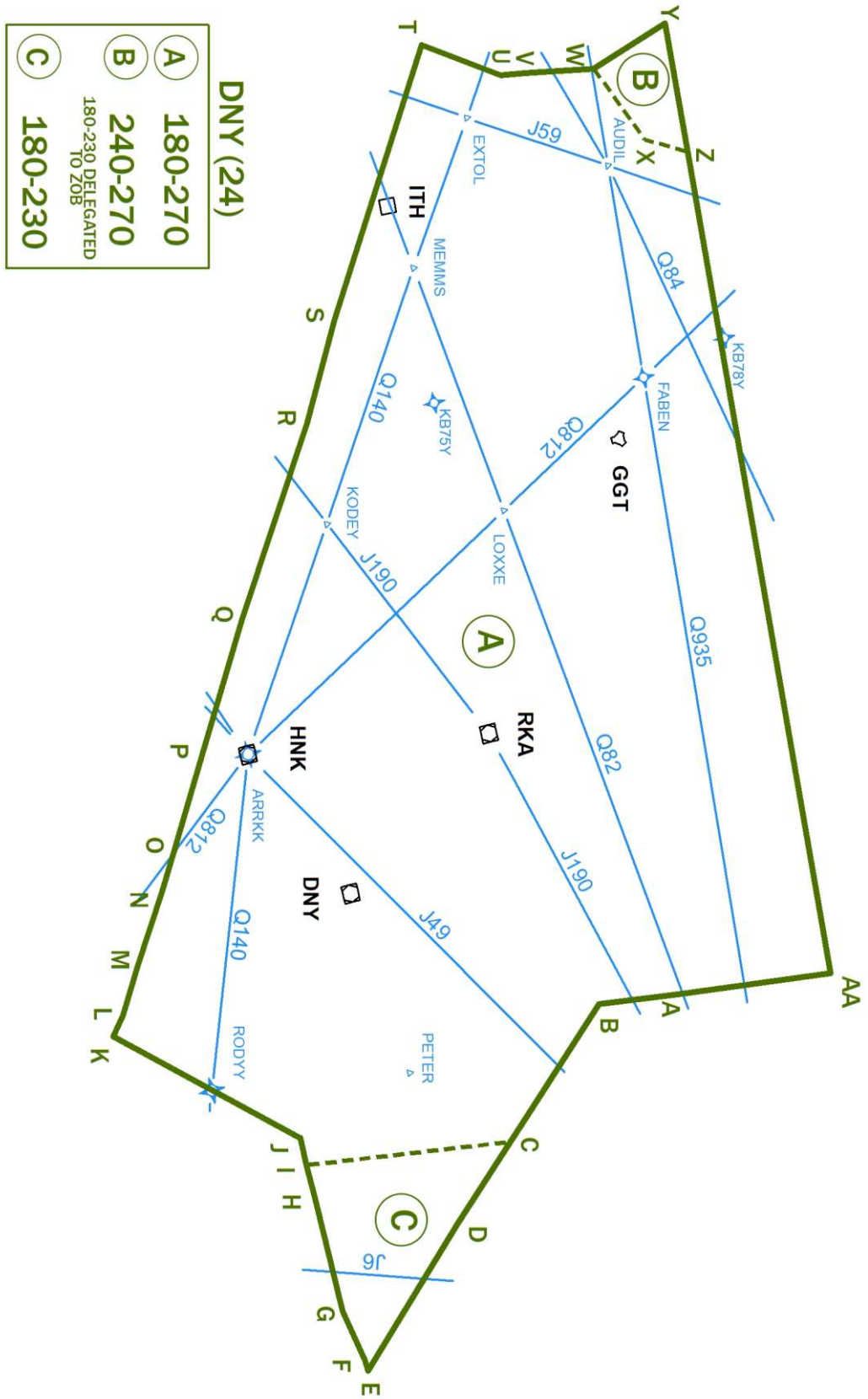
1. RKA – (Published at or above FL180) – Hold NW, left turns, 10 DME legs.

2. KODEY – (Published above FL180) – Hold NW, left turns, 10 DME legs. The protected airspace for this holding pattern conflicts with ZNY. Coordination with ZNY is not required as long as the aircraft remains under radar surveillance and does not spill out the holding pattern.

c. DNY Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	C4AW	G	BN71	M	BB01	S	BN39	Y	A5AI
B	C4AJ	H	C4BA	N	1024	T	BN35	Z	A5AU
C	C4AS	I	C4AT	O	NB10	U	BN00	AA	C4AM
D	C4AB	J	BN69	P	BN51	V	BN34		
E	C4BC	K	BB03	Q	NY08	W	A4AG		
F	D4AA	L	BB02	R	BN52	X	A5AL		

DELANCEY SECTOR



CHAPTER 5. AREA B

5-1. GARDNER SECTOR 36

5-1-1. GENERAL DESCRIPTION

The major flow through Sector 36 is jet traffic from the west landing in the Boston Terminal Area. Major crossing points exist at the Gardner VOR/DME and in the vicinity of the WARIC intersection. The Gardner Sector controls airspace from the ground up to FL230. It shares or overlies common boundaries with Albany ATCT, Y90, A90 and four ZBW sectors. When Sector 37 is combined with Sector 36, they are normally combined at Sector 36. During the midnight shift, all Area B Sectors are combined at Sector 38. Gardner Sector is authorized to utilize single-site radar separation IAW applicable Directives.

5-1-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Primary Frequency – 123.75/338.2

2. Backup Frequency – 133.32/353.7 (Frequency located on H36 VSCS)

(a) Standby frequency for use at Sectors 36, 37 and 38.

(b) Frequency must be monitored at all times. (If tracker position is not being used, frequency must be monitored over loudspeaker.)

3. Backup Frequency – 134.7/269.475 (Primary frequency for Sector 37).

4. BUEC – Sector 36 – 123.75/338.2

b. Map Information:

1. Pre-Set Map – AREAB
2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 52

d. Sector SIA
1. ERAM-status outages, drawing and annotations, GI, and weather messages
2. ERIDS, including pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. White Boards
5. Flight progress strips
6. Printed messages on strips such as GI, hazardous weather
7. Read-and-sign folders
8. Written notes

5-1-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector:

(a) EEN arrivals, from Sector 22, must be descending to 11,000 feet MSL or below.

(b) MHT and ASH arrivals via Sector 22 must enter Sector 36 in-trail, descending to the lowest available altitude from FL190 to FL210. Sector 36 has control for descent and speed at QUINZ and MUCOW for aircraft established on the ROZZE STAR via the QUINZ or MUCOW transitions.

(c) PSM/CON/SFM arrivals via Sector 22 must enter Sector 36 descending to the lowest available altitude from FL190 to FL210.

(d) Jets arriving MHT, from Sector 07, must be routed via ROZZE arrival MHT, and enter Sector 36 at or below 15,000 feet MSL.

(e) PSM prop arrivals from Sector 47 routed via the GDM VORTAC must enter Sector 36 level at 11,000 feet MSL.

(f) Sector 36 has control to turn BOS turbo-prop arrivals direct GDM after CTR VOR from Sector 07.

(g) Boston Satellite arrivals from Sector 22 routed via ALB GDM must not be rerouted south of this track without prior coordination.

(h) Sector 36 has control from Sectors 38 and 39 to issue discretionary altitude clearances.

b. Holding Data:

1. SEETS – Hold NW on 114 course inbound, right turns, 15 DME legs. Published on JFUND STAR.

2. JFUND – Hold NW on 117 course inbound, left turns, 10 DME legs. Published on JFUND STAR

3. ONDEC – Hold NW on 113 course inbound, left turns, 15 DME legs. Published on JFUND STAR.

4. GDM – Hold NW GDM 294R, left turns, 1-minute legs. Published on GDM STAR.

NOTE: There are 3 other published holds at the GDM VOR on the Enroute High/Low, GDM VOR-A and AFN RNAV-B.

5. LOBBY – Hold W on V431, left turns, 1-minute legs. Published on Enroute Low.

c. SIAP Adjacent Facility Coordination. Coordination must be accomplished with:

1. Y90 prior to issuance of the VOR-A to GDM.

2. Y90 when missed approach holding for 4V8 RNAV (GPS) RWY 1 is 6,000 feet and above.

3. Albany ATCT for the 4V8 RNAV (GPS) RWY 1.

d. Areas of Limited Radio/Radar Coverage – Radio coverage exists to ground level in the vicinity of the GDM VOR, sloping to 4,000 feet MSL in the northwest end of the sector. Radar coverage exists to below 1,000 feet MSL in the east end of the sector, sloping to 5,000 feet MSL in the northwestern quadrant of the sector.

e. Military Operations:

1. Turner Drop Zone – See Boston ARTCC/Boston TRACON/Devens Reserve Forces Training Area LOA.

2. Stereo Flight Plans – BDL/BAF. See Boston ARTCC/103 FW/104 FW LOA.

f. Parachute Jump Areas (Refer to Airport/Facility Directory):

1. Turner Drop Zone – See Boston ARTCC/Boston TRACON/Devens Reserve Forces Training Area LOA.

2. Pepperell Airport – See Boston ARTCC/A90/Pepperell Sports Center Airport, Inc. LOA.

3. Orange Airport – See Boston ARTCC/Jumptown LOA.

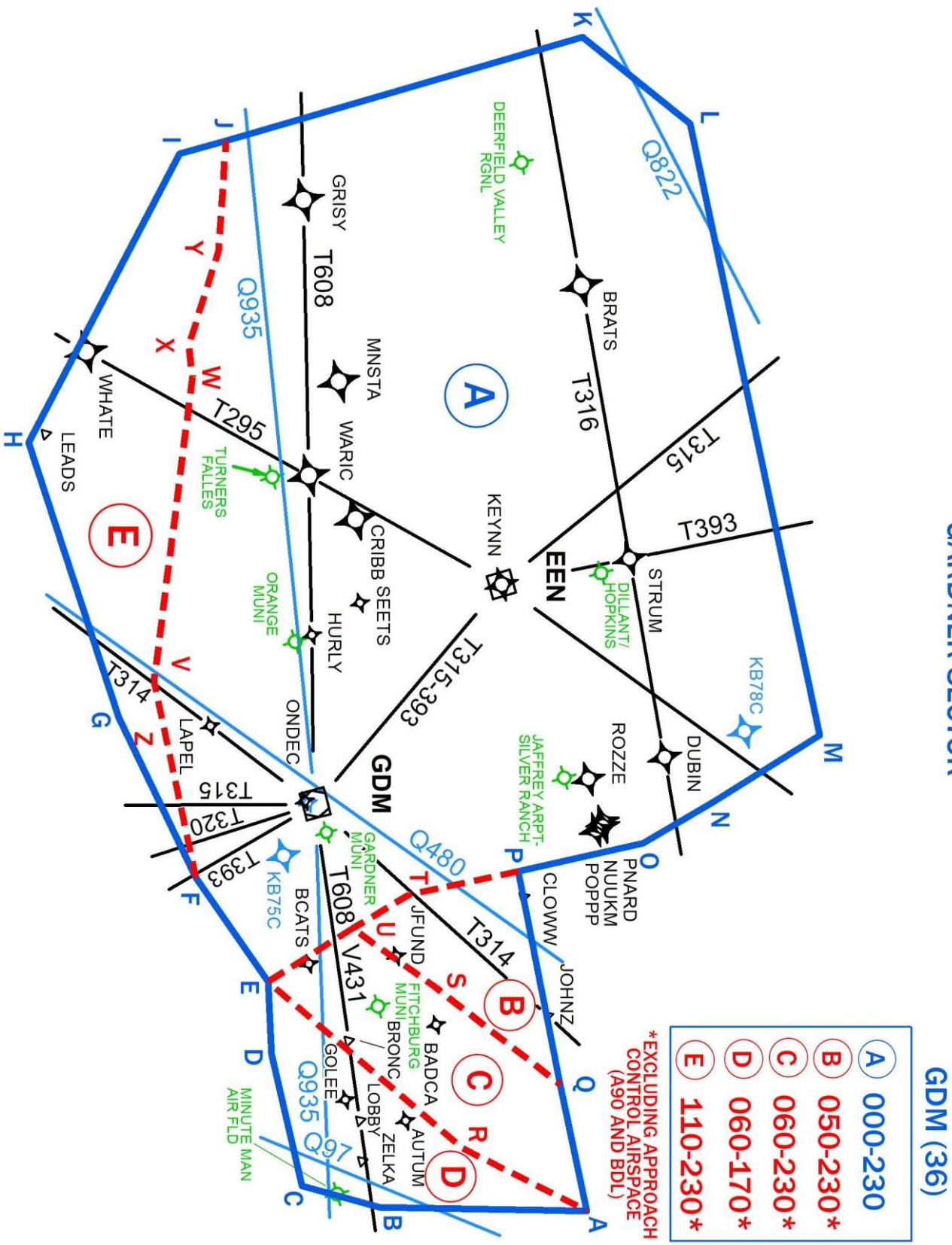
g. Descend Via:

1. Sector 36 is authorized to descend via in accordance with the ZBW/A90 LOA.

2. IAW par. 2-1-3 Sector 36 must annotate, at the Area SIA, the KBOS/KMHT primary landing runway as coordinated with A90 Rockport Sector.

h. GDM Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	F4AA	G	E4DA	M	F5AN	S	F4DE	Y	E4DC
B	F4ED	H	E4DB	N	F4DP	T	F4DK	Z	F3AQ
C	F4DH	I	D4AC	O	F4DA	U	F4DJ		
D	F4DZ	J	D4AD	P	F4AT	V	E4DP		
E	F4DI	K	E5AQ	Q	F4DB	W	E4DI		
F	E4DG	L	E5AI	R	F4DM	X	E4DN		


GARDNER SECTOR
GDM (36)
A 000-230
B 050-230*
C 060-230*
D 060-170*
E 110-230*
*EXCLUDING APPROACH CONTROL AIRSPACE (A90 AND BDL)
GDM
EEN
KEYNN
BRATS
T316
T315
T393
STRUM
DUBIN
ROZZE
PNARD
NUUKM
POPPP
CLOWW
JOHNZ
T315-393
JAFFREY ARPT-SILVER RANCH
DILLANT/HOPKINS
KB78C
DEERFIELD VALLEY RGNL
GRISY
T608
MNSTA
WARIC
CRIBB SEETS
HURLY
ONDEC
LAPEL
T314
T315
T320
T393
WHATE
LEADS
T295
TURNERS FALLES
ORANGE MUNI
GARDNER MUNI
KB75C
BCATS
JFUND
T314
T608
V431
FITCHBURG MUNI
BRONC
BADCA
AUTUM
ZELKA
LOBBY
GOLEE
MINUTE MAN AIR FLD
Q822
Q935
Q480
Q935
Q97
A
B
C
D
E
F
G
H
I
J
K
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P
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X
Y
Z

5-2. CONCORD SECTOR 37

5-2-1. GENERAL DESCRIPTION

Sector 37 is primarily a departure sequencing sector for Boston and Manchester metropolitan airports. The Concord Sector controls airspace from the ground up to FL230. It shares or overlies common boundaries with Albany ATCT, Boston TRACON, and five ZBW sectors. Sector 37 provides approach control service for Lebanon, New Hampshire. Sector 37 is the controlling sector for LASER S and AR631. When combined, Sector 37 is normally combined at Sector 36.

5-2-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Primary Frequency – 134.7/269.475 GDM – Backup frequency Sector 36.

2. Backup Frequency – 133.32/353.7 Backup frequency for Sectors 36/37/38.

3. Backup Frequency – 123.75/338.2 Primary frequency for Sector 36.

4. Emergency Frequency – 121.5/243.0e

NOTE: At least one sector per area must monitor the emergency frequency.

5. BUEC – Sector 37 – 134.7/269.475

b. Map Information:

1. Pre-Set Map – AREAB

2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 36

d. Sector SIA

1. ERAM-status outages, drawing and annotations, GI, and weather messages
2. ERIDS, including pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. White Boards
5. Flight progress strips
6. Printed messages on strips such as GI, hazardous weather
7. Read-and-sign folders
8. Written notes

5-2-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector:

(a) BDL, CEF, ORH, and BAF arrivals via KEYNN, handed off from Sector 02, must cross 75 NE KEYNN at FL240. BDL, CEF, ORH, and BAF traffic south of a ENE-KEYNN line must enter Area B via direct KEYNN at or below FL220.

(b) Sector 37 has control from sector 39 to issue discretionary altitude clearances.

(c) PSM/SFM arrivals via Sector 22 must enter Sector 37 descending to the lowest available altitude from FL190 to FL210.

2. Exiting the Sector:

(a) Sector 39 has control to turn BOS area departures westbound above 17,000 feet MSL from Sector 37.

(b) Sector 37 must descend PWM arrivals via CDOGG to cross CDOGG at 11,000 feet, handoff, and communication change to Sector 16.

(c) PWM area arrivals (KBXM, KLEW, KIWI, KAUG) must be descending to 11,000 feet, and a handoff made to Sector 15 or 16, as appropriate.

b. AIT [ZBW 7110.33, Appendix A6-2]:

1. The following procedure is authorized between Areas B, C, and D for KPSM and KSFM arrivals flight planned via KLANE:

(a) Sector 47 must clear aircraft to cross KLANE at 15,000 feet MSL and initiate a radar handoff to Sector 37.

(b) Sector 37, after acceptance of the radar handoff, must initiate a radar handoff to Sector 16.

(c) Sector 16, after acceptance of the radar handoff, must initiate a radar handoff to A90

(d) Sector 47, after observing acceptance of radar handoff by A90, must transfer communication of the aircraft to A90.

NOTE: All Sectors involved in the use of the above AIT should understand that the aircraft will be descending into A90 airspace. It is not required that the data block reflects an assigned altitude lower than 15,000. However, each Sector must ensure the data block is displayed until the aircraft has left the jurisdiction of their respective airspace.

c. Adjacent Facility Coordination:

1. Coordination is required with Sector 36 prior to issuing an instrument approach clearance to VSF.

2. Coordination is required with A90 before issuing a GPS RWY 29 approach to CNH.

(Procedure conflicts with the CON RNAV (GPS) RWY 17 and CON RNAV (GPS) RWY 12.

3. Coordination is required with Albany Approach for RUT arrivals executing the Turn-in-Lieu for the RNAV (GPS) RWY 1 SIAP.

4. Coordination is required with Sector 36 for RUT arrivals executing the Turn-in-Lieu for the RNAV (GPS) RWY 1 SIAP.

5. Section 52 has control of aircraft landing RUT from Sector 37 within 20 NM from the RUT Airport.

d. Areas of Limited Radio/Radar Coverage – Radio coverage exists to ground level in the vicinity of the LBNON Waypoint using the LEB RCAG site sloping to 4,000 feet MSL in the south west end of the sector. Radar coverage exists to below 1,000 feet MSL in the vicinity of Boston, sloping to 5,000 feet MSL in the north end of the sector.

e. Military:

1. Laser South:

(a) When LASER SOUTH is under Autonomous Control, aircraft must be handed off to Sector 37. Sector 37 must clear the aircraft into the block after notifying adjacent sectors/facilities of the airspace activation.

(b) When the block is under the control of an MRU, adjoining sectors must affect a Transfer of Flight Information to the MRU and transfer control of data block to Sector 37 for low altitude operations.

2. Aerial refueling (AR) Route 631 [Ref. DOD Flight Information Publication, AP/1B]:

(a) Entry/Anchor Point – ENE271046

(b) ARIP – ALB051043

(c) Exit Point – ENE261030

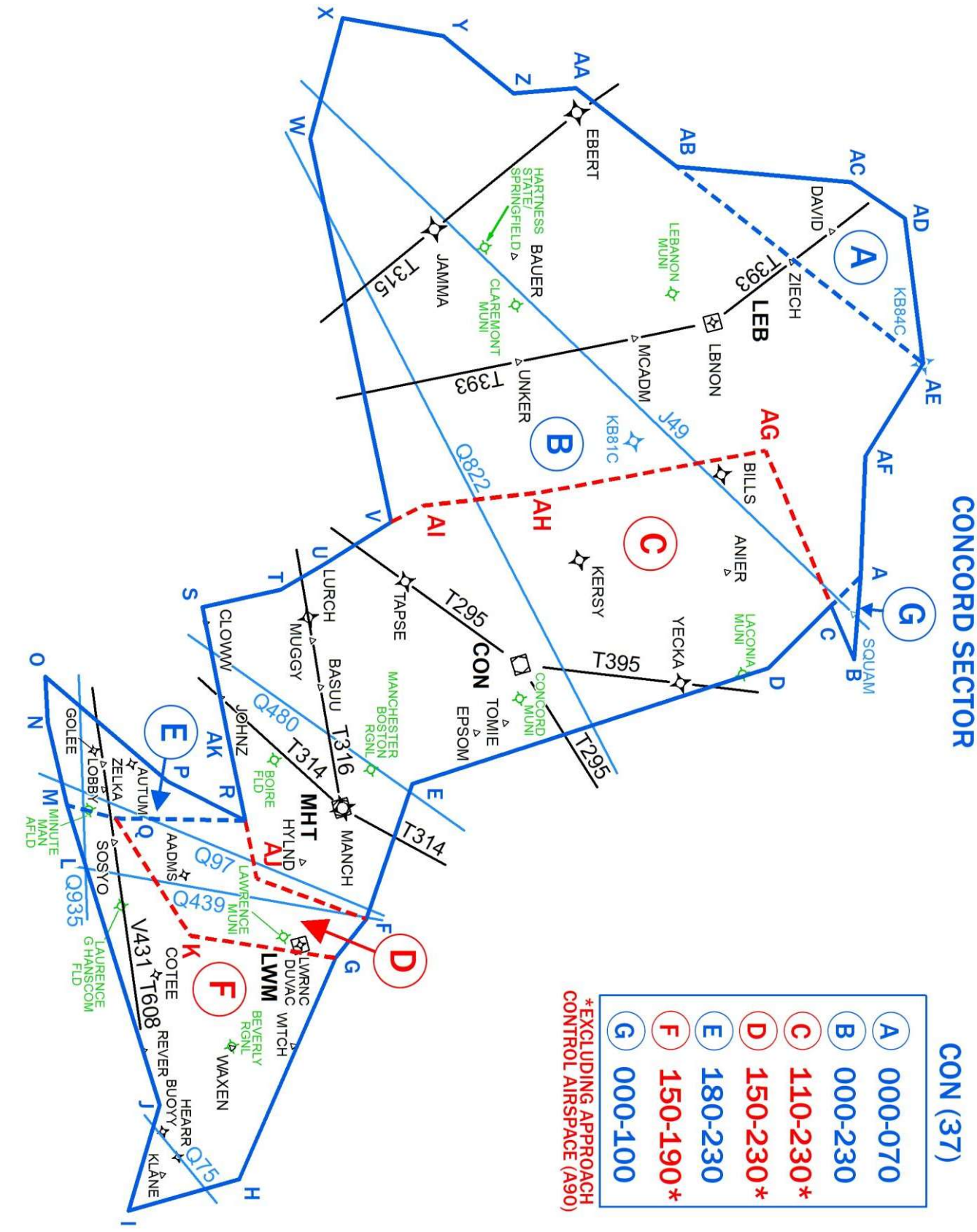
(d) Altitudes – FL200/260

3. Stereo Flight Plans – See Boston ARTCC FW/104 FW LOA.

f. CON Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	F4T7	I	F4MO	Q	F4ED	Y	E5AD	AG	F5AS
B	F5AH	J	G4MR	R	F4AA	Z	E5AC	AH	F5AZ
C	XPT	K	F4T2	S	F4AT	AA	E5AB	AI	F5AR
D	F4T6	L	F4T1	T	F4DA	AB	E5AG	AJ	F4DD
E	F4T5	M	F4DH	U	F4DP	AC	E5AH	AK	F4DB
F	F4AD	N	F4DZ	V	F5AN	AD	BB56		
G	F4T4	O	F4DI	W	E5AI	AE	E5AA		

H	G4AB	P	F4DM	X	D5AM	AF	F5AQ		


CONCORD SECTOR
CON (37)
A 000-070
B 000-230
C 110-230*
D 150-230*
E 180-230
F 150-190*
G 000-100
*EXCLUDING APPROACH CONTROL AIRSPACE (A90)
EBERT
DAVID
ZIECH
LEB
LBNON
JAMMA
BAUER
UNKER
MCADM
BILLS
ANIER
KERSY
YECKA
TAPSE
LURCH
MUGGY
BASUU
CLOWW
JOHNZ
CON
TOMIE
EPSOM
MHT
HYLND
MANCH
LWM
LWRNC
DUVAC
WITCH
WAXEN
COTEE
REVER
HEARR
BUOYY
KLANE
SOSYO
AADMS
AUTUM
ZELKA
LOBBY
GOLEE
SQUAM
T393
T315
T295
T395
T316
T314
V431
T608
Q822
Q480
Q97
Q439
Q935
Q75
J49
KB84C
KB81C
HARTNESS STATE/ SPRINGFIELD
CLAREMONT MUNI
LEBANON MUNI
LACONIA MUNI
CONCORD MUNI
MANCHESTER BOSTON RGNL
BOIRE FLD
LAWRENCE MUNI
BEVERLY RGNL
LAURENCE G HANSCOM FLD
MINUTE MAN AFLD

5-3. ATHENS SECTOR 38

5-3-1. GENERAL DESCRIPTION

There are two eastbound flows of traffic in Sector 38. One is along Q935, consisting of high-altitude Boston terminal arrival traffic. The other is along the southern boundary on the WIPOR/NELIE STARs for PVD and Long Island metro arrivals. Crossing with these flows is north/south traffic to/from NY metro, destined for Canada and overseas. Generally, Sector 38 controls all airspace within its lateral boundaries at and above FL240. When Sector 39 is combined with Sector 38, they are normally combined at Sector 38. During the midnight shift, all Area B Sectors are combined at Sector 38. There is no military airspace designated within Sector 38.

5-3-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Primary Frequency – 135.32/360.6

2. Backup Frequency – 133.32/353.7 Backup frequency for Sectors 36/37/38.

3. Backup Frequency – 128.32/348.7. Primary frequency for Sector 39.

4. Airborne Warning and Control System (AWACS)/Backup Frequency – 133.62/354.1

5. BUEC – Sector 38 – 135.32/360.6

b. Map Information:

1. Pre-Set Map – AREAB

2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 39

d. Sector SIA
1. ERAM-status outages, drawing and annotations, GI and weather messages
2. ERIDS, including pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. White Boards
5. Flight progress strips
6. Printed messages on strips such as GI, hazardous weather
7. Read-and-sign folders
8. Written notes

5-3-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector:

(a) KBOS arrivals being handed off from Sectors 8, 9 and 10 to Area B must be routed via the appropriate STAR at or below FL390 and five miles in-trail, regardless of altitude. Sector 24 must clear KBOS arrivals via the appropriate STAR and five miles in-trail.

(b) Sector 38 has control from Sector 10 for turns up to 30 degrees on all KBOS arrival aircraft within 15NM of the Sector 10/Sector 38 boundary.

(c) KBOS arrivals via the JFUND STAR:

(1) When KBOS is landing runway 15R arrivals must be cleared via the ONDEC transition to enter Sector 38/39 at or below FL350 descending to FL330. Entering Sector 38/39 from Sector 08/09, arrivals must be cleared via ALB direct ONDEC.

(2) For all other landing configurations arrivals must be cleared via the PONCT transition to enter Sector 38 at or below FL390.

(3) Aircraft flight planned via the JFUND STAR may be routed direct MNSTA if north of J49.

(4) Aircraft flight planned via the JFUND STAR proceeding direct MNSTA must not be routed through Sector 39 without prior approval.

(d) BOS Satellite arrivals from Sector 10:

(1) BED, LWM and BVY arrivals must be cleared via the ZELKA STAR and enter Sector 38 at or below FL310.

(2) Aircraft not capable of flying the ZELKA STAR and all other BOS Satellite arrivals must be cleared via ALB GDM V431 LOBBY and enter Sector 38 at or below FL290.

(e) Sector 10 must ensure PVD and PVD Satellite arrivals via HNK (or ALB) WIPOR STAR, cross 55 NM west of PONEE or 30 NM west of ALB at or below FL290.

(f) Sector 10 must ensure ISP and FOK jet arrivals via HNK (or ALB) NELIE STAR, cross 55 NM west of PONEE or 30 NM west of ALB at or below FL290.

(g) PSM/CON/SFM arrivals from Sector 10 must enter Sector 38 at or below FL290.

(h) MHT and ASH arrivals from Sector 8, 9 and 10 must enter Sector 38 in-trail, at or below FL290.

(i) MHT and ASH arrivals from Sector 20 must enter Sector 38 at or below FL330. Sector 38 has control for turns and descent to FL270 when the aircraft is within 15 NMs of the Sector 20/Sector 38 boundary.

(j) ALB departures filed via J6 must be established on J6 prior to entering Sector 20.

(k) Sector 22 must not clear aircraft direct GOATR, GONZZ, SYR, HANKK, JOSSY or points beyond without prior coordination, first with Sector 38 and then with Sectors 10 or 24.

2. Exiting the Sector:

(a) JFK Arrivals – Enter Sector 20 at or below FL310 descending to FL280.

(b) PVD/ISP Arrivals – Cross 15 NM northwest of PONEE at FL240.

(c) Sector 38 must clear aircraft landing MDT, PHL and PHL Satellites (ACY, DOV, PNE, TTN, ILG, ABE and MQS) to enter Sector 24 at or below FL260.

(d) Area B must not route aircraft direct GOATR, GONZZ, SYR, HANKK, JOSSY or points beyond at or below FL370 south of Q82 without prior verbal coordination with Sector 10 or 24.

(e) Sector 38 must clear ASH/CON arrivals to cross 55 NMs west of KEYNN at FL240.

(f) Sector 38 must clear MHT arrivals:

(1) Via the ROZZE STAR to cross 20 NM west of QUINZ/MUCOW at FL240.
(2) Not on the ROZZE STAR to cross 55 NM west of KEYNN at FL240.

(g) All IAD traffic, during the hours of 1700Z until 2200Z, that are flight-planned over ALB or BAF must be established on the HYPER arrival prior to Sector 20.

(h) Sector 20 has control for turns up to 30 degrees within 10NM of the 38/20 boundary.

(i) Sector 38/39 must clear aircraft landing SYR to be descended to FL240 and transferred to Sector 22 in a manner to allow Sector 22 to descend below Sector 08/24.

(j) Sector 36 has control from Sector 38 to issue discretionary altitude clearances.

b. AIT – [Ref. ZBW 7110.33, A6-2]

1. The following procedure, for aircraft departing BOS, BOS south Satellites, and Providence Terminal Areas via CTR, is agreed to within Areas B and C: Sector 47 must clear aircraft to FL230 and then initiate a transfer of radar identification to Sector 46.

2. Sector 46, after accepting the transfer of radar identification, must leave the requested altitude or enter an interim altitude in the data block.

3. Sector 46 must initiate a transfer of radar identification to Sector 38 before the aircraft enters Sector 38's airspace.

4. Sector 47, after observing the requested/interim altitude in the data block and that a transfer of radar identification has been initiated to Sector 38 must clear the aircraft to the appropriate altitude.

5. Sector 47 must transfer communications of the aircraft to Sector 38 before the aircraft enters Sector 38's airspace and after observing their acceptance of the transfer of radar identification.

c. Holding Data:

1. SEETS - Hold NW on 114 course inbound, right turns, 15 DME legs. Published on JFUND STAR.

2. ONDEC – Hold NW on 113 course inbound, left turns, 15 DME legs. Published on JFUND STAR.

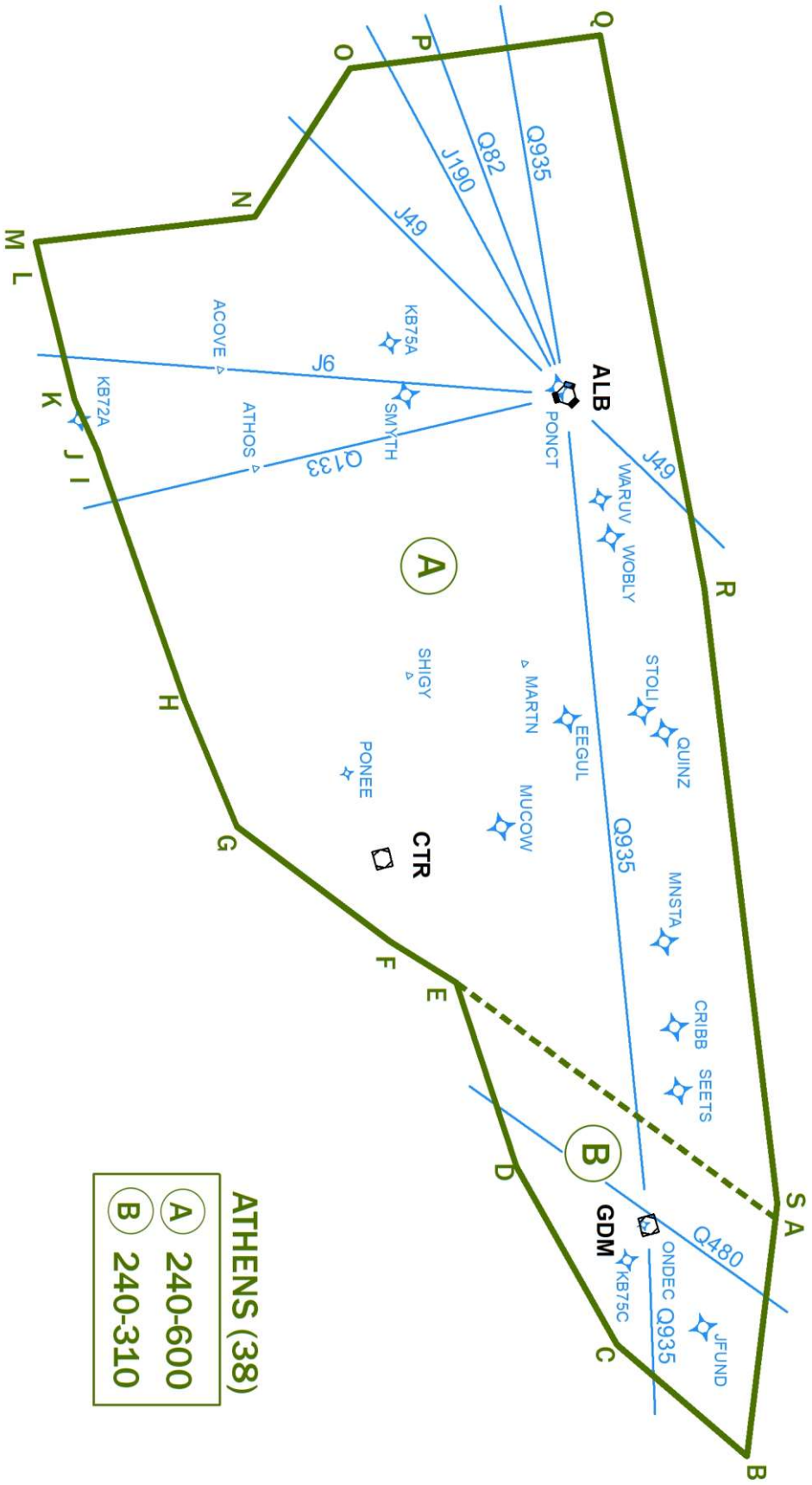
3. GDM – Hold NW GDM 294R, left turns, 1-minute legs. Published on GDM STAR.

   NOTE: There are 3 other published holds at the GDM VOR on the Enroute High/Low, GDM VOR-A and AFN RNAV-B.

d. Athens Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	F4AP	E	E4DB	I	C4BC	M	C4AT	Q	C4AM
B	F4DM	F	E4DR	J	D4AA	N	C4AS	R	D4AF
C	F4DI	G	D4AE	K	BN71	O	C4AJ	S	E4DD
D	E4DA	H	D4AI	L	C4BA	P	C4AW		

ATHENS SECTOR



5-4. CAMBRIDGE SECTOR 39

5-4-1. GENERAL DESCRIPTION

Sector 39 is the high altitude, west departure sector for Boston metro. Traffic is primarily westbound, handed off from Sector 37, and climbing to Enroute flight levels. New York departure traffic crosses the Boston departure track about 30 NM west of MHT. Sector 39 is also responsible for sequencing high altitude NY arrival traffic flight planned over ALB. Generally, Sector 39 controls all airspace within its lateral boundaries at and above FL240. When Sector 39 is combined with Sector 38, they are normally combined at Sector 38. During the midnight shift, all Area B sectors are combined at Sector 38.

5-4-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Primary Frequency – 128.32/348.7

2. AWACS/Backup Frequency – 133.62/354.1. Backup frequency for Sectors 38 and 53 and Area A

NOTE: Unless being used by another Sector or Area A, this frequency will be monitored at all times.

3. Backup Frequency – 118.825/251.075 Primary frequency Sector 53.

4. BUEC – Sector 39 – 128.32/348.7

b. Map Information:

1. Pre-Set Map – AREAB

2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 53

d. Sector SIA
1. ERAM-status outages, drawing and annotations, GI and weather messages
2. ERIDS, including pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. White Boards
5. Flight progress strips
6. Printed messages on strips such as GI, hazardous weather
7. Read-and-sign folders
8. Written notes

5-4-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector:

(a) Sector 39 has control to turn BOS departures westbound above 17,000 feet MSL from Sector 37.

(b) Sector 39 has control for turns not to exceed 90 degrees and control for descent to FL240 on LGA/HPN/SWF/POU/EWR and EWR Satellite arrivals from Sector 53.

(c) Y90 Departures requesting FL240 or above and filed over CAM, must be handed off to Sector 39 from Sector 22.

(d) Sector 39 has control for descent from Sector 53 on PHL and PHL satellite arrivals to FL260.

(e) KBOS arrivals flight planned via the JFUND STAR proceeding direct MNSTA must not be routed through Sector 39 without prior approval.

(f) PSM/CON/SFM arrivals from Sector 9 or 10 must enter Sector 39 at or below FL290.

2. Exiting the Sector:

(a) Area B must not route aircraft direct GOATR, GONZZ, SYR, HANKK, JOSSY or points beyond at or below FL370 south of Q82 without prior verbal coordination with Sector 10 or 24.

(b) Sector 39 must clear HPN/SWF/POU/EWR and EWR Satellite jets and high-performance turboprops to cross 25 north of ALB at FL240.

(c) All IAD traffic, during the hours of 1700Z and 2200Z that are flight-planned over ALB or BAF must be established on the HYPER arrival prior to Sector 20.

(d) Sector 39 must clear BOS jet arrivals via ENE then OOSHN STAR to cross ENE at FL240.

(e) When Sectors 8 and 9 are split Sector 39 must clear aircraft landing CYOW to enter Sector 08 at or below FL270.

(f) Sector 38/39 must clear aircraft landing SYR to FL240 and transferred to Sector 22 in a manner to allow Sector 22 to descend below Sector 08/24.

(g) Sectors 36 and 37 have control from Sector 39 to issue discretionary altitude clearances.

(h) Aircraft routed for destinations within the Cape geographical area must enter Sector 02 at or below FL370. Sector 02 has control for descent after handoff and communications transfer.

b. Holding:

1. HANAA (FLOSI/SHAFF) – Hold NE on 210 course inbound, right turns, 10 DME legs. Published on FLOSI/SHAFF STARs.

2. HANAA (En Route) – Hold NE on 227 course inbound, right turns, 10 DME legs. Published on En Route High.

   NOTE: Coordination required with Sector 53 to hold at HANAA.

c. Military Operations:

1. ADIRONDACK AIRSPACE COMPLEX:

(a) ADIRONDACK AIRSPACE COMPLEX – Used for intercept/air-to-ground combat training. The Boston ARTCC/EADS LOA combines the individual MOAs and ATCAAs into grouped areas with seasonal altitude and use restrictions.

NOTE: The ADIRONDACK AIRSPACE COMPLEX except for VIPER WEST is adjusted seasonally (5/1 thru 10/31 and 11/1 thru 4/30) with altitude adjustments to the lower portions of the areas.

(b) MARSA applies between all aircraft scheduled for the areas. Control within the areas may be assigned to a Military Radar Unit or Autonomous Control. Sector 08 is the controlling sector. Activation/deactivation procedures are contained under Par. 2-1-9 and 2-2.

(c) ADIRONDACK AIRSPACE COMPLEX			
VIPER ALL (VPR0A)			
(*Portions Conflicts W/AR609, Variable Altitudes)			
Includes Airspace:	**Code**	**Altitudes**	
		11/1 thru 4/30	**5/1 thru 10/31**
ADIRONDACK A	ADKA1	060B500	
ADRIONDACK B	ADKB1	025B500	
ADIRONDACK C	ADKC1	001B500	
ADIRONDACK D	ADKD1	050B500	
TUPPER WEST	TPRW1	060B500	080B500
TUPPER EAST	TPRE1	120B500**	
**TUPPER EAST Real Time Request 100B500			
TUPPER CENTRAL	TPRC1	060B500#	080B500
TUPPER SOUTH*	TPRS1	060B500#	080B500
#TUPPER CENTRAL/SOUTH			
CRANBERRY MOA	CRNB0	005B060	**NA**
CANTON ATCAA	CNTN0	180B500	
POTSDAM ATCAA	PTSD0	180B500	
CARTHAGE EAST	CTHE1	001B500	
CATHAGE WEST*	CHTW1	060B500	
LOWVILLE*	LWVL0	001B500	
(d) ADIRONDACK AIRSPACE COMPLEX			
VIPER EAST (VPR0E)			
(Variable Altitudes, *Portions Conflicts W/AR609)			
Includes Airspace:	**Code**	**Altitudes**	
		11/1 thru 4/30	**5/1 thru 10/31**
TUPPER WEST	TPRW1	060B500	080B500

TUPPER EAST	TPRE1	120B500*	
**TUPPER EAST Real Time Request 100B500			
TUPPER CENTRAL	TPRC1	060B500#	080B500
TUPPER SOUTH*	TPRS1	060B500#	080B500
#TUPPER CENTRAL/SOUTH			
CRANBERRY MOA	CRNB0	005B060	**NA**
POTSDAM ATCAA	PTSD0	180B500	

(e) ADIRONDACK AIRSPACE COMPLEX		
All Year No Seasons		
VIPER WEST (VPR0W)		
(Variable Altitudes, *Conflicts W/AR609)		
Includes airspace:	**Code**	**Altitudes**
ADIRONDACK A	ADKA1	060B500
ADIRONDACK B	ADKB1	025B500
ADIRONDACK C	ADKC1	001B500
ADIRONDACK D	ADKD1	050B500
CARTHAGE EAST	CTHE1	001B500
CARTHAGE WEST*	CTHW1	060B500*
LOWVILLE*	LWVL0	001B500*
CANTON ATCAA	CNTN0	180B500

(f) ADIRONDACK AIRSPACE COMPLEX			
VIPER NORTH (VPR0N)			
(Variable Altitudes, Clear of AR609)			
Includes Airspace:	**Code**	**Altitudes**	
		11/1 thru 4/30	**5/1 thru 10/31**
ADIRONDACK A	ADKA1	060B500	
ADIRONDACK B	ADKB1	025B500	
ADIRONDACK C	ADKC1	001B500	
ADIRONDACK D	ADKD1	050B500	
CARTHAGE EAST	CTHE1	001B500	
CANTON ATCAA	CNTN0	180B500	
TUPPER WEST	TRPW1	060B500	080B500
TUPPER EAST	TPRE1	120B500**	
**TUPPER EAST Real Time Request 100B500			
TUPPER CENTRAL	TPRC1	060B500#	080B500
#TUPPER CENTRAL			
CRANBERRY MOA	CRNB0	005B060	**NA**
POTSDAM ATCAA	PTSD0	180B500	

(c) AKS ATCAA – This area contains autonomous or MRU refueling operations for AR609. Sector 08 must verbally coordinate with Sectors 52, 53, 39 and 09 that this area is going active prior to issuing a clearance in accordance with Paragraph 2-1-9 and 2-2 of this Order, and then again when the area becomes inactive.

NOTE: AKS ATCAA contains the protected airspace of AR609, however, AR609 operations do not require the activation of AKS.

(d) East entries into ADIRONDACK AIRSPACE COMPLEX/AKS – While activation of these areas is normally conducted by Sector 08. East entries from Sector 52 or 53 are conducted as follows:

(e) MRU operations – Sector 52 or 53 must initiate a Transfer of Flight unless sector 08 is unable to release the airspace.

(1) Sector 08 must enter an interim altitude information to the MRU. The initiating sector is responsible for the coordination and clearance as outlined in paragraph 2-2-2. If Sector 08 is unable to release airspace to the MRU, Sector 52 must handoff and transfer communications of the military aircraft requesting the airspace to Sector 08.

NOTE: Sector 08 must conduct all required coordination with GTB.

(2) Autonomous operations – Sector 52 or 53 must initiate a handoff to Sector 08. Sector 08 is responsible for the coordination and clearance as outlined in paragraph 2-2-2.

2. LIGHTNING ATCAAs – Used by the 158FW and accompanied mission essential units for tactical air-to-air training, air-to-ground training, and orbital close air support. MARSA applies between all aircraft scheduled for the LIGHTNING areas and any concurrent use airspace (e.g. - VIPER). Control within the areas may be assigned to a Military RADAR Unit or Autonomous Control. (See ZBW ARTCC / 224th ADS/ 158FW Letter of Agreement)

(a) LIGHTNING 1/2/3 - Plattsburgh Sector (53) is the controlling sector.

(b) LIGHTNING 4 - Watertown Sector (08) is the controlling sector.

3. LASER SUAs – (North/South/East and West). See Boston ARTCC/EADS Letter of Agreements.

4. E3 Operations – See Boston ARTCC EADS LOA.

5. Aerial Refueling Route [Ref. DOD Flight Information Publication, AP/1B]:

(a) AR609 (AKS):

(1) ARIP –Entry/Anchor Point – SYR087075
(2) ARIP – SYR045019
(3) Exit Point – ALB356043
(4) Altitudes: FL180-280

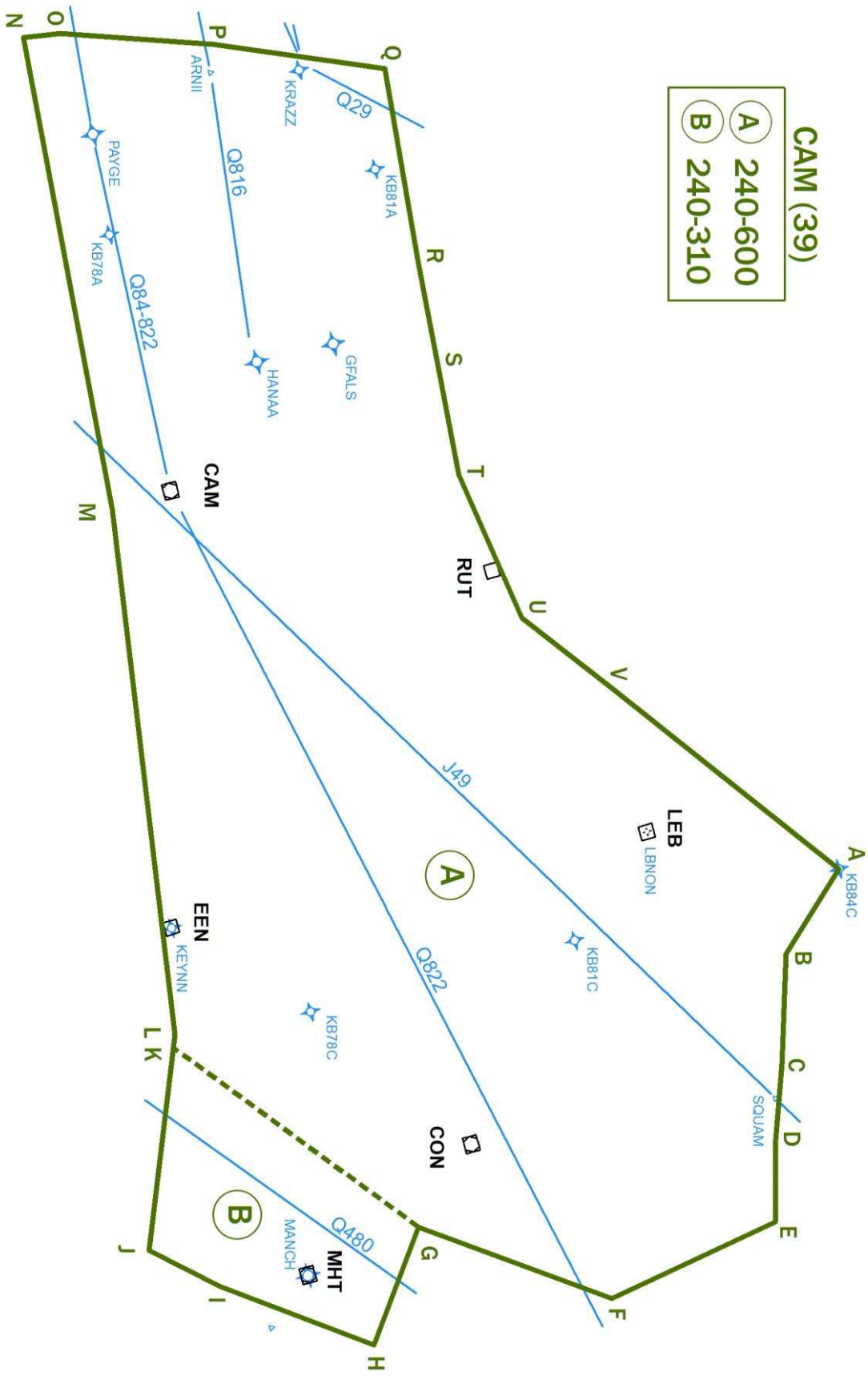
(b) AR631 (located within LASER SOUTH):

(1) Entry/Anchor Point – ENE271046
(2) ARIP – ALB051043
(3) Exit Point – ENE261030
(4) Altitudes – FL200/260

d. CAM Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	E5AA	F	F5AJ	K	F4AP	P	C5AE	U	E5AB
B	F5AQ	G	F4AO	L	E4DD	Q	C5AN	V	E5AG
C	F4T7	H	F4AM	M	D4AF	R	D5AP		

D	F5AH	I	F4AA	N	C4AM	S	D5AF		
E	F5AE	J	F4DM	O	C5AB	T	D5AR		


CAM (39)
A 240-600
B 240-310
CAMBRIDGE SECTOR
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
KB84C
LBNON
LEB
KB81C
SQUAM
RUT
CAM
EEN
KEYNN
CON
MHT
MANCH
KB78C
KB81A
KB78A
KRAZZ
ARNII
PAYGE
HANAA
GFALS
Q29
Q816
Q84-822
J49
Q822
Q480

5-5. MONTPELIER SECTOR 52

5-5-1. GENERAL DESCRIPTION

This sector is stratified from the surface to FL230. Traffic is not generally on any preferential route and there is not a well-defined crossing point in the low structure. The main flows of traffic are arrivals and departures into the Montreal and Burlington Terminal areas. The sector provides approach control services to many airports including SLK, MPV and RUT. Sector 52 is the controlling sector for YANKEE 1 and 2 MOAs. Sector 52 controls airspace within its lateral boundaries at all altitudes below FL230 except for that portion delegated to Sector 37 and those portions delegated to Albany, Burlington, and Portland ATCTs via LOA. When Sector 53 is combined with Sector 52, they are normally combined at Sector 52. During the midnight shift, all Area B Sectors are combined at Sector 38.

5-5-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Primary Frequency – 135.7/282.2

2. Backup Frequency and primary frequency at and below 10,000 W/SW of BTV – 120.35/342.25

3. Backup Frequency – 118.82/251.075 (Primary frequency for Sector 53).

4. BUEC – Sector 52 – 135.7/282.2 and 120.35/342.25

5. Emergency Frequency— 121.5/243.0

NOTE: At least one sector per area must monitor the emergency frequency.

b. Map Information:

1. Pre-Set Map – AREAB

2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 36

d. Sector SIA

1. ERAM-status outages, drawing and annotations, GI, and weather messages
2. ERIDS, including pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. White Boards
5. Flight progress strips
6. Printed messages on strips such as GI, hazardous weather
7. Read-and-sign folders
8. Written notes

5-5-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector:

   (a) Burlington terminal arrivals, handed off from Sector 08, must enter Sector 52 at or below FL230, descending to FL190.

   (b) Sector 52 has control of aircraft landing RUT from Sector 37 within 20 NM from the RUT Airport.

2. Exiting the Sector:

   (a) BOS jet arrivals via ENE must be routed via the appropriate STAR.

   (b) KPWM and PWM area arrivals (KBXM, KLEW, KIWI, KAUG) must be descending to 11,000 feet, and a handoff made to Sector 15 or 16, as appropriate.

   (c) Aircraft routed for destinations within BGR ATCT airspace must be descending to FL190, or lower, and handed off to Sector 15. Sector 15 will have control for descent and turns up to 30 degrees after handoff and communications transfer.

3. CARTR Corridor Coordination: Sector 52 must display the status of the Carter Corridor in the Sector 52 strip bay.

b. SIAP Adjacent Facility / Sector Coordination:

1. MPV – Coordination with Sector 37 must be accomplished prior to issuing an approach clearance for RWY 35 into MPV.

2. LEB – Coordinate with Sector 37 arrivals requesting the ILS or LOC RWY 18, RNAV (GPS) RWY 7, or RNAV (GPS) RWY 25 approaches to LEB via the MPV VOR.

3. 8B0-M57 –

   (a) Sector 15 must coordinate 8B0 (RNAV (GPS-D) or RNAV (GPS) RWY 14)) and M57 (RNAV (GPS-C)) SIAPS with Sector 52.

   (b) Simultaneous holding at ELSEQ and SHINY/JIGZY is not authorized.

4. BML – Sector 52 must coordinate Instrument Approaches with Sector 15.

5. SLK:

   (a) Verbal coordination must be accomplished with Sector 08 prior to issuance of a departure clearance to a SLK departure that will enter Sector 08.

   (b) Verbal coordination must be accomplished with Sector 08 prior to issuance of the following approach procedures in SLK:

      (1) RNAV (GPS) RWY 9

      (2) RNAV (GPS) RWY 5

6. LKP: Coordinate with Sector 08 prior to issuing the RNAV (GPS) RWY 14 or RNAV-A (missed approach) SIAP.

7. MSS – Sector 08 must verbally coordinate with Sector 52 prior to issuing a departure clearance that will enter Sector 52.

c. SIAP Protected airspace

1. CRANBERRY MOA:

(a) SLK RNAV (GPS) RWY 9 – N/A

(b) SLK RNAV (GPS) RWY 5 VIA CHANY – N/A

2. TUPPER MOAs:

(a) SLK RNAV (GPS) RWY 5 – N/A FROM 11/1-4/30

(b) SLK RNAV (GPS) RWY 9 – N/A FROM 11/1-4/30

d. Holding:

1. LATTS – Hold S on 010 course inbound, right turns, 10 DME legs. Published on CARTR STAR.

2. PBERG – Hold S on 015 course inbound, right turns, 10 DME legs. Published on En Route Low and CARTR STAR.

e. Military.

1. ADIRONDACK AIRSPACE COMPLEX – Used for intercept/air-to-ground combat training. The Boston ARTCC/EADS LOA combines the individual MOAs and ATCAAs into grouped areas with seasonal altitude and use restrictions. The seasonal periods are 5/1 thru 10/31 and 11/1 thru 4/30 except for VIPER WEST (year-round use which has no altitude/use restrictions).

NOTE: MARSA applies between all aircraft scheduled for the areas. Control within the areas may be assigned to a Military RADAR Unit or Autonomous Control. Sector 08 is the controlling sector. Activation/deactivation procedures are contained under Par. 2-1-9 and 2-2.

2. East entries into ADIRONDACK AIRSPACE COMPLEX/AKS – Activation of these areas are normally conducted by Sector 08. East entries from Sector 52 and 53 are conducted as follows:

(a) MRU operations – Sector 52 or 53 must initiate a Transfer of Flight unless sector 08 is unable to release airspace.

(b) Sector 8 must enter interim altitude information to the MRU. The initiating sector is responsible for the coordination and clearance as outlined in paragraph 2-2-2. If Sector 08 is unable to release airspace to the MRU, Sector 52 or 53 must handoff and transfer communications of the military aircraft requesting the airspace to Sector 08.

NOTE: Sector 08 must conduct all required coordination with GTB.

(c) Autonomous operations – Sector 52 or 53 must initiate a handoff to Sector 08. Sector 08 is responsible for the coordination and clearance as outlined in paragraph 2-2-2.

(d) Configurations:

(1) ADIRONDACK AIRSPACE COMPLEX			
VIPER NORTH (VPR0A)			
(*Portions Conflicts W/AR609, Variable Altitudes)			
Includes Airspace:	Code	Altitudes	
		11/1 thru 4/30	5/1 thru 10/31
ADIRONDACK A	ADKA1	060B500	
ADIRONDACK B	ADKB1	025B500	
ADIRONDACK C	ADKC1	001B500	
ADIRONDACK D	ADKD1	050B500	
TUPPER WEST	TRPW1	060B500	080B500
TUPPER EAST	TPRE1	120B500**	
**TUPPER EAST Real Time Request 100B500			
TUPPER CENTRAL	TPRC1	060B500#	080B500
TUPPER SOUTH*	TPRS1	060B500#	080B500
#TUPPER CENTRAL/SOUTH			
CRANBERRY MOA	CRNB0	005B060	NA
CANTON ATCAA	CNTN0	180B500	
POTSDAM ATCAA	PTSD0	180B500	
CARTHAGE EAST	CTHE1	001B500	
CARTHAGE WEST*	CTHW1	060B500	
LOWVILLE*	LWVL0	001B500	

(2) ADIRONDACK AIRSPACE COMPLEX			
VIPER EAST (VPR0E)			
(Variable Altitudes, *Portions Conflicts W/AR609)			
Includes Airspace:	Code	Altitudes	
		11/1 thru 4/30	5/1 thru 10/31
TUPPER WEST	TPRW1	060B500	080B500
TUPPER EAST	TPRE1	120B500**	
**TUPPER EAST Real Time Request 100B500			
TUPPER CENTRAL	TPRC1	060B500#	080B500
TUPPER SOUTH*	TPRS1	060B500#	080B500
#TUPPER CNETRAL/COUTH			
CRANBERRY MOA	CRNB0	005B060	NA
POTSDAM ATCAA	PTSD0	180B500	

(3) ADIRONDACK AIRSPACE COMPLEX		
All Year No Seasons		
(VIPER WEST (VPR0W)		
(Variable Altitudes, *Conflicts W/AR609)		
ADIRONDACK A	ADKA1	060B500
ADIRONDACK B	ADKB1	025B500
ADIRONDACK C	ADKC1	001B500
ADIRONDACK D	ADKD1	050B500

CARTHAGE EAST	CTHE1	001B500
CARTHAGE WEST*	CHTW1	060B500*
LOWVILLE*	LWVL0	001B500*
CANTON ATCAA	CNTN0	180B500

3. LIGHTNING ATCAAs – Used by the 158FW and accompanied mission essential units for tactical air-to-air training, air-to-ground training, and orbital close air support. MARSA applies between all aircraft scheduled for the LIGHTNING areas and any concurrent use airspace (e.g. - VIPER). Control within the areas may be assigned to a Military RADAR Unit or Autonomous Control. (See ZBW ARTCC / 224th ADS/ 158FW Letter of Agreement)

   a. LIGHTNING 1/2/3 - Plattsburgh Sector (53) is the controlling sector.

   b. LIGHTNING 4 - Watertown Sector (08) is the controlling sector.

4. AKS ATCAA – This area contains autonomous or MRU refueling operations for AR609.

   (a) Sector 08 must verbally coordinate with Sectors 52, 53, 39 and 09 that this area is going active prior to issuing a clearance and again when the area becomes inactive.

NOTE: AKS ATCAA contains the protected airspace of AR609, however, AR609 operations do not require the activation of AKS.

5. LASER SUAs - North/South/East and West. Notify adjacent sectors/facilities prior to airspace activation. (See Boston ARTCC/552nd ACW/101st\ ACS/103rd ACS/174th FW/103rd FW/305th AMW or Boston ARTCC/EADS Letter of Agreements)

6. YANKEE 1/2:

   (a) Notify adjacent sectors/facilities prior to airspace activation.
   (b) Boston ARTCC/NE ADS/9AF/28AD/380 BMW LOA.
   (c) Boston ARTCC/103 FW/104 FW LOA.
   (d) Boston ARTCC/A90 LOA.
   (e) YANKEE 2 MOA and 5B9 operations:

      (1) Prior to issuing the RNAV (GPS) RWY 19 SIAP, all aircraft operating in the MOA must be restricted to 7,000 feet MSL or above in the DEAN MEMORIAL Airspace Extension until the 5B9 arrival cancels IFR or, in the event of a missed approach, is established in the missed approach hold.

      (2) 5B9 IFR departures with YANKEE 2 MOA activity - all aircraft operating in the MOA must be restricted to 7,000 feet MSL or above in the DEAN MEMORIAL Airspace Extension until the departure is clear of the MOA.

NOTE: DEAN MEMORIAL Airspace Extension is defined in the EADS/Boston ARTCC Letter of Agreement.

7. Aerial Refueling Route [Ref. DOD Flight Information Publication, AP/1B]:

   (a) AR212NE

(1) ARIP – ALB017067
(2) ARCP – MPV042033
(3) Exit Point – PQI342024
(4) Altitudes – FL190/220

(b) AR212SW
(1) ARIP – PQI342024
(2) ARCP – MLT319053
(3) Exit Point – ALB024075
(4) Altitudes – FL190/220

(c) AR609 (contained in AKS ATCAA):
(1) Entry/Anchor Point - SYR087075
(2) ARIP - SYR045019
(3) Exit Point – ALB356043
(4) Altitudes: FL180-280

(d) AR631 (located within LASER SOUTH):
(1) Entry/Anchor Point – ENE271046
(2) ARIP – ALB051043
(3) Exit Point – ENE261030
(4) Altitudes - FL200/260

8. E3 Operations - See Boston ARTCC / EADS/9AF / 28AD / 380 BMW LOA.

9. Stereo Routes at BTV - See Boston ARTCC/158 FIG LOA.

10. Instrument Route (IR) Procedures – Reference the current FLIP AP/1BFor Route Description, Route Width and Special Operating Procedures for IR800 and IR801. In addition to the Special Operating Procedures, the AP/1B also contains the following information: Participating Aircraft Separation, Lost Communication Procedures, Tactical Descents, Special IFR Procedures, Protected Airspace and Miscellaneous Procedures.

NOTE: Prior to scheduled use, all ZBW Instrument Routes will need to be re-evaluated. Aircraft requesting to use an Instrument Route must NOT be given a clearance onto an IR until further advised**.**

f. Glider Operations. Notify adjacent sectors prior to airspace being activated.

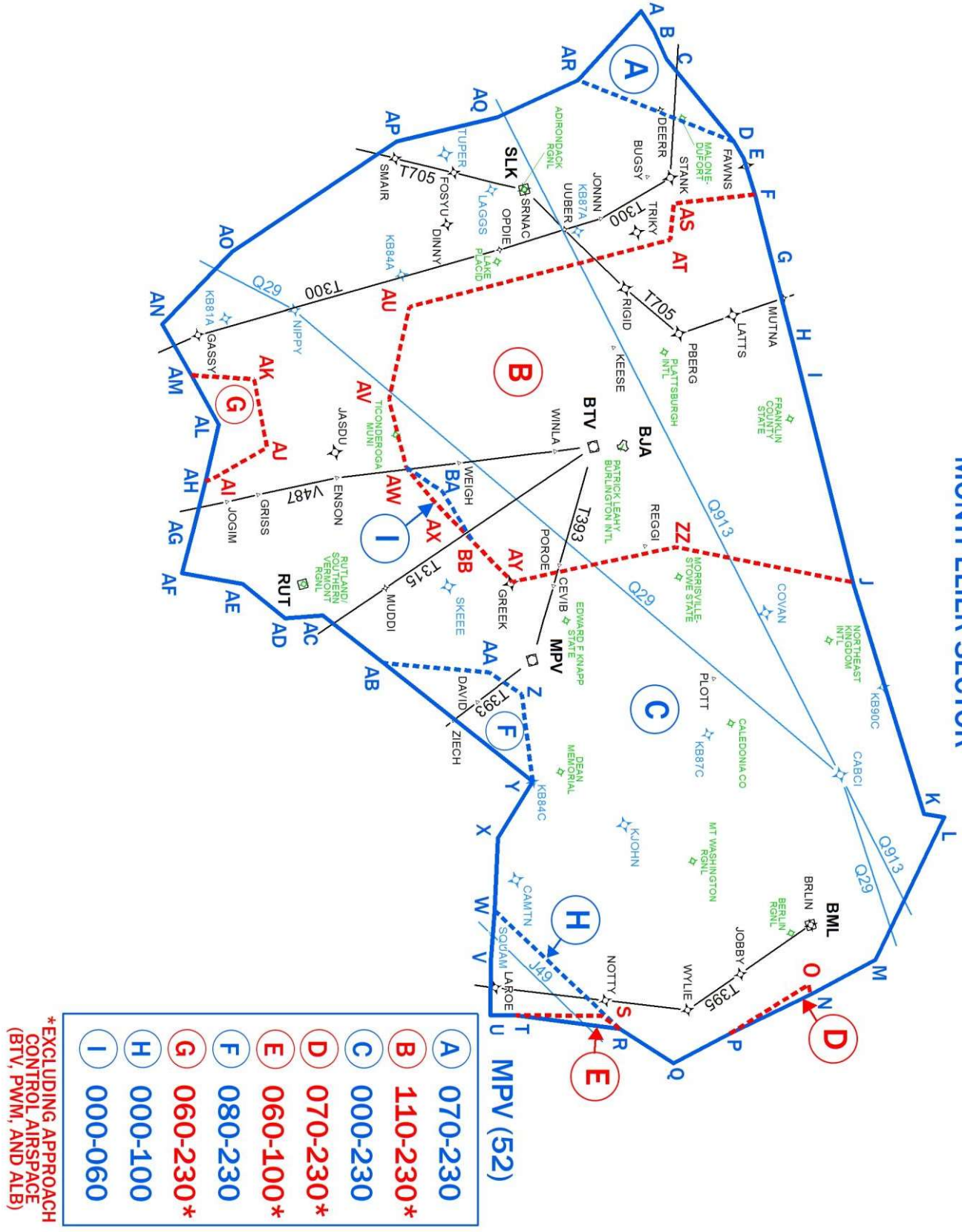
1. Sugarbush Glider Operations - See the Boston ARTCC/Sugarbush Soaring Association LOA.

2. Mt. Washington Glider Operations – Boston ARTCC and Soaring Society of America (SSA).

3. Lake Placid Glider Operations - See the Boston ARTCC and Lake Placid Soaring (LPS) LOA.

g. MPV Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	C6AB	Q	G6AC	AG	D5AL	AW	D5AA
B	C6AI	R	F6AB	AH	D5AK	AX	D6AI
C	C6AG	S	F6AC	AI	D5AE	AY	E6AD
D	C7AE	T	F5AO	AJ	D5AF	ZZ	E6AF
E	C6AJ	U	F5AE	AK	D5AP	BA	435747/730941
F	D7AA	V	F5AH	AL	D5AO	BB	440040/725635
G	D7AB	W	F4T7	AM	D5AG		
H	D7AE	X	F5AQ	AN	D5AN		
I	D7AF	Y	E5AA	AO	C5AN		
J	E7AA	Z	BB56	AP	C6AD		
K	F7AA	AA	E5AH	AQ	C6AK		
L	F7AD	AB	E5AG	AR	C6AL		
M	G6AB	AC	E5AB	AS	C6AE		
N	G6AM	AD	E5AC	AT	D6AF		
O	G6AL	AE	E5AD	AU	D6AL		
P	G6AK	AF	D5AM	AV	D5AC		


MONTPELIER SECTOR
MPV (52)
A 070-230
B 110-230*
C 000-230
D 070-230*
E 060-100*
F 080-230
G 060-230*
H 000-100
I 000-060
*EXCLUDING APPROACH CONTROL AIRSPACE (BTV, PWM, AND ALB)
MPV
BTV
BML
SLK
RUT
BJA
DEERR
STANK
FAWNS
BUGSY
TRIKY
JONNN
UUBER
SRNAC
OPDIE
DINNY
FOSYU
SMAIR
T705
T300
LAGGS
TUPER
RIGID
LATTS
MUTNA
PBERG
KEESE
WINLA
JASDU
WEIGH
ENSON
JOGIM
GRISS
V487
NIPPY
GASSY
Q29
Q913
T393
T315
T395
POROE
GREEK
MUDDI
SKEEE
DAVID
ZIECH
CEVIB
REGGI
PLOTT
COVAN
CABCI
KJOHN
CAMTN
SQUAM
LAROE
NOTTY
WYLIE
JOBBY
BRLIN
J49
KB90C
KB87C
KB84C
KB84A
KB87A
KB81A
ADIRONDACK RGNL
MALONE-DUPORT
LAKE PLACID
PLATTSBURGH INTL
FRANKLIN COUNTY STATE
PATRICK LEAHY BURLINGTON INTL
TICONDEROGA MUNI
RUTLAND/SOUTHERN VERMONT RGNL
EDWARD F KNAPP STATE
MORRISVILLE-STOWE STATE
NORTHEAST KINGDOM INTL
DEAN MEMORIAL
CALEDONIA CO
MT WASHINGTON RGNL
BERLIN RGNL
A
B
C
D
E
F
G
H
I

5-6. PLATTSBURG SECTOR 53

5-6-1. GENERAL DESCRIPTION

This sector is stratified at FL240 and above. High altitude traffic is primarily north/south traffic going in or out of BTV, YUL, and YOW. Any crossing traffic is likely to occur at PBERG. Low altitude traffic is also north/south into the same terminals. Sector 53 owns all airspace FL240 and above within its lateral boundaries. When Sector 53 is combined with Sector 52, they are normally combined at Sector 52. During the midnight shift, all Area B Sectors are combined at Sector 38. The sector contains a portion of the LASER ATCAAs and abuts the AKS and SCOTTY ATCAAs.

5-6-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Primary Frequency – 118.825/251.075

2. AWACS/Backup Frequency – 133.625/354.1 Backup for Sectors 38, 39 and Area A.

3. Backup Frequency – 135.7/282.2 Primary frequency for Sector 52.

4. BUEC – Sector 53 – None available.

b. Map Information:

1. Pre-Set Map – AREAB

2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 39

d. Sector SIA

1. ERAM-status outages, drawing and annotations, GI, and weather messages
2. ERIDS, including pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. White Boards
5. Flight progress strips
6. Printed messages on strips such as GI, hazardous weather
7. Read-and-sign folders
8. Written notes

5-6-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Exiting the Sector:

(a) Sector 39 has control for turns not to exceed 90 degrees and control for descent to FL240 on LGA/HPN/SWF/POU/EWR and EWR Satellite arrivals.

(b) All IAD traffic, during the hours of 1700Z until 2200Z, that are flight-planned over ALB or BAF must be established on the HYPER arrival prior to Sector 20.

(c) Sector 39 has control for descent of PHL and PHL satellite arrivals to FL260.

(d) Sector 53 must clear BOS jet arrivals via ENE then OOSHN STAR to cross ENE at FL240.

(e) When Sectors 08 & 09 are split, Sector 53 must clear aircraft landing CYOW to enter Sector 08 at or below FL270.

(f) When Sectors 08 & 09 are split, PHL and PHL satellite airport arrivals must enter Sector 08 at or below FL260.

b. Holding:

1. KJOHN – Hold NE on 249 course inbound, left turns, 20 DME legs. Published on Enroute High.

2. PBERG – Hold S on 015 course inbound, right turns, 10 DME legs. Published on Enroute Low and CARTR STAR.

3. CAMTN – Hold N on 190 course inbound, right turns, 10 DME legs. Published on Enroute High.

4. SKEEE – Hold NE on 217 course inbound, right turns, 10 DME legs. Published on Enroute High/ FLOSI STAR.

c. Military Operations:

1. ADIRONDACK AIRSPACE COMPLEX:

(a) ADIRONDACK AIRSPACE COMPLEX – Used for intercept/air-to-ground combat training. The Boston ARTCC/EADS LOA combines the individual MOAs and ATCAAs into grouped areas with seasonal altitude and use restrictions.

NOTE: The ADIRONDACK AIRSPACE COMPLEX except for VIPER WEST is adjusted seasonally (5/1 thru 10/31 and 11/1 thru 4/30) with altitude adjustments to the lower portions of the areas.

(b) MARSA applies between all aircraft scheduled for the areas. Control within the areas may be assigned to a Military RADAR Unit or Autonomous Control. Sector 08 is the controlling sector. Activation/deactivation procedures are contained under ZBW 7110.33 Par. 2-1-9 and 2-2.

(c)

(1) ADIRONDACK AIRSPACE COMPLEX			
VIPER ALL (VPR0A)			
(*Portions Conflicts W/AR609, Variable Altitudes)			
Includes Airspace:	Code	Altitudes	
		11/1 thru 4/30	5/1 thru 10/31
ADIRONDACK A	ADKA1	060B500	
ADIRONDACK B	ADKB1	025B500	
ADIRONDACK C	ADKC1	001B500	
ADIRONDACK D	ADKD1	050B500	
TUPPER WEST	TRPW1	060B500	080B500
TUPPER EAST	TPRE1	120B500**	
**TUPPER EAST Real Time Request 100B500			
TUPPER CENTRAL	TPRC1	060B500#	080B500
TUPPER SOUTH*	TPRS1	060B500#	080B500
#TUPPER CENTRAL/SOUTH			
CRANBERRY MOA	CRNB0	005B060	NA
CANTON ATCAA	CNTN0	180B500	
POTSDAM ATCAA	PTSD0	180B500	
CARTHAGE EAST	CTHE1	001B500	
CARTHAGE WEST*	CTHW1	060B500	
LOWVILLE*	LWVL0	001B500	

(2) ADIRONDACK AIRSPACE COMPLEX			
VIPER EAST (VPR0E)			
(Variable Altitudes, *Portions Conflicts W/AR609)			
Includes Airspace:	Code	Altitudes	
		11/1 thru 4/30	5/1 thru 10/31
TUPPER WEST	TPRW1	060B500	080B500
TUPPER EAST	TPRE1	120B500**	
**TUPPER EAST Real Time Request 100B500			
TUPPER CENTRAL	TPRC1	060B500#	080B500
TUPPER SOUTH*	TPRS1	060B500#	080B500
#TUPPER CNETRAL/COUTH			
CRANBERRY MOA	CRNB0	005B060	NA
POTSDAM ATCAA	PTSD0	180B500	

(3) ADIRONDACK AIRSPACE COMPLEX		
All Year No Seasons		
(VIPER WEST (VPR0W)		
(Variable Altitudes, *Conflicts W/AR609)		
ADIRONDACK A	ADKA1	060B500
ADIRONDACK B	ADKB1	025B500
ADIRONDACK C	ADKC1	001B500
ADIRONDACK D	ADKD1	050B500
CARTHAGE EAST	CTHE1	001B500
CARTHAGE WEST*	CHTW1	060B500*
LOWVILLE*	LWVL0	001B500*
CANTON ATCAA	CNTN0	180B500

(4) ADIRONDACK AIRSPACE COMPLEX			
VIPER NORTH (VPR0N)			
(Variable Altitudes, Clear of AR609)			
Includes Airspace:	Code	Altitudes	
		11/1 thru 4/30	5/1 thru 10/31
ADIRONDACK A	ADKA1	060B500	
ADIRONDACK B	ADKB1	025B500	
ADIRONDACK C	ADKC1	001B500	
ADIRONDACK D	ADKD1	050B500	
CARTHAGE EAST	CTHE1	001B500	
CANTON ATCAA	CNTN0	180B500	
TUPPER WEST	TPRW1	060B500	080B500
TUPPER EAST	TPRE1	120B500**	
**TUPPER EAST Real Time Request 100B500			
TUPPER CENTRAL	TPRC1	060B500#	080B500
#TUPPER CENTRAL			
CRANBERRY MOA	CRNB0	005B060	NA
POTSDAM ATCAA	PTSD0	180B500	

(d) AKS ATCAA - This area contains autonomous or MRU refueling operations for AR609. Sector 08 must verbally coordinate with Sectors 52, 53, 39, and 09 that this area is going active prior to issuing a clearance in accordance with Paragraph 2-1-9 and 2-2 of this Order, and again when the area becomes inactive.

NOTE: AKS ATCAA contains the protected airspace of AR609; however, AR609 operations do not required the activation of AKS.

(e) East entries into ADIRONDACK AIRSPACE COMPLEX/AKS – Activation of these areas are normally conducted by Sector 08. East entries from Sector 52 or 53 are conducted as follows:

(1) MRU operations – Sector 52 or 53 must initiate a Transfer of Flight unless sector 08 is unable to release the airspace.

(2) Sector 08 must enter interim altitude information to the MRU. The initiating sector is responsible for the coordination and clearance as outlined in paragraph 2-2-2. If Sector 08 is unable to release airspace to the MRU, then Sector 52 or 53 must handoff the transfer communications of the military aircraft requesting the airspace to Sector 08.

NOTE: Sector 08 must conduct all required coordination with GTB.

(3) Autonomous operations – Sector 52 or 53 must initiate a handoff to Sector 08. Sector 08 is responsible for the coordination and clearance as outlined in paragraph 2-2-2.

2. LIGHTNING ATCAAs – Used by the 158FW and accompanied mission essential units for tactical air-to-air training, air-to-ground training, and orbital close air support. MARSA applies between all aircraft scheduled for the LIGHTNING areas and any concurrent use airspace (e.g. - VIPER). Control within the areas may be assigned to a Military RADAR Unit or Autonomous Control. (See ZBW ARTCC / 224th ADS/ 158FW Letter of Agreement)

(a) LIGHTNING 1/2/3 - Plattsburgh Sector (53) is the controlling sector.

Activation/deactivation procedures are contained under Par. 2-1-9 and 2-2. Sector 53 must verbally coordinate with adjacent sectors prior to activating the airspace, and again when the area becomes inactive.

(b) LIGHTNING 4 - Watertown Sector (08) is the controlling sector. Activation/deactivation procedures are contained under Par. 2-1-9 and 2-2.

NOTE: After clearing aircraft into LIGHTNING 1/2/3, the Plattsburg Controller will issue a frequency change to Area A to receive clearance into LIGHTNING 4 and concurrent use airspace. Sector 08 can expect aircraft entering from Area B to have a clearance to operate in LIGHTNING 1/2/3 as previously coordinated.

3. LASER SUAs – (North/South/East and West). See Boston ARTCC/EADS Letter of Agreements.

4. E3 Operations – See Boston ARTCC/EADS/LOA.

5. Aerial Refueling Route [Ref. DOD Flight Information Publication, AP/1B]:

(a) AR204:

(1) ARIP – ALB017067(NE)/ PQI342024(SW)
(2) ARCP – MPV042033(NE)/ MLT319053(SW)
(3) Exit Point – PQI342024(NE)/ ALB017067(SW)
(4) Altitudes: FL240/260

(b) AR205
(1) ARIP – PQI342024
(2) ARCP – MLT319053
(3) Exit Point – ALB017067
(4) Altitudes: FL280/310

(c) AR609 (AKS):

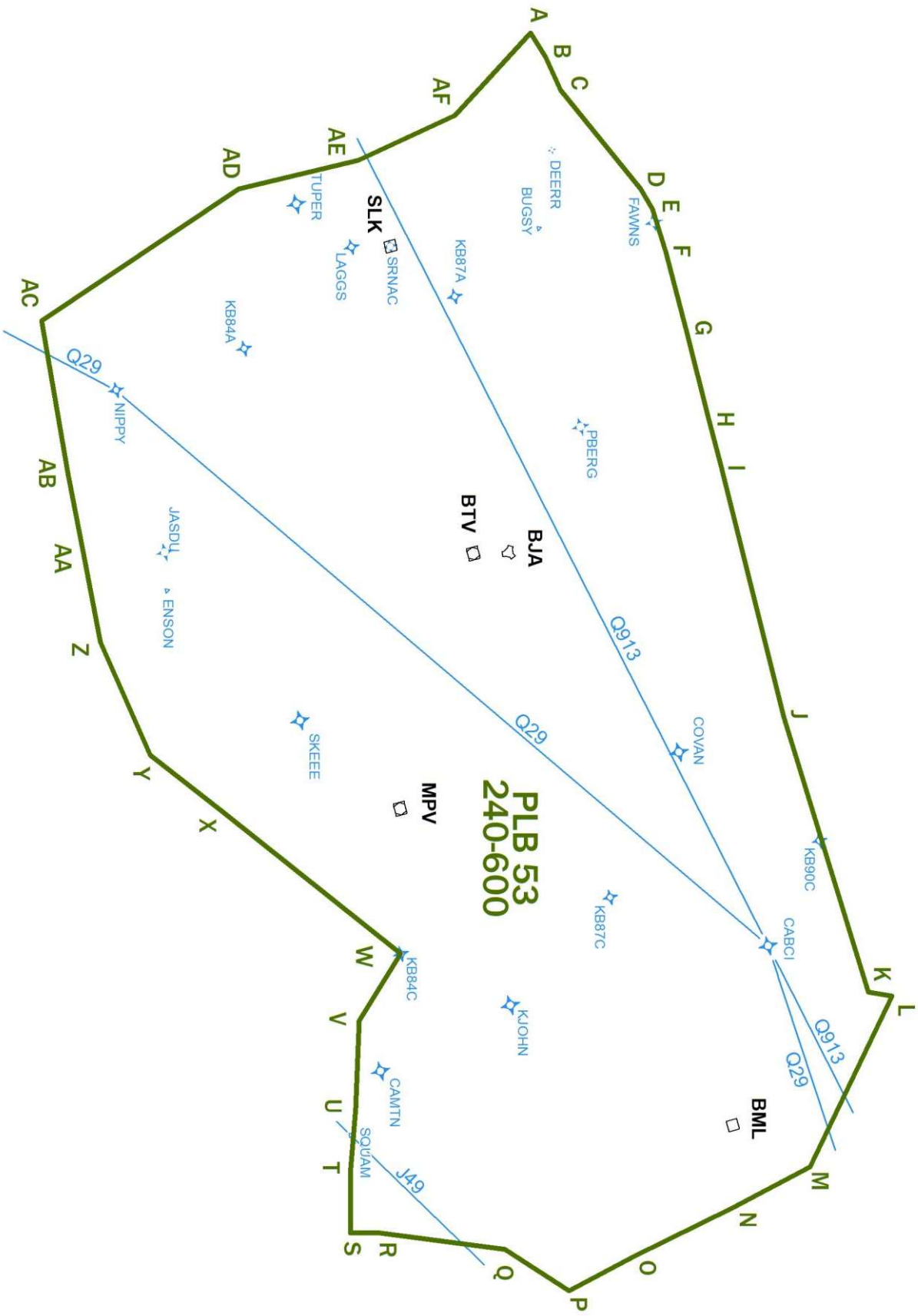
(1) Entry/Anchor Point – SYR087075
(2) ARIP – SYR045019
(3) Exit Point – ALB356043
(4) Altitudes: FL180-280

(d) AR631 (located within LASER SOUTH):

(1) Entry/Anchor Point – ENE271046
(2) ARIP – ALB051043
(3) Exit Point – ENE261030
(4) Altitudes: FL200/260

d. Plattsburgh Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	C6AB	H	D7AE	O	G6AK	V	F5AQ	AC	C5AN
B	C6AI	I	D7AF	P	G6AC	W	E5AA	AD	C6AD
C	C6AG	J	E7AA	Q	F6AB	X	E5AG	AE	C6AK
D	C7AE	K	F7AA	R	F5AO	Y	E5AB	AF	C6AL
E	C6AJ	L	F7AD	S	F5AE	Z	D5AR		
F	D7AA	M	G6AB	T	F5AH	AA	D5AF		
G	D7AB	N	G6AM	U	F4T7	AB	D5AP		


PLATTSBURG SECTOR
PLB 53
240-600
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
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X
Y
Z
AA
AB
AC
AD
AE
AF
SLK
SRNAC
TUPER
LAGGS
DEERR
BUGSY
FAWNS
KB87A
KB84A
Q29
NIPPY
PBERG
BTV
BJA
JASDY
ENSON
Q913
COVAN
SKEEE
MPV
KB90C
KB87C
CABCI
KB84C
KJOHN
CAMTN
SQUAM
J49
BML
Q29
Q913

5-6A. DHART HEMS NETWORK OPERATIONS

This Dartmouth-Hitchcock Advance Response Team (DHART) Hospital Emergency Medical Services (HEMS) Network is a standalone GPS based route structure utilizing Special Helicopter Instrument Flight Procedures (ODPs) that interconnect the regional hospitals in New Hampshire and Vermont. The network allows DHART to airlift critical patients to higher care facilities for advanced treatment. DHART's EC135 helicopters are not anti-ice equipped so the Network's MOCAs allow the helicopter to operate IFR as low as possible and provide instrument procedures reducing workload during poor weather to expedite DHART's mission response time. Because of the weather and icing periods in New England, the majority of operations using the network occur between March and November.

CHAPTER 6. AREA C

6-1. HAMPTON SECTOR 31

6-1-1. GENERAL DESCRIPTION

The primary traffic flow in the sector is north/south overflights. Additional flows are JFK departures over the North Atlantic and Providence arrivals from the southwest. The primary area for traffic conflicts is southwest of HTO/ORCHA between the JFK departures, PHL arrivals, and other overflight traffic.

6-1-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Primary Frequency – 124.52/254.37

2. Backup Frequency – 132.3/346.3

3. UHF Emergency – 243.0

4. BUEC – Sector 31

5. Position Combining – The VSCS must be utilized to combine sectors.

b. Map Information:

1. Pre-Set Map – AREAC

2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 32

d. Sector SIA

1. ERAM-status, outages, drawings and annotations, GI, and weather messages
2. ERIDS including Pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. Printed messages on strips such as GI, hazardous weather, ALNOTS, GENOTS, etc.
5. Written notes.

6-1-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector:

(a) Sector 31 has control for turns not to exceed 30 degrees left or right of track in Sector 18 airspace within 10 NMs of the Sector 18/31 boundary.

(b) Sectors 18 and 46 must ensure arrivals to PHL, WRI, TTN, PNE, ACY, DOV, and associated satellite airports must be below, or in-trail with, all other Enroute traffic. If the

arrival traffic is not longitudinally separated, then different altitudes may be assigned provided:

(1) WRI/TTN/PNE and associated satellite traffic is in-trail with each other and below all other Enroute traffic.

(2) PHL, ACY and associated satellite traffic is in-trail with each other and below all traffic, except for WRI, TTN and PNE traffic.

(3) DOV and associated satellite traffic is below all traffic, except for PHL, ACY, WRI, TTN and PNE traffic.

NOTE: When Sector 49 is open, Sectors 18 and 46 must ensure arrivals to PHL, WRI, TTN, PNE, ACY, DOV, and associated satellite airports enter Sector 31 below Sector 49.

(c) Unless operationally necessary, between the hours of 1800-0000L Sector 18 must not re-route aircraft beyond SEY or GRONC unless verbally coordinated.

(d) Between 1800-0000L, when requested by Area C OS/CIC, Sector 18 must route PVD departures flight planned Q167/Q97 via ORCHA.Q167.RIFLE or ORCHA.Q167.RIFLE..HEADI.Q97.

NOTE: When Sector 49 is open and Sector 18 is unable to climb traffic above Sector 31, Sector 18 must assign the aircraft FL300 and handoff to Sector 31.

2. Exiting the Sector:

(a) May assign any cardinal altitude except FL400, to eastbound international flights entering Area D between the hours of 1800-0000L.

(b) Between 1800-0000L, Sector 31 must not re-route oceanic traffic DIRECT to the Inner Fixes that enter Sector 18 through the SEY AREA defined at Pt. AC north to Pt. A (See Sector 31 Map) without prior approval.

(c) All Cape and Islands arrivals (except MVY must enter Sector 18 at or below FL200).

NOTE: ACK arrivals may be assigned FL210 reference other Sector 18 arrival or departure traffic.

(d) Sector 31 must descend traffic landing MVY to FL200 and handoff to Sector 32.

(e) Sector 31 must descend traffic landing ORH, A90 Bedford Sector airports, ASH, and non-turbojet MHT arrivals to FL200 handoff to Sector 32. Sector 31 may route these arrivals DIRECT ORW without coordination.

(f) BOS jet arrivals must be established on the OOSHN STAR no later than CUJKE without prior approval.

b. AIT [ZBW 7110.33, Para A6-2]:

1. The following procedure is authorized within Area C for JFK departure flights planned to enter Sector 18 requesting FL320 or above:

(a) Sector 31 must clear the aircraft to FL310, place an interim altitude of FL310 in the data block and initiate a handoff to Sector 49.

(b) Sector 49, after accepting the handoff, may modify or remove the interim altitude and initiate a handoff to Sector 18. If traffic does not permit climb above FL310, Sector 49 will leave the interim altitude of FL310 in the data block and initiate a handoff to Sector 18.

(c) Sector 31, after observing the modified interim or requested altitude in the data block and that a handoff has been initiated to Sector 18, must assign the aircraft that altitude.

(d) Sector 31 must transfer communications of the aircraft to Sector 18 after acceptance of the handoff by Sector 18.

c. Holding (Non-radar):

1. EMJAY (Unpublished) –

(a) Hold NE on Q167, right turns.

(b) Hold NE on Q167, left turns.

(1) FL240-FL310 – Conflicts with W-105.

i. FL240-FL300 Requires coordination with ZNY (Atlantic Sector).

d. Military – Warning Area W-105A:

1. Altitudes – Surface to FL500.

2. Times of Use – Intermittent.

3. Controlling Agency – FAA, Boston ARTCC.

4. Using Agency – FACSFAC VACAPES.

5. Sector 31 must coordinate with the Area OS/CIC (to forward to the MC) whenever W-105 or W-107 is activated “Real Time”.

6. Sector 31 must coordinate with the Area OS/CIC (to forward to the MC) whenever W-107 is deactivated “Real Time”.

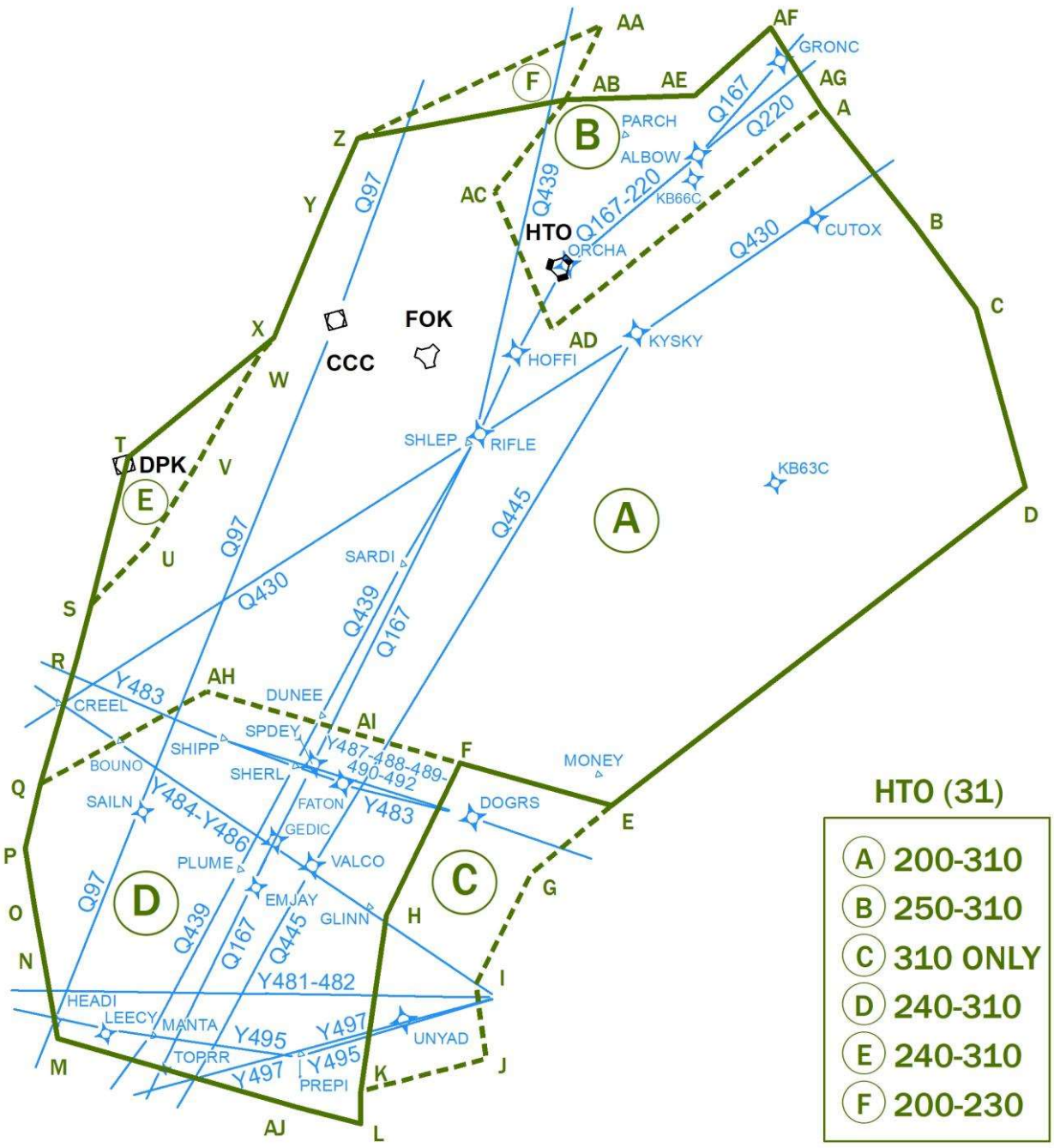
NOTE: The ZDC/ZNY/ZBW/ZJX/FACSFAC VACAPES Letter of Agreement requires “Giantkiller” coordinate with the Cape, Clipper, Southie, and Hampton Sectors for Real Time W-105 and W-107 activation. By the Letter of Agreement this is the only coordination that is required by Giantkiller for “real Time” activation thereby leaving the Mission Coordinator (MC) out of the W-105 and W-107 coordination process.

e. HTO Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	BN29	H	BB19	O	BB98	V	NT21	AC	BN48
B	BN44	I	BN81	P	BB31	W	BB52	AD	NT24

C	BN33	J	BN82	Q	BB30	X	BB50	AE	BN68
D	BN97	K	BB22	R	BB28	Y	NT52	AF	F3ML
E	BB16	L	BB21	S	BB32	Z	E3AS	AG	G3E4
F	BB17	M	BB18	T	BB27	AA	BN49	AH	BB45
G	BN80	N	BB99	U	BB33	AB	BN89	AI	BB44
								AJ	BB20

HAMPTON SECTOR



HTO (31)

A	200-310
B	250-310
C	310 ONLY
D	240-310
E	240-310
F	200-230

6-2. CLIPPER SECTOR 32

6-2-1. GENERAL DESCRIPTION

The primary arrival flows in the sector are JFK arrivals via CCC, Providence arrivals from the southwest, and arrivals to Long Island/Southern Connecticut airports from the south. Departure flows include the North Atlantic JFK departures and N90 departures from the ISP Area. Additional traffic flows are Enroute traffic via HTO/ORCHA V139 and Cape and Islands arrival traffic. The primary areas for traffic conflictions normally occur along V139 and in the vicinity of the HTO VOR. Clipper Sector is authorized to utilize single-site radar separation IAW applicable Directives.

6-2-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Primary Frequency – 135.8/292.15

2. Backup Frequency – 132.3/346.3

3. BUEC – 32

4. Position Combining – The VSCS must be utilized to combine sectors.

b. Map Information:

1. Pre-Set Map – AREAC

2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 32

d. Sector SIA
1. ERAM-status, outages, drawings and annotations, GI, and weather messages
2. ERIDS including. Pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. Printed messages on strips such as GI, hazardous weather, ALNOTS, GENOTS, etc.
5. Written notes.

6-2-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector:

(a) Sector 32 has control for turns not to exceed 30 degrees left or right of track in Sector 18 within 10 NMs of the Sector 18/32 boundary.

(b) Sectors 46 must descend JFK/FRG jet arrivals to cross TRAIT at FL240.

(c) Sector 32 has control for turns, up to 30 degrees on JFK/FRG arrivals in Sector 46, after the aircraft crosses TRAIT.

(d) Sector 18, with prior approval from Sector 32, may deliver high performance turboprop aircraft, as defined by the N90/ZBW LOA, and routed via SEY PARCH CCC ROBER JFK/FRG, during off-peak traffic periods at or below FL220 to Sector 32.

(e) Sector 18 must ensure turbojets/high-performance turboprops landing JFK/FRG enter Sector 32 at or below FL220.

NOTE: When a 15 MIT or greater Traffic Management Initiative is in effect to JFK, Sector 18 must force a data block for all JKF arrivals on the Sector 46 display. Sector 46 should initiate sequencing to Sector 32 for these aircraft as appropriate, coordinating any required control instructions to Sector 18.

NOTE: An interim altitude of 109 will be displayed in the data block for JFK departures flight planned via HAPIE.

2. Exiting the Sector:

(a) Sector 32 must clear Y90 arrivals via MAD, MAD R-341 BRISS or DPK STAR, to cross 10 miles south of MAD at 12,000 feet MSL.

(b) Sector 32 may clear aircraft DIRECT ORW/YANTC without coordination with Sector 34.

NOTE: Sector 31 may route aircraft transitioning to Sector 32 DIRECT ORW/YANTC without coordination.

(c) Sector 32 must descend traffic landing, ORH, A90 Bedford Sector airports, ASH and non-turbojet MHT arrivals to enter Sector 34 at or below 17,000 feet MSL.

(d) Sector 32 must clear MVY arrivals to cross LIBBE at 11,000 feet MSL and handoff to Sector 18.

(e) BOS jet arrivals must be established on the OOSHN STAR no later than CUJKE without prior approval.

b. Holding.

1. Radar – DPK (Published) – Hold S on DPK R-207, right turns, 15,000-17,000 feet MSL. 16,000-17,000 feet MSL requires coordination with Sector 19.

2. Non-radar –

(a) CCC (Published) – Hold E on the CCC R-085, left turns.

(1) 12,000-14,000 feet MSL requires coordination with N90 (VIKKY Sector).

(2) 12,000 feet MSL – FL190 requires coordination with Sector 19.

(b) SARDI (Unpublished) – Hold NE on V139, left turns, 7,000-10,000 feet MSL requires coordination with N90 (BEADS Sector).

(c) SARDI (Published) – Hold SW on V139, right turns. 14,000 MSL and above requires

coordination with ZNY (MANTA Sector).

NOTE: 15,000-17,000 feet MSL simultaneous holding at CCC and DPK is authorized. At 16,000 feet MSL and above, holding at CCC conflicts with the unpublished holding at SARDI.

c. Military – Warning Areas:

1. Altitudes:

(a) W-105A – Surface to FL500.

(b) W-105B – Surface to but not including FL180.

(c) W-106B – Surface to 8,000 feet MSL.

(d) W-106C – Surface to 10,000 feet MSL.

2. Times of Use – Intermittent.

3. Controlling Agency – FAA, Boston ARTCC.

4. Using Agency – FACSFAC VACAPES.

5. Sector 32 must coordinate with the Area OS/CIC (to forward to the MC) whenever W-105 is activated "Real Time".

6. For real-time activation of W105A or W105B, the Cape Sector is the primary sector responsible for turning on the SAA. The Clipper Sector is the secondary sector responsible for turning on the SAA.

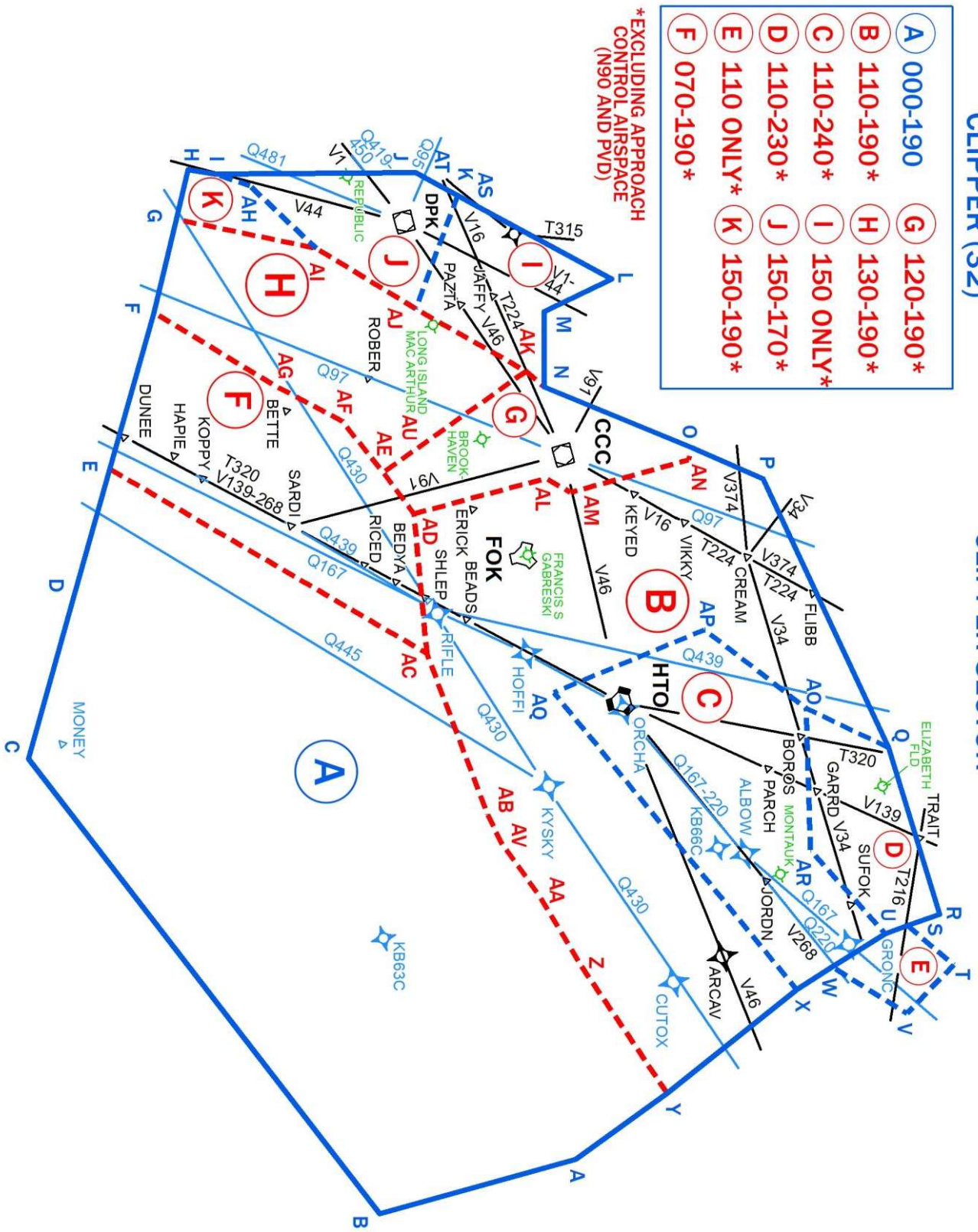
NOTE: The ZDC/ZNY/ZBW/ZJX/FACSFAC VACAPES Letter of Agreement requires "Giantkiller" coordinate with the Cape, Clipper, Southie, and Hampton Sectors for Real Time W-105 activation. By letter of agreement, this is the only coordination that is required by Giantkiller for "Real Time" activation thereby leaving the Mission Coordinator (MC) out of the W-105 coordination process.

d. Altitude Exceptions - Clipper Sector (ZBW32) is authorized to set the base altitude display to 4,600 feet Mean Sea Level (MSL). When providing air traffic control services below 5,800 feet MSL for aircraft not within underlying or adjacent approach control airspace, amend the base altitude limits to the surface.

e. Clipper Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	BN33	K	TB02	U	F3ML	AE	BB53	AO	BN89
B	BN97	L	TB03	V	G3E3	AF	BB51	AP	BN48
C	BB16	M	BB54	W	G3E4	AG	NT23	AQ	NT24
D	BB17	N	BB50	X	BN29	AH	BB32	AR	BN68
E	BB44	O	NT52	Y	BN44	AI	BB33	AS	B19D

F	BB45	P	E3AS	Z	BN31	AJ	NT21	AT	BB34
G	BB46	Q	BN49	AA	BN37	AK	BB52	AU	NT16
H	BB28	R	F3MM	AB	NT02	AL	BB49	AV	NT03
I	BB35	S	G3E1	AC	BB43	AM	BB48		
J	NT49	T	G3E2	AD	NT50	AN	NT51		


CLIPPER (32)
CLIPPER SECTOR
A 000-190
B 110-190*
C 110-240*
D 110-230*
E 110 ONLY*
F 070-190*
G 120-190*
H 130-190*
I 150 ONLY*
J 150-170*
K 150-190*
*EXCLUDING APPROACH CONTROL AIRSPACE (N90 AND PVD)
FOK
HTO
CCC
DPK
REPUBLIC
LONG ISLAND MAC ARTHUR
BROOK-HAVEN
FRANCIS S GABRESKI
ELIZABETH FLD
MONTAUK
ROBER
PAZTA
JAFFY
ERICK
BEADS
SHLEP
RICED
BEDYA
SARDI
KOPPY
HAPIE
DUNEE
BETTE
KEYED
VIKKY
CREAM
FLIBB
RIFLE
HOFFI
ORCHA
BOROS
PARCH
GARRD
TRAIT
SUFOK
ALBOW
JORDN
ARCAV
GRONC
CUTOX
KYSKY
MONEY
KB63C
KB66C
V16
V44
V1-44
V46
V97
V34
V374
V139
V268
T315
T224
T320
T216
Q481
Q419
Q95
Q97
Q430
Q439
Q167
Q445
Q167-220
Q220

6-3. PROVIDENCE SECTOR 34

6-3-1. GENERAL DESCRIPTION

The sector serves as a primary arrival sector for jets landing KBOS that are handed off to A90. The primary areas for traffic conflictions are in the vicinity of ORW/YANTC, where numerous traffic flows converge, as well as over PVD VOR/PROVI, especially during metering to BOS. Additional traffic flows include Bradley departures traveling southeast and non-jet arrivals landing BOS and Boston Area airports. Providence Sector is authorized to utilize single-site radar separation IAW applicable Directives.

6-3-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Primary Frequency – 124.85/269.2

2. Backup Frequency – 127.97/341.7

3. BUEC – 124.85/269.2

4. Position Combining – The VSCS must be utilized to combine sectors.

b. Map Information:

1. Pre-Set Map – AREAC

2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 47

d. Sector SIA

1. ERAM-status, outages, drawings and annotations, GI and weather messages
2. ERIDS including Pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. Printed messages on strips such as GI, hazardous weather, ALNOTS, GENOTS, etc.
5. Written notes

6-3-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector:

(a) Sector 19 must sequence PVD arrivals routed via BAYYS to enter Sector 34 at or below 13,000.

(b) Sector 19 must sequence non-jet arrivals to BOS, 1B9, GHG and OWD to enter Sector 34 between 13,000 feet MSL and 17,000 feet MSL.

(c) Sector 19 must sequence BOS jet arrivals to enter Sector 34 at the highest practical altitude between 13,000 and FL230.

(d) Sector 19 may clear BOS jet arrivals routed via the ROBUC STAR direct RUIZE without coordination.

(e) Sector 19 may clear BOS jet arrivals via the OOSHN STAR direct FOSTY without coordination.

(f) Sector 34 has control for descent to FL210 East of T315 within 45 miles of RUIZE with KBOS jet arrivals.

(g) Sector 34 has control for turns up to 10 degrees left (no further than a 055 track) and 20 degrees right of course on KBOS jet arrivals within 45 miles of RUIZE.

(h) Sector 19 may clear traffic routed via the ORW STAR direct ORW without coordination.

(i) Sector 19 may clear traffic routed via GON, excluding GON arrivals, direct GON without coordination.

(j) Sector 32 may clear traffic routed via ORW DIRECT ORW without coordination.

(k) Sector 47 may clear traffic routed via CSTL SID direct THUMB without coordination.

(l) Sector 46 must clear aircraft on the OOSHN STAR to cross 10 NM west of KLEBB at FL240 and handoff to Sector 18.

(m) Sector 19 must sequence MVY arrivals to enter Sector 34 at or below FL190.

2. Exiting the Sector:

(a) Clear traffic landing ORH, A90 Bedford Sector airports, ASH and non-turbojet MHT arrivals to cross BLATT at 11,000 feet MSL or the appropriate Letter of Agreement restriction.

(b) Except for MVY arrivals, all Cape and Islands arrivals must enter Sector 18 at or below 17,000 feet MSL.

NOTE: Sectors 18 and 34 must comply with Para 6-3-3.b.5. AIT for MVY arrivals unless otherwise coordinated.

(c) Sector 34 may clear aircraft on the OOSHN STAR direct KLEBB without prior approval.

b. AIT [ZBW 7110.33, par A6-2]:

1. The following procedure is authorized within Area C for Providence Terminal Area departures flight planned via PUT.

(a) Sector 47 after acceptance of the radar handoff from Providence ATCT must initiate a radar handoff to Sector 34.

(b) Sector 34, after accepting the handoff, may modify or remove the interim altitude (as appropriate), then must initiate a radar handoff to Sector 47.

(c) Sector 47, after accepting the handoff, may clear the aircraft to the altitude displayed in the data block. Sector 47 has control for right turns not to exceed 30 degrees, 5 NMs northwest of the PVD VORTAC.

NOTE: An interim altitude of 100 will be displayed in the data block of PVD Terminal Area departures flight planned via PUT.

c. Holding (Non-radar):

1. PVD (Published) – Hold SW on the PVD R-234, right turns, FL190-FL230 requires coordination with Sector 18.

2. PROVI (Published ROBUC STAR) – Hold SW as published.

(a) FL190-FL230 requires coordination with Sector 18.

3. JOODY (Published ROBUC STAR) – Hold W as published, left turns.

4. BANKI (Published ROBUC STAR) – Hold W as published.

NOTE: Simultaneous holding at BANKI and JOODY is authorized at and below FL230.

d. PVD ATCT Clearance Delivery Procedures:

Issue departure clearance for all aircraft requesting clearances on 126.65 (PVD ATCT Remote Clearance Delivery frequency), relay through BDR FSS or through ZBW Flight Data Unit (FDU) as appropriate. Assign departure restrictions, clearance void times, hold for release or release times when necessary to separate departures from other traffic or to restrict or regulate the departure flow.

e. Descend Via:

1. Sector 34 is authorized to descend via the ROBUC STAR in accordance with the A90/ZBW LOA.

2. Sector 34 must annotate, at the sector SIA, the KBOS primary landing runway as coordinated with the A90 Plymouth Sector.

Providence Airspace Transfer:

1. During transfer of airspace with Providence ATCT, Sector 34 must inform Providence approach of A90 Area 4R configuration.

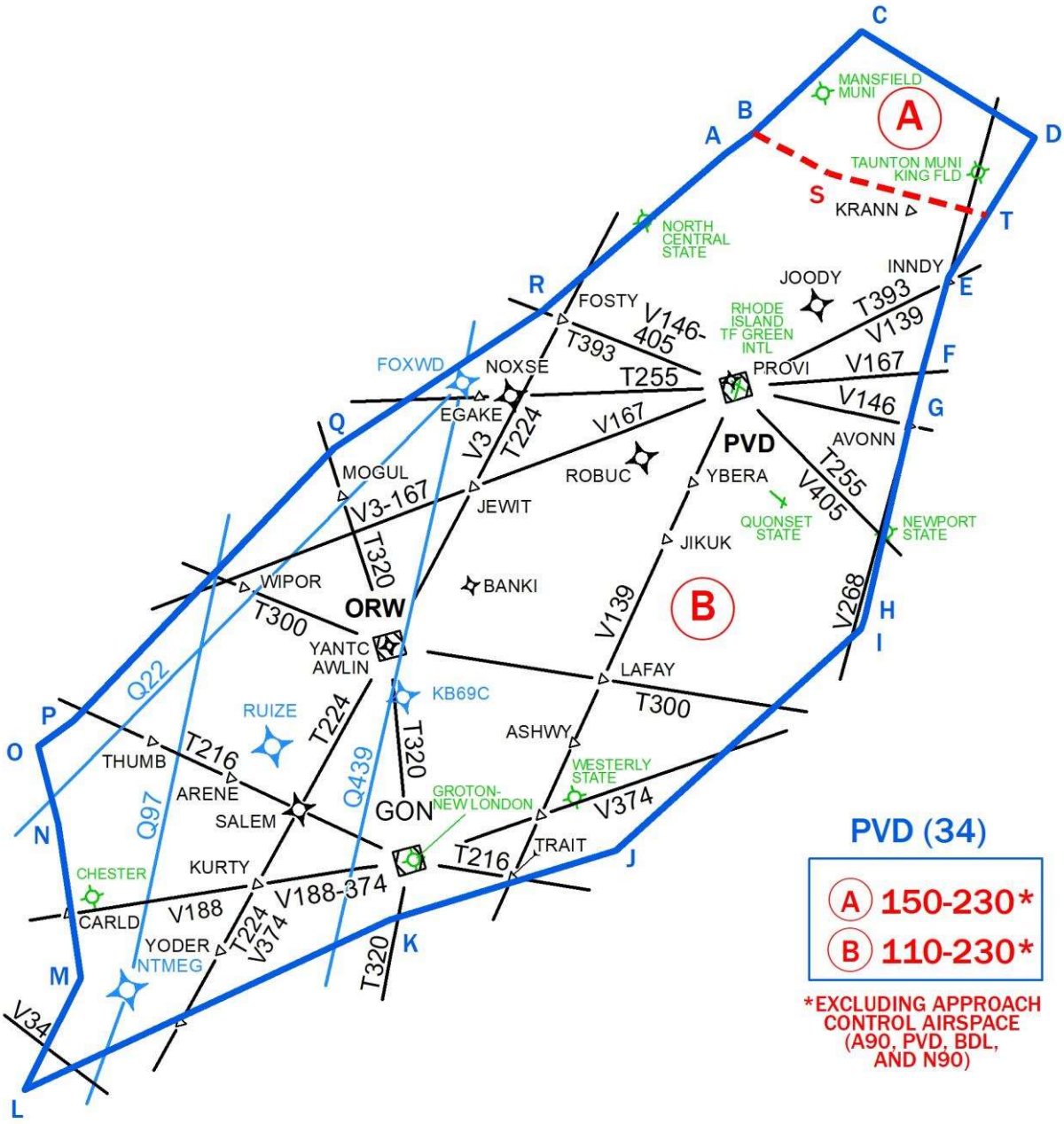
2. During transfer of airspace with Providence ATCT, inform the tower of all aircraft that have been issued clearances including the assigned altitude as appropriate and whether they have a clearance void time or hold for release.

f. PVD Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	F3AG	E	F3AK	I	F3MK	M	E3AH	Q	E3AC
B	F4AF	F	F3AL	J	F3MM	N	BN24	R	F3AF

C	BSD1	G	F4AV	K	BN49	O	E3AJ	S	F3DA
D	G3DC	H	F3MP	L	E3AS	P	E3AK	T	G4AC

PROVIDENCE SECTOR



6-4. BOSTON SECTOR 46

6-4-1. GENERAL DESCRIPTION

The primary traffic flows in the sector are BOS, PVD, MHT, and PWM. Area departures routed over BAF, NELIE, and CTR. JFK arrivals via PVD, and Enroute over flights, including NY Metro oceanic departures via HFD. The primary area for traffic conflictions is in the vicinity of PVD during sequencing of JFK arrivals, and HFD to PUT, for NY Metro departures and over flights.

6-4-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Primary Frequency – 126.22/370.9

2. Backup Frequency – 118.42/277.4

3. Position Combining – The VSCS must be utilized to combine sectors.

4. Emergency Frequency—121.5/243.0 (D-Side only)

NOTE: At least one sector per area must monitor the emergency frequency.

b. Map Information:

1. Pre-Set Map – AREAC

2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 47

d. Sector SIA

1. ERAM-status, outages, drawings and annotations, GI, and weather messages
2. ERIDS including. Pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. Printed messages on strips such as GI, hazardous weather, ALNOTS, GENOTS, etc.
5. Written notes

6-4-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector:

(a) Sector 02 must sequence JFK arrivals via ASPEN and ensure JFK arrivals have the appropriate longitudinal or lateral spacing between other aircraft proceeding southbound to allow Sector 46 to descend JFK arrivals unrestricted.

(b) Sector 17 must sequence JFK arrivals via PLYMM. In accordance with FAA JO 7110.65, 4-5-3a., Sector 17 may assign any odd cardinal altitude above FL310 to aircraft destined JFK, between 1200-1700L.

(c) Has control for turns, not to exceed 30 degrees right of track, only in Sector 17 for KJFK arrivals after handoff.

(d) Interim altitude assignment in data block is waived for those departure aircraft being handed off from Sector 47 to Sector 46. All aircraft requesting FL240 or above will be climbing to FL230 unless otherwise coordinated.

NOTE: For non-Mode C-equipped aircraft, a reported altitude must be input into the data block if that aircraft will operate at an altitude before proceeding to the assigned altitude. [Ref. 7210.3, Paragraph 8-2-7].

(e) All BOS and BOS satellite westbound departures handed off from Sector 47 must be routed direct BAF, CTR, NELIE unless otherwise coordinated.

(f) Sector 17 must ensure that aircraft landing EWR or EWR satellites are issued a clearance to descend to cross the Boston Sector boundary at FL280.

(g) When a 15 MIT or greater Traffic Management Initiative is in effect to JFK, Sector 18 must force a data block for all JFK arrivals on the Sector 46 display. Sector 46 should initiate sequencing to Sector 32 for these aircraft as appropriate, coordinating any required control instructions to Sector 18.

(h) Sector 16 must climb MHT Terminal Area and PWM departures, flight planned via RBELA, to FL230 and handoff to Sector 46. If the aircraft is climbing at a rate that may allow for higher altitude assignment, Sector 16 or Sector 02 must not assign an altitude higher than FL280 without prior coordination with Sector 46.

2. Exiting the Sector:

(a) All IAD traffic during the hours of 1700Z until 2200Z, that are flight-planned over ALB or BAF must be established on the HYPER arrival prior to Sector 20.

NOTE: Area C may still clear these aircraft DIRECT BIGGO.

(b) May clear traffic entering Sector 20 at or above FL280 via Q75, DIRECT BIZEX without coordination.

(c) May clear traffic entering Sector 20 at or above FL240 via Q routes and HYPER arrival to join Q routes and HYPER arrival between BAF and BIGGO without coordination.

(d) Sector 20 has control for turns DIRECT JEFFF, BOTLS, BWZ and PTW on Q480, Q406 and HYPER arrival traffic, at or above FL240, 10 NMs east of BAF.

(e) Arrivals to PHL, WRI, TTN, PNE, ACY, DOV and associated satellite airports must enter Sector 31 below or in-trail with all other Enroute traffic. If the arrival traffic is not longitudinally separated, different altitudes may be assigned provided:

(1) WRI, TTN, PNE and associated satellite traffic is in-trail with each other and below all other Enroute traffic.

(2) PHL, ACY and associated satellite traffic is in-trail with each other and below all

traffic, except for WRI, TTN and PNE traffic.

(3) DOV and associated satellite traffic is below all traffic, except for WRI, TTN, PNE, PHL and ACY traffic.

NOTE: When Sector 49 is open, Sectors 18 and 46 must ensure arrivals to PHL, WRI, TTN, PNE, ACY, DOV and associated satellite airports enter Sector 31 below Sector 49.

(f) Clear JFK/FRG jet arrivals to cross TRAIT at FL240 and handoff to Sector 32.

(g) Sector 32 has control for turns up to 30 degrees on JFK and FRG arrivals in Sector 46, after the aircraft crosses TRAIT.

(h) Sector 46 must clear PWM arrivals via SCOGS to cross BUOYY at FL240 and handoff to Sector 16.

(i) Sector 46 must clear AUG, LEW, BXM arrivals via BOS MESHL, pilot's discretion to FL240.

EXCEPTION: If traffic conditions do not allow an altitude assignment of FL240, Sector 46 must assign aircraft the lowest available altitude and handoff/communication change to Sector 02.

(j) Sector 46 must clear RKD arrivals via BOS RKD, pilot's discretion to FL240.

EXCEPTION: If traffic conditions do not allow an altitude assignment of FL240, Sector 46 must assign aircraft the lowest available altitude and handoff/communication change to Sector 02.

(k) Sector 46 must descend PSM and SFM arrivals to FL240 and handoff to Sector 47.

(l) Lowest available altitude when entering Sector 20 via Q75, Q406, Q448, Q480 or HYPER Arrival is FL240.

(m) BWI and DCA arrivals via Q75:

(1) Must enter Sector 20 in-trail and either below or in-trail with other turbojet aircraft routed via Q75.

(2) If less than adequate spacing exists between a BWI and DCA arrival, the BWI arrival must below the DCA arrival.

(3) When traffic is not sequenced or delivered as above in (1) or (2), Area C must through vectors and/or speed control, initiate spacing. It is understood that spacing does not have to be completed prior to the common boundary.

(n) IAD arrivals via HYPER arrival.

(1) Must enter Sector 20 in-trail and either below or in-trail with other turbojet aircraft routed via Q406/Q448.

(2) When traffic is not sequenced or delivered as above in (1), Area C must through vectors and/or speed control, initiate spacing. It is understood that spacing does not have to be completed prior to the common boundary.

(o) May assign any cardinal altitude except FL400, to eastbound international flights entering Area D between the hours of 1800-0000L.

(p) Sector 46 must clear KBOS arrivals via OOSHN STAR to cross 10 miles west of KLEBB at FL240 and handoff to Sector 18.

b. AIT [ZBW 7110.33, Para A6-2]:

1. The following procedure is authorized within Area C for aircraft departing BOS and PVD Terminal Areas flight planned via CTR:

(a) Sector 47 must clear the aircraft to FL230 and initiate a handoff to Sector 46.

(b) Sector 46, after accepting the handoff, must leave the requested altitude or enter an interim altitude in the data block and initiate a handoff to Sector 38.

(c) Sector 47, after observing the requested or interim altitude in the data block and that a handoff has been initiated to Sector 38, must clear the aircraft to the appropriate altitude.

NOTE: For non-Mode C-equipped aircraft, a reported altitude must be input into the data block if that aircraft will operate at an altitude before proceeding to the assigned altitude. [Reference FAA 7210.3, paragraph 8-2-7].

(d) Sector 47 must transfer communication of the aircraft to Sector 38 before the aircraft enters Sectors 38 airspace and after observing their acceptance of the handoff.

c. Holding (Non-radar):

1. TRAIT (Published) – Hold NE on J55, right turns. Coordination required with ZBW31 and ZBW49.

2. PVD (Published) – Hold NE on the PVD 057R, right turns.

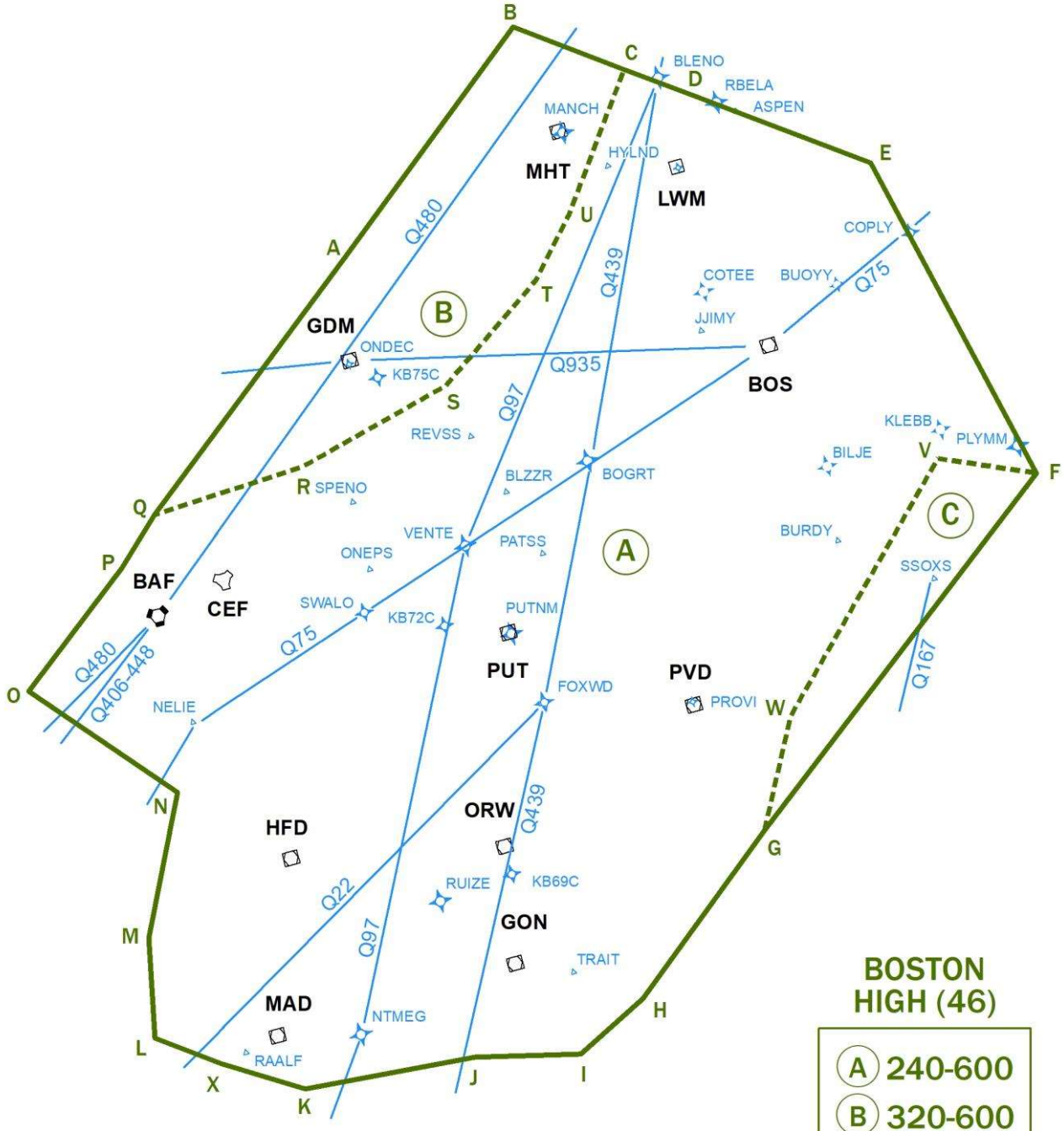
NOTE: Simultaneous holding at TRAIT and PVD at the same altitude is not authorized.

3. BAF (Published) – Hold E on the BAF 095R, left turns, FL240-FL450. Coordination is required with Sectors 38 and 20.

d. Boston High Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	F4AP	F	H4AF	K	E3AS	P	E4DR	U	F4AA
B	F4AO	G	F3MP	L	NT33	Q	E4DB	V	F4AU
C	F4AM	H	F3ML	M	E3AI	R	E4DA	W	F4AV
D	F4AN	I	BN68	N	E3AA	S	F4DI	X	NT38
E	G4DB	J	BN89	O	D4AE	T	F4DM		

BOSTON HIGH



BOSTON HIGH (46)

A	240-600
B	320-600
C	310-600

6-5. BOSOX SECTOR 47

6-5-1. GENERAL DESCRIPTION

The sector serves as a primary departure sector for departures handed off from A90 and Providence ATCT traveling west/southwest. Additional traffic includes Y90 departures via HFD VOR. The primary areas for traffic conflictions are in the vicinity of HFD VOR where Y90 departures climb through arrival traffic, and in the vicinity of PUT VOR where A90 and PVD departures are sequenced. Bosox Sector is authorized to utilize single-site radar separation IAW applicable Directives.

6-5-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Primary Frequency – 133.42/307.9

2. Backup Frequency – 127.97/341.7 Monitor when not released.

3. BUEC – 133.42/307.9

4. Position Combining – The VSCS must be utilized to combine sectors.

b. Map Information:

1. Pre-Set Map – AREAC

2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 46

d. Sector SIA

1. ERAM-status, outages, drawings and annotations, GI, and weather messages
2. ERIDS including Pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. Printed messages on strips such as GI, hazardous weather, ALNOTs, GENOTs, etc.
5. Written notes

6-5-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector:

(a) Sector 19 must clear non-turbojet MHT and ASH arrivals routed via HFD, to enter Sector 47 at or below 15,000 feet MSL.

(b) Sector 19 must clear A90 (Bedford Sector) arrivals via GRAYM or DREEM STAR, to enter Sector 47 at or below 15,000 feet MSL. Sector 47 has control for descent to 12,000 feet MSL within 10 NMs from HFD.

(c) Sector 19 must clear ORH arrivals via HFD V1 GRAYM DIRECT, to enter Sector 47 at or below 15,000 feet MSL. Sector 47 has control for descent to 12,000 feet MSL within 10

NMs from HFD.

(d) Sector 19 must clear GON and WST arrivals routed over HFD via HFD T216 GON DIRECT to enter Sector 47 at or below 12,000 feet MSL.

(e) PVD, PVD satellites, ISP and ISP satellites:

(1) May be cleared DIRECT NELIE by Sector 22 to enter Sector 47 between PONEE and VEERS without coordination.

(2) Must cross 20 NMs NW NELIE at or below FL210 to maintain FL190.

f) Sector 34 must clear ORH, A90 (Bedford Sector) airports, ASH and non-turbojet MHT arrivals to cross BLATT at 11,000 feet MSL, or the appropriate Letter of Agreement restriction.

g) Has control for left turns DIRECT KEYNN on props overflying KEYNN at or below 17,000 feet MSL with Sector 19 within 10 NMs southwest of HFD.

h) Has control for left turns not to exceed 30 degrees on all other traffic flight planned via MERIT HFD at or below 17,000 feet MSL with Sector 19 within 10 NMs of HFD.

2. Exiting the Sector:

(a) Sector 47 must climb westbound ORH departures to 17,000 feet MSL or below and handoff to Sector 07.

(b) Sector 47 is not required to sequence westbound ORH departures with other Enroute traffic to Sector 07.

NOTE: Interim altitudes displayed in the data blocks for ORH departures flight planned via CTR HNK is 98 and flight planned via CTR CAM is 100.

(c) Sector 47 may clear traffic routed via CSTL SID DIRECT THUMB without coordination.

(d) Props arriving PSM must be routed via GDM VORTAC to enter Sector 36 at 11,000 feet MSL.

(e) Lowest available altitude when entering Sector 20 via Q75/Q406/Q448/Q480/HYPER arrival is FL240.

(f) Interim altitude assignment in the data block is waived for those departure aircraft being handed off from Sector 47 to Sector 46. All aircraft requesting FL240 or above will be climbing to FL230 unless otherwise coordinated.

NOTE: For non-MODE C-equipped aircraft, a reported altitude must be input into the data block if that aircraft will operate at an altitude before proceeding to the assigned altitude. [Ref. FAA 7210.3, Paragraph 8-2-7].

(g) All BOS and BOS satellite westbound departures handed off to Sector 46 must be routed direct BAF, CTR, NELIE unless otherwise coordinated.

(h) Sector 47 must ensure EWR, LGA and HPN jet arrivals enter Sector 07 at or below 16,000 feet MSL. If less than radar separation exists between EWR and LGA arrivals, LGA arrivals must enter Sector 07 below EWR arrivals. If less than radar separation exists between EWR/LGA arrivals and HPN arrivals, then HPN arrivals must enter Sector 07 below EWR/LGA arrivals.

(i) Sector 07 has control for left or right turns not to exceed 20 degrees 10NM from NELIE on LGA, EWR, and HPN arrivals from sector 47.

(j) Sector 07 has control for descent from 16,000 to 14,000 feet MSL on LGA, EWR and HPN jet arrivals within 5 NMs of NELIE intersection.

b. AIT [ZBW 7110.33, Appendix A6-2]:

1. The following procedure is authorized within Area C for aircraft departing Boston and Providence Terminal Areas flight planned via CTR, requesting FL240 or above:

(a) Sector 47 must clear aircraft to FL230 and initiate a handoff to Sector 46.

(b) Sector 46, after accepting the handoff, must enter an interim altitude or leave the requested altitude in the data block and initiate a handoff to Sector 38.

(c) Sector 47, after observing the requested or interim altitude in the data block and that a handoff has been initiated to Sector 38, must clear the aircraft to the appropriate altitude.

NOTE: For non-Mode C-equipped aircraft, a reported altitude must be inputted into the data block if that aircraft will operate at an altitude before proceeding to the assigned altitude. [Ref. FAA 7210.3, Paragraph 8-2-7].

(d) After acceptance of the handoff, Sector 47 must transfer communication to Sector 38.

2. The following procedure is authorized within Area C for Providence Terminal Area departures flight planned via PUT:

(a) Sector 47 receives the handoff from Providence ATCT, and then initiates a radar handoff to Sector 34.

(b) Sector 34, after accepting the handoff, may modify or remove the interim altitude and initiates a radar handoff to Sector 47.

(c) Sector 47, after accepting the handoff, may clear the aircraft to the altitude displayed in the data block. Sector 47 has control for right turns not to exceed 30 degrees, 5 NMs northwest of the PVD VORTAC.

3. The following procedure is authorized between Areas B, C, and D for KPSM and KSFM arrivals flight planned via KLANE:

(a) Sector 47 must clear aircraft to cross KLANE at 15,000 feet MSL and initiate a radar handoff to Sector 37.

(b) Sector 37, after acceptance of the radar handoff, must initiate a radar handoff to Sector 16.

(c) Sector 16, after acceptance of the radar handoff, must initiate a radar handoff to A90.

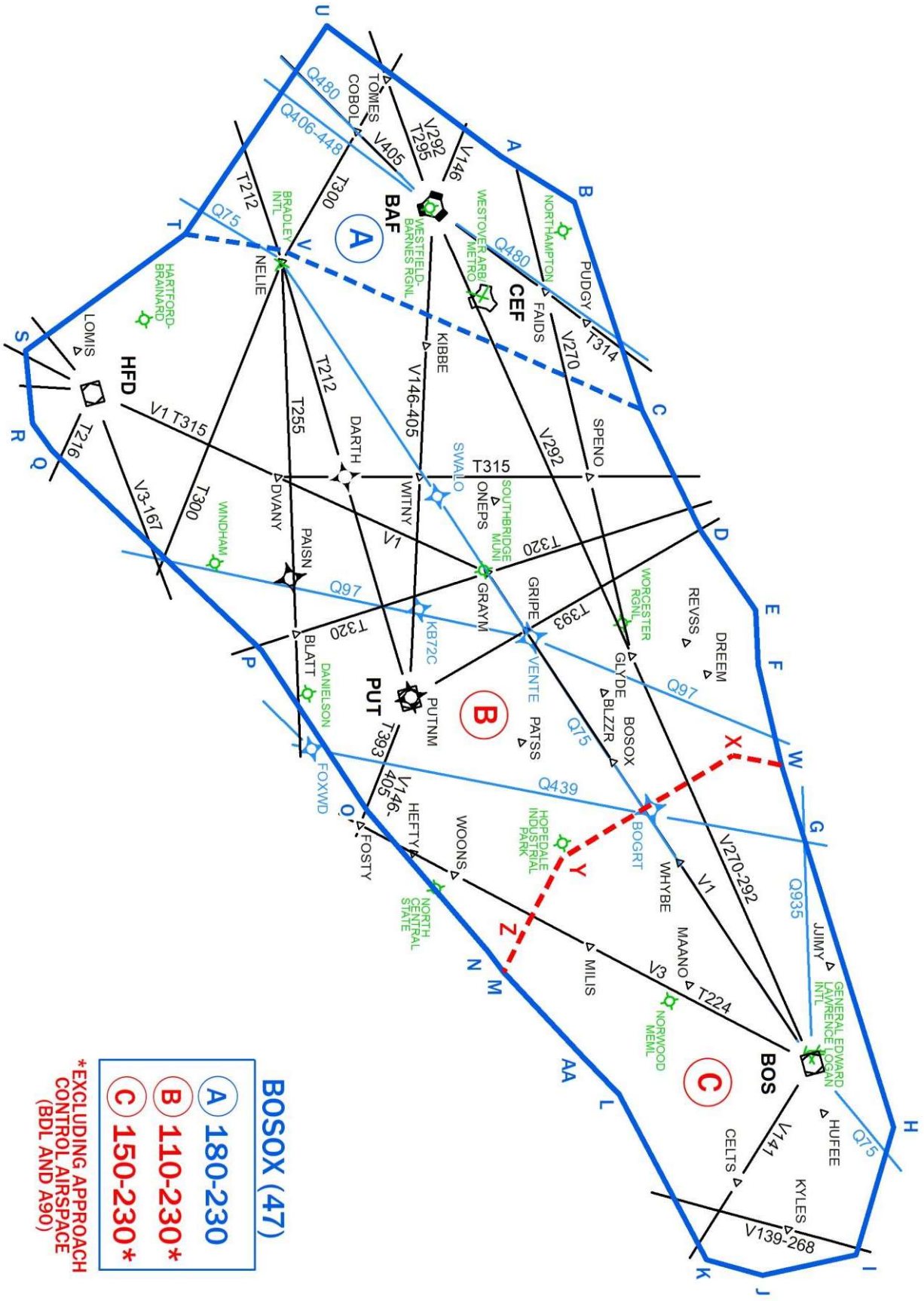
(d) Sector 47, after observing acceptance of radar handoff by A90, must transfer communication of the aircraft to A90.

NOTE: All Sectors involved in the use of the above AIT should understand that the aircraft will be descending into A90 airspace. It is not required that the data block reflects an assigned altitude lower than 15,000. However, each Sector must ensure the data block is displayed until the aircraft has left the jurisdiction of their respective airspace.

c. Parachute Jumping Area (Refer to Airport/Facility Directory) – 7B9, Ellington Airport, CT (See BDL TRACON/Boston ARTCC/Connecticut Parachutists, Inc. LOA).

d. BOSOX Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	E4DR	G	F4T1	M	F4AF	S	E3AP	Y	F4DC
B	E4DB	H	G4MR	N	F3AG	T	E3AA	Z	F4AG
C	E4DA	I	F4MO	O	F3AF	U	D4AE	AA	BSD1
D	E4DG	J	F4MB	P	E3AC	V	E3DP		
E	F4DI	K	BSD2	Q	E3AK	W	F4DH		
F	F4DZ	L	F4MM	R	E3AJ	X	F4DG		


BOSOX SECTOR
BOSOX (47)
A 180-230
B 110-230*
C 150-230*
*EXCLUDING APPROACH CONTROL AIRSPACE (BDL AND A90)
BAF
CEF
HFD
PUT
BOS
A
B
C
TOMES
COBOL
Q480
Q406-448
V292
T295
V405
V146
T212
T300
Q75
BRADLEY INTL
WESTFIELD-BARNES RGNL
NORTHAMPTON
WESTOVER ARB METRO
PUDGY
FAIDS
T314
V270
NELIE
KIBBE
V146-405
SPENO
V292
HARTFORD-BRAINARD
LOMIS
T212
T255
DARTH
T315
SWALO
V1 T315
T216
V3-167
T300
WINDHAM
DVANY
WITNY
ONEPS
SOUTHBRIDGE MUNI
V1
T320
PAISN
Q97
GRAYM
GRIPE
T393
WORCESTER RGNL
REVSS
DREEM
KB72C
BLATT
DANIELSON
VENTE
GLYDE
BLZZR
BOSOX
PATSS
PUTNM
T393
Q75
FOXWD
Q439
V146-405
HEFTY
FOSTY
WOONS
HOPEDALE INDUSTRIAL PARK
NORTH CENTRAL STATE
BOGRT
WHYBE
V1
V270-292
Q935
JJIMY
GENERAL EDWARD LAWRENCE LOGAN INTL
MAANO
V3
T224
MILIS
NORWOOD MEML
HUFEE
V141
CELTS
KYLES
V139-268
Q75
X
Y
Z

6-6. SOUTHIE SECTOR 49

6-6-1. GENERAL DESCRIPTION

This sector is an ultra-high sector that principally overlies the Hampton Sector. The primary traffic flow in this sector is north/south over-flights via Q167/Q97. Additional flows include North Atlantic traffic from the west and southwest. The primary area for traffic conflicts is southwest of HTO/ORCHA.

6-6-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Primary Frequency – 132.3/346.3

2. Backup Frequency – 243.0

3. BUEC – 132.3/346.3

4. Position Combining – The VSCS must be utilized to combine sectors.

b. Map Information:

1. Pre-Set Map – AREAC

2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 32

d. Sector SIA

1. ERAM-status, outages, drawings and annotations, GI, and weather messages
2. ERIDS including Pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. Printed messages on strips such as GI, hazardous weather, ALNOTs, GENOTs, etc.
5. Written notes

6-6-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector:

(a) Sector 49 has control for turns not to exceed 30 degrees left or right of track in Sector 18s airspace within 10 NMs of the Sector 18/49 boundary.

(b) Unless operationally necessary, between the hours of 1800-000L Sector 18 must not re-route aircraft beyond SEY or GRONC unless verbally coordinated.

(c) Between 1800-0000L, when requested by Area C OS/CIC, Sector 18 must route PVD departures flight planned Q167/Q97 via ORCHA.Q167.RIFLE or ORCHA.Q167.RIFLE..HEADI.Q97.

NOTE: If Sector 49 is open and Sector 18 is unable to climb traffic above Sector 31, then Sector 18 must assign FL300 and handoff to Sector 31.

2. Exiting the Sector:

(a) May assign any cardinal altitude except FL400, to eastbound international flights entering Area D between the hours of 1800-0000L.

(b) Between 1800-0000L, Sector 49 must not re-route oceanic traffic DIRECT to the Inner Fixes that would enter Sector 18 through the SEY Area defined as Pt. C North to Pt. A (See Sector 49 map) without prior coordination.

(c) Sector 49 must descend traffic landing Cape and Islands airports to FL320 and handoff to Sector 31.

(d) Sector 49 must descend traffic landing ORH, A90 Bedford Sector airports, ASH, and non-turbojet MHT arrivals to FL320 and handoff this traffic to Sector 31. Sector 49 may route these arrivals DIRECT ORW/YANTC without coordination.

b. AIT [ZBW 7110.33, para A6-2] – The following procedure is authorized within Area C for JFK departures flight planned to enter Sector 18 requesting FL320 or above:

1. Sector 31 must clear the aircraft to FL310, enter an interim altitude of FL310 in the data block and initiate a handoff to Sector 49.

2. Sector 49, after accepting the handoff, may modify or remove the interim altitude and initiate a handoff to Sector 18. If traffic does not permit climb above FL310, then Sector 49 will leave the interim altitude of FL310 in the data block and initiate a handoff to Sector 18.

3. Sector 31, after observing the modified interim or requested altitude in the data block and that a handoff has been initiated to Sector 18, must assign that altitude to the aircraft.

4. Sector 31 must transfer communication of the aircraft to Sector 18 after acceptance of the handoff by Sector 18.

c. Non-radar Holding – EMJAY (Unpublished):

1. Hold NE on Q167, right turns.

(a) FL340 and above conflicts with W-105.

(b) FL360-FL410 conflicts with W-105. Requires coordination with ZDC (SIE Sector) and ZNY (JFK Sector).

2. Hold NE on Q167, left turns.

(a) Conflicts with W-105 all altitudes.

(b) FL340 and above – conflicts with W-105. Requires coordination with ZDC (SIE Sector).

(c) FL360-FL410 – conflicts with W-105 and W-107. Requires coordination with ZDC (SIE Sector) and ZNY (Atlantic Sector).

d. Military – Warning Area W-105A:

1. Altitudes – Surface to FL500.

2. Times of Use – Intermittent.

3. Controlling Agency – FAA, Boston ARTCC.

4. Using Agency – FACSFAC VACAPES.

5. Sector 49 must coordinate with the Area OS/CIC (to forward to the MC) whenever W-105 or W-107 is activated “Real Time”.

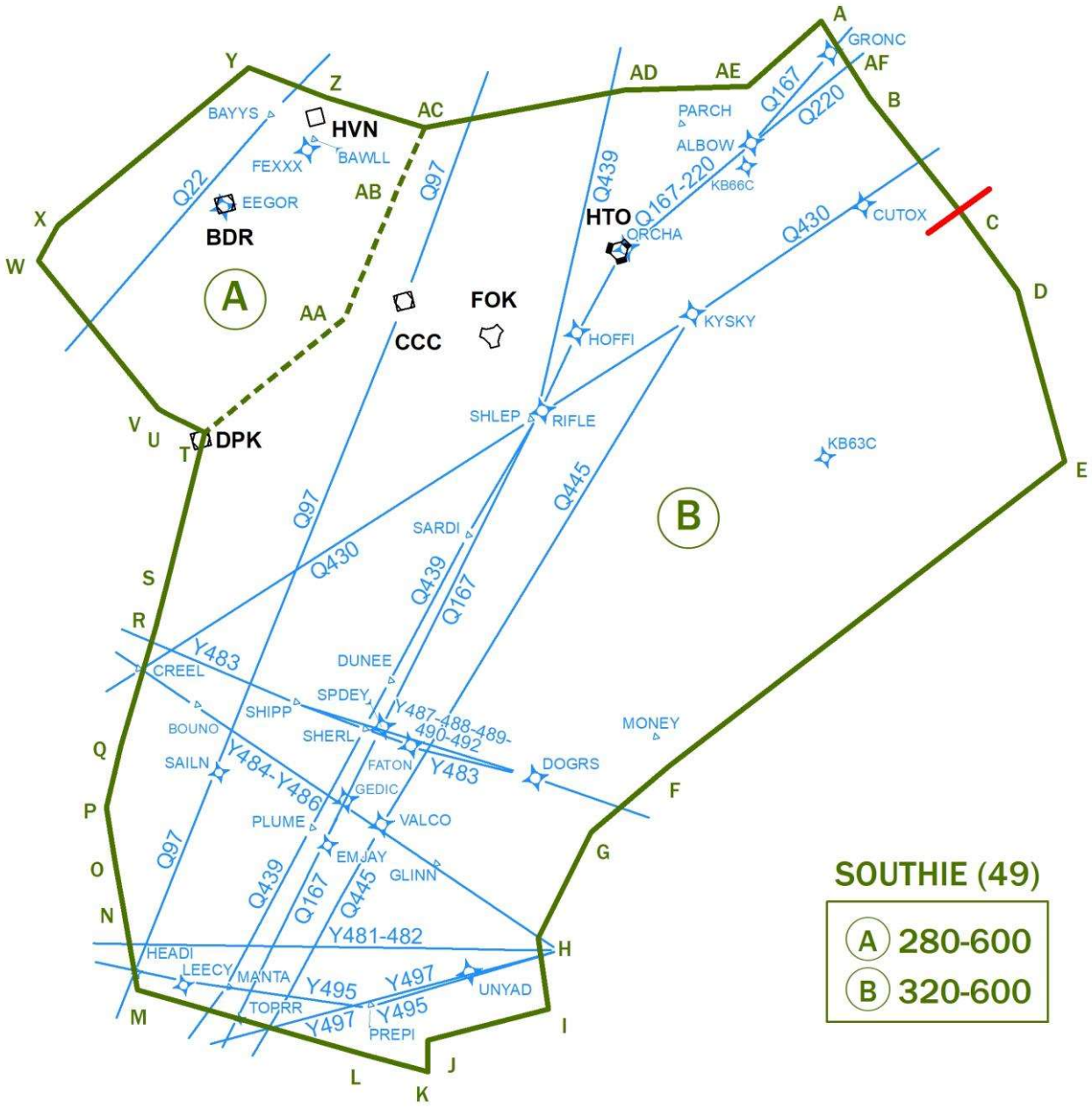
6. Sector 49 must coordinate with the Area OS/CIC (to forward to the MC) whenever W-107 is de-activated “Real Time”.

NOTE: The ZDC/ZNY/ZBW/ZJX/FACSFAC VACAPES Letter of Agreement requires “Giantkiller” coordinate with the Cape, Clipper, Southie, and Hampton Sectors for “Real Time” W-105 and W-107 activation. By the Letter of Agreement this is the only coordination that is required by Giantkiller for “Real Time” activation thereby leaving the Mission Coordinator (MC) out of the W-105 and W-107 coordination process.

e. Southie Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	F3ML	H	BN81	O	BB98	V	BB26	AC	E3AS
B	BN29	I	BN82	P	BB31	W	D3AD	AD	BN89
C	BN44	J	BB22	Q	BB30	X	D3AE	AE	BN68
D	BN33	K	BB21	R	BB28	Y	NT33	AF	G3E4
E	BN97	L	BB20	S	BB32	Z	NT38		
F	BB16	M	BB18	T	BB27	AA	BB50		
G	BN80	N	BB99	U	BB34	AB	NT52		

SOUTHIE SECTOR



6-A. TRAFFIC MANAGEMENT INITIATIVES

EWR Re-route via BAF.

1. When the EWR Re-route via BAF is in effect through Area C, D and E:

   (a) Area C, D and E must assign active arrival aircraft routing via BAF V292 as appropriate and enter any FP amendments.

   (b) TMU must ensure flight plan amendments are completed and coordinated (as needed) on existing flight plan proposals.

   (c) To retain flight plan information to assist in updating route amendments to EWR, Area C, D and E CPCs must not delete EWR proposals from the Sector's EDST Departure List regardless of the FP routing.

2. When the reroute via BAF is no longer required by Area E:

   (a) Area C, D and E must assign active arrival aircraft the normal EWR routing and enter any FP amendments as appropriate.

   (b) All affected EWR Flight Plan proposals must be amended and coordinated by TMU (as needed).

CHAPTER 7. AREA D

7-1. MILLINOCKET SECTOR 01

7-1-1. GENERAL DESCRIPTION

Sector 01 is a high-altitude sector that contains four major traffic flows that run north, south, east, and west. The traffic proceeding north and south consists mainly of aircraft proceeding to and from overseas destinations. The east and west traffic flows transit between Moncton and Montreal Centres and overseas airports. Coordination is conducted with Moncton Centre, Montreal Centre, and ZBW sectors. Traffic conflicts often occur in the vicinity of HUL and MLT where traffic flows intersect.

7-1-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Primary Frequency – 128.05/319.1

2. Backup Frequency – 134.95/307.0

3. Emergency Frequency – 121.5/243.0

NOTE: At least one sector per area must monitor the emergency frequency.

4. Special Use Frequency – 321.3

5. BUEC – MLT-128.05/319.1

6. Position Combining – The VSCS must be utilized in combining positions.

b. Map Information:

1. Pre-Set Map – AREAD

2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 02

d. Sector SIA

1. ERAM-status, outages, drawings and annotations, GI, and weather messages
2. ERIDS including Pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. White Boards
5. Flight progress strips
6. Printed messages on strips such as GI, hazardous weather
7. Read-and-sign folders
8. Written notes

7-1-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector – Reserved.

2. Exiting the Sector:

   (a) All IAD traffic, during the hours of 1700Z until 2200Z, that are flight planned via ALB or BAF must be kept on the route.

   (b) Sector 15 must force a data block for all EWR arrivals onto Sector 01 and/or Sector 02 displays (the appropriate overlaying sector). Sector 01 and/or Sector 02 must initiate sequencing to Sector 53 and 39 for these aircraft as appropriate, coordinating required control instructions to Sector 15.

   (c) Clear BDL, CEF, ORH, and BAF arrivals via direct KEYNN.

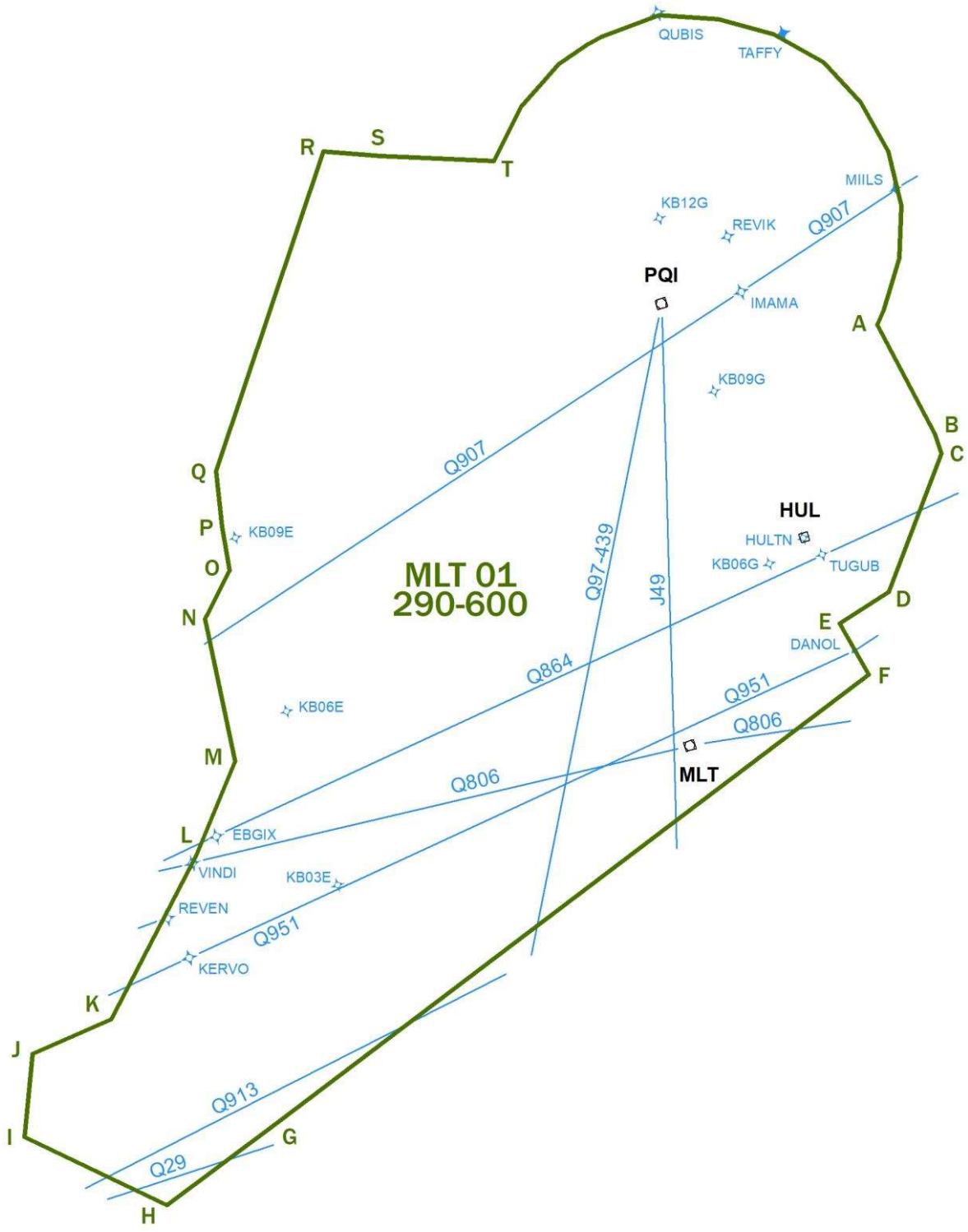
   NOTE: Aircraft will need to cross 75 NE KEYNN at FL240. The intent was not to assign the altitude that would clear aircraft into Sector 02 and Sector 15 airspace. Rather to make Sector 01 aware of Sector 02 and Sector 15 restrictions.

b. Military – SCOTY A/B, AR205

c. MLT Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	J8AE	F	J7AC	K	F7AC	P	G8AG
B	J8AF	G	G6AA	L	G7AJ	Q	H8AA
C	J8AI	H	G6AB	M	G7AE	R	H9AA
D	J7AA	I	F7AD	N	G8AE	S	I9AC
E	J7AB	J	F7AB	O	G8AF	T	I9AD

MILLINOCKET SECTOR



7-2. AUGUSTA SECTOR 02

7-2-1. GENERAL DESCRIPTION

Sector 02 is a high-altitude sector consisting mainly of overseas traffic proceeding north/south or east/west. The sector also serves a number of aircraft, climbing/descending high-altitude, which are departing and arriving ME and NH airports. The sector coordinates with Moncton Centre, Montreal Centre, and ZBW sectors. Traffic conflicts often occur in the vicinity of BGR, where traffic crosses, and ENE, where traffic flows converge.

7-2-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Primary Frequency – 134.95/307.0

2. Preferred Backup Frequency – 118.55/285.4

3. Backup Frequency – 128.05/319.1

4. Emergency Frequency—121.5/243.0

NOTE: At least one sector per area must monitor the emergency frequency.

5. BUEC – QYC – 134.95/307.0

b. Map Information:

1. Pre-Set Map – AREAD

2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 02

d. Sector SIA

1. ERAM-status, outages, drawings and annotations, GI, and weather messages
2. ERIDS including Pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. White Boards
5. Flight progress strips
6. Printed messages on strips such as GI, hazardous weather
7. Read-and-sign folders
8. Written notes

7-2-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector:

(a) Area C may assign any cardinal altitude except FL400, to eastbound international flights entering Area D between the hours of 1800-0000L.

(b) Sector 46 must clear AUG, LEW, BXM arrivals via BOS MESHL, pilot's discretion to FL240.

(c) Sector 46 must clear RKD arrivals via BOS RKD, pilot's discretion to FL240.

(d) BOS jet arrivals from Sectors 39 and 53 must be cleared via ENE then OOSHN STAR to cross ENE at FL240.

(e) Sector 02 has control for turns on KBOS departures assigned a heading by Sector 16.

(f) Sector 39 aircraft routed for destinations within the Cape geographical area must enter Sector 02 at or below FL370. Sector 02 has control for descent after handoff and communications transfer.

2. Exiting the Sector:

(a) Must sequence JFK arrivals via ASPEN.

(b) Ensure JFK arrivals, entering Sector 46 have the appropriate longitudinal or lateral spacing between other aircraft proceeding southbound to allow the sectors to descend JFK arrivals unrestricted.

(c) Clear BDL, CEF, ORH, and BAF arrivals via direct KEYNN to cross 75 miles NE KEYNN at FL240. BDL, CEF, ORH, and BAF traffic south of a ENE-KEYNN line must enter Area B via direct KEYNN at or below FL220.

(d) Clear ALB arrivals entering Sector 39 via direct, north of a ENE-ALB line to enter Sector 39 at FL240. ALB arrivals south of a ENE-ALB line must enter Area B at or below FL220.

(e) All IAD traffic, during the hours of 1700Z until 2200Z, that are flight planned over ALB or BAF must be kept on the route.

(f) Sector 16 must climb MHT Terminal Area PWM departures flight planned via RBELA to FL230 and handoff to Sector 46. If the aircraft is climbing at a rate that may allow for a higher altitude assignment, Sector 16 or Sector 02 must not assign an altitude higher than FL280 without prior coordination with Sector 46.

(g) Sector 15 must force a data block for all EWR arrivals onto Sector 01 and/or Sector 02 displays (the appropriate overlaying sector). Sector 01 and/or Sector 02 must initiate sequencing to Sector 53 and 39 for these aircraft as appropriate, coordinating any required control instructions to Sector 15.

(h) Sector 02 will descend KBOS and BOS satellite arrivals from the north and east to the floor of Sector 02 airspace. Sector 16 has control for descent and speed assignments.

(i) Sectors 15/16 have control for descent on all aircraft FL250 and below within the confines of Sector 02

b. Holding -

1. ENE (Published) – Hold NE on the ENE 044R, left turns, FL240-390, 1 ½ - minute legs,

maximum speed of 265 knots. Coordination is required with Sector 39 at FL350 and above.

2. ENE via OOSHN STAR – Hold NE, left turns, track 224 inbound to ENE, 10 DME legs.

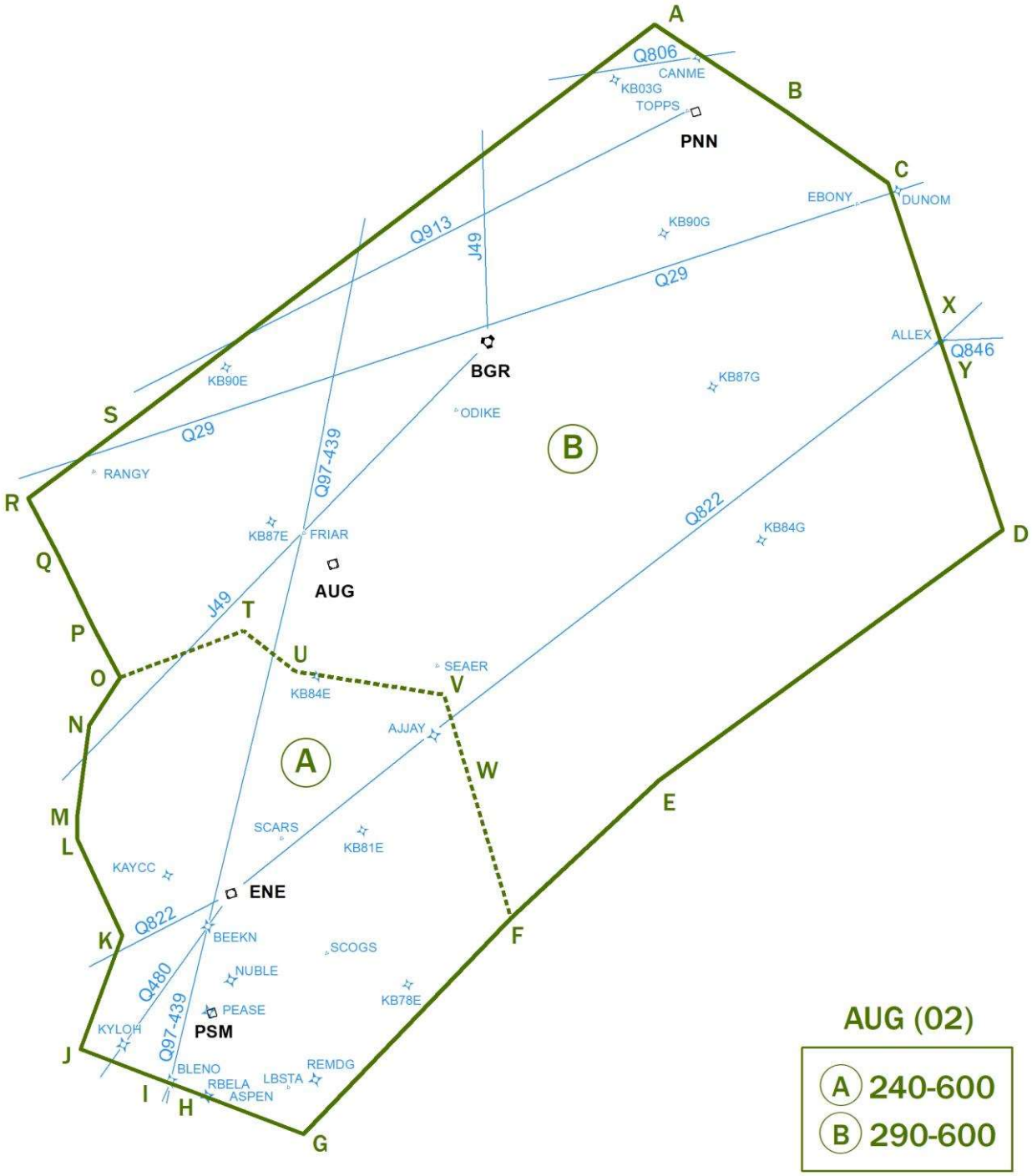
3. AJJAY via OOSHN STAR – Hold NE, left turns, track 218 inbound to AJJAY, 20 DME legs. Coordination required with Sector 15 FL 240-280.

c. Military – The following SUA is located within Sector 02 – SCOTY A/B/C, W102 High, LASER South/East, MAC 12/13, AEGIS A/B, AR616A, GH North.

d. AUG Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	J7AC	F	H5AC	K	F5AJ	P	G6AK	U	G6AD
B	J7AD	G	G4DB	L	F5AE	Q	G6AM	V	H5AA
C	K6AA	H	F4AN	M	F5AO	R	G6AB	W	H5AB
D	K5AA	I	F4AM	N	F6AB	S	G6AA	X	K6AD
E	I5AA	J	F4AO	O	G6AC	T	G6AE	Y	K6AB

AUGUSTA SECTOR



AUG (02)

A	240-600
B	290-600

7-3. SURRY SECTOR 15

7-3-1. GENERAL DESCRIPTION

Sector 15 is a low altitude sector that serves a number of ME airports: BGR, AUG, HUL, PQI, and PNN. It also contains a limited amount of military traffic utilizing IR routes, air refueling tracks, and SUA. There is a wide variety of traffic flows within the sector. The sector abuts Moncton Centre, Montreal Centre, Portland ATCT, Bangor ATCT, and ZBW sectors. Due to the wide variety of routes, there are numerous areas where traffic conflicts occur. Surry Sector is authorized to utilize single-site radar separation IAW applicable Directives.

7-3-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Primary Frequency – 124.25/290.5
2. Primary Frequency – 120.25/346.4
3. Primary Frequency – 124.75/239.05
4. Preferred Alt Frequency – 120.25/346.4 (BGR Site).
5. Clearance Delivery Frequency – 121.6
6. UHF Backup Frequency – 290.5
7. Emergency/Special Use Frequency – 243.0/321.3
8. Emergency Frequency – 121.5/243.0

NOTE: At least one sector per area must monitor the emergency frequency.

9. Alternate Frequency – 118.55/273.45
10. Alternate Frequency – 128.2/263.05
11. BUEC – PQI-124.75/239.05
12. Position Combining – The VSCS must be utilized in combining positions. Sector 15 is normally combined at Sector 16.

b. Map Information:

1. Pre-Set Map – AREAD
2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 16

d. Sector SIA

1. ERAM-status, outages, drawings, and annotations, GI, and weather messages
2. ERIDS including Pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. White Boards
5. Flight progress strips
6. Printed messages on strips such as GI, hazardous weather
7. Read-and-sign folders
8. Written notes

7-3-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector:

a. Sector 15 has control on aircraft exiting Sector 17.

b. Sector 15 has control for descent on all aircraft FL250 and below within the confines of Sector 02.

c. Sector 52 aircraft routed for destinations within BGR ATCT airspace must be descending to FL190 and handed off to Sector 15. Sector 15 will have control for descent and turns up to 30 degrees after handoff and communications transfer.

d. Sector 52 PWM area arrivals (KBXM, KLEW, KIWI, KAUG) must be descending to 11,000 feet, and a handoff made to Sector 15 or 16, as appropriate.

2. Coordinate with Moncton Centre for EPM arrivals/departures [Ref. Moncton LOA].

3. Advise EPM arrivals to contact FSS on 122.5 (RCO at QYA) in the event of a missed approached.

4. Clear BDL, CEF, ORH and BAF arrivals via direct KEYNN to cross 75 miles NE KEYNN at FL240. BDL, CEF, ORH and BAF traffic south of a ENE-KEYNN line must enter Area B via direct KEYNN at or below FL220.

5. Clear ALB arrivals entering Sector 39 via direct, north of a ENE-ALB line to enter Sector 39 at FL240. ALB arrivals south of a ENE-ALB line must enter Area B at or below FL220.

6. Rangeley, ME (8B0/M57) and Berlin, NH (BML) arrivals:

(a) Sector 15 must coordinate 8B0 (RNAV (GPS-D) or RNAV (GPS) RWY 14)) and M57 (RNAV (GPS-C)) SIAPs with Sector 52.

NOTE: Sectors 52 must coordinate BML instrument approaches with Sector 15.

(b) Simultaneous holding at ELSEQ and SHINY/JIGZY is not authorized.

7. Deblois Flight Strip (43B)

(a) Departures:

(1) Must be coordinated with BGR ATCT

(b) Arrivals:

(1) RNAV (GPS)-A: Must be coordinated with BGR ATCT
(2) CANNOT be given when DEEPWOODS MOA is active, due to missed approach procedure.

8. ZBW must forward arrival information to the Hauterive Sector on all aircraft landing CYES. The following local phraseology and procedures have been established for arrivals and departures into CYES/CJ3/FVE:

Arrivals		
CYES	RNAV (GNSS) RWY 16	"Cleared out of controlled airspace via RNAV (GNSS) RWY 16 Approach. Maintain at or above (MIA) until entering uncontrolled airspace."
	RNAV (GNSS) RWY 34	"Cross (IAF) at or above (MIA). Cleared out of controlled airspace via RNAV (GNSS) RWY 34 Approach."
CCJ3	RNAV (GNSS) RWY 20	"Cleared out of controlled airspace via RNAV (GNSS) RWY 20 Approach. Maintain at or above (MIA) until entering uncontrolled airspace."
KFVE	RNAV GPS RWY 14	"Cleared out of controlled airspace via RNAV (GNSS) RWY 14 Approach. Maintain at or above (MIA) until entering uncontrolled airspace."
	RNAV GPS RWY 32	Normal clearance
Missed Approaches		
CYES	NOTE: MAP for all CYES approaches are in uncontrolled airspace.	
	If a/c is requesting RNAV (GNSS) RWY 34	"Enter controlled airspace at or above (MIA) cleared direct to (IAF)"
	If a/c is requesting RNAV (GNSS) RWY 16	We do not provide services. - Aircraft and approach are both in uncontrolled airspace. - Suggested phraseology: "You are in uncontrolled airspace and I am unable to give a clearance. The minimum Enroute altitude in your area is XXX"
	If a/c is requesting a different airport	"Enter controlled airspace at or above (MIA)"
KFVE	NOTE: MAP for RNAV (GPS) RWY 32 is in uncontrolled airspace. MAP for RNAV (GPS) RWY 14 is in controlled airspace.	
	If a/c missed approach to RNAV (GPS) RWY 32	"Enter controlled airspace at or above (MIA) cleared direct to (fix)"
	If a/c missed approach to RNAV (GPS) RWY 14	Normal clearance

Departures		
CYES	Departure request	"Enter controlled airspace at or above (MIA)"
NOTES: 1. For arrivals, utilize highest MIA along requested route of flight. 2. If arrival aircraft is not in radar contact, obtain a report from aircraft leaving controlled airspace. 3. When aircraft is leaving controlled airspace advice aircraft that radar services are terminated. 4. CYES approaches conflict with KFVE.		

9. Sector 15 must force a data block for all EWR arrivals onto Sector 01 and/or Sector 02 displays (the appropriate overlaying sector). Sector 01 and/or Sector 02 must initiate sequencing to Sector 53 and 39 for these aircraft as appropriate, coordinating any required control instructions to Sector 15.

10. Conflicting Approaches:

    Operations conducted in mixed radar and non-radar environments allow various separation standards to be applied. Between common IAFs, feeder routes overlapping, and course difference with RNAV routes; once lateral separation can be applied several SIAPs may be conducted simultaneously. Refer to Chapter 6 of FAA JO 7110.65 for guidance in applying non-radar separation. Refer to Chapter 5, Section 5 of FAA JO 7110.65 for guidance applying separation between radar-identified aircraft and those that are not radar-identified.

b. Military Procedures:

1. The following SUAs are located within Sector 15: W102 High/Low, AEGIS A/B, CONDOR 1&2, LASER East, MAC 12/13, SCOTY A/B/C, and DEEPWOODS.

2. IR Routes – For Route Description, Route Width and Special Operating Procedures for IR800, IR850. IR851, and IR852, reference the current FLIP AP/1B. In addition to the Special Operating Procedures, the AP/1B also contains the following information: Participating Aircraft Separation, Lost Communication Procedures, Tactical Descents, Special IFR Procedures, Protected Airspace, and Miscellaneous Procedures.

   NOTE: Prior to scheduled use, all ZBW Instrument Routes will need to be re-evaluated. Aircraft requesting to use an Instrument Route must NOT be given a clearance onto an IR until further advised.

c. Simultaneous Operations:

1. Simultaneous IFR operations are not authorized between LRG and MLT Airports.

2. Simultaneous IFR operations are not authorized between 81B and LEW Airports.

NOTE: Standard separation must be ensured prior to and throughout simultaneous operations.

d. Standard Instrument Approach Procedure (SIAP): Operations conducted in mixed radar and non-

radar environments allow various separation standards to be applied. Between common IAFs, feeder routes overlapping, and course difference with RNAV routes; once lateral separation can be applied several SIAPs may be conducted simultaneously. Refer to Chapter 6 of FAA JO 7110.65 for guidance in applying non-radar separation. Refer to Chapter 5, Section 5 of FAA JO 7110.65 for guidance applying separation between radar-identified aircraft and those that are not radar-identified.

e. Non-Radar – In the event Caribou Radar (QYD) site is not available, the following non-radar crossing restrictions can be used to separate traffic for the PQI area:

1. MLT 047R & 049R feeder cross 44 NMs N of MLT.

2. T295 South Bound – Cross 33 NMs south of the PQI VORTAC, clears all CAR and PQI operations (does not clear traffic on the MLT 049R/047R feeder routes).

3. V3 West Bound – Cross 19 NMs W of the PQI VORTAC, clears all PQI and CAR operations.

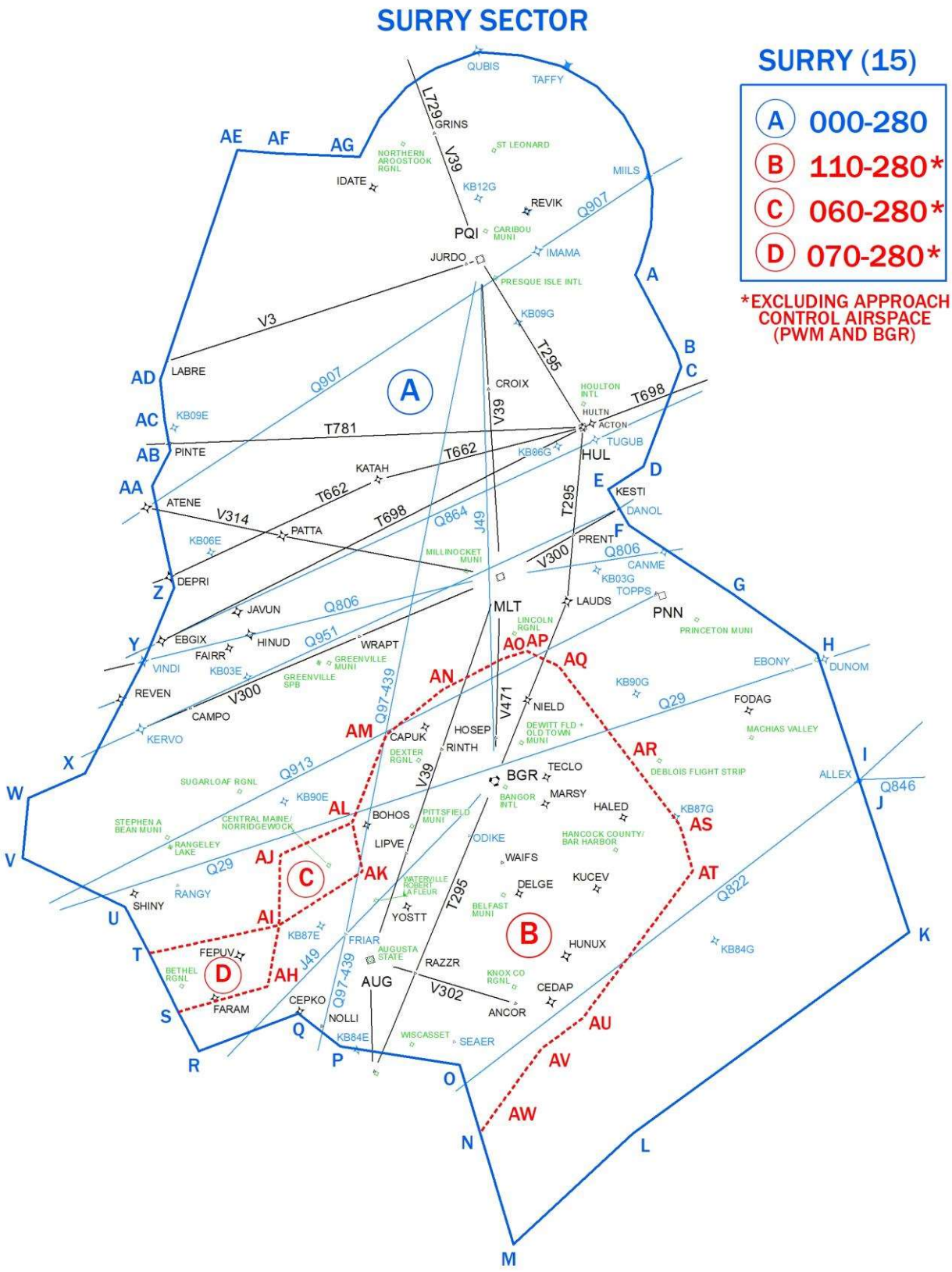
4. V39 North Bound – Cross 32 NM N of the PQI VORTAC, clears all PQI and CAR operations.

f. Areas of Limited Radio and Radar Coverage:

GENERAL AREA	LIMITED RADAR COVERAGE	LIMITED RADIO COVERAGE
KMLT	Below 4,000	
KBML – KAUG – CYSC	Below 5,000	Below 5,000
KMLT – CYQB	Below 8,000	Below 6,000
CYSJ – KPNN – KHUL	Below 4,000	Below 3,000
KBGR – K3B1	Below 3,000	Below 4,000
KBGR – KMVM	Below 3,000	Below 3,500
KBGR – KEPM	NA	Below 3,500

g. SURRY Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	J8AE	K	K5AA	U	G6AB	AE	H9AA	AO	I7AC
B	J8AF	L	I5AA	V	F7AD	AF	I9AC	AP	I7AG
C	J8AI	M	H5AC	W	F7AB	AG	I9AD	AQ	I7AD
D	J7AA	N	H5AB	X	F7AC	AH	G6AI	AR	I7AN
E	J7AB	O	H5AA	Y	G7AJ	AI	G6AG	AS	J6AB
F	J7AC	P	G6AD	Z	G7AE	AJ	G6AF	AT	I6AC
G	J7AD	Q	G6AE	AA	G8AE	AK	G7BG	AU	I6AF
H	K6AA	R	G6AC	AB	G8AF	AL	G7BF	AV	H5BG
I	K6AD	S	G6AK	AC	G8AG	AM	H7AH	AW	PW56
J	K6AB	T	G6AM	AD	H8AA	AN	H7AG		


SURRY SECTOR
SURRY (15)
A 000-280
B 110-280*
C 060-280*
D 070-280*
*EXCLUDING APPROACH CONTROL AIRSPACE (PWM AND BGR)
QUBIS
TAFFY
GRINS
L729
V39
ST LEONARD
NORTHERN AROOSTOOK RGNL
IDATE
KB12G
REVIK
MIILS
Q907
PQI
CARIBOU MUNI
IMAMA
JURDO
PRESQUE ISLE INTL
KB09G
V3
T295
LABRE
CROIX
HOULTON INTL
HULTN
ACTON
TUGUB
T698
KB09E
T781
PINTE
T662
KB06G
HUL
KATAH
ATENE
V314
PATTA
KESTI
DANOL
Q864
J49
PRENT
V300
Q806
CANME
KB03G
TOPPS
MILLINOCKET MUNI
KB06E
DEPRI
JAVUN
MLT
LAUDS
PNN
PRINCETON MUNI
LINCOLN RGNL
EBGIX
HINUD
Q951
WRAPT
FAIRR
VINDI
KB03E
GREENVILLE MUNI
GREENVILLE SPB
REVEN
CAMPO
KERVO
AN
AO
AP
AQ
EBONY
DUNOM
KB90G
Q29
FODAG
NIELD
V471
DEWITT FLD + OLD TOWN MUNI
MACHIAS VALLEY
AM
CAPUK
HOSEP
RINTH
DEXTER RGNL
AR
DEBLOIS FLIGHT STRIP
ALLEX
Q913
SUGARLOAF RGNL
KB90E
BGR
TECLO
MARSY
HALED
BANGOR INTL
KB87G
AS
AL
BOHOS
PITTSFIELD MUNI
STEPHEN A BEAN MUNI
CENTRAL MAINE/ NORRIDGEWOCK
RANGELEY LAKE
LIPVE
ODIKE
HANCOCK COUNTY/ BAR HARBOR
WAIFS
AJ
AK
AT
Q29
C
DELGE
KUCEV
Q822
RANGY
SHINY
WATERVILLE ROBERT LA FLEUR
T295
BELFAST MUNI
YOSTT
AI
KB87E
B
HUNUX
KB84G
FRIAR
AUGUSTA STATE
FEPUV
BETHEL RGNL
D
AH
J49
RAZZR
KNOX CO RGNL
CEDAP
Q97-439
AUG
V302
FARAM
CEPKO
ANCOR
NOLLI
AU
KB84E
WISCASSET
SEAER
AV
AW
Q846
A
B
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7-4. PARSO SECTOR 16

7-4-1. GENERAL DESCRIPTION

Sector 16 is a low-altitude sector that contains departure and arrival traffic into airports such as PWM, PSM, LEW, AUG, RKD, and BOS. There is also a significant amount of over-flight traffic proceeding between BOS and ME. The Sector coordinates with Portland ATCT, A90, and ZBW sectors. Traffic conflicts often occur in the vicinity of PSM. PARSO Sector assumes Portland ATCT airspace during midshift closures of these facilities. PARSO Sector is authorized to utilize single-site radar separation IAW applicable Directives.

7-4-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Primary Frequency – 128.2/263.05

2. Mid-shift Frequencies: primary: 128.2

(a) 124.25/290.5
(b) 134.95/307.0
(c) 128.05/319.1
(d) 120.25/346.4
(e) 124.75/239.05
(f) Clearance Delivery Frequency – 121.6 – RCO Site: PQI

3. Emergency Frequency – 121.5/243.0

NOTE: At least one sector per area must monitor the emergency frequency.

4. Mid-shift UHF Alternate Frequency – 290.5

5. Mid-shift Emergency Frequency – 121.5/243.0

6. BUEC –PWM-128.2/263.05

b. Map Information:

1. Pre-Set Map – AREA D

2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 15

d. Sector SIA

1. ERAM-status, outages, drawings and annotations, GI, and weather messages
2. ERIDS including Pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. White Boards
5. Flight progress strips

6. Printed messages on strips such as GI, hazardous weather
7. Read-and-sign folders
8. Written notes

7-4-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector:

(a) Sector 46 must clear PWM arrivals via SCOGS to cross BUOYY at FL240 and handoff to Sector 16.

(b) Sector 46 must clear AUG, LEW, and BXM arrivals via BOS MESHL, pilot's discretion descent to FL240.

(c) Sector 46 must clear RKD arrivals via BOS RKD, pilot's discretion descent to FL240.

EXCEPTION: If traffic conditions do not allow an altitude assignment of FL240. Sector 46 must assign aircraft the lowest available altitude and handoff/communication change to Sector 02.

(d) KBOS and BOS satellite jet arrivals from:

(1) Sector 02 from the north and east will be descending to the floor of Sector 02 airspace.

(2) Sector 17 must be cleared to descend at pilot's discretion to FL200.

(e) Sector 16 has control for descent and speed assignments of KBOS and BOS satellite arrivals within the confines of Sectors 02, 17 and 18.

(f) Sector 37 must descend PWM arrivals via CDOGG to cross CDOGG at 11,000 feet, handoff and communication change to Sector 16.

(g) Sector 16 has control for descent on all aircraft FL250 and below within the confines of Sector 02.

(h) Sector 52 KPWM and PWM area arrivals (KBXM, KLEW, KIWI, KAUG) must be descending to 11,000 feet, and a handoff made to Sector 15 or 16, as appropriate.

2. Exiting the Sector:

(a) Sector 16 must climb MHT Terminal Area and PWM departures flight planned via RBELA to FL230 and handoff to Sector 46. If the aircraft is climbing at a rate that may allow for a higher altitude assignment, Sector 16 or Sector 02 must not assign an altitude higher than FL280 without prior coordination with Sector 46.

(b) BDL, CEF, ORH and BAF traffic south of ENE-KEYNN line must enter Area B via direct KEYNN at or below FL220.

(c) ALB arrivals south of a ENE-ALB line must enter Area B at or below FL220.

(d) Sector 02 has control for turns on KBOS departures assigned a heading by Sector 16.

3. Conflicting Approaches:

   Operations conducted in mixed radar and non-radar environments allow various separation standards to be applied. Between common IAFs, feeder routes overlapping, and course difference with RNAV routes; once lateral separation can be applied several SIAPs may be conducted simultaneously. Refer to Chapter 6 of FAA JO 7110.65 for guidance in applying non-radar separation. Refer to Chapter 5, Section 5 of FAA JO 7110.65 for guidance applying separation between radar-identified aircraft and those that are not radar-identified.

b. AIT: [ZBW 7110.33, Appendix A6-2]:

   1. The following procedure is authorized between Areas B, C, and D for KPSM and KSFM arrivals flight planned via KLANE:

      (a) Sector 47 must clear aircraft to cross KLANE at 15,000 feet MSL and initiate a radar handoff to Sector 37.

      (b) Sector 37, after acceptance of the radar handoff, must initiate a radar handoff to Sector 16.

      (c) Sector 16, after acceptance of the radar handoff, must initiate a radar handoff to A90.

      (d) Sector 47, after observing acceptance of radar handoff by A90, must transfer communication of the aircraft to A90.

      NOTE: All Sectors involved in the use of the above AIT should understand that the aircraft will be descending into A90 airspace. It is not required that the data block reflects an assigned altitude lower than 15,000. However, each Sector must ensure the data block is displayed until the aircraft has left the jurisdiction of their respective airspace.

c. Holding:

   1. SCUPP (Published) – Hold east on the BOS 082R, right turns, 11,000 feet MSL to FL200, 1-minute legs below 14,000 feet MSL and 1 ½-minute legs at or above 14,000 feet MLS, maximum speed 265 knots.

   2. OOSHN (Published OOSHN STAR) – 261 track inbound to OOSHN, 20 NM legs.

d. Military Procedures – The following SUA is located within Sector 16: – LASER North/East, South, W103, W104, VR-840, and Prohibited Area. P-67 surface to 1,000 feet MSL continuously, and up to 3,000 feet MSL at other times by NOTAM.

e. Descend Via.

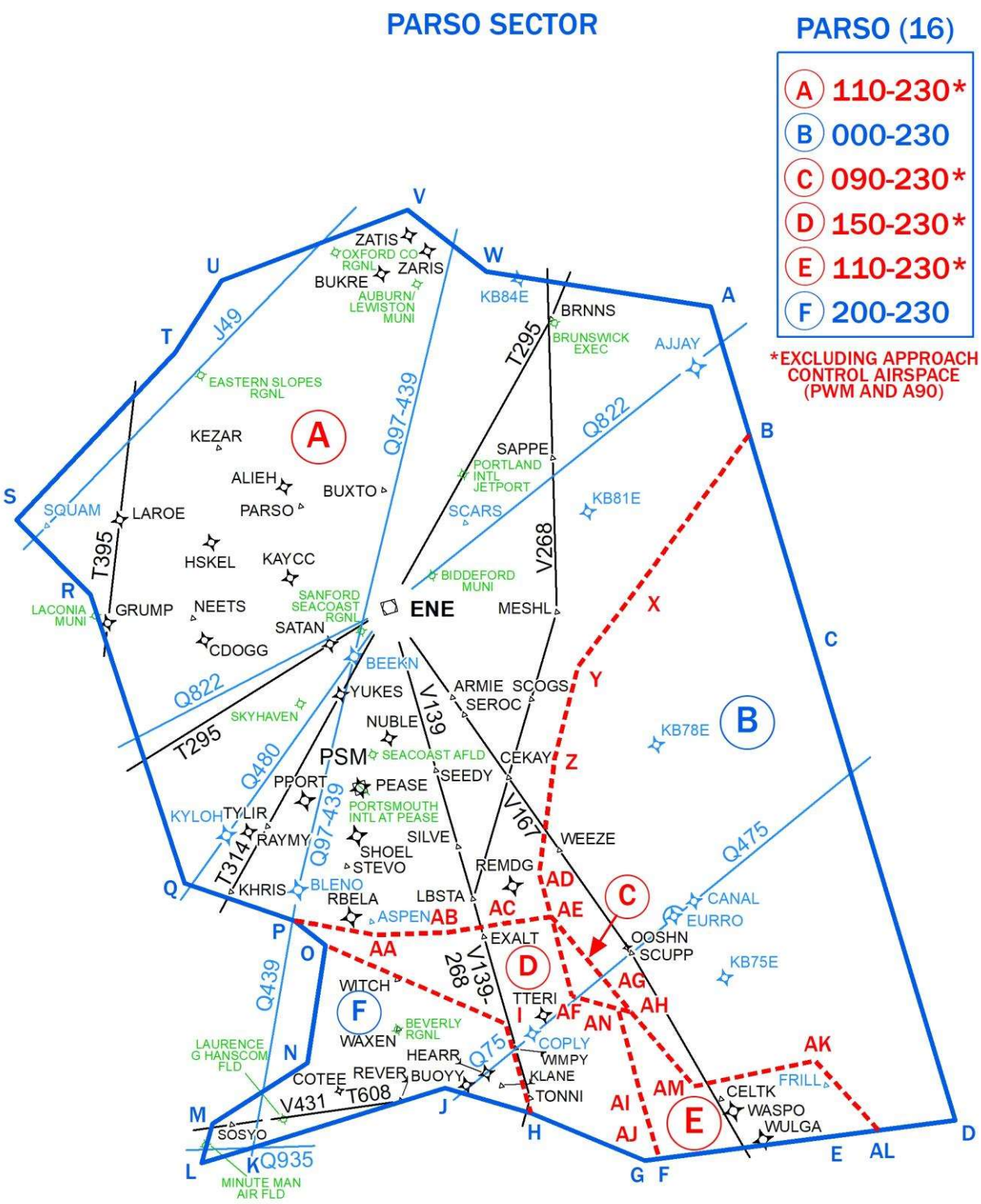
   1. Sector 16 is authorized to descend via the OOSHN STAR in accordance with the A90/ZBW LOA.

   2. Sector 16 must annotate, at the sector SIA, the KBOS primary landing runway as coordinated with the A90 Rockport Sector.

3. Flights via the OOSHN arrival that cannot accept the coordinated runway transition must be cleared to BOS via OOSHN direct and instructed to cross OOSHN at 11,000 feet and 250 knots. The controller should inform the pilot to make their runway request with Boston Approach. To coordinate flights that will not be on the STAR via automation, controllers must update the route to OOSHN..KBOS in EDST as defined in the ZBW/A90 LOA.

f. PARSO Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	H5AA	I	G4AB	Q	F4T5	Y	G5NW	AG	G4AI
B	H5AB	J	G4MR	R	F4T6	Z	G5AV	AH	G4AV
C	H5AC	K	F4T1	S	F4T7	AA	G4DA	AI	G4AM
D	H4AH	L	F4DH	T	F6AB	AB	G4AA	AJ	G4AF
E	H4AI	M	F4ED	U	G6AC	AC	G4AY	AK	H4AA
F	G4AT	N	F4T2	V	G6AE	AD	G4DC	AL	H4AB
G	G4AS	O	F4T4	W	G6AD	AE	G4DR	AM	G4AU
H	F4MO	P	F4AD	X	G5AL	AF	G4AW	AN	G4AX


PARSO SECTOR
PARSO (16)
A 110-230*
B 000-230
C 090-230*
D 150-230*
E 110-230*
F 200-230
*EXCLUDING APPROACH CONTROL AIRSPACE (PWM AND A90)
ZATIS
OXFORD CO RGNL
ZARIS
BUKRE
AUBURN/ LEWISTON MUNI
KB84E
BRNNS
BRUNSWICK EXEC
AJJAY
EASTERN SLOPES RGNL
KEZAR
ALIEH
BUXTO
PARSO
SQUAM
LAROE
HSKEL
KAYCC
SAPPE
PORTLAND INTL JETPORT
SCARS
KB81E
BIDDEFORD MUNI
LACONIA MUNI
GRUMP
NEETS
SANFORD SEACOAST RGNL
ENE
MESHL
SATAN
CDOGG
BEEKN
YUKES
ARMIE
SCOGS
SEROC
SKYHAVEN
NUBLE
KB78E
PSM
SEACOAST AFLD
CEKAY
SEEDY
PPORT
PEASE
PORTSMOUTH INTL AT PEASE
KYLOH
TYLIR
RAYMY
SILVE
SHOEL
STEVO
WEEZE
REMDG
KHRIS
BLENO
RBELA
LBSTA
ASPEN
CANAL
EURRO
EXALT
OOSHN
SCUPP
KB75E
WITCH
TTERI
WAXEN
BEVERLY RGNL
LAURENCE G HANSCOM FLD
COPLY
WMPY
HEARR
KLANE
COTEE
REVER
BUOYY
TONNI
CELTK
FRILL
WASPO
WULGA
V431
T608
SOSYO
Q935
MINUTE MAN AIR FLD
J49
T295
Q97-439
Q822
T395
V268
Q480
V139
T314
Q439
Q475
Q75
V139-268
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7-5. NANTUCKET SECTOR 17

7-5-1. GENERAL DESCRIPTION

Sector 17 is stratified from the surface to FL999. Traffic flow within the sector is mainly east/west and consists mostly of high-altitude aircraft proceeding to and from overseas destinations. The sector coordinates with Moncton Centre, New York ARTCC, A90, VACAPES (Giant Killer), and ZBW sectors. Traffic conflicts often occur in the vicinity of FRILL Intersection, where traffic flows merge. Nantucket Sector is authorized to utilize single-site radar separation IAW applicable Directives.

7-5-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Primary Frequency – 133.45/269.3

2. Preferred Alternate Frequency - 133.45/269.3 RCAG Site: QEB

3. Alternate Frequency – 128.75/290.3

4. Alternate Frequency – 132.9/307.0

5. Emergency/Special Use Frequency – – 121.5/243.0/321.3

NOTE: At least one sector per area must monitor the emergency frequency.

6. BUEC – QYA- 133.45/269.3

7. Position Combining – The VSCS must be utilized in combining positions. Sector 17 is normally combined at Sector 18

b. Map Information:

1. Pre-Set Map – AREAD

2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 18

d. Sector SIA

1. ERAM-status, outages, drawings and annotations, GI, and weather messages
2. ERIDS including Pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. White Boards
5. Flight progress strips
6. Printed messages on strips such as GI, hazardous weather
7. Read-and-sign folders
8. Written notes

7-5-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector – Area C may assign any cardinal altitude except FL400, to eastbound international flights entering Area D between the hours of 1800-0000L.

2. Exiting the Sector:

(a) Must sequence JFK arrivals via PLYMM.

(b) Sector 17 may assign any odd cardinal altitude above FL310 to aircraft destined JFK, between 1200 and 1700L.

(c) Sector 46 has control for turns, not to exceed 30 degrees right of track, for JFK arrivals after handoff.

(d) Sector 17 must ensure that aircraft landing EWR or EWR satellites are issued a clearance to descend to cross the Sector 46 boundary at FL280.

(e) All IAD traffic, during the hours of 1700 until 2200 UTC, that are flight-planned over ALB or BAF must be kept on the route.

(f) When the EWR re-route is in effect, NAR traffic routed via TUSKY, BRADD, KANNI, WHALE, VITOL (and their associated X-fix), and SAILE generates an AAR. Area D Controllers must issue the AAR. Aircraft that file random routes may not generate an AAR and may require manual intervention.

(g) Sector 15 has control on aircraft exiting Sector 17.

(h) Sector 16 has control for descent and speed assignments of KBOS and BOS satellite arrivals.

(i) Sector 17 will clear KBOS arrival aircraft to descend at pilot's discretion to FL200.

(j) Sector 17 must ensure aircraft filed via ARCAV routing will enter Sector 18 at or below FL300 and beneath westbound traffic.

b. Holding:

1. FRILL via PARCH STAR Hold E, left turns, track 261 inbound to FRILL, 10 DME.

2. SHANK via PARCH STAR Hold E, right turns, track 261 inbound to SHANK, 12 DME.

c. Military – The following SUA is located within Sector 17: W104 B/C, MOT A/B/C/D, W506, AR608, GH North.

d. Altitude Exceptions - Nantucket Sector is authorized, while operating in ERAM, to set the altitude limits to a minimum of 043B999. The altitude limits must be amended to 000B999 when the sector is providing ATC services to any aircraft below 5500 feet MSL, or when AEGIS C or AEGIS D is active below 5500 feet

MSL.

e. Descend Via:

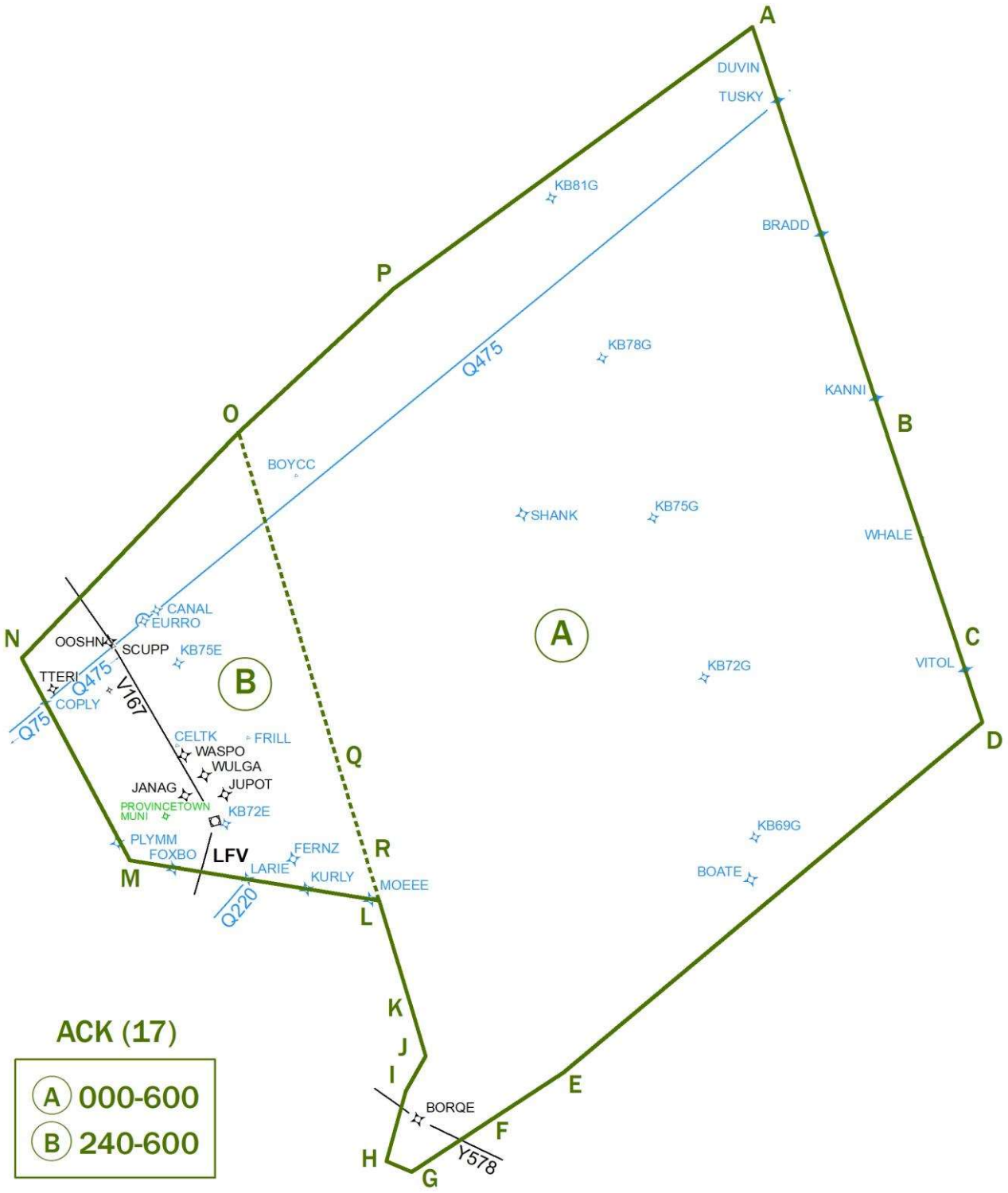
1. Sector 17 is authorized to descend via the OOSHN STAR in accordance with the A90/ZBW LOA.

2. Sector 17 must annotate, at the sector SIA, the KBOS primary landing runway as coordinated with the A90 Rockport Sector.

f. ACK Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	K5AA	E	BN93	I	H3AC	M	H4AF	Q	H4AH
B	J4DA	F	BN94	J	H3AD	N	G4DB	R	H3AB
C	BN96	G	H3DH	K	H4AC	O	H5AC		
D	BN92	H	H3AA	L	H3AG	P	I5AA		

NANTUCKET SECTOR



7-6. CAPE SECTOR 18

7-6-1. GENERAL DESCRIPTION

Sector 18 is stratified from the surface to FL999. The sector traffic consists of departure and arrival traffic to airports such as FMH, HYA, ACK, MVY, and PVD. There are also a significant number of BOS departures and some overflight traffic. The Sector coordinates withA90, Boston Tower, Providence ATCT, VACAPES (Giant Killer), and ZBW sectors. Traffic conflicts often occur between LFV and SEY, where departure and arrival aircraft cross. Cape Sector is authorized to utilize single-site radar separation IAW applicable Directives.

7-6-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Primary Frequency – 128.75/290.3

2. Alternate Frequency – 132.9/307.0

3. Alternate Frequency – 133.45/269.3 - QYA

4. Preferred Alternate Frequency – 133.45/269.3 - QEB

5. Emergency Frequency—121.5

NOTE: At least one sector per area must monitor the emergency frequency.

6. BUEC –ACK – 128.75/290.3

7. Position Combining – The VSCS must be utilized in combining positions. Sector 17 is normally combined at Sector 18.

b. Map Information:

1. Pre-Set Map – AREAD

2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 17

d. Sector SIA

1. ERAM-status, outages, drawings and annotations, GI, and weather messages
2. ERIDS including Pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. White Boards
5. Flight progress strips
6. Printed messages on strips such as GI, hazardous weather
7. Read-and-sign folders
8. Written notes

7-6-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector:

(a) Area C may assign any Cardinal Altitude except FL400, to eastbound international flights entering Area D between the hours of 1800-0000L.

(b) Between 1800-0000L, Sector 31 and 49 must not re-route oceanic traffic DIRECT to inner Fixes that will enter Sector 18 through the SEY AREA defined as Pt. P north to Pt. M (See Sector 18 Map) without prior coordination.

(c) Sector 34 must ensure Cape and Islands arrivals (except for MVY) enter Sector 18 at or below 17,000 feet MSL.

(d) Sector 31 and 32 must ensure all Cape and Islands arrivals (except MVY) enter Sector 18 at or below FL200.

NOTE: ACK arrivals may be assigned FL 210 reference other Sector 18 arrival or departure traffic.

(e) Sector 32 must clear MVY arrivals to cross LIBBE at 11,000 feet MSL and handoff to Sector 18.

(f) Sector 46 must clear aircraft on the OOSHN STAR to cross 10 NM west of KLEBB at FL240 and handoff to Sector 18.

(g) Sector 34 may clear aircraft on the OOSHN STAR direct KLEBB without prior approval.

(h) Sector 18 must descend BOS arrivals inbound via the OOSHN STAR to 17,000 feet MSL. Sector 16 will have control for descent and speed assignment upon initial contact after completion of a radar handoff.

2. Exiting the Sector:

(a) Arrivals to PHL, WRI, TTN, PNE, ACY, DOV, and associated satellite airports must enter Area C below, or in-trail with, all other Enroute traffic. If the arrival traffic is not longitudinally separated, different altitudes may be assigned, provided:

(1) WRI, TTN, PNE and associated satellite traffic are in-trail with each other and below all other Enroute traffic.

(2) PHL, ACY, and associated satellite traffic are below all traffic, except for WRI, TTN and PNE traffic.

(3) DOV and associated satellite traffic are below all traffic, except for PHL, ACY, WRI, TTN, and PNE traffic.

NOTE: When Sector 49 is open, Sectors 18 and 46 must ensure arrivals to PHL, WRI/TTN/PNE, ACY, DOV, and associated satellite airports enter Sector 31, below Sector 49.

(b) Unless operationally necessary, between the hours of 1800-0000L Sector 18 must not re-route aircraft beyond SEY or GRONC unless verbally coordinated.

(c) Between 1800-0000L and requested by Area C OS/CIC, Sector 18 must route PVD departures flight planned Q167/Q97 via ORCHA.Q167.RIFLE or ORCHA.Q167.RIFLE..HEADI.Q97.

(d) Sector 18 must ensure turbojets/high performance turboprops landing JFK and FRG enter Sector 32 at or below FL220.

(e) Sector 18, with prior approval from Sector 32, may deliver high performance turboprop aircraft, as defined by the N90/ZBW LOA and routed via SEY PARCH CCC ROBER JFK/FRG, during off-peak traffic periods at or below FL220 to Sector 32.

NOTE: When a 15 MIT or greater Traffic Management Initiative is in effect to JFK, Sector 18 must force a data block for all JFK arrivals on the Sector 46 display. Sector 46 should initiate sequencing to Sector 32 for these aircraft as appropriate, coordinating any required control instructions to Sector 18.

(f) Sectors 31, 32 and 49 have control for turns not to exceed 30 degrees left or right of track in Sector 18s airspace within 10 NMs of the Sector 18/31/32/49 boundary.

(g) When Sector 49 is open and Sector 18 is unable to climb traffic above Sector 31s Altitude Stratum without assigning an Interim Altitude, Sector 18 must assign the aircraft FL300 only and handoff to Sector 31.

(h) Sector 18 must descend BOS arrivals inbound via the OOSHN STAR to 17,000 feet MSL. Sector 16 will have control for descent and speed assignment upon initial contact after completion of a radar handoff.

b. AIT [Ref: ZBW 7110.33, Para A6-2]

1. The following procedure is authorized between Area C for JFK departures flight planned to enter Sector 18 requesting FL320 or above:

(a) Sector 31 must clear the aircraft to FL 310, enter an interim altitude of FL 310 in the data block and initiate a handoff to Sector 49.

(b) Sector 49, after accepting the handoff, may modify or remove the interim altitude and initiate a handoff to Sector 18. If traffic does not permit climb above FL 310, Sector 49 will leave the interim altitude of FL 310 in the data block and initiate a handoff to Sector 18.

(c) Sector 31, after observing the modified interim or requested altitude in the data block and that a handoff has been initiated to Sector 18, must assign the aircraft that altitude.

(d) Sector 31 must transfer communications of the aircraft to Sector 18 after acceptance of the handoff by Sector 18.

c. Conflicting Approaches:
Operations conducted in mixed radar and non-radar environments allow various separation standards to be applied. Between common IAFs, feeder routes overlapping, and course difference with RNAV routes, once lateral separation can be applied, several SIAPs may be conducted

simultaneously. Refer to Chapter 6 of FAA JO 7110.65 for guidance in applying non-radar separation. Refer to Chapter 5, Section 5 of FAA JO 7110.65 for guidance applying separation between radar-identified aircraft and those that are not radar-identified.

d. Military Procedures:

1. The following SUA is located within or adjacent to Sector 18: R4101, R4105 A/B, W105, MOT A/B/C/D, AR20.

2. Stereo Flight Plans entering W105 and containing VACAP Intersection are eligible for auto handoffs with Giant Killer.

3. Flight plans entering W105 without VACAP Intersection require a manual handoff to either Giant Killer or Huntress depending on which facility is controlling the airspace.

NOTE: When Huntress is the controlling agency in W105, the handoff to Huntress is optional, and a handoff may be initiated with Giant Killer.

4. Cape Sector controller must coordinate with either their Area OS/CIC or the MC whenever W105 is activated "Real Time." For real-time activation of W105A or W105B, the Cape Sector is the primary sector responsible for turning on the SAA. The Clipper Sector is the secondary sector responsible for turning on the SAA.

NOTE: The ZDC/ZNY/ZBW/ZJX/FACSFAC VACAPES Letter of Agreement requires "Giant Killer" coordinate with the Cape, Clipper and Hampton Sectors (Southie Sector not in LOA) for Real Time W105 activation. By Letter of Agreement, this is the only coordination that is required by Giant Killer for "real Time" activation thereby leaving the Mission Coordinator (MC) out of the W105 coordination process.

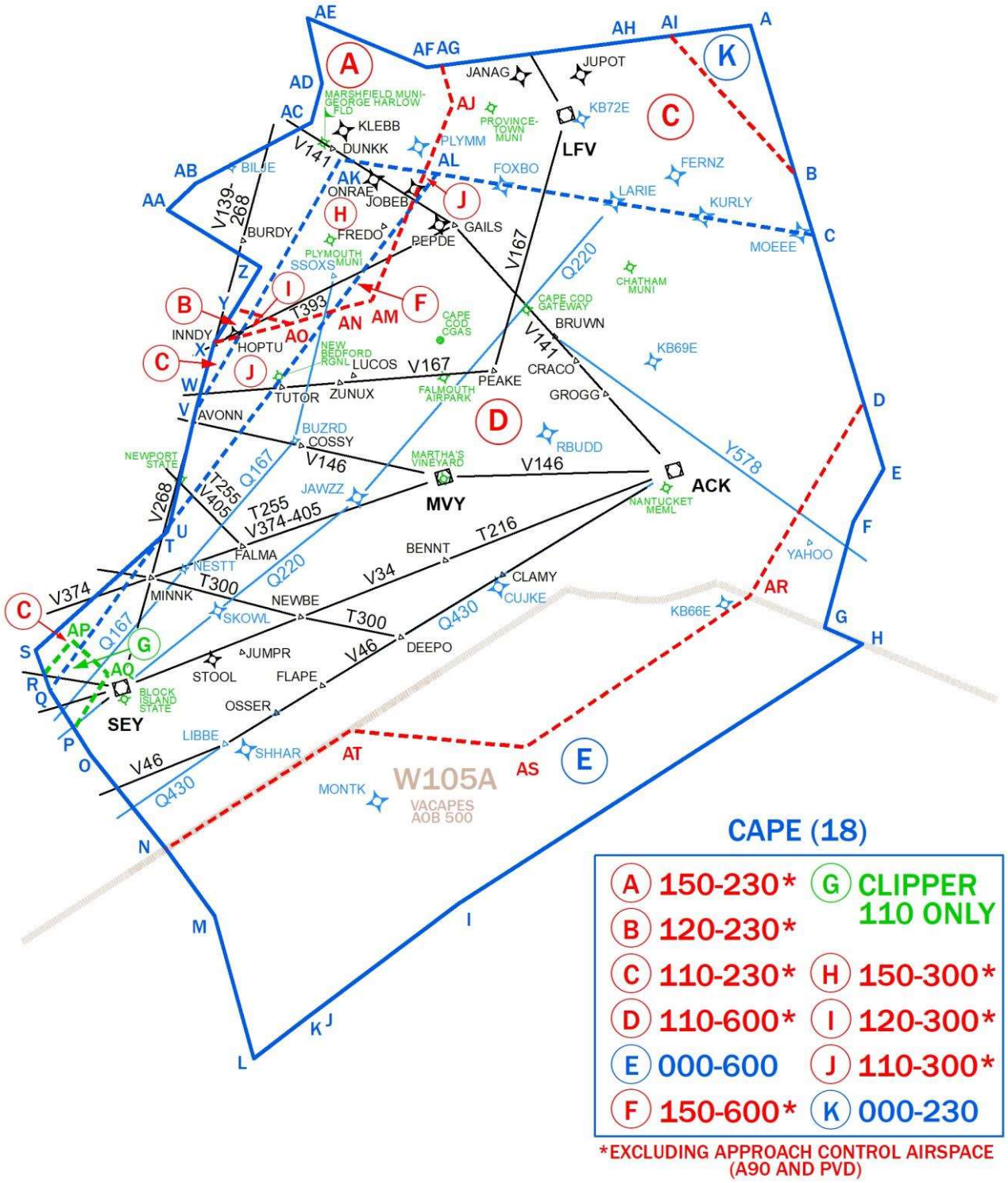
e. Altitude Exceptions - Cape Sector is authorized, while operating in ERAM, to set the altitude limits to a minimum of 043B999. The altitude limits must be amended to 000B999 when the sector is providing ATC services to any aircraft below 5500 feet MSL, or when either Providence ATCT or A90 Cape Area are not operational. When Sector 17 is combined with Sector 18, the conditions for both sectors must be satisfied.

f. Parachute Jump Areas (refer to Airport/Facility Director) – Newport State, RI (See Boston ATCC/Sky Dive Newport LOA).

g. CAPE Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	H4AH	K	H3VC	U	F3MP	AE	F4MO	AO	G3AF
B	H3AB	L	BN97	V	F4AV	AF	G4AS	AP	G3E2
C	H3AG	M	BN33	W	F3AL	AG	G4AT	AQ	G3E3
D	H4AC	N	BN44	X	F3AK	AH	H4AI	AR	H3DG
E	H3AD	O	BN29	Y	G4AC	AI	H4AB	AS	H4AD
F	H3AC	P	G3E4	Z	G3DC	AJ	G4AE	AT	G3DG
G	H3AA	Q	F3ML	AA	BSD1	AK	F4AU		
H	H3DH	R	G3E1	AB	F4MM	AL	H4AF		
I	BN90	S	F3MM	AC	BSD2	AM	G3AA		
J	H3GK	T	F3MK	AD	F4MB	AN	G3AE		

CAPE SECTOR


AE
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AB
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AJ
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AL
AM
AN
AO
AP
AQ
AR
AT
AS
JANAG
JUPOT
KB72E
LFV
PROVINCE-TOWN MUNI
PLYMM
FOXBO
FERNZ
LARIE
KURLY
MOEEE
MARSHFIELD MUNI-GEORGE HARLOW FLD
KLEBB
DUNKK
BILGE
ONRAE
JOBEB
GAILS
PEPDE
FREDO
BURDY
PLYMOUTH MUNI
SSOXS
CHATHAM MUNI
CAPE COD GATEWAY
BRUWN
KB69E
CAPE COD CGAS
INNDY
HOPTU
NEW BEDFORD RGNL
LUCOS
TUTOR
ZUNUX
FALMOUTH AIRPARK
PEAKE
CRACO
GROGG
AVONN
BUZRD
COSSY
RBUDD
NEWPORT STATE
MARTHA'S VINEYARD
MVY
ACK
NANTUCKET MEML
JAWZZ
FALMA
NESTT
MINNK
SKOWL
NEWBE
BENNT
CLAMY
CUJKE
YAHOO
KB66E
JUMPR
STOOL
FLAPE
DEEPO
BLOCK ISLAND STATE
SEY
OSSER
LIBBE
SHHAR
MONTK
W105A
VACAPES
AOB 500
V141
V139-268
V167
V146
V374-405
V374
V34
V46
T393
T255
T300
T216
Q167
Q220
Q430
Y578
CAPE (18)
A 150-230*
B 120-230*
C 110-230*
D 110-600*
E 000-600
F 150-600*
G CLIPPER 110 ONLY
H 150-300*
I 120-300*
J 110-300*
K 000-230
*EXCLUDING APPROACH CONTROL AIRSPACE (A90 AND PVD)

7-A. TRAFFIC MANAGEMENT INITIATIVES

EWR Re-route via BAF.

1. When the EWR Re-route via BAF is in effect through Area C, D and E:

   (a) Area C, D and E must assign active arrival aircraft routing via BAF V292 as appropriate and enter any FP amendments.

   (b) TMU must ensure flight plan amendments are completed and coordinated (as needed) on existing flight plan proposals.

   (c) To retain flight plan information to assist in updating route amendments to EWR, Area C, D and E CPCs must not delete EWR proposals from the Sector's EDST Departure List regardless of the FP routing.

2. When the reroute via BAF is no longer required by Area E:

   (a) Area C, D and E must assign active arrival aircraft the normal EWR routing and enter any FP amendments as appropriate.

   (b) All affected EWR Flight Plan proposals must be amended and coordinated by TMU as needed.

CHAPTER 8. AREA E

8-1. STEWART SECTOR 05

8-1-1. GENERAL DESCRIPTION

Sector 05 primarily works New York metropolitan arrivals. The sector provides spacing to EWR and EWR satellite airports in a southerly flow. Sector 05 also sequences aircraft landing LGA and HPN airports, and their respective satellites that are entering Sector 06. In addition, Sector 05 works arrivals and departures to/from the Catskill area airports, as well as Enroute traffic on T295, T212, and T216. Due to the volume of transitioning aircraft and crossing flows, a high level of complexity exists throughout the sector. Stewart Sector is authorized to utilize single-site radar separation IAW applicable Directives.

8-1-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Primary Frequency – 134.3/256.9

2. Emergency Frequency: 121.5 and 243.0

NOTE: At least one sector per area must monitor the emergency frequency.

NOTE: N90, Newburgh Sector has the capability to transmit.

3. BUEC: PWL - 134.3/256.9

4. Position Combining – The VSCS must be used to combine sectors. All Area E sectors normally combine at Sector 05 during midnight configuration.

b. Map Information:

1. Pre-Set Map – AREAE

2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 06

d. Sector SIA

1. ERAM-status, outages, drawing and annotations, GI, and weather messages
2. ERIDS including pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. White boards
5. Flight progress strips
6. Printed messages on strips such as GIs, hazardous weather
7. Read-and-sign folders
8. Written notes

8-1-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector:

(a) Has control for left turns from Sector 21, and point out responsibility to Sector 06, on V292 traffic after a point 5 NMs east of BOWAN.

(b) Has control for right turns on all traffic on V270 east of DNY from Sector 23.

(c) Sector 21 must sequence like types to EWR and EWR satellites via V489 and at least 5 NMs in-trail.

(d) Sector 21 must sequence EWR jet and high-performance prop arrivals at least 5 NMs in-trail.

(e) Sector 23 must clear props to EWR and all aircraft to EWR Satellites via HNK V167 V489 COATE and enter Sector 05 at or below 15,000 feet MSL (props) and at or below 17,000 feet MSL (jets). In cases where aircraft cannot be delivered in-trail, jets must be above props.

(f) Sector 21 may clear traffic routed via V292/V489 direct SAGES without coordination.

(g) Sector 21 may clear traffic routed via V213 direct TALCO without coordination.

(h) Sector 24 must clear EWR jet and high-performance turboprop arrivals to cross the lateral boundary of Sector 05/23 at or below the LUFL.

(i) Has control for right turns on EWR turbojet/HPTP arrivals routed via HNK at the Sector 05/23 lateral boundary.

(j) Has control for speed on EWR turbojet/HPTP arrivals routed via HNK on contact. The receiving controller will assume responsibility for any spacing lost due to speed adjustments.

(k) Has control for turns on EWR jet and high-performance turboprop arrivals from Sector 06, after crossing the centerline of V157.

(l) Sector 21 must clear aircraft to EWR and EWR satellite airports to enter Sector 05 at or below 16,000 feet MSL.

(m) Sector 23 must clear SWF and satellite arrivals to enter Sector 05 at or below 11,000 feet MSL.

(n) Sector 23 must clear DXR, LGA, HPN, and satellite prop/turboprop arrivals via NOBBI STAR.

(o) Sector 23 must clear LGA, HPN, and DXR prop/turboprop traffic to enter Sector 05 either in-trail, or if less than radar separation exists, LGA arrivals must be on top.

(p) LGA, HPN, and DXR prop/turboprop traffic must enter Sector 05 at or below 15,000 feet MSL from Sector 23.

(q) HPN/DXR Arrivals:

(1) Sector 24 must clear jets and high-performance turboprop arrivals to cross the lateral boundary of Sector 05/23 via VALRE-STAR at LUFL.

(2) Sector 24 must clear LGA/HPN/DXR and satellite props/turboprops via NOBBI STAR and handoff to Sector 23.

(r) Sectors 23 and 24 must clear BDR, HVN, OXC, and 42B turbojet arrivals to cross the lateral boundaries of Sector 05/23 at or below 17,000 feet MSL via PETER V433 PWL V44 DENNA direct destination.

(s) Sector 05 has control for right turns on all SWF arrivals routed via DNY.

2. Exiting the Sector – Reserved.

b. Holding:

1. SHAFF (Published) – Non-radar – Hold northeast on SAX029, left turns, 8,000 feet MSL and below, maximum speed 230 knots, 10 DME legs. Simultaneous holding at SHAFF and HUO is authorized at and below 8,000 feet MSL.

2. HUO (Published) – Non-radar – Hold north on HUO019, right turns, 8,000 feet MSL and below, maximum speed 210 knots, 1-minute legs. Jet holding at 6,000 feet MSL conflicts with N90. Simultaneous holding at SHAFF and HUO is authorized at and below 8,000 feet MSL.

3. HELON (Published) – Non-radar – Hold north on V213, right turns, 8,000 through 17,000 feet MSL, maximum speed 230 knots, 10 NM legs. Simultaneous holding at HELON and WEARD at the same altitude is not authorized at or above 8,000 feet MSL. Coordination required with Sector 06 above 12,000 feet MSL.

4. WEARD (Published) – Non-radar – Hold north on HUO019, right turns, 7,0000 through 9,000 feet MSL, maximum speed 230 knots, 1-minute legs. Simultaneous holding at WEARD and FILPS at the same altitude is not authorized. Simultaneous holding at WEARD and HELON at the same altitude is not authorized at or above 8,000 feet MSL.

5. FILPS (Unpublished) – Non-radar – Hold northwest on DNY130 (V483) 29 DME, left turns, 7,000 through 9,000 feet MSL, maximum speed 230 knots, 1-minute legs. Simultaneous holding at FILPS and WEARD at the same altitude is not authorized.

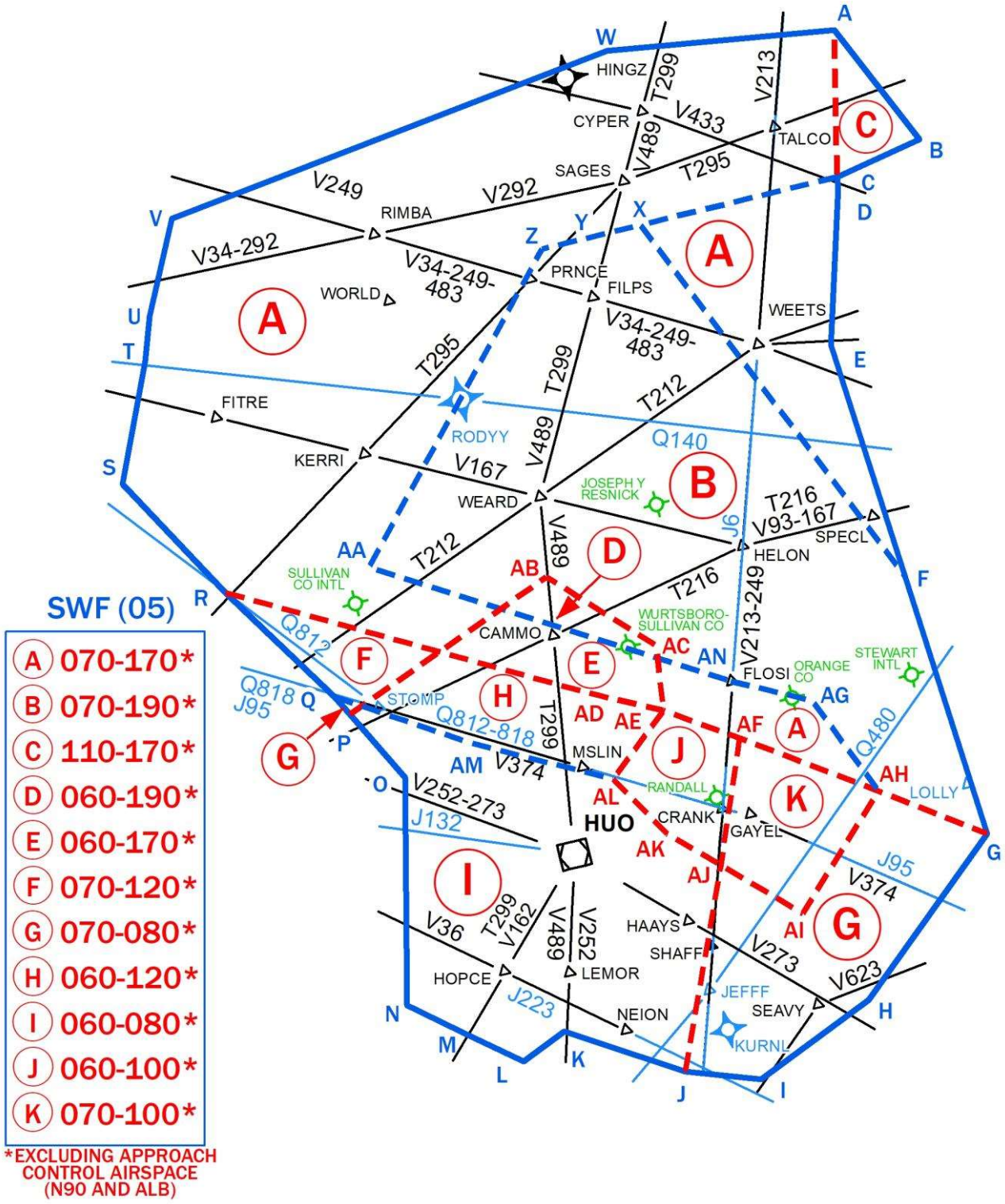
c. Radar/Radio Limitations – Limited low altitude reception between RKA and DNY VORs.

d. External Sector Combinations – When ZNY advises ZBW Sector 05 (SWF) that LHY sector is combined North/South. Airspace south of 4 miles south of T216 will be delegated to N35 and the Airspace north of a point 4 miles south of T216 will be delegated to N50.

e. SWF Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	D4AN	I	BB23	Q	BB10	Y	C4AT	AG	BB05
B	D4AA	J	BB40	R	1025	Z	BN69	AH	BB08
C	BN71	K	BB39	S	1024	AA	BB03	AI	BB11
D	C4AR	L	BB06	T	1102	AB	PTZZ	AJ	NY65
E	C4AL	M	NY75	U	BN67	AC	PTWW	AK	BB12
F	C4BB	N	BB15	V	BN70	AD	BB13	AL	NN07
G	BB07	O	BB14	W	C4AC	AE	PTXX	AM	NY06
H	BB25	P	PTAA	X	C4BA	AF	1115	AN	BB09

STEWART SECTOR



8-2. PAWLING SECTOR 06

8-2-1. GENERAL DESCRIPTION

Sector 06 primarily works LGA, HPN, JFK, and ISP area arrivals. The primary flow of traffic is to the south to NY Metro area airports, in a descending configuration. The sector also works Y90 departures that climb southwest bound into Sector 20, ALB arrivals proceeding to the north and other Enroute traffic on T216, T212, V487, and V292. One area of concern is with aircraft departing Y90 climbing to flight levels over PWL and Albany arrivals on V487. Constant attention is needed for arrivals on V487. Constant attention is needed for pilots straying off course due to the close proximity of V44, V123, and V157. Pawling Sector is authorized to utilize single-site radar separation IAW applicable Directives.

8-2-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Primary Frequency – 128.1/353.67

2. Emergency Frequency: 121.5 /243.0

NOTE: At least one sector per area must monitor the emergency frequency.

NOTE: N90, Newburgh Sector has the capability to transmit on 121.5/243.0

3. BUEC: BDR - 128.1/353.67

4. Position Combining – The VSCS must be used to combine sectors. When combining sectors, Sector 06 is normally combined at Sector 05.

b. Map Information:

1. Pre-Set Map – AREAE

2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 21

d. Sector SIA

1. ERAM-status, outages, drawing and annotations, GI, and weather messages
2. ERIDS including pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. White boards
5. Flight progress strips
6. Printed messages on strips such as GIs, hazardous weather
7. Read-and-sign folders
8. Written notes

8-2-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector:

   (a) Has control for turns to the south on Y90 departures and T212 Enroute traffic when traffic is within 25 NMs of PWL VOR from Sector 07.

   (b) Has control to turn LGA jet and high-performance turboprop arrivals after CYPER from Sector 24.

   (c) Has control to turn LGA jet direct IGN or BASYE when traffic is within 50 NMs of the PWL VOR from Sector 22.

   (d) Sector 19 may clear aircraft landing within the ALB Terminal Area direct BOWAN without coordination.

   (e) Sector 19 may clear Catskill Area arrivals direct PWL without coordination.

   (f) Sector 21 must clear aircraft landing HPN and DXR to enter Sector 06 at or below 12,000 feet MSL.

   (g) Sector 21 must clear aircraft Enroute to all other New York metropolitan airports to enter Sector 06 at or below 16,000 feet MSL.

   (h) Has control for turns south from Sector 21 on aircraft via PETER V270 ATHOS V44 or via PWL, DENNA or the LOVES STAR. Sector 06 is responsible for the point out to Sector 05, if necessary.

   (i) Sector 07 must ensure that the following turbojet arrivals enter Sector 06 level at these altitudes: EWR – at or below 16,000 feet MSL, LGA – at or below 14,000 feet MSL and HPN/DXR – at or below 12,000 feet MSL. These aircraft will be level at even altitudes.

   (j) Sector 07 may clear Y90 area departures, routed via VEERS/RONGE, direct PWL or IGN (as appropriate) without coordination.

2. Exiting the Sector:

   (a) Must clear ALB, 5B2, and SCH arrivals to enter Sector 21 at or below 15,000 feet MSL.

   (b) Sector 21 has control for right turns on V487 traffic and has point out responsibility to Sector 07 upon acceptance of the radar handoff.

   (c) Sector 05 has control for turns on EWR jet and high-performance turboprop arrivals, after crossing the centerline of V157.

   (d) Sector 06 may clear aircraft direct BOWAN without coordination.

b. AIT [Ref: ZBW 7110.33, Para A6-2]

1. The following AIT procedure is authorized between Sectors 06, 07, and 20 for Y90, OXC, HVN, and BDR departures flight planned via PWL requesting FL 200 or above.

   (a) Sector 07 must enter an interim altitude of 17,000 feet MSL in the data block and initiate a

transfer of radar identification to Sector 06.

(b) Sector 06 must accept the transfer of radar identification, enter an interim altitude of FL190, and initiate a transfer of radar identification to sector 20.

(c) After acceptance of the handoff by Sector 20, Sector 07 must climb the aircraft to FL 190 and transfer communications to Sector 20.

(d) If Sector 06 requires communication with the AIT aircraft, after Sector 06 accepts transfer of radar identification, they will not enter an interim altitude above 17,000 feet MSL by 10 NM east of the Sector 06/07 boundary, or RONGE for OXC, HVN and BDR departures, Sector 07 will transfer communications to Sector 06.

(e) If the transfer of radar identification to Sector 20 has not been completed by a point 10 NM east from the Sector 06/07 boundary, or RONGE, for OXC, HVN and BDR departures, Sector 07 must transfer communications to Sector 06 climbing to 17,000 MSL.

2. The following AIT procedure is authorized between Sectors 06 and 21 for Albany Terminal Area Arrivals from the south.

(a) Sector 06 may utilize this procedure for aircraft established at or restricted to be at 11,000 feet MSL prior to the centerline of V292. Sector 06 must enter an interim altitude of 11,100 feet MSL in the data block and initiate a radar handoff to Sector 21.

(b) Sector 21, after acceptance of the radar handoff, must initiate a radar handoff to Albany Approach Control.

(c) Sector 06, after observing Albany Approach Control accepting the radar handoff, must then transfer communications to Albany Approach Control IAW the ZBW/ALBANY LOA.

(d) If Albany Approach Control has not accepted the handoff prior to the common boundary of Sector 06/21, Sector 06 must transfer communication to Sector 21.

c. Holding:

1. IGN (Published) – Non-radar – Hold north on the IGN 013R, right turns, all altitudes, 10 DME legs. Requires coordination with Sector 05 at and above 14,000 feet MSL.

2. VALRE (Published) – Non-radar – Hold north on V157, right turns, 6,000 through 14,000 feet MSL, 10 DME legs. Requires coordination with Sector 05 at and above 7,000 feet MSL. Requires coordination with N90 at and above 15,000 feet MSL.

3. LOVES (Published) – Non-radar – Hold northwest on the BDR 336R, left turns, 6,000 through 8,000 feet MSL, maximum speed 230 knots and 1-minute legs.

4. NOBBI (Published) – Non-radar – Hold north on V123, left turns, 6,000 through 8,000 feet MSL, maximum speed 175 knots, 1-minute legs. For aircraft unable to hold at 175 knots, simultaneous holding at NOBBI and the IGN 013R is authorized at or below 8,000 feet MSL once the IGN aircraft is established in the hold.

5. TRESA (Unpublished) – Non-radar – Hold north on the IGN 013R (V123) 13 DME, left turns, 6,000 through 8,000 feet MSL, maximum speed 230 knots, and 1-minute legs.

6. Restrictions:

(a) Simultaneous holding (at the same altitude) at IGN and at the VALRE intersection is NOT authorized at any altitude.

(b) Simultaneous holding (at the same altitude) on the IGN 013R (jets or props) and at the LOVES (jets or props) intersection, is authorized at or below 12,000 feet MSL when established in the holding patterns.

(c) Simultaneous holding (at the same altitude) at the LOVES (jets) and NOBBI (props) intersections, is authorized at or below 8,000 feet MSL when established in the holding patterns. Aircraft approaching LOVES via V44 are not established in the pattern until they have completed 1 circuit.

(d) Simultaneous holding (at the same altitude) at the LOVES (props) and NOBBI (props) intersections, is authorized at or below 10,000 feet MSL.

(e) Simultaneous holding (at the same altitude) at the VALRE (jets or props) and NOBBI (props) intersections, is authorized at or below 8,000 MSL all entries, and 9,000 through 12,000 feet MSL when entering the hold on the inbound leg.

(f) Holding at LOVES conflicts with V91.

(g) Holding at LOVES (jets) conflicts with N90 at all altitudes.

(h) Holding at LOVES (props) conflicts with N90 at or above 7,000 MSL.

(i) All Sector 06 holding patterns conflict with T216, except for the TRESA pattern.

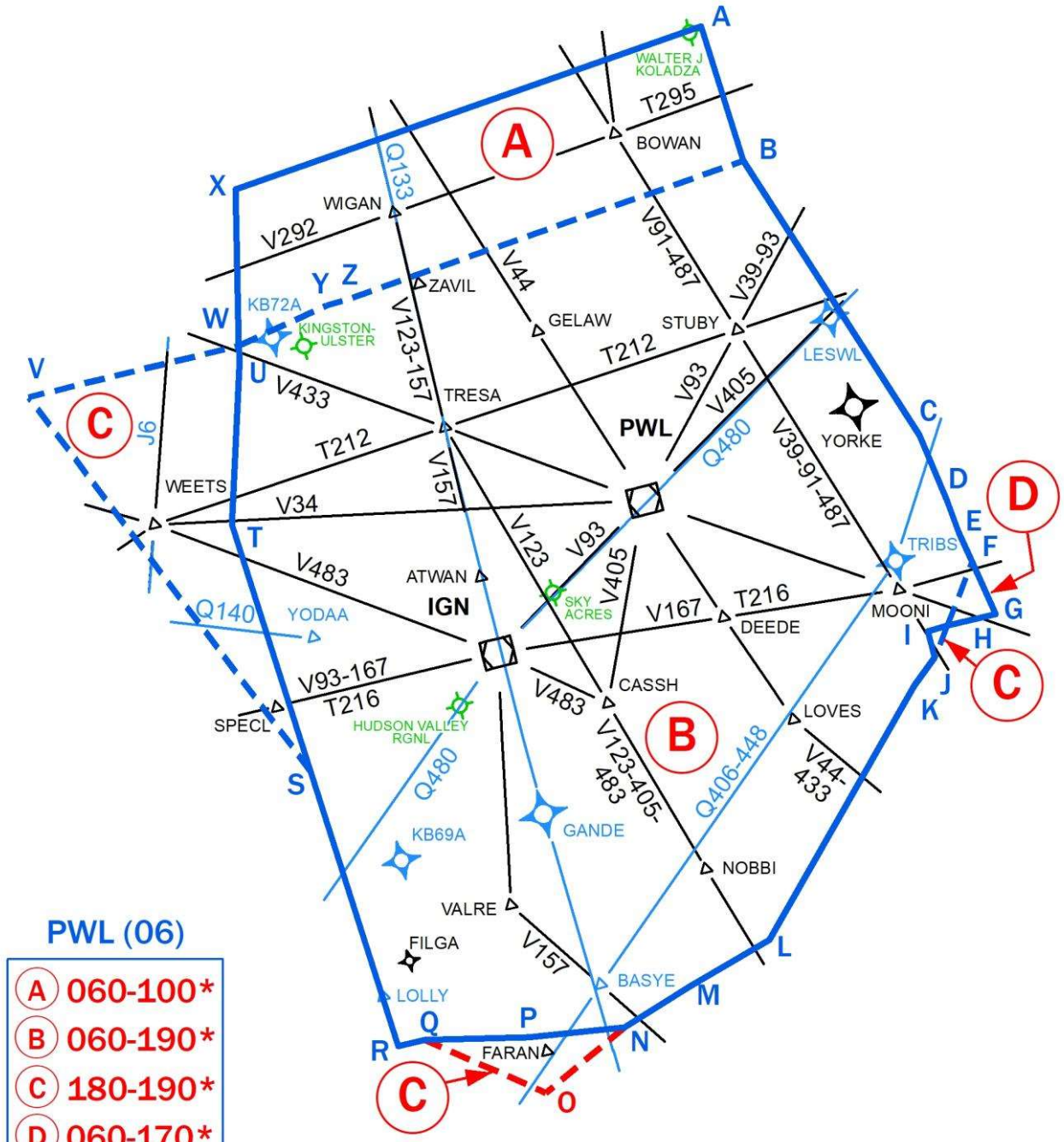
(j) Holding at TRESA conflicts with V292.

(k) Simultaneous holding at TRESA and the IGN 013R at the same altitude is not authorized.

d. PWL Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	D4AQ	G	BN54	M	NT48	S	C4BB	Y	D4AA
B	D4AI	H	C4BD	N	NT47	T	C4AL	Z	C4BC
C	D3AA	I	BN53	O	BB36	U	C4AR		
D	E3AD	J	NT39	P	NT46	V	C4BA		
E	D3AH	K	NT35	Q	NT43	W	BN71		
F	D3AG	L	NT34	R	BB07	X	D4AN		

PAWLING SECTOR



8-3. CHESTER SECTOR 07

8-3-1. GENERAL DESCRIPTION

Sector 07 works arrival traffic to Y90 via the Albany VORTAC, the STELA STAR, and departure traffic via Pawling and Chester VORs. In addition, Sector 07 works arrival and departure traffic to and from Albany, Albany Satellites, Enroute traffic to EWR, LGA, HPN, MHT, BOS, Boston satellites, and Enroute traffic on V39/V93. Metering requirements for BOS are accomplished at the WHATE intersection. Potential conflicts exist north of CTR between Y90 arrivals and Y90 departures routed CTR CAM. Chester Sector is authorized to utilize single-site radar separation IAW applicable Directives.

8-3-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Primary Frequency – 127.65/257.92

2. Emergency Frequency: 121.5/243.0

NOTE: At least one sector per area must monitor the emergency frequency.

NOTE: Y90 has the capability to transmit.

3. BUEC: QHA - 127.65/257.92

4. Position Combining – The VSCS must be used to combine sectors. When combining sectors, Sector 07 is normally combined at Sector 21.

b. Map Information:

1. Pre-Set Map – AREAE

2. Alt. Map – ZBWMAP

3. Sector 07 must set upper altitude limits to include at least FL202.

c. Backup Printer: Sector 19

d. Sector SIA

1. ERAM-status, outages, drawing and annotations, GI, and weather messages
2. ERIDS including pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. White boards
5. Flight progress strips
6. Printed messages on strips such as GIs, hazardous weather
7. Read-and-sign folders
8. Written notes

8-3-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector:

(a) Sector 47 must climb westbound ORH departures to 17,000 feet MSL or below and handoff to Sector 07.

(b) Sector 47 is not required to sequence westbound ORH departures with the other Enroute traffic to Sector 07.

(c) Has control for turns on Y90 arrivals via the STELA STAR, between the BOWAN and STELA intersections, after crossing the centerline of V91 from Sector 21.

(d) Sector 21 must clear Y90 arrivals to enter Sector 07 at or below 14,000 feet MSL.

(e) Sector 21 may clear Y90 arrivals via the STELA STAR to join the STELA STAR between the CANAN Intersection and the STELA Intersection, or direct BDL to enter Sector 07 between the BOWAN and STELA intersection.

(f) EDST – Sector controllers must not remove any proposed flight plans from the Departure Aircraft List that will enter Sector 07 as the first center sector.

(g) Sector 47 must clear EWR, LGA, and HPN jet arrivals at or below 16,000 feet MSL. If less than radar separation exists between EWR and LGA arrivals, LGA arrivals must enter Sector 07 below EWR arrivals. If less than radar separation exists between EWR/LGA arrivals and HPN arrivals, then HPN arrivals must enter Sector 07 below EWR/LGA arrivals.

(h) Has control for left or right turns not to exceed 20 degrees 10NM from NELIE on LGA, EWR, and HPN arrivals from sector 47.

(i) Has control for descent from 16,000 feet to 14,000 feet MSL on LGA, EWR and HPN jet arrivals within 5 NMs of NELIE, from Sector 47.

2. Exiting the Sector:

(a) Sector 06 has control for turns south on Y90 departures and T212 Enroute traffic when traffic is within 25 NMs of PWL VOR.

(b) MHT jet arrivals must be routed via ROZZE STAR to enter Sector 36 at or below 15,000 feet MSL.

(c) Must clear Y90 departures routed via V292 to 16,000 feet MSL or below.

(d) Sector 36 has control to turn BOS turbo-prop arrivals direct GDM after CTR VOR.

(e) Must ensure that the following turbojet arrivals enter Sector 06 at these altitudes: EWR – at or below 16,000 feet MSL, LGA – at or below 14,000 feet MSL, HPN/DXR – at or below 12,000 feet MSL. These aircraft will be level at even altitudes.

(f) May clear Y90 departures, routed via VEERS, direct PWL or IGN (as appropriate) without coordination.

(g) Sector 22 has control for turns not to exceed 30 degrees on Y90 departures via CAM.

NOTE: Sector 22 has point out responsibility to Sector 36.

b. AIT [Ref: ZBW 7110.33, Para A6-2]

The following AIT procedure is authorized between Sectors 06, 07 and 20 for Y90, OXC, HVN and BDR departures flight planned via PWL requesting FL 200 or above.

1. Sector 07 must enter an interim altitude of 17,000 feet MSL in the data block and initiate a transfer or radar identification to Sector 06.

2. Sector 06 must accept the transfer of radar identification, enter an interim altitude of FL 190 and initiate a transfer of radar identification to Sector 20.

3. After acceptance of the hand-off by Sector 20, Sector 07 must climb the aircraft FL 190 and transfer communications to Sector 20.

4. If Sector 06 needs communication with the AIT aircraft, after Sector 06 accepts transfer of radar identification, they will not enter an interim altitude above 17,000 feet MSL by 10 NM east of the Sector 06/07 boundary, or RONGE for OXC, HVN, and BDR departures, Sector 07 will transfer communications to Sector 06.

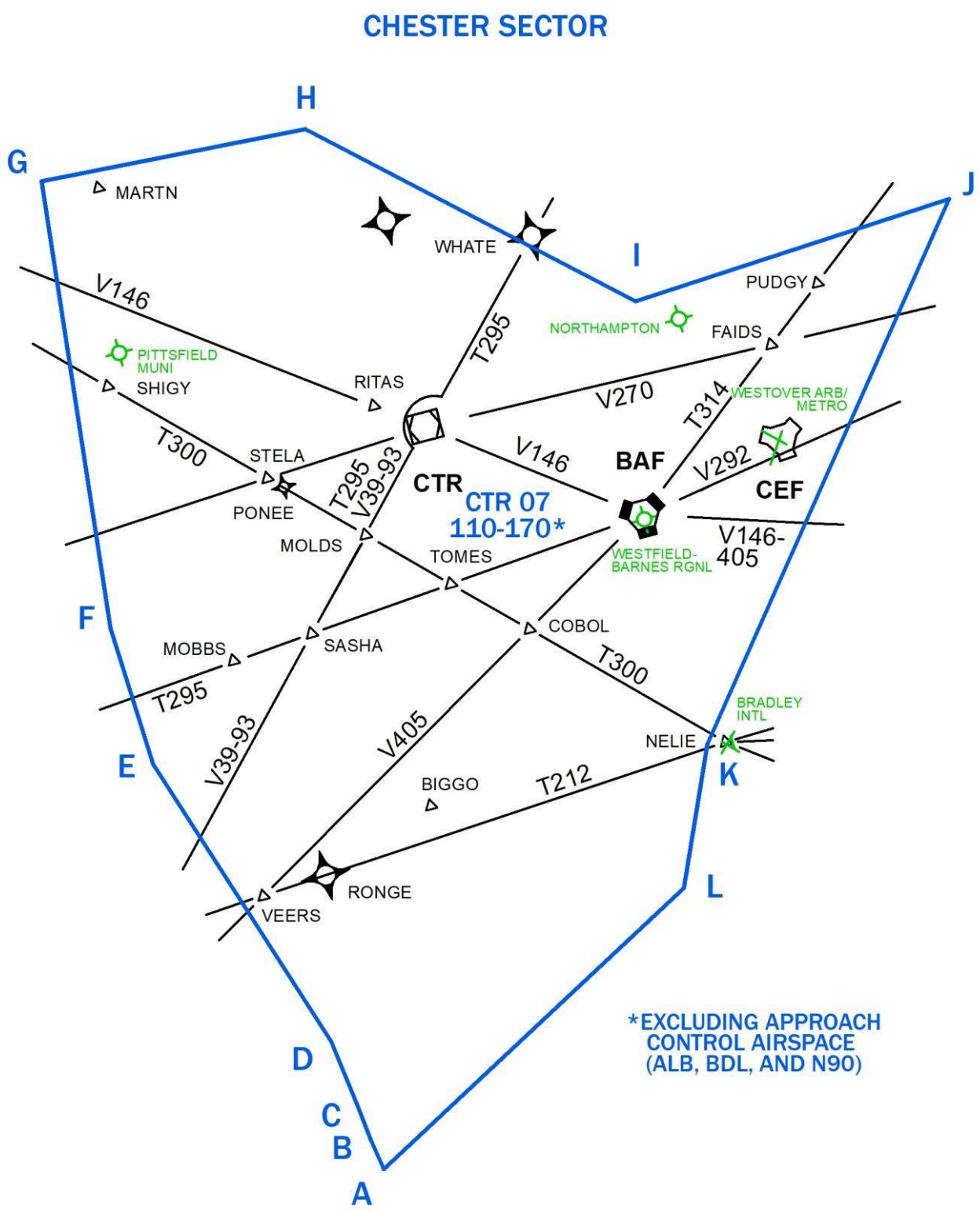
5. If the transfer of radar identification to Sector 20 has not been completed by a point 10 NM east from the Sector 06/07 boundary, or RONGE, for OXC, HVN and BDR departures, Sector 07 must transfer communications to Sector 06 climbing to 17,000 MSL.

c. Holding:

1. STELA (Published) – Non-radar – Hold northwest as published, right turns, 11,000 through 17,000 feet MSL, maximum speed 230 knots, 1 ½ - minute legs. Requires coordination with Sector 21 at all altitudes.

d. CTR Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	D3AG	D	D3AA	G	D4AB	J	E4DA
B	D3AH	E	D4AI	H	D4AC	K	E3DP
C	E3AD	F	D4AQ	I	E4DB	L	E3AA


CHESTER SECTOR
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B
A
K
L
MARTN
WHATE
PUDGY
NORTHAMPTON
FAIDS
V146
T295
PITTSFIELD MUNI
SHIGY
RITAS
V270
T314
WESTOVER ARB/ METRO
T300
STELA
V146
BAF
V292
CEF
T295
V39-93
CTR
CTR 07 110-170*
PONEE
MOLDS
TOMES
WESTFIELD-BARNES RGNL
V146-405
COBOL
MOBBS
SASHA
T300
T295
BRADLEY INTL
V39-93
V405
NELIE
BIGGO
T212
RONGE
VEERS
*EXCLUDING APPROACH CONTROL AIRSPACE (ALB, BDL, AND N90)

8-4. DANBURY SECTOR 19

8-4-1. GENERAL DESCRIPTION

Sector 19 works New York metropolitan departures via GREKI, MERIT, and BAYYS Intersection. Sector 19 sequences BOS arrival traffic from overhead the JFK VOR with turbojet departures via MERIT from the New York metropolitan area. In addition, Sector 19 works arrivals to BDL, ORH, BED, and SWF via DPK and ALB arrivals via LGA. Potential conflicts exist between BAYYS departures and Y90 arrivals northeast of BDR. Danbury Sector is authorized to utilize single-site radar separation IAW applicable Directives.

8-4-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Primary Frequency – 134.0/317.7

2. Emergency Frequency: 121.5/243.0

NOTE: At least one sector per area must monitor the emergency frequency.

NOTE: N90 has the capability to transmit.

3. BUEC: BDR - 134.0/317.7

4. Position Combining – The VSCS must be used to combine sectors. When combining sectors, Sector 19 is normally combined at Sector 05 or Sector 20.

b. Map Information:

1. Pre-Set Map – AREAE

2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 20

d. Sector SIA

1. ERAM-status, outages, drawing and annotations, GI, and weather messages
2. ERIDS including pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. White boards
5. Flight progress strips
6. Printed messages on strips such as GIs, hazardous weather
7. Read-and-sign folders
8. Written notes

8-4-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector – Sector 32 must clear Y90 arrivals via MAD MAD341 BRISS or DPK STAR with a restriction to cross 10 NMs south of MAD at 12,000 feet MSL.

2. Exiting the Sector:

(a) Sector 20 has control for turns to the north on GREKI departures at or above LUFL.

(b) Must clear New York metropolitan departures routed via GREKI, requesting FL 180 or above, to FL 230 or requested altitude, whichever is lower.

(c) May clear traffic routed via GON, excluding GON arrivals, direct GON without coordination from Sector 34.

(d) May clear traffic routed via ORW direct ORW without coordination from Sector 34.

(e) May clear BOS jet arrivals via the ROBUC STAR direct RUIZE without approval from Sector 34.

(f) May clear BOS jet arrivals via the ORW STAR direct ORW without coordination from Sector 34.

(g) May clear BOS jet arrivals via the OOSHN STAR direct FOSTY without coordination from Sector 34.

(h) Sector 34 has control for descent to FL210 East of T315 within 45 miles of RUIZE for BOS jet arrivals.

(i) Sector 34 has control for turns up to 10 degrees left (no further than a 055 track) and 20 degrees right of course of KBOS jet arrivals within 45 miles of RUIZE.

(j) Must sequence BOS jet arrivals to enter Sector 34 at the highest practical altitude between 13,000 feet MSL and FL230.

(k) Must sequence PVD, EWB, OQU, and SFZ arrivals routed via BAYYS to enter Sector 34 at or below 13,000 feet MSL.

(l) Must sequence non-jet arrivals to BOS and all arrivals to 1B9, GHG, and OWD to enter Sector 34 between 13,000 and 17,000 feet MSL.

(m) Must clear BED, LWM, BVY, and FIT arrivals to enter Sector 47 via HFD GRAYM STAR or via HFD DREEM STAR at or below 15,000 feet MSL. Sector 47 has control for descent to 12,000 feet MSL within 10 NMs from HFD.

NOTE: FIT published on GRAYM STAR, not published on DREEM STAR.

(n) Must clear ORH arrivals to enter Sector 47 routed via HFD V1 GRAYM direct at or below 15,000 feet MSL. Sector 47 has control for descent to 12,000 feet MSL within 10 NMs from HFD.

(o) Must clear MHT and ASH non-turbojet arrivals routed via HFD to enter Sector 47 at or below 15,000 feet MSL.

(p) Sector 47 has control for left turns direct KEYNN on props overflying KEYNN, at or below 17,000 feet MSL, within 10 NMs southwest of HFD.

(q) Sector 47 has control for turns not to exceed 30 degrees left of track on all other traffic flight planned via MERIT HFD assigned 17,000 feet MSL or below within 10 NMs of HFD.

(r) Must clear GON and WST arrivals routed over HFD via HFD T216 GON DIRECT to enter Sector 47 at or below 12,000 feet MSL.

NOTE: N90 departures to GON and WST should remain in TEC altitudes or be routed via HFD.

(s) Sequence MVY arrivals to enter Sector 34 at or below FL 190.

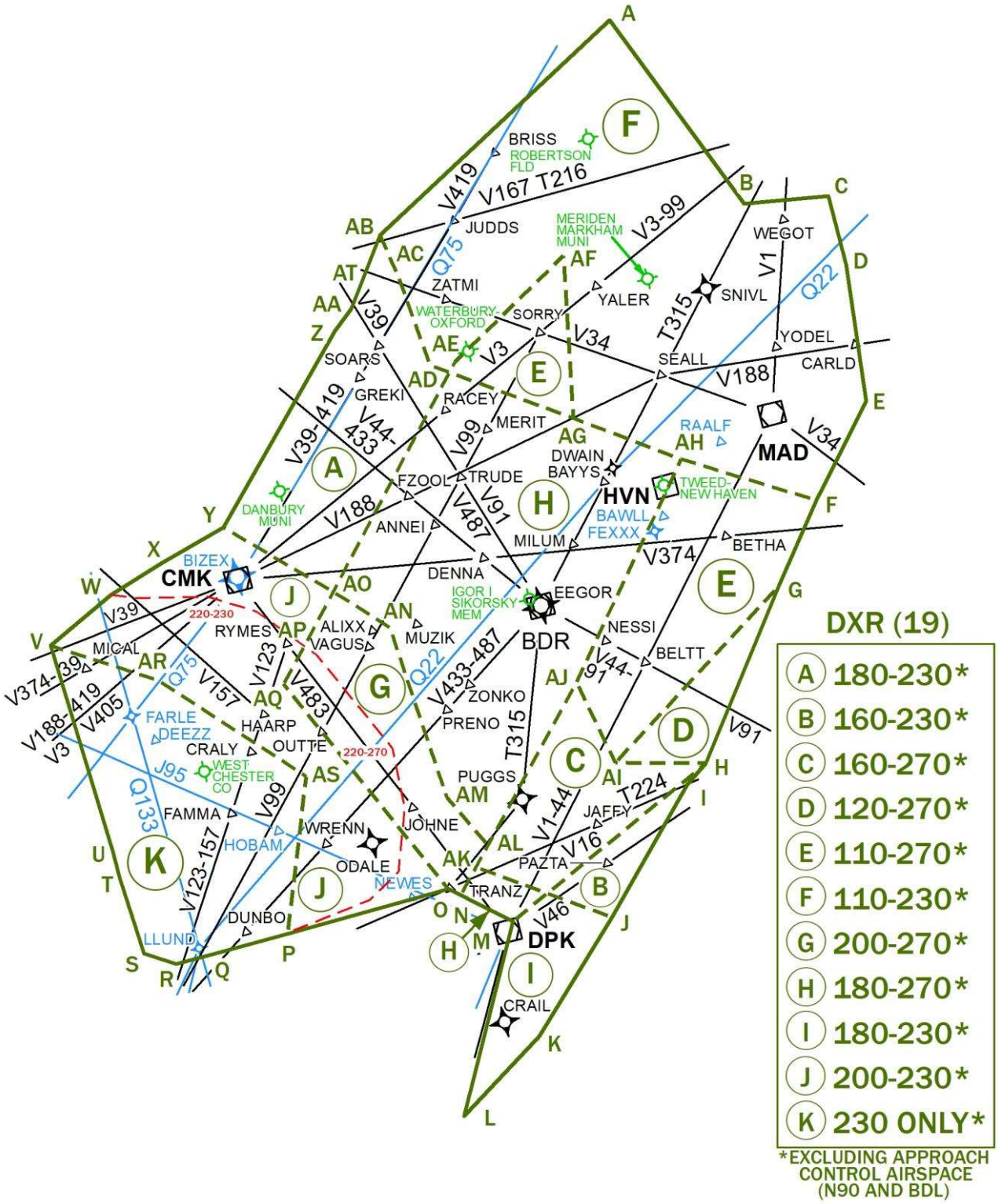
(t) May clear aircraft landing the ALB Terminal Area direct BOWAN without coordination.

(u) May clear Catskill Area arrivals direct PWL without coordination.

b. DXR Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	E3AA	K	BB33	U	D2AA	AE	E3AW	AO	B19A
B	E3AP	L	BB32	V	BB36	AF	E3AI	AP	D3AE
C	E3AJ	M	BB27	W	NT47	AG	NT33	AQ	D3AD
D	BN24	N	BB34	X	NT48	AH	NT38	AR	B19K
E	E3AH	O	BB26	Y	NT34	AI	BB54	AS	B19J
F	E3AS	P	B19I	Z	NT35	AJ	TB03	AT	C4BD
G	NT52	Q	BB58	AA	NT39	AK	TB02		
H	BB50	R	B19G	AB	D3AG	AL	B19D		
I	BB52	S	B19H	AC	BN54	AM	B19C		
J	NT21	T	BB57	AD	NT36	AN	B19B		

DANBURY SECTOR



DXR (19)

A	180-230*
B	160-230*
C	160-270*
D	120-270*
E	110-270*
F	110-230*
G	200-270*
H	180-270*
I	180-230*
J	200-230*
K	230 ONLY*

*EXCLUDING APPROACH CONTROL AIRSPACE (N90 AND BDL)

8-5. KINGSTON SECTOR 20

8-5-1. GENERAL DESCRIPTION

Sector 20 is the only high-altitude sector in Area E. The sector sequences Y90 and ALB departures with Enroute traffic on Q406, Q448, Q480, J6, Q75/J75, and J37. Sector 20 also works aircraft landing JFK from the north and northwest as well as aircraft departing the New York metropolitan area proceeding over CAM or MARTN. The areas of potential conflict are between Y90 departures and JFK arrivals in the vicinity of IGN and the convergence of crossing traffic on J37, J222, Q75/J75, Q406, Q448, Q480, and HYPER arrival. Kingston Sector is authorized to utilize single-site radar separation IAW applicable Directives.

8-5-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Primary Frequency – 125.575/290.35

2. Alternate Frequency – 126.27/306.3

(a) Must be monitored when not in use.

3. Emergency Frequency: 121.5/243.0

NOTE: At least one sector per area must monitor the emergency frequency.

NOTE: N90, Newburgh Sector has the capability to transmit.

4. BUEC: QHA - 125.575/290.35

5. Position Combining – The VSCS must be used to combine sectors. When combining sectors, Sector 20 is normally combined at Sector 19 or Sector 05.

b. Map Information:

1. Pre-Set Map – AREAE

2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 19

d. Sector SIA

1. ERAM-status, outages, drawing and annotations, GI, and weather messages
2. ERIDS including pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. White boards
5. Flight progress strips
6. Printed messages on strips such as GIs, hazardous weather
7. Read-and-sign folders
8. Written notes

8-5-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector:

(a) Sector 10 must clear JFK and satellite jet and high-performance turboprop (AOA 250 kts) arrivals via the IGN STAR to enter Sector 20 at or below FL280.

(b) Have control for turns to the north on GREKI departures at or above LUFL from Sector 19.

(c) Have control for turns direct JEFFF, BOTLS, BWZ, and PTW on Q480, Q448, Q406, and HYPER arrival traffic, at or above FL 240, 10 NMs east of BAF from Sector 46.

(d) Sector 19 must clear New York metropolitan departures routed via GREKI, requesting FL 180 or above, to FL 230 or requested altitude, whichever is lower.

(e) Sector 24 must clear JFK and Satellite jets and high-performance turboprops via the IGN STAR to enter Sector 20 between FL 200 and FL 280.

(f) Sector 38 must clear JFK arrivals to enter Sector 20 at or below FL 310 descending to FL 280.

(g) Sector 46 may clear traffic at or above FL 280 via Q75/J75 direct CMK without coordination.

(h) Sector 46 may clear traffic at or above FL 240, to join Q routes and HYPER arrival between BAF and BIGGO without coordination.

(i) Lowest available altitude when entering Sector 20 via Q75/J75/Q406/Q448/Q480/HYPER arrival is FL 240.

(j) ALB departures filed via J6 must be established on J6 prior to entering Sector 20.

(k) All IAD traffic, during the hours of 1700Z until 2200Z, that are flight-planned over ALB or BAF must be established on the HYPER arrival prior to Sector 20.

NOTE: Area C may still clear these aircraft direct BIGGO.

(l) Sector 20 has control for turns up to 30 degrees within 10NM of the 38/20 boundary from Sector 38.

(m) BWI and DCA arrivals via Q75/J75:

(1) Must enter Sector 20 in-trail and either below or in-trail with other turbojet aircraft routed via Q75/J75.

(2) If less than adequate spacing exists between a BWI and DCA arrival, the BWI arrival must be below the DCA arrival.

(3) When traffic is not sequenced or delivered as above in (1) and (2), Area C must through vectors and/or speed control, initiate spacing. It is understood that spacing does not

have to be completed prior to the common boundary.

(n) IAD arrivals via HYPER Arrival:

(1) Must enter Sector 20 in-trail and either below or in-trail with other turbojet aircraft routed via Q406/Q448.

(2) When traffic is not sequenced or delivered as above in (1), Area C must, through vectors and/or speed control, initiate spacing. It is understood that spacing does not have to be completed prior to the common boundary.

2. Exiting the Sector- MHT and ASH arrivals from Sector 20 must enter Sector 38 at or below FL330. Sector 20 gives Sector 38 control for turns and descent to FL 270 when the aircraft is within 15 NMs of the Sector 20/Sector 38 boundary.

b. AIT [Ref: ZBW 7110.33, Para A6-2]

The following AIT procedure is authorized between Sectors 06, 07, and 20 for Y90, OXC, HVN, and BDR departures flight planned via PWL requesting FL 200 or above.

(a) Sector 07 must enter an interim altitude of 17,000 feet in the data block and initiate a transfer of radar identification to Sector 06.

(b) Sector 06 must accept the transfer of radar identification, enter an interim altitude of FL 190, and initiate a transfer of radar identification to Sector 20.

(c) After acceptance of the handoff by Sector 20, Sector 07 must climb the aircraft to FL 190 and transfer communications to Sector 20.

(d) If Sector 06 needs communication with the AIT aircraft, after Sector 06 accepts transfer of radar identification, they will not enter an interim altitude above 17,000 feet MSL by 10 NM east of the Sector 06/07 boundary, or RONGE, for OXC, HVN, and BDR departures. Sector 07 will transfer communications to Sector 06.

(e) If the transfer of radar identification to Sector 20 has not been completed by a point 10 NM east from the Sector 06/07 boundary, or RONGE, for OXC, HVN and BDR departures, Sector 07 must transfer communications to Sector 06 climbing to 17,000 MSL.

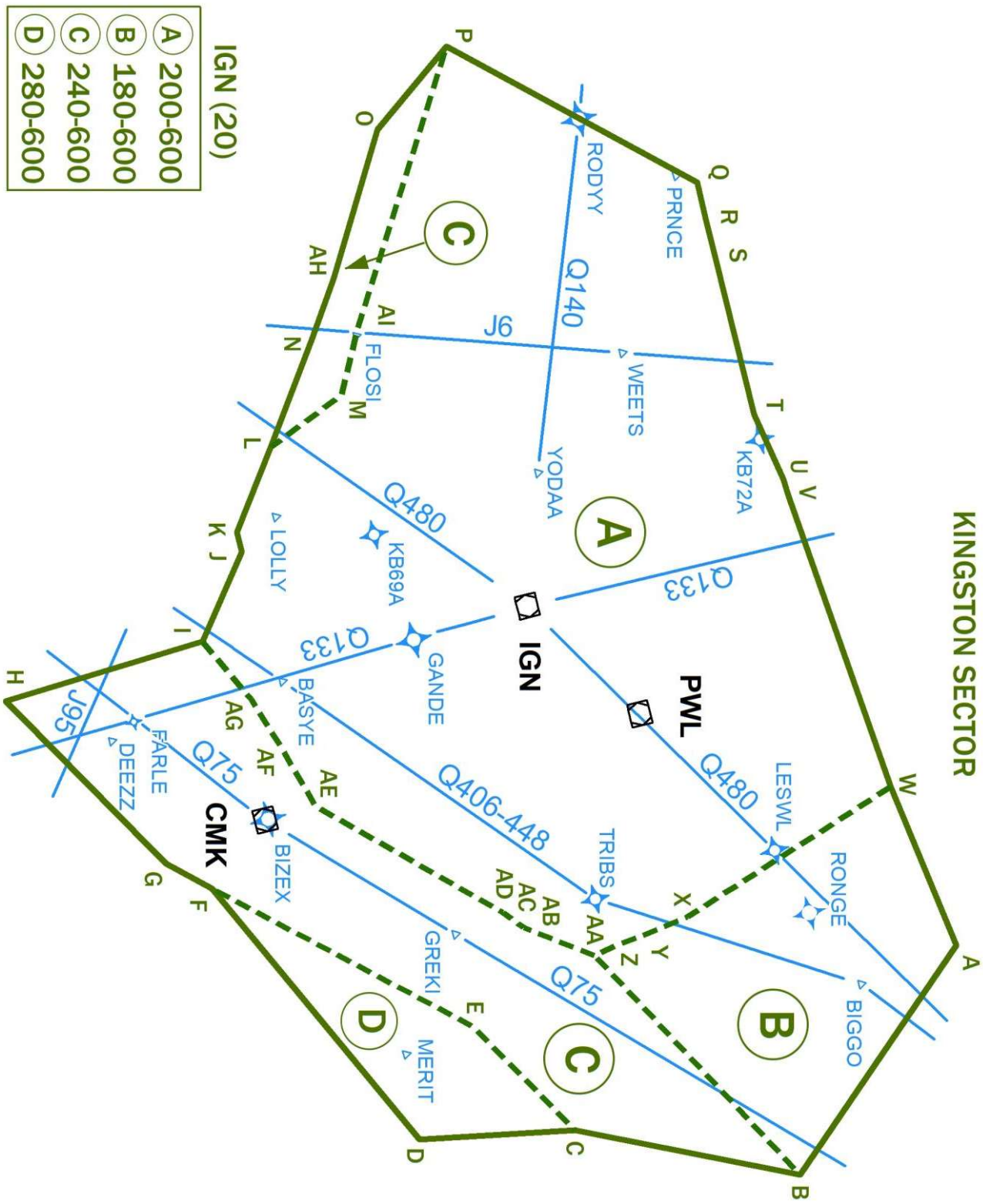
c. Holding:

1. YODAA (Published) – Non-radar – Hold northwest on the IGN 302R (IGN-STAR), right turns, FL 200-280, maximum speed 265 knots, 1 ½ - minute legs. The holding pattern is contained within Sector 20 airspace and is clear of HYPER arrivals via the BAF transition after the aircraft are established within the holding pattern. Simultaneous holding at IGN and YODAA is not authorized.

2. IGN (Published) – Non-radar – Hold northwest on the IGN 302R (IGN-STAR/J522), right turns, FL 180-390, maximum speed 280 knots, 1 ½ - minute legs. Coordination required with ZNY Sector 42 at or above FL 290. Coordination required with Sectors 10 and 38 at and above FL350. Simultaneous holding at IGN and YODAA is not authorized.

d. IGN Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	D4AE	H	D2AA	O	BB04	V	C4BC	AC	NT39
B	E3AA	I	BB36	P	BB03	W	D4AI	AD	NT35
C	E3AI	J	NT43	Q	BN69	X	D3AA	AE	NT34
D	NT33	K	BB07	R	C4AT	Y	E3AD	AF	NT48
E	E3AW	L	BB08	S	C4BA	Z	D3AH	AG	NT47
F	D3AE	M	BB05	T	BN71	AA	D3AG	AH	PTXX
G	D3AD	N	1115	U	D4AA	AB	C4BD	AI	BB09


KINGSTON SECTOR
IGN (20)
A 200-600
B 180-600
C 240-600
D 280-600
IGN
PWL
CMK
RODYY
PRNCE
WEETS
FLOSI
YODAA
KB72A
LOLLY
KB69A
GANDE
BASYE
FARLE
DEEZZ
BIZEX
GREKI
MERIT
TRIBS
LESWL
RONGE
BIGGO
Q140
Q480
Q133
Q406-448
Q75
J6
J95
A
B
C
D
P
Q
R
S
T
U
V
W
X
Y
Z
AA
AB
AC
AD
AE
AF
AG
AH
AI
L
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N
O
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D
C
B

8-6. CANAN SECTOR 21

8-6-1. GENERAL DESCRIPTION

Sector 21 sequences southbound arrival traffic to the New York metropolitan airports that will enter Sector 05 and 06. In addition, Sector 21 works arrival and departures to the Albany ATCT, Y90, and Enroute traffic on V270 and V292. Potential conflicts exist between ALB and Y90 arrivals in the vicinity of the CANAN Intersection. CANAN Sector is authorized to utilize single-site radar separation IAW applicable Directives.

8-6-2. SECTOR INFORMATION

a. Frequency Information: (RCAG Site location in Chap 3-4-12)

1. Primary Frequency – 132.65/379.1

2. Emergency Frequency: 121.5/243.0

NOTE: At least one sector per area must monitor the emergency frequency.

3. BUEC: PWL - 132.65/379.1

4. Position Combining – The VSCS must be used to combine sectors. When combining sectors, Sector 21 is normally combined at Sector 05.

b. Map Information:

1. Pre-Set Map – AREAE

2. Alt. Map – ZBWMAP

c. Backup Printer: Sector 07

d. Sector SIA

1. ERAM-status, outages, drawing and annotations, GI, and weather messages
2. ERIDS including pertinent NOTAMs
3. Weather products such as graphical displays, briefing items, PIREPs, etc.
4. White boards
5. Flight progress strips
6. Printed messages on strips such as GIs, hazardous weather
7. Read-and-sign folders
8. Written notes

8-6-3. SECTOR OPERATIONS

a. Enroute Procedures:

1. Entering the Sector:

(a) Has control for right turns and descent with Sector 22 on aircraft landing KBDL and KBDL Satellites south of an ALB-SWEDE line. For aircraft delivered descending to LUFL, if the aircraft is turned off FP route by Sector 21, a non-discretionary descent must be issued.

(b) Has control for right turns on V487 traffic and has point out responsibility to Sector 07 upon acceptance of the radar handoff.

(c) Sector 06 must clear ALB, 5B2 and SCH arrivals to enter Sector 21 at or below 15,000 feet MSL.

(d) Sector 23 must clear JFK and FRG props/turboprops via PWL STAR, BDR, HVN, OXC, and satellite prop/turboprop traffic via DENNA STAR, ISP prop/turboprop arrivals via LOVES STAR - to enter Sector 21 at or below 15,000 feet MSL.

NOTE: BDR satellites include 3B9, N04, and 42B. ISP satellites include HWV, HTO, 21N, MTP, 09NY, and FOK.

(e) Sector 07 must clear Y90 departures routed via V292 to 16,000 feet MSL or below.

(f) Sector 06 may clear aircraft direct BOWAN without coordination.

(g) Has control for 30 degrees left turns on KEWR arrival traffic south of ALB.

(h) KEWR arrivals, delivered descending to 16,000 feet MSL or lower, Sector 22 must ensure aircraft will cross ACOVE at or below 16,000 feet MSL.

2. Exiting the Sector:

(a) Sector 05 has control for left turns, and point out responsibility to Sector 06, on V292 traffic after a point 5 NMs east of BOWAN.

(b) Must clear aircraft landing HPN and DXR to enter Sector 06 at or below 12,000 feet MSL.

(c) Must clear aircraft Enroute to all other New York metropolitan airports to enter Sector 05 or Sector 06 at or below 16,000 feet MSL.

(d) Must sequence EWR jets and high-performance prop arrivals via V213 at least 5 NMs in-trail.

(e) Must sequence EWR props and all EWR satellite arrivals via V489 to Sector 05, at least 5 NMs in-trail.

(f) Must clear Y90 arrivals to enter Sector 07 at or below 14,000 feet MSL.

(g) Sector 07 has control for turns on Y90 arrivals via STELA STAR between the BOWAN and STELA intersections after crossing the centerline of V91.

(h) May clear Y90 arrivals, via the STELA STAR, to join the STELA STAR between the CANAN intersection and the STELA intersection, or direct BDL, to enter Sector 07 between the BOWAN and STELA intersections.

(i) Sector 06 has control for turns south on aircraft cleared via PETER V270 ATHOS V44 or via PWL, DENNA, or LOVES STAR. Sector 06 is responsible for the point out to Sector 05, if necessary.

(j) May clear aircraft routed via V489 direct SAGES without coordination.

(k) May clear EWR jet and high-performance turboprop aircraft direct TALCO without coordination.

b. AIT [Ref: ZBW 7110.33, Par A6-2]

The following AIT procedure is authorized between Sectors 06 and 21 for Albany Terminal Area Arrivals from the south

1. Sector 06 may utilize this procedure for aircraft established at or restricted to be at 11,000 feet MSL prior to the centerline of V292. Sector 06 must enter an interim altitude of 11,100 feet MSL in the data block and initiate a radar handoff to Sector 21.

2. Sector 21, after acceptance of the radar handoff, must initiate a radar handoff to Albany Approach Control.

3. Sector 06, after observing Albany Approach Control accepting the radar handoff, must then transfer communications to Albany Approach Control IAW the ZBW/Albany LOA.

4. If Albany Approach Control has not accepted the handoff prior to the common boundary of Sector 06/21, Sector 06 must initiate communications change to Sector 21.

c. Holding:

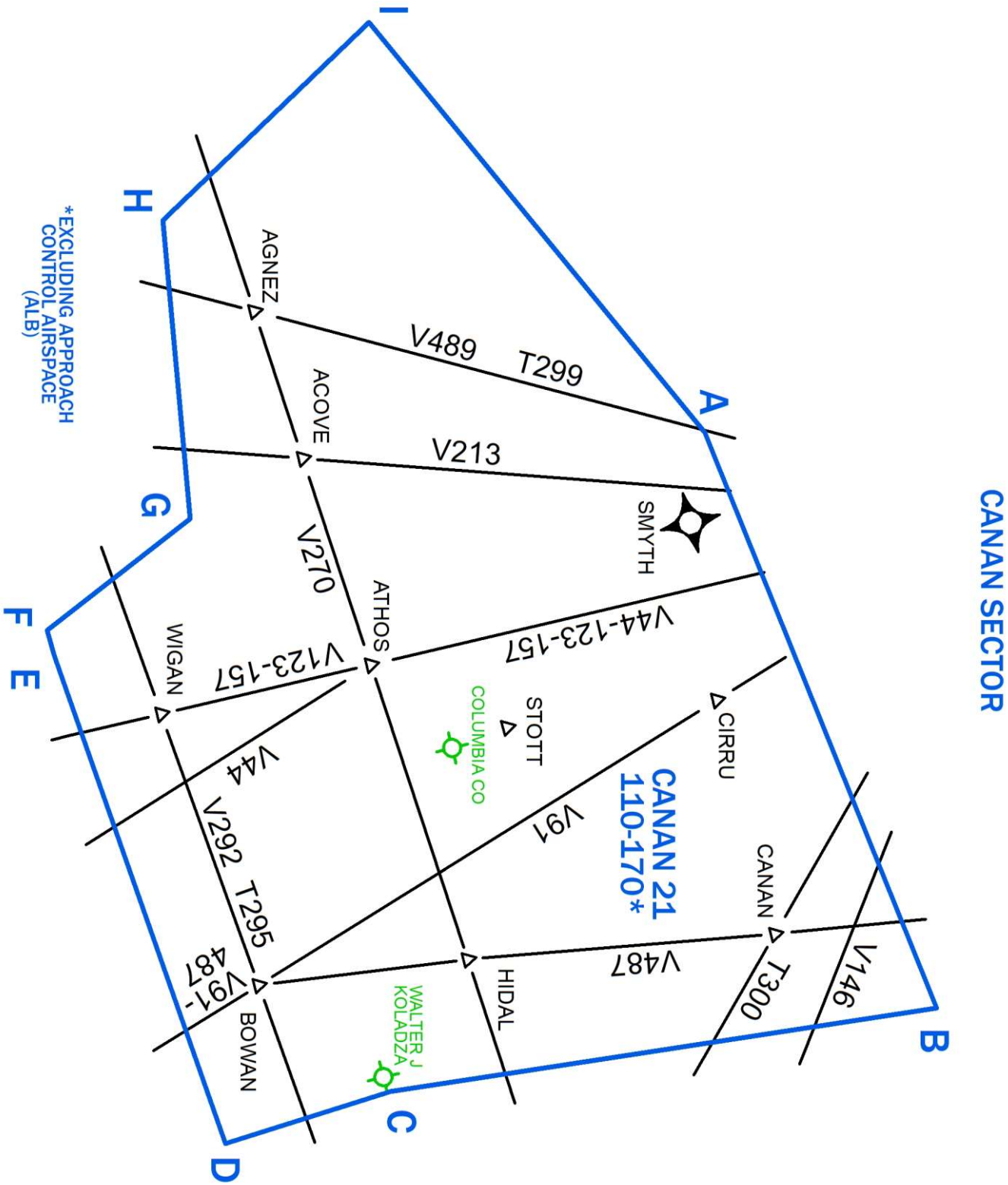
1. Holding – ACOVE (Published) – Non-radar – Hold north on V213, right turns, 11,000 through 17,000 feet MSL, maximum speed 230 knots, 10 DME legs.

(a) Coordination required with Sectors 05/22 at all altitudes.

(b) Coordination required with Sector 23 at or above 12,000 feet MSL.

d. CANAN Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	C4AK	C	D4AQ	E	C4BC	G	D4AN	I	C4AD
B	D4AB	D	D4AI	F	D4AA	H	C4AC		


CANAN SECTOR
CANAN 21
110-170*
*EXCLUDING APPROACH CONTROL AIRSPACE (ALB)
A
B
C
D
E
F
G
H
I
AGNEZ
ACOVE
ATHOS
SMYTH
WIGAN
STOTT
CIRRU
CANAN
HIDAL
BOWAN
COLUMBIA CO
WALTER J KOLADZA
V489
T299
V213
V270
V123-157
V44-123-157
V44
V292
T295
V91-487
V91
V487
T300
V146

8-A. TRAFFIC MANAGEMENT INITIATIVES

EWR Re-route via BAF.

3. When the EWR Re-route via BAF is in effect through Area C, D and E:

   (a) Area C, D, and E must assign active arrival aircraft routing via BAF V292 as appropriate and enter any FP amendments.

   (b) TMU must ensure flight plan amendments are completed and coordinated (as needed) on existing flight plan proposals.

   (c) To retain flight plan information to assist in updating route amendments to EWR, Areas C, D, and E CPCs must not delete EWR proposals from the Sector's EDST Departure List regardless of the FP routing.

4. When the reroute via BAF is no longer required by Area E:

   (a) Area C, D, and E must assign active arrival aircraft the normal EWR routing and enter any FP amendments as appropriate.

   (b) All affected EWR Flight Plan proposals must be amended and coordinated by TMU as needed.

CHAPTER 9. TRAFFIC MANAGEMENT

9-1. TRAFFIC MANAGEMENT UNIT

9-1-1. GENERAL DESCRIPTION

This order provides specific guidance for STMC/TMCIC and TMCs. It provides a definition of duties for each function within the TMU.

9-1-2. AUTHORITY

The ATCSCC has been delegated the authority to direct the operation of the TMS. ZBW TMU and the Terminal TMCs must assist the ATCSCC, as directed, to ensure system efficiency and effectiveness without compromising safety. When differences of opinion arise between the ATCSCC and the local TMU, the ATCSCC must be the deciding authority.

9-1-3. ORGANIZATION

The positions of TMC-C (Center) and the TMC-T (Terminal) have been established nationally. TMU is designated the authority to direct traffic flow independently or as directed by the ATCSCC within the facility area of responsibility.

9-1-4. RESPONSIBILITY

TMU's mission balances the air traffic demand with system capacity to ensure maximum efficiency and utilization of the NAS. This produces a safe and orderly flow of traffic while minimizing delays. The TMS supports the primary air traffic control mission of separation by providing a more disciplined flow of air traffic.

9-1-5. TRAFFIC MANAGEMENT PROCEDURES

a. To maintain the integrity of the AT system, TMU personnel, in conjunction with the ATCSCC, must employ the least restrictive methods available to minimize delays.

1. Altitude.

2. Minutes-in-trail/Miles-in-trail.

3. Fix balancing.

4. Airborne holding.

5. Sequencing programs:

(a) Departure Sequencing Program (DSP/CFR/IDAC/EDC).

(b) Arrival Sequencing Program (ASP/TBFM).

6. Ground Delay Programs.

7. Ground Stop.

NOTE: This list is not inclusive and does not preclude the innovation and application of other procedures that result in improved customer service.

b. OneNote Operating Procedures

OneNote will be used by the TMU. All employees will have access to OneNote via the FAA Intranet.

1. Notebooks/ Section Tabs/ Subpages.

   (a) There are different Notebooks within OneNote, each containing data for its specific topic.

   (b) Section Tabs exist within each Notebook. Tabs are named for the material contained within the Tabs.

   (c) Subpages may be created per section 4(a), with each tab, and are to be named for the material contained within.

2. Administrative Overview Tab and Subpages.

   (a) Within each Tab is an Administrative Overview Subpage. The Administrative Overview Subpage contains the following information:

   (1) Description: A description of the Tab and the material contained within.

   (2) Orders/Notices/Websites/etc. Information: Supporting documentation

   (3) Outline: An outline of the subpages contained within the Tab.

   (4) Material Review Schedule: A specific timeline of when material should be reviewed.

   (5) Reminder Notifications: A notification reminder should be linked to the Tab to remind the Collateral Duty Liaisons to review the material.

   (6) Maintenance Table: A table that identifies the dates of latest updates.

   (7) Collateral Duty Affiliation: Indicates oversight for content accuracy.

   (b) Other information may be contained within the Administrative Overview Subpage related to the Tab.

3. Tab Maintenance.

   (a) Collateral Duty Liaisons. Under the “Administrative” Tab, is a subpage containing a list of Collateral Duties and indicating assigned liaisons.

   (b) Each Tab should be maintained by the personnel assigned to the specific collateral duty associated with the Tab.

   (c) In order to continue a collaborative effort, both the Management and the personnel for each specific collateral duty should set up and receive periodic reminder notifications to assess and update information as appropriate. Reminders should be set using the “task” feature in

Outlook. The reminder notification will include AJT-ZBW-TMU-ADMIN@faa.gov as a recipient as well.

(d) All individuals with Collateral Duty or Liaison responsibilities will have "Read and Write" access to OneNote.

4. Creating, Deleting and Updating Content.

(a) Notify AJT-ZBW-TMU-ADMIN@faa.gov to create new Section Tabs or Subpages.

(b) Advise AJT-ZBW-TMU-ADMIN@faa.gov when updating existing content within OneNote.

5. Trouble Reports and Tech Support.

Trouble Reports are to be sent to AJT-ZBW-TMU-ADMIN@faa.gov. If the issue cannot be resolved locally, FAA Tech Support may be notified via an email to the helpdesk@faa.gov.

9-1-6. STMC/TMCIC RESPONSIBILITIES

a. Position SIA

1. TFMS
2. PIREPS on ERIDS
3. CIWS
4. NAVAID/Equipment Outage Sheet
5. OIS

b. The STMC/TMCIC supervises all TM initiatives and operations on a day-to-day, shift-by-shift basis. The STMC/TMCIC must:

1. Keep the OMIC informed on TM initiatives, and coordinate with the ATCSCC when required by operational program or situations.

2. Assign personnel as required to the positions within the TMU.

3. Delegate collateral duties as required.

4. Monitor and review all TMS programs, actions, and restrictions for timely implementation, modifications, or cancellations.

(a) When notified of TBFM sector or facility non-compliance, log the non-compliance in the NTML, and verify that the sector meter lists, STAs, or DCTs are being properly displayed. (Verification can be accomplished using the "see-all" feature, personal observation, or by contacting the appropriate OS/CIC). If the meter list STAs or DCTs are not displayed, inform the OS/CIC or the OMTC to have the meter time displayed and complied with. If an equipment issue is noticed notify the ACTSCC.

(b) When notified of CFR/IDAC non-compliance, log the non-compliance in the NTML, and advise the appropriate adjacent or underlying facility that CFR/IDAC is in effect.

(c) Maintain the NTML Log, including a chronology, of all events for Boston airport, and all restrictions, reroutes, ground delay programs, and associated start/stop times that affect ZBW.

5. Airports utilizing Optimized Profile Descent (OPD):

(c) KBOS:

(1) TMU is responsible for verbally relaying the STAR specific runway transitions for KBOS to the area OS/CIC.

(2) TMU will ensure the ESIS is accurate and updated, and input a GI listing the runway transition for each STAR.

(3) The first runway listed in the entry will be the primary landing runway for all areas unless a STAR specific transition is posted.

EXAMPLE 1: GI and ESIS ex. QUABN 22L OOSHN 27 ROBUC 27.

EXAMPLE 2: GI and ESIS ex. BOS VMC 27/22L, 27 is the primary landing runway.

6. Participate in telephone conferences with the ATCSCC, regions, centers, and terminals regarding a system outlook, performance, and weather forecasts.

7. Continually monitor the ATC system using the TSD and TMC input to detect conditions that may cause delays. Direct appropriate strategies to reduce or eliminate those delays.

8. Monitor Special Interest Flights (SIF) identified by the MC via the TSD.

9. Monitor the TFMS and provide information to TFMS system administrators concerning the overall performance of the system.

(a) Monitor all adapted sectors and airports for overload on actual or projected air traffic utilizing the TFMS monitor and alert functions. For all red alerts, and applicable yellow alerts, notify the Area OS/CIC of the affected sector(s). Coordinate TMIs that either the OS/CIC or STMC/TMCIC deems necessary.

(b) Coordinate for the resumption of service with the ATCSCC when an outage of the system occurs.

10. Serve as a focal point for the coordination and implementation of SWAP programs.

11. Initiate a weather telcon if weather is forecasted to impact ZBWs traffic flow which may potentially cause an aircraft to enter the protected airspace of an active SAA. The telcon is not required if ZBW has instantaneous recall of the SAA airspace. Every effort should be made to initiate the telcon well in advance of the anticipated weather impact. When workload/certifications permit, the initiation of this telcon may be delegated to the TMWC.

e. Conduct a telcon for the following military airspace if necessary:
(1) W102 - EADS
(2) W103 - EADS
(3) W104 - EADS

(4) W506 - EADS
(5) W105 - VACAPES
(6) W106 - VACAPES

(b) The weather telcon should address:
(1) Current and forecasted weather
(2) Issues that may arise due to weather
(3) The anticipated usage of the SAA
(4) Current and projected civil traffic flow patterns
(5) Alternate plans if necessary

(c) To conduct a weather telcon, the STMC/TMCIC will:

(1) Inform the TMWC, CWSU, and the affected area OS/CIC of the proposed telcon and solicit their input.

NOTE: TMWCs, CWSU, and area OS/CICs may offer input in lieu of being present for telcon. At a minimum, the using agency or scheduling agency (i.e., VACAPES or EADS), and the controlling agency (ZBW TMU), must participate.

(2) The STMC/TMCIC will call the using or scheduling agency of the SAA airspace and discuss potential weather issues.

NOTE: The STMC/TMCIC must ascertain a clear determination whether the SAA will be available for civil traffic flow.

(3) Consider the potential need for Traffic Management Initiatives (TMIs) that will ensure aircraft remain clear of the protected SAA that is impacted by weather if the SAA will not be available for civil traffic.

(4) Advise any party above who was not present for the telcon of the outcome.

(5) Make an NTML entry when a weather telcon is conducted.

12. Coordinate flight following activities of suspected illegal use of aircraft between air traffic facilities, US Customs, Drug Enforcement, Military, and other law enforcement agencies.

13. Assist with tracking Class A/B/C/D airspace violators when requested.

14. Attend standup briefings and review TMIs/outlook for each assigned shift.

15. Notify the ATCSCC when arrival/departure/Enroute delays reach, or are expected to reach, 15 minutes.

(a) Continue to update the ATCSCC with any change of delays in increments of 15 minutes, continuing until delays are reported as less than 15 minutes.

(b) If delays reach 90 minutes in any 1 specific event, notify the OMIC.

(c) Record all reportable +/- 15 minutes or multiples thereof in the NTML.

16. Determine when and what positions (TMCs/OSs/CICs) must monitor walkie-talkies. Assign discrete channels as required.

17. Determine if the TMU must remain operational beyond normal hours and evaluate staffing requirements. Ensure that all affected facilities are notified that TMU will operate extended hours.

18. Serve as the focal point for the coordination of ELT incidents.

    (a) The STMC/TMCIC must be responsible for coordination and notification of ELTs with Tyndall RCC.

    (b) The RCC will issue an incident number to every individual ELT event. Refer to this incident number when coordinating all subsequent data with the RCC.

    (c) Record information on Form ZBW 7210-8 ELT Incident Form.

    (d) Coordination for ELT reports must be done via GI message and phone call to the appropriate OS/CIC.

19. Sign onto the STMC/TMCIC position using CRUX/ART.

20. Maintain and update the ESIS.

21. Complete Transfer of Position procedures as prescribed in section 2-1-1.

22. Day and evening shift duties and responsibilities:

    (a) Check STMC/TMCIC Read and Initial Binder and electronic information systems for action items.

    (b) Review NTML/TMIs and messages received.

23. Notify the appropriate facility supervisor in the case of TMI non-compliance.

24. Complete an NTML end-of-shift summary using the pre-formatted end of shift summary saved in the NTML.

25. Tarmac Delay: Notification that an airport within ZBW TMU jurisdiction has received a tarmac delay request; assist the terminal in mitigating the delay to the extent possible. Verbally notify the OMIC and ATCSCC of the tarmac delay request including the date, time, location, and identification of the aircraft involved. This information must then be forwarded to the ATCSCC via NTML.

9-1-7. TRAFFIC MANAGEMENT COORDINATOR (TMC)

TMCs are responsible for the continuous monitoring of the ATC system in order to provide traffic management service for the improvement of the system and its users; and to inform the STMC/TMCIC of adverse conditions that may/must impact the TMS. To effectively accomplish these goals, the TMC must perform the following duties as assigned:

a. Perform pre-duty familiarization, including Electronic Information Systems, to acquire an overview of conditions that would affect operations during each tour of duty, such as existing and forecasted weather, existing and proposed TMIs, and existing and forecasted delays. Identify any unusual conditions at terminals, such as equipment/NAVAID outages, runway closures, altitude reservations, and SUA/ATCAA operations.

b. Maintain a liaison with ZBW OS/CICs and other positions within TMU to remain informed of operating conditions within ZBWs airspace.

NOTE: All coordination is done with the OS/CICs, except during metering when it may be completed directly with the Sector.

c. Maintain liaison with the ATCSCC, adjacent center TMUs and terminal facilities to analyze actual and anticipated traffic volume, airport acceptance rates, and traffic flows.

d. Obtain weather briefing from the CWSU to maintain a continuing analysis of current or forecast weather. If the CWSU is not available, utilize the Taunton, Massachusetts NWSO or the ATCSCCs assets.

e. Maintain a continuous liaison with the STMC/TMCIC to keep them informed of departure, Enroute delays, arrival delays, and traffic management initiatives. Provide the STMC/TMCIC with data necessary to justify implementation of SWAP.

f. Keep all adjacent center and terminal facilities advised, as appropriate, of any changes in TMIs and NAVAID outages. In the event of FDIO capacity failure, disseminate this information via interphone and/or telephone.

g. Notify the ATCSCC of any scheduled or unscheduled outages of major components of the NAS. Major components of the NAS include:

1. All Enroute Radar systems.

2. All Enroute computers (ERAM Channels).

3. Radar/Computer system at all daily NAS reportable airports (OPSNET Order).

4. Key NAVAIDs.

5. Runway/Taxiways at NAS reportable airports (include reason for outage).

h. Administer Expect Departure Clearance Time (EDCT).

1. The ATCSCC will issue EDCT times.

2. Delays are based on aircraft ETA at affected airports.

3. Transmit a GI message addressed to “C D T” (all Center, Flight Data, and Tower positions), stating airports effected, reason for delay, and beginning and ending time of EDCT period.

4. Coordinate any EDCT change request with the ATCSCC and record on EDCT Change Request worksheets.

EXAMPLE: GI C D T "TMU ADVISORY…(AIRPORT) EDCTS ETAS (TIME- TIME) (REASON)….QUESTIONS CALL TMU AT 02…TMU (DTG)".

i. Delays/In-Trail Restrictions/CFR/IDAC Messages – Implement and transmit, via GI Message to "C D T", a message explaining any TMI.

EXAMPLE: GI C D T "TMU ADVISORY (AIRPORT/AIRWAY). (MIT/MINIT-RESTRICTION) (TIME-TIME) (SPECIFIC REASON) CALL FOR RELEASE/IDAC IN EFFECT (TIME-TIME) Dial (TMEC POSITON)….TMU (DTG)"

j. Ground Stop – Notify all affected facilities/sectors via GI message.

EXAMPLE: GI C D T "TMU ADVZY…(AIRPORT) GROUND STOP (TIME/ASAP) (REASON)…UPDATE BY (TIME). QUESTIONS DIAL 02…TMU (DTG)"

k. EWR re-routes for aircraft flight planned over NELIE:

1. At the beginning of each shift, the following preferential route from over NELIE will be "on" to EWR – NELIE FLOSI STAR EWR.

2. To turn on the EWR re-route (BAF.FLOSI STAR) use an ATWS and select *EWROBAF and execute from the TX file.

3. To return to the normal route over NELIE, use an ATWS and select *EWROBDL and execute.

l. Perform collateral duties as assigned.

m. Input NAS configuration messages for terminals and adjacent centers as required.

n. Perform the duties of the STMC/TMCIC when assigned.

o. Verbally notify the Area B/C OS/CIC when BOS changes runway configuration, and then send a GI message to all sectors indicating the BOS runway change.

9-1-8. TRAFFIC MANAGEMENT WEATHER COORDINATOR (WC/TMWC)

a. The Traffic Management Weather Coordinator (TMWC) is designated as the central source responsible for the solicitation, handling, and dissemination of PIREPs and other known or observed weather that may affect aircraft safety per FAA JO 7110.65. The TMWC is also responsible for reviewing AIRMETs, SIGMETs, and CWAs for required distribution and dissemination per FAA JO 7110.65**.**

b. The TMWC is a 24-hour position located in the TMU and is required to be staffed on all shifts per FAA 7210.3. The TMWC position may not be combined to other positions, however, other positions may be combined to the TMWC position if weather conditions warrant, and workload permits. When other operational or administrative functions are being performed by the TMWC, the primary duty remains that of TMWC. When no TMU personnel are present, the TMWC may be combined with the OMIC. When the TMWC position is combined with the OMIC, the OMIC must assume all weather-related duties performed by the TMWC. In all cases involving position relief or

the combining/de-combining of the TMWC position, a thorough position relief briefing will be conducted and recorded.

c. Position SIA

1. ATWS
2. TFMS
3. ERIDS
4. AISR
5. PIREPs
6. CIWS/WARP
7. AIRMETs, SIGMETs, CWAs/MISs
8. 7230-4
9. Any duties delegated to the FDU

d. The TMWC must:

1. Perform pre-duty familiarization as necessary. This includes receiving a weather briefing on the current and forecast weather conditions to acquire an overview of the effect the weather will have on air traffic operations.

2. Maintain a continuous analysis of all hazardous, operationally significant, and/or pertinent weather conditions within, underlying, and adjacent to ZBWs area of jurisdiction.

3. Maintain awareness of weather impacts on airports and aircraft operations, such as low-level wind shear, airport de-icing, snow removal operations, and braking action reports.

4. Review the International Gate Forecast (IGF) for potential weather impacts to key gates and core airports. This product is issued twice daily at 1330Z and 2300Z.

5. Monitor CIWS and WARP to observe the movement and/or changes to weather systems.

6. Handle and disseminate AIRMETs, domestic SIGMETs, Canadian SIGMETs, CWAs, MISs, operationally significant PIREPs, Urgent PIREPs, and other known and observed weather that may affect aircraft safety in accordance with FAA 7210.3 and Chapter 12 of this Order.

7. Retain relevant hazardous weather information strips at the TMWC position, or at the OMIC position when combined to the OMIC, until its expiration to assist in situational awareness and pre/post operational briefings.

NOTE: After the information has expired, the printed strips will be filed at the TMWC position, bundled each night, and placed in the nightly TMU envelope.

8. Provide input, when appropriate, to the STMC/TMCIC for Massport telcons when hazardous weather is present, or is forecasted to be present, that may impact BOS airport operations.

9. Provide input, when appropriate, to the STMC/TMCIC for Strategic Planning telcons (SPT) when hazardous weather is present, or is forecasted to be present, that may affect the Enroute flow of ZBW air traffic and/or impact BOS operations.

10. Provide input, when appropriate, to the STMC/TMCIC for the daily PERTI telcon. Workload permitting, the TMWC may request a weather forecast brief from the CWSU meteorologist,

prior to the PERTI telcon, to ascertain the following days expected weather. When available, a copy of the PERTI plan must be retained at the TMWC position until the succeeding PERTI telcon.

11. Initiate a weather telcon as follows, outlined in SOP 9-1-6 (11):

    (a) When delegated by the STMC/TMCIC.

    (b) When weather is forecasted to impact ZBWs traffic flow in a way that could potentially cause an aircraft to enter the protected airspace of an active SAA.

12. Maintain a TMU 7230-4 as follows:

    (a) Start new log after receiving the TMWC position from OMIC each morning.

    (b) Log 'TMWC position open in TMU' after opening log.

    (c) Sign on to log after opening entry and after each PRB throughout the day.

    (d) Log all Urgent PIREPs within or underlying ZBWs area of jurisdiction.

    (e) Log notifications of hazardous weather as outlined in Chapter 12 of this Order.

    (f) Log weather telcons.

    (g) Log any discrepancies to the accuracy of weather products, ensure the SOC is advised, and an AIMS ticket is completed.

NOTE: When forecasted conditions do not reflect current conditions and/or when radar displays do not reflect pilot reported weather, make a 7230-4 entry, and notify the CWSU.

    (h) Log PIREPs requested of controllers not already requested on the weather briefing sheet.

    (i) Log 'TMWC position combining to OMIC' prior to closing log.

    (j) Close, print, and sign a copy of the log when combining position to the OMIC.

    (k) Carry signed copy of the 7230-4, along with any current hazardous weather information strips, and hand to the OMIC as part of the position relief briefing. Advise OMIC of any pending tasks/duties.

e. As the focal point for PIREPs, the TMWC must:

1. Monitor ERIDs and AISR for electronic notification of relayed ZBW and Terminal PIREPs.

2. Solicit PIREPs from the areas when requested by CWSU, deemed necessary, or when conditions exist or are forecasted to exist within ZBWs area of jurisdiction that require their solicitation.

NOTE: The CWSU may solicit PIREPs through the weather coordinator or directly from the controllers when required. If solicited directly from the controllers, by means other than the weather briefing sheet, the CWSU will advise the TMWC of the request.

3. Solicit PIREPs based on present weather conditions, and their potential to affect the safety of flight.

4. Maintain knowledge of AIRMETs, SIGMETs, CWAs, developing lines of thunderstorms, and any other available weather product. Solicit PIREPs when data contained in these products suggest the development, or existence of hazardous weather, which may affect the safety of flight.

5. Correlate data contained in PIREPs with AIRMETs, SIGMETs, CWAs, and CWSU products to detect any new weather developments differing from expected or forecasted conditions. Any discrepancies must be discussed with the CWSU and involved areas.

6. Maintain knowledge of TAFs and METARs to correlate its accuracy with that of PIREPs received. Any discrepancies must be discussed with the CWSU and involved areas.

7. Maintain awareness of the CWSU weather briefing sheet and PIREP requests. Coordinate with the CWSU to determine where PIREPs are needed and no longer needed. Relay this information to the appropriate area and ensure PIREPs are received in accordance with requests.

8. Review all PIREPs to assess the weather phenomena, geographical area, operational impact, and trends.

9. Ensure dissemination of all operationally significant and Urgent PIREPs within, and underlying, ZBWs area of jurisdiction in accordance with Chapter 12 of this Order.

10. Request the FDU to assist with dissemination of ZBW and/or Terminal PIREPs, via GI message, through the ATWS when needed. If staffing/duties permit, the FDU specialist must enter PIREPs as directed by the TMWC.

f. The TMWC must maintain liaison with:

1. The STMC/TMCIC to inform them of expected or forecasted weather conditions, their effect on air traffic operations, and the potential need for TMI's.

2. ZBW Military Coordinator (TMML/MC) for notification of new ALTRV messages received via AISR. The TMWC will be responsible for monitoring AISR for these messages. The TMWC will print the ALTRV message and give it to the TMML/MC.

3. ZBW NAS Coordinator (TMNC) for notification of new Track messages received via AISR. The TMWC will be responsible for monitoring AISR for these messages. The TMWC will print the Track message and give it to the TMNC.

4. OS/CICs for consultation on the effect of weather conditions on traffic flows. The TWMC will also coordinate for the solicitation/dissemination of PIREPs. The TMWC is encouraged to visit the areas as weather conditions dictate.

5. The CWSU for exchange of information on current, and/or forecasted, weather conditions and their impact on Enroute traffic and the underlying airports. The TMWC is the primary interface between the NWS meteorologist and the facilities' air traffic staff.

NOTE: When CWSU personnel are not available, weather information for Logan Airport can be

obtained from the National Weather Service in Boston at 508-823-2228 (ask for aviation meteorologist). Enroute weather information can be obtained from the Aviation Weather Center in Kansas City at 816-584-7223.

6. The FDU, which will support the TMWC with inter/intra-facility dissemination of AIRMETs, Canadian SIGMETs, and PIREPs via the ATWS as outlined in Chapter 12 of this Order. The FDU is also responsible for the long line dissemination, via AISR of all PIREPs received on the FDU ATWS printer which do not contain a *T after the date/time stamp at the end of the PIREP message.

7. The ATCSCC Severe Weather for exchange of information on the development, and movement of, adverse weather conditions and for notifications of Urgent PIREPs.

8. Terminal facilities, for exchange of information on adverse weather conditions, airport impacts, and pertinent hazardous weather within 150 NM of the common boundary. AIRMETs, SIGMETs, CWAs, and PIREPs are received via automation at Terminal facilities. However, the TMWC is expected to use prudent judgement when determining whether additional verbal notification should be made for PIREPs that may impact safety of flight, due to the PIREPs' locations or types.

9. Adjacent ARTCCs, for exchange of
information
on the development and movement of hazardous weather within 150 NM of the common boundary.

NOTE: AIRMETs, domestic SIGMETs, CWAs, and MISs are disseminated automatically via ERAM and are received by adjacent ARTCCs. Because adjacent ARTCCs do not receive ZBW GI messages, the TMWC must ensure they are made aware of all PIREPs that may impact their operation.

10. NAV CANADA TMU East at 800-387-3801 or 905-676-3149/3528 for notification of ZBW received Urgent PIREPs, within 150 NM of the common boundary with CZY (Toronto), CZU (Montreal), and CZM (Moncton) that may impact their operation.

9-1-9. TRAFFIC MANAGEMENT ARRIVAL COORDINATOR (TMAC1/TMAC2/TMAC3)

a. The TMC assigned to this position is directly responsible to the STMC/TMCIC and regulates the flow of arrival traffic to designated airports. When combined, this position is normally assigned to the TMEC position.

b. Position SIA

1. TBFM
2. ERIDS
3. Clipboards

c. The TMC assigned to the TMAC position must use TBFM equipment to perform Single Center Metering (SCM), or Adjacent Center Metering (ACM), as follows:

1. When using TBFM, the TMC must:

(a) Make the decision regarding the appropriate TBM constraints (system settings).

(b) Select arrival configurations and scheduling parameters as appropriate based on Tower/TRACON coordination.

(c) Enter local TBFM metering and scheduling parameters for arrival demand periods.

(d) Communicate metering start/stop information, and all system settings to the STMC/TMCIC, ATCSCC, and areas/facilities. Transmit a GI message, for Metering, to include items in the current Metering checklist. Log all TBFM actions in NTML. Ensure system settings are coordinated via NTML.

(e) Continually analyze the arrival flow, demand, current runway acceptance rates, airport capacity, pending runway changes, and airport weather conditions. Coordinate with OS/CICs during metering, holding, and/or in-trail restrictions affecting their sectors. Initiate fix balancing to eliminate sector and/or fix overloading.

(f) Monitor and maintain sector-metering lists when metering is going to be active. If aircraft delay values displayed in sector meter list exceed an acceptable amount of delay, initiate actions to address the imbalance, i.e., Ground Stop, GDP, MIT, etc.

(g) Advise the STMC/TMCIC, Boston ATCT TMC-T, and ATCSCC when delays reach or are expected to reach 15-minutes and increase/decrease in 15-minute increments. Consult with Boston ATCT TMC-T, A90, and the ATCSCC to formulate any required restrictions, i.e., Ground Stop, GDP, MIT, speed, etc.

(h) Prior to rescheduling, or rippling the list, verbally coordinate the expected change and reason with the affected OS/CICs, then disable the sector meter lists, and then enable the list once the reschedule is complete.

(i) Determine specific procedures with adjacent facilities for scheduling internal departures. When scheduling an internal departure, the TMC should review the entire route of flight to ensure that it conforms with the other TMIs. Consider the aircraft type and performance characteristics, ensure that the correct departure runway is entered into TBFM, and consider the call for release departure window prior to accepting, or freezing, the release time. Advise the STMC/TMCIC of “no-calls” or non-compliance with the call for release window.

(j) Use TBFM arrival timelines to determine release times, for internal departures, to the metered airport subject to APREQ procedures.

(k) Monitor arrival flows for potential metering actions/changes. Advise the STMC/TMCIC of the need to modify the metering program, of any traffic restrictions imposed, or when to discontinue metering procedures.

(l) When necessary, initiate a TELCON with ATCSCC and TMCs at other affected facilities to coordinate changes, or additional constraints, to the metering plan, or to update the TBFM schedule. Additional constraints include changes to stream class settings, freeze horizons, and TRACON settings.

(m) Continually monitor internal and upstream compliance with meter fix crossing times. Advise the STMC/TMCIC of non-compliance with meter fix crossing time. Log any

delays of 15 minutes or more.

(n) Turn off sector meter lists when metering has been completed.

(o) To the extent possible, minimize re-scheduling during metering operations.

2. When using TBFM to perform ACM, the TMC must:

(a) Verify that the runway configuration and matrix are properly set. Verify that the two-way ERAM connection and meter list has been activated. Advise the STMC/TMCIC if the other facilities have not activated the meter list. The internal AMDT values may be adjusted only after coordination with the adjacent and controlling facilities.

(b) Coordinate with the primary ACM facility, the adjacent ACM facilities, and the ATCSCC to initiate changes, or add additional constraints to the ACM metering plan.

(c) Prior to the meter list being rescheduled, or rippled, verbally coordinate the expected change and reason with the affected OS/CICs. Advise the STMC/TMCIC if the list was rescheduled, or rippled, without prior coordination.

(d) Communicate the ACM metering start/stop times to all affected sectors/facilities. Using the current Metering Checklist, issue a GI message that will implement Call for Release procedures with all affected sectors/facilities. Turn on ACM meter lists.

(e) Determine a controlled departure time for any aircraft involved in the ACM program. When scheduling an internal departure the TMC should review the entire route of flight to ensure that it conforms with other TMIs. Consider the aircraft type and performance characteristics, ensure that the correct departure runway is entered into TBFM, and consider the call for release departure window, prior to accepting, or freezing, the release time. Advise the STMC/TMCIC of "no-calls", or non-compliance with, the call for release window.

(f) Monitor arrival flow for potential actions/changes. If aircraft delay values displayed in sector meter list exceed an acceptable amount of delay, initiate actions to address the situation.

(g) Continually monitor internal compliance, and upstream compliance, with meter fix crossing times. Advise the STMC/TMCIC of non-compliance with meter fix crossing times. Log any delays of 15 minutes or more.

(h) Turn off ACM meter lists when ACM has been completed.

9-1-10. TRAFFIC MANAGEMENT ENROUTE COORDINATOR (TMEC1/TMEC2)

a. The TMC assigned to this position is directly responsible to the STMC/TMCIC and regulates the flow of Enroute and departure traffic using CFR/IDAC/EDC or manual procedures. When combined, this position is normally assigned to the TMNC position.

b. Position SIA

1. Flight Progress strips

c. The TMC assigned to the TMEC position must:

1. Perform such pre-duty familiarization, as necessary, to determine the spacing requested by adjacent facilities.

2. When using CFR/IDAC select departure configurations, and scheduling parameters, as appropriate based on observed, or anticipated departure fix and Enroute demand.

3. Use EDC/IDAC timelines, or manual procedures to issue controlled departure times to aircraft requesting releases to airports covered under this program. Departure times will reflect the minimum delay that an aircraft will absorb to allow for inclusion into orderly flow of traffic, with miles-in-trail restrictions taken into account. When scheduling an internal departure, the TMC should review the entire route of flight to ensure that it conforms with other TMIs, consider the aircraft type and performance characteristics, ensure that the correct departure runway is entered into TBFM, and consider the call for release departure window, prior to accepting or freezing the release time. Advise the STMC/TMCIC of "no-calls" or non-compliance with the CFR/IDAC window.

4. Enter all CFR/IDAC/EDC delays of 15 minutes or more into the NTML.

5. Monitor the spacing between all aircraft destined to airports/airways requiring CFR/EDC/IDAC. Notify the appropriate OS/CIC of any additional spacing that may be needed. If a facility allows an aircraft to depart outside of the CFR/IDAC window, or fails to call for departure time/schedule with IDAC, notify the STMC/TMCIC of the aircraft's call sign and departure airport. Log any instance of non-compliance with the CFR/IDAC window in the NTML.

6. Multiple positions may be utilized to increase the effectiveness of the departure spacing program by reducing delays in answering calls from external facilities. The STMC/TMCIC/TMNC initiating a CFR/IDAC must include the position and outside dial number of the position for each CFR/IDAC (city, route, etc.) program.

EXAMPLE:

GI C D T "TMU ADVISORY (AIRPORT/AIRWAY)….(MIT/MINIT RESTRICTION)….(TIME-TIME)….(SPECIFIC REASON)….(CALL FOR RELEASE/IDAC IN EFFECT)….(TIME-TIME)….Dial (DSP POSITION)….TMU (DTG)"

7. When EDC is inoperable, apply manual departure spacing procedures using flight progress strips as follows (Fig 9-1-10-1):

Fig 9-1-10-1 – TMEC1/TMEC2 Strip Marking –

UAL701 **T/A319E** **T475** **12** **926 01**		**Req. Dept Time ↑** **1301** **1318** **CFR Dept Time** **Act.** / **Dept 1319** **BOS P1245**	**Fix Times** **Req 1326** **CFR** **FCT** **1343** **Actual 1344**	 **+17V** **Delay** **310**	**BOS MHT SYR J63** **EHMAN** **YXU J547 FNT PMM4 ORD** **(recall, OK late, etc.)** **Reason/Remarks**	**2004** **BO+BOT**

9-1-11. SEVERE WEATHER MANAGEMENT (SWM): NAS COORDINATOR (TMNC)

a. When combined, this position is normally assigned to the STMC position.

b. Position SIA

1. NTML
2. ESIS
3. ATWS
4. Reroute Book
5. ERIDS
6. CIWS
7. OIS

c. The TMC assigned to the TMNC position is directly responsible to the STMC/TMCIC and must:

1. Perform such pre-duty familiarization, as necessary, to determine the traffic flows, weather trends, equipment, and/or NAVAID outages, and other items that would impact aircraft movement.

2. Prepare data for the next day PERTI telcon when delegated by the STMC/TMCIC.

   (a) A CWSU weather brief for both current and next-day SWAP potential.

   (b) A BOS TAF review, and expected runway configurations.

   (c) Potential for SWAP/CAN route usage, airway closures, and military airspace usage.

3. Participate in the PERTI when delegated by the STMC/TMCIC and provide any necessary input on:

   (a) BOS for the next day, inclusive of any possible GDP and or SWAP.

   (b) Anticipated route and airway severe weather impact.

   (c) Any anticipated international SWAP routes.

   (d) Military airspace usage such as the LIGHTNING ATCAA.

4. Review N90/PCT/PHL/BOS/International Departure Gate (IDGF) forecasts.

   (a) Discuss anticipated route closures and expected SWAP routes with the STMC/TMCIC.

   (b) Formulate alternative routes and expected time of implementation, 45-60 minutes ahead of anticipated closures.

   (c) Have face-to-face discussions with the impacted Area of Operation’s OS/CIC and receive input.

5. Coordinate with the ATCSCC Severe Weather Specialist for alternative routes as necessary.

6. Coordinate with the BOS ATCT and A90 for SID closures and provide alternative SIDS/CDRs to use.

7. Assist STMC/TMCIC with NTML entries for all TMIs related to SWAP, SID closures/stops, SID MINIT/MIT, and New York Focus Initiatives (NYFI).

8. Analyze sector volume for potential TMIs in support of NYFI.

   (a) Recall and share applicable FEAs.

      (1) Modify times and altitudes.

      (2) When necessary, determine the appropriate TMI, such as MINIT's on departures from ALB/BDL/PVD/MHT/PWM/BOS, and others to manage sector volume, especially in support of NYFI.

9. Help prepare the North Atlantic Daily Tracks.

   (a) Coordinate with the North Atlantic Track Ocean Planner to formulate NATOTS, based upon forecasted weather and EAST Gate forecasted thunderstorm impact.

   (b) Formulate International SWAP routes for early publication, NLT 1200L.

10. Issue GI messages to ZBW sectors and terminal facilities impacted by SWM programs, indicating routing requirements and if CDRs are to be utilized. The GI message must contain, at a minimum, the destination airports/airways requiring reroutes, the reason for the reroute, and the time parameters of the SWAP and CDR identifier, if used:

EXAMPLE:
GI C D T "TMU ADVSY REROUTE IN EFFECT (AIRPORT/AIRWAY)….DUE TO (SPECIFIC REASON)…(TIME/TIME)….Dial (SWM POSITON)….[IF AVAILABLE (USE CDR ##) ELSE (NO CDR AVAILABLE RETRE VIA)] TMU (DTG)"

9-1-12. TRAFFIC MANAGEMENT DEPARTURE COORDINATOR (TMDC1/TMDC2)

a. When combined, this position is normally assigned to the TMNC position.

b. Position SIA

1. ESIS
2. ATWS
3. Reroute Book
4. ERIDS
5. CIWS
6. OIS

c. The TMC assigned to the TMDC1/TMDC2 position is directly responsible to the STMC/TMCIC and must:

1. Perform such pre-duty familiarization, as necessary, to determine the traffic flows, weather trends, equipment and/or NAVAID outages, and other items that would impact aircraft movement.

2. Review all current or forecast weather information for impact on traffic flows.

3. Coordinate with the ATCSCC Severe Weather Position for alternative routes, as required, to provide SWM.

4. Coordinate alternative routes with the OS/CICs for SWM and implement any restrictions required due to increased demand on those routes.

5. Implement and monitor Coded Departure Routes (CDRs). Implement and monitor Severe Weather Avoidance Plan (SWAP).

6. Issue GI messages to ZBW sectors and terminal facilities impacted by SWM programs, indicating routing requirements and if CDRs are to be utilized. The GI message must contain at a minimum the destination airports/airways requiring reroutes, the reason for the reroute, the time parameters of the SWAP, and CDR identifier, if used:

EXAMPLE:

GI C D T "TMU ADVSY REROUTE IN EFFECT (AIRPORT/AIRWAY)….DUE TO (SPECIFIC REASON)…(TIME/TIME)….Dial (SWM POSITON)….[IF AVAILABLE (USE CDR ##) ELSE (NO CDR AVAILABLE RETRE VIA)] TMU (DTG)"

7. Advise the STMC/TMCIC of impact of SWM and/or weather on traffic flows.

8. Aircraft routes that need to be changed due to a TMI will be amended by the TMC staffing the TMDC1/TMDC2 position, regardless of whether the re-routes involve weather avoidance or not.

9-1-13. TRAFFIC MANAGEMENT MILITARY COORDINATOR (TMML/MC)

a. When combined, this position is normally assigned to the TMNC position. The TMC assigned to this function is directly responsible to the STMC/TMCIC. The MC must be familiar with the following documents pertaining to military operations: FAA JO 7110.65, Chapter 9, FAA 7610.4, FAA 7400.10, DoD Flight Information Publication (AP/1B), and all ZBW Military LOAs

b. Position SIA

(1) SAMS
(2) ATWS
(3) White Boards
(4) FD-ALTRV Inbox
(5) Daily Military Log
(6) AISR
(7) NTML
(8) Daily Military File Cabinet
(9) Written Notes

c. The TMMC must:

1. Upon assuming the MC position, perform position familiarization, complete the opening and/or closing checklist, and take the following actions:

(a) Review ZBW Form 7610-12, Warning Area List (Appendix 1) to ensure that the W105 GI message is current and that the strip is present. In addition, ensure that the EDST reflects the current status of W105.

(b) Review all active or proposed CAPs and ALTRVs on ZBW Form 7610-11 for the current day.

(c) Review all active or proposed SUAs, MOAs, and ATCAAs on the Electronic Assigned Airspace Log (ZBW Paper Form 7610-14A).

(d) Review new proposed photo mission requests on 9-ATO-ZBW-PHOTO email.

(1) Upon Receiving new requests, place information in ZBW Shared (J:) Drive > Airspace Public > 0_Photo Missions folder.

(2) If the request is non-standard (i.e., IFR, high-performance aircraft, etc.) contact ZBW Airspace to issue an MBI, provide further coordination, etc.

(e) Review all military or civilian airspace block schedules that are not on the Electronic Assigned Airspace Log (ZBW Paper Form 7610-14A) but are bulletins, etc.

(1) De-conflict any conflicting airspace blocks. Note all denials in "Remarks".

(2) Ensure that coordination with adjacent facilities has been completed, and GI messages are sent to the operational areas.

(3) Make the appropriate EDST/ATWS entries for Special Activity Airspace (SAA) for scheduled activities.

(f) Provide a copy of the Electronic Assigned Airspace Log (ZBW Paper Form 7610-14A) to the Area "A", "B", and "D" OS/CIC, and brief them on any unusual or heavy activity that would impact facility/sector operations, prior to the morning stand-up briefing. If the scheduled activity starts prior to the stand-up briefing, inform the affected areas directly.

(g) Special Interest Flights (SIF)

(1) STMC has the secondary responsibility for identifying and verifying route compliance of SIF traversing ZBW airspace. FDU has primary responsibility.

(2) Refer to Appendix 2 Military Coordinator Morning Shift Checklist.

(3) STMC/TMCIC must input SIF into TSD and continually monitor.

NOTE: Cubana (CUB) require specific routing.

2. During the shift, (IAW Chapter 2-3) take the following actions on airspace requests:

BLOCK	FACILITY
ADIRONDACK AIRSPACE COMPLEX	ZYZ , ZUL, BTV AFSS – (outside of

(AAC)	published times)
MAC 12/13	ZQM
W102 L/H	ZQM
MOT A/B	ZNY, ZQM , A90 Cape Area
CONDOR 1&2, SCOTTY A/B/C	ZUL
LIGHTNING 1/2/3*	ZUL, YUL

***NOTE:** Ensure the following SAAs are not scheduled concurrently with the LIGHTNING ATCAA: AKS, AR609, AR212, AR204, AR205, AR206, LASER ATCAAs, YANKEE MOAs, SCOTY ATCAAs, CONDOR MOAs, GRIMM B, EMPIRE, SUGARHOUSE Stationary ALTRV, Lake Placid Soaring Area, Sugarbush Soaring Area.

***NOTE:** Mount Washington Soaring Area may be scheduled concurrently with the LIGHTNING ATCAA at or below FL260. Requests for additional altitude stratums may be made with ZBW via sector frequency on a real-time basis.

***NOTE**: The 158th FW may not schedule AR631 in conjunction with the LIGHTNING ATCAA.

(a) On occasion, the TMML may receive information regarding a DVFR flight plan. When this occurs, record the DVFR flight plan on ZBW Form 7610-27, Boston Center DVFR Worksheet and forward the DVFR flight plan to EADS Identification Sector, DSN# 587-6364. The following codes have been allotted to the AFSS for assignment to DVFR flights:

AFSS	CODES
BDR	1240-1250
BTV	1251-1261
BGR	1262-1272

(b) Log all additional airspace requests and actions taken on the Electronic Assigned Airspace Log (ZBW Paper Form 7610-14A).

(c) Crosscheck all additional requests for conflicting operations, i.e., ALTRVs, refueling schedules, special project requests, glider areas, etc.

(d) Coordinate all additional requests with appropriate OS/CICs. Advise them of any impact on their normal operation.

(e) Generate GI strips at least 45 minutes before the start of the block time on all military blocks. The ATWS at the MC position has individually programmed PF keys which, when selected, display a GI message template for all the frequently used ZBW military airspace operations. The PF key assignments are labeled on the MC ATWS.

(f) Coordinate, approve, or deny airspace requests: If unable to approve the requests, offer an alternative to the requester, and document the reason why the request was denied.

(g) Re-coordinate when airspace is amended or canceled. Transmit a new GI message, as necessary.

(h) Review, and if necessary, amend all scheduled military airspace when advised by the OMIC

of a TFR or CAP.

(i) The MC must enter, approve, modify, or deny airspace requests in the SAMS, as necessary and appropriate.

(j) Advise the appropriate OS/CICs whenever an IR route is closed or reopened. Forward ZBW Form 7610-17, IR Closure Message (Appendix 1) or 7610-18, IR Open Message (Appendix 1) to the FDCS for NOTAM advisory.

(k) Collect all daily IR Route entry strips from the Position 12 flight strip printer, and log each entry on FAA Form 7230-5, Record of MTR. Forward Form 7230-5 to the ZBW-530 Military Specialist at the end of each month.

NOTE: Prior to scheduled use, all ZBW Instrument Routes will need to be re-evaluated. Aircraft requesting to use an Instrument Route must NOT be given a clearance onto an IR until further advised.

(l) Operate the Control Room Classified Security Container (6250156), in accordance with ZBW 1600.41D, Classified Account Standard Operating Procedures.

(m) Operate the STE secure phone in accordance with the checklist on the device. Store the encrypted key in the Control Room Classified Security Container when not in use.

(n) Operate the secure FAX in accordance with the checklist on the device.

(o) On the first day of each month, forward all the previous month's military activity documents, excluding ALTRVs, to the ZBW-530 Military Specialist.

3. The following is a list of commonly used military Special Use Airspace in, or adjacent to, ZBW. These areas are described in appropriate Letters of Agreements/Procedures and FAA 7400.10:

(a) Warning Areas:

(1) W102 LOW – Surface to 17,000 feet MSL inclusive.

i. Scheduled by EADS, DSN# 587-6247, or the faxed EADS Schedule.

ii. Coordinate with Moncton Centre Low.

(2) W102 HIGH – 17,000 feet MSL exclusive, to FL600.

i. Scheduled EADS, DSN# 587-6247, or the faxed EADS Schedule.

ii. Coordinate with Moncton Centre Low and High.

(3) W104 A/B/C – A-surface to 10,000 feet MSL inclusive, B-surface to FL180 exclusive, C-FL180 to unlimited.

i. Scheduled by EADS, DSN# 587-6247, or the faxed EADS Schedule.

ii. Coordinate with Moncton Centre Low and High.

iii. Send a modified GI message or manually post at Surry, Parso, Nantucket and Cape sectors (ZBW15/16/17/18).

(4) W105- surface to FL500.

i. Scheduled by VACAPES. The TMML must access the W105 schedule on the VACAPES web page at http://www.vacapes.navy.mil/ where the N#### is the event number for W105 (the "N" stands for Narragansett Bay).

ii. Activated 2 ways:

((a)) Normally GIANT KILLER will activate W105 with no less than a "20-Minute Notice" advance of the scheduled time, unless following "Real-Time" activation procedures. The MC must send a GI message, schedule W105 into EDST and verbally notify the Area C/D OS/CIC of the W105 activation time.

((b)) When W105 is activated "Real Time" IAW the ZDC/ZNY/ZBW/ZJX FACSFAC VACAPES Letter of Agreements, Attachment 9, Page 2 Giantkiller only coordinates with the Boston Center Cape, Hampton and Clipper Sectors (ZBW18/31/32). By LOA this is the only coordination that is required by Giantkiller for "Real Time" activation. The MC is not contacted directly by GIANTKILLER; therefore the Cape, Hampton and Clipper sector controller must notify or coordinate with either their Area OS/CIC or the MC whenever W105 is activated "Real Time."

iii. Send a GI message. The sectors are responsible to schedule W105 into the EDST during "Real-Time" activation.

iv. The ZBW MC must notify the ZNY MC when W105 is deactivated.

(5) W106 A/B/C/D – A-surface to 3,000 feet MSL, B-surface to 8,000 feet MSL, C-surface to 10,000 feet MSL, D-surface to 6,000 feet MSL exclusive – no PF Key.

i. Scheduled by VACAPES at DSN [redacted]

ii. Continually hot.

(6) W107 – Surface to Unlimited.

i. ZDC Sector 59 must advise the Hampton Sector when W107 has been activated/deactivated, or when VACAPES ALPHA (SWAP sector contains W107) has been acquired from/returned to VACAPES.

ii. Area C OS/CIC must advise the MC of W107 status.

(b) Restricted Areas:

(1) R5201 – Fort Drum, New York

i. Scheduled by Fort Drum via FAX.

ii. Schedule must be forwarded to the Area A OS/CIC and posted daily on the Electronic Assigned Airspace Log (ZBW Paper Form 7610-14A).

NOTE: With the exception of certain holidays, R5201 is normally active 365 days a year, 24 hours a day. When R5201 is COLD, modify GI message, or manually post at Watertown and Utica Sectors (ZBW08/09).

(2) R5202A/B – Scheduled by EADS. (DSN# 587-6247).

(c) MOAs: The following is a list of MOA's in and adjacent to ZBW airspace.

NOTE: When MOAs are operated outside of their normal charted times, verify SAMS entry. If no SAMS entry, forward the schedule to Flight Data for NOTAM distribution.

(1) YANKEE 1-9,000 feet MSL to FL180, exclusive.

(2) YANKEE 2-100 feet AGL to 9,000 feet MSL, exclusive.

i. EADS must schedule a minimum of 1-hour prior, when within charted times, otherwise, no less than 2 hours in advance, in accordance with the LOA.

ii. Normally 10,000 feet MSL and above are released for Yankee 1 and Laser requests.

iii. YANKEE 2 is normally used by A-10 aircraft, and their request may be limited to 100 feet AGL to 5,000 feet MSL. Under these conditions, aircraft operate on a VFR flight plan. The MOA is automatically activated and terminated at the requested times.

iv. At all times notify the AFSS when YANKEE 2 is in use, so they can provide pilot briefings.

(3) CONDOR 1&2 - 7,000 feet MSL to FL180, exclusive.

i. EADS must schedule at least 2 hours in advance.

ii. CONDOR may be used in conjunction with SCOTY ATCAAs.

iii. Advise ZUL of scheduled times.

iv. Requires SAMS entry.

(4) MOAs within the ADRIRONDACK AIRSPACE COMPLEX (AAC) – The Adirondack Airspace Complex consists of the following MOA's: Adirondack A/B/C/D, Carthage East/West, Lowville, Tupper East/West/Central/South, Canton, Potsdam, and Cranberry. The MOAs are normally released in conjunction with the associated high altitude ATCAAs. As such, the altitudes are all "variable up to but not including FL180."

NOTE: ADIRONDACK AIRSPACE COMPLEX excludes R5201.

i. EADS must schedule a minimum of 1-hour prior when within charted times, otherwise, no less than 2 hours in advance, in accordance with the LOA.

ii. Coordinate with the AFSS when scheduled outside of published times.

(5) MISTY 2 – 300 feet AGL to FL180 exclusive (normally includes Canadian Extension – CYA-530). MISTY 3-11,000 feet MSL to FL180 exclusive.

i. Scheduled by EADS, DSN# 587-6247, ZOB or CYZ.

ii. MISTY may be used in conjunction with MISTY ATCAAs.

iii. Modify GI message, or manually post at Watertown, Utica, and Hancock sectors (ZBW08/09/23).

NOTE: ZBW has no NOTAM responsibility. MISTY MOAs are located in ZOB airspace on ZBW's western boundary. ZOB will advise of MISTY MOA times. (ZOB MC – dial 72 on ZOB line).

(6) DEEPWOODS – Surface to 3,000 feet MSL inclusive.

i. Scheduled by Maine Air National Guard (ANG).

ii. Located within BGR ATCT and Surry sector's airspace.

iii. Coordinate with BGR ATCT and Surry sector prior to approval.

iv. Modify GI message, or manually post at Surry sector.

NOTE: ZBW has no NOTAM responsibility, except when outside of published times.

(d) ATCAAs:

NOTE: All ZBW ATCAAs are scheduled by EADS, DSN# 587-6247, or the faxed EADS schedule.

(1) LASER NORTH – FL180-600.

(2) LASER SOUTH – FL180-600 – Normally used for air refueling; contains AR631.

(3) LASER WEST – FL180-600.

i. Normally used in conjunction with LASER NORTH.

ii. Modify GI message, or manually post at Augusta, Parso, Concord, Cambridge, Albany, and Montpelier sectors.

(4) LASER EAST – FL180-600.

i. Normally used in conjunction with LASER NORTH.

ii. Modify GI message, or manually post at Augusta, Surry, Parso, Concord, Cambridge, and Montpelier sectors.

(5) SCOTY A – FL180-600 – Coordinate with ZUL.

(6) SCOTY B – FL180-600 – Coordinate with ZUL.

NOTE: SCOTY B conflicts with AR212, AR204 and AR205.

(7) SCOTY C – FL180-600.

(8) MAC 12 – FL180-600.

i. Modify GI message, or manually post at Augusta, Surry, Parso, and Nantucket sectors.

ii. Coordinate with ZQM.

(9) MAC 13 – FL180-600.

i. Modify GI message, or manually post at Augusta, Surry, Parso, and Nantucket sectors.

ii. Modify GI message, or manually post at Millinocket, Augusta, Surry, Parso, and Nantucket sectors.

iii. Coordinate with ZQM.

(10) MOT A/B/C/D – FL180 to FL600

i. Coordinate with ZQM, ZNY and A90 Cape Area when scheduled.

(11) The Adirondack Airspace Complex consists of the following ATCAA's: VIPER ALL, VIPER 609 ALL, VIPER 609 EAST, VIPER EAST, VIPER WEST, VIPER NORTH, VIPER LOW, RANGE ONE, RANGE TWO, and RANGE THREE. The ATCAAs are normally released in conjunction with the low altitude MOA's. As such, the altitudes are generally "variable up to and including FL500," with some exceptions.

(12) LIGHTNING ATCAAs – Advise Area A & B OS/CICs of the actual requested LIGHTNING ATCAAs, and concurrent use airspace, with altitudes, upon 20 minute notification from the 158th FW.

i. LIGHTNING 1 – FL300-FL500.
ii. LIGHTNING 2 – FL260-FL500.
iii. LIGHTNING 3 – FL260-FL500.
iv. LIGHTNING 4 – FL180-FL240.

(13) MISTY 2 – w/R5203 – Surface to FL500, MISTY 3-11,000 feet MSL to FL500.

i. Located in ZOB's airspace.

ii. MISTY 2 normally used with CYA530.

iii. ZOB MC must notify ZBW MC when airspace is active.

iv. Modify GI message, or manually post at Watertown, Utica, Rockdale, Delancey, and Hancock sectors.

(14) TRENTON TTF – 17,000 feet MSL to FL250 (or FL270).

i. Will not be used when CYA530 is in use.

ii. Coordinate with Area A.

(e) Air Refueling Blocks / Tracks:

(1) AR 608, AR609, and AR631.

i. Scheduled by EADS, DSN# 587-6247.

ii. Send a GI message.

iii. AR608 does not require a GI message.

iv. Coordinate with Area B OS/CIC prior to approving AR631 requests that would split ZBW37 and ZBW39, i.e., 220B240.

(2) AR020, AR204, AR205, AR206, AR212, and AR616A/B.

i. These tracks are filed by the flight crews on DD-175, and do not require a GI.

ii. Flights filed for AR206 enter the CP in Area A, but the IP is located in ZOB.

(f) Altitude Reservation (ALTRV).

(1) The MC is responsible for reviewing all ALTRV APREQs. Coordinate with Central Altitude Reservation Function (CARF) for revisions to routes, altitudes, and times to avoid impacting the ATC system.

(2) ALTRVs with a precedence of Class One through Class Six have priority over daily military training MOA/ATCAA requests. A Class Seven or Eight DOES NOT have priority over daily military training. Once approved, an ALTRV has priority over normal traffic.

(3) The CARF at the ATCSCC is authorized to approve ALTRVs at and below FL180, east of the 100th west meridian, without coordination with other ATC facilities. However, CARF normally sends out APREQs to affected ARTCCs.

(4) Upon receipt of an ALTRV request, the MC must:

i. Log the ALTRV mission name and date on the ALTRV Tote board, which is used as a visual indicator of upcoming ALTRVs.

ii. Enter the ALTRV information on the electronic ZBW Form 7610-11, ALTRV

Operational Information (Appendix 1), and retain this in the electronic ALTRV folder according to mission month.

iii. Print one working copy of ZBW Form 7610-11 and attach all Teletype messages to it as ALTRV APREQs and APVLs often change; as changes occur, revise the original ZBW Form 7610-11 that is saved electronically.

iv. Keep the printed working copy, and all attachments in the military filing cabinet according to date.

v. At least 1 hour prior to the ALTRV departure/entry time, the MC must ensure that the flight plant is entered into the NAS computer, or enter the ALTRV flight plan into the NAS computer.

vi. Coordinate ALTRVs with terminal facilities as required.

NOTE: The only information terminal facilities receive on ALTRV missions is the information relayed to them by the ARTCC.

vii. Deliver ZBW Form 7610-11, with a copy of the associated Service B ALTRV, to each affected sector.

viii. The evening MC must forward final ZBW Form 7610-11, and ZBW Form 7610-16, for ALTRV missions which will take place on the midshift, to the OMIC.

ix. Prepare the ALTRV departure message utilizing ZBW Form 7610-16, ALTRV Departure Message (Appendix 1), for aircraft departing Boston ARTCC airspace. Insert the appropriate foreign/domestic addresses:

CARF KARFYGZX (on message form)

CARU CYQXZGZA

Domestic Centers – K (3 letter ID) ZRZX

EXAMPLE – KZNYZRZX, KZOBZRZX

Canadian Centers – CZ (2 letter ID) ZQZX.

EXAMPLE – CZULZQZX, CZQMZQZX

(g) Stationary ALTRVs

(1) SUGARHOUSE – 14,000 TO FL210

i. Complete the Sugarhouse Stationary ALTRV NOTAM request worksheet located in the military position filing cabinet.

ii. Deliver the completed worksheet to Flight Data Unit

(h) AUTODIN (Automated Digital Network) Messages.

(1) To see if they have any impact on the MC position, the MC should decipher all Unclassified AUTODIN Messages. If the messages have no impact, forward the messages to the ZBW Military Specialist.

(2) Retain events that do affect ZBW and forward a copy to the ZBW Military Specialist.

(i) NOPAR Missions.

(1) Every precaution must be taken to safeguard the information for NOPAR missions. Information must be withheld from air defense sectors/flying units and other military units.

(2) Coordination must only be with "trusted agents" or "eyes-only" officers designed by mission planning documents.

NOTE: If in doubt, contact the ZBW Military Specialist or the ZBW-530 Office.

(j) Due Regard/Operational Status Operations.

(1) The DOD and US Customs have specified the following conditions for flight operations outside the US domestic airspace which are conducted under "Due Regard" or "Operational Status". This is at the prerogative of state aircraft, and not in accordance with ICAO flight procedures. Under these conditions, the pilot in command assumes the responsibility for separating their aircraft from all other traffic.

(2) Flights conducted under "Due Regard" or "Operational Status" must be conducted under one of the following conditions:

i. Aircraft must be operated in visual meteorological conditions.

ii. Aircraft must be operated within radar surveillance and radio communications of a surface radar facility.

iii. Aircraft must be equipped with airborne radar that is sufficient to provide separation from other aircraft.

iv. Aircraft must be operated outside controlled airspace.

(k) Special Use Frequency:

(1) Boston ARTCC's Special Use Frequency, 321.3, is available from the following RCAGs:

RCAGs
Barnstable, MA
St. Albans, VT
Turin (RME), NY

(2) This frequency is to be used for single seat jet aircraft formations operating at night, or in instrument weather conditions, U2s, B57s, and other special mission aircraft.

(3) This frequency is not to be assigned for operations in SUAs assigned for military

operations.

(l) Military Operations above FL600.

(1) Security requirements of the military services preclude the transmission of actual Flight Level information above FL600.

(2) Pilots will report their altitude as above FL600 or via code. A classified document detailing the codes is located in the control room safe.

9-1-14. NORTH ATLANTIC TRACK OCEAN PLANNER

The following guidelines are established for the TMC assigned to coordinate the North Atlantic Track traffic flows. This activity requires the utilization of the International Departure Gate Planning Forecast when deciding the track structure for the shift.

a. Position SIA

1. ATWS
2. TFMS
3. OIS
4. ERIDS
5. CIWS
6. NTML
7. White Boards

b. Eastbound NARs.

1. Review the tracks as established by Moncton Centre (normally received by 10:00 am local time). Make changes as soon as practical to balance air traffic flows within entry/US and Canadian border sectors. Coordinate with the Moncton High Supervisor, as necessary.

2. Coordinate with VACAPES between 7:00 – 8:00 am (local time) to obtain the W105 schedule for the day (through midnight local time). When requesting the daily schedule from VACAPES, also request the schedule for the following day up to 0500Z. If only the daily schedule is requested, one will only receive the schedule up to 2359Z of that day. HAPIE – YAHOO departure tracks may be used any time, EXCEPT during the times W105 is scheduled by the military.

3. Coordinate with ZNY TMU, ZNY Ocean Supervisor, and ZDC when establishing departure routes (non-common) to the inland navigation fix, taking into consideration sector traffic densities, weather, and equipment outages.

4. Publish departure routes (non-common), and forward via TFMS email to the ATCSCC.

(a) Utilize the stored (historical) data for track messages to form the template for a new message. If possible, do not put more than 2 tracks over a single inner fix.

(b) If tracks are ALLEX and south, do not publish routing via GREKI for N90 International Departures, unless special circumstances dictate otherwise. If SWAP is anticipated, coordinate with the TMNC for SWM planning, and do not publish routing via GREKI if tracks are EBONY and south, unless special circumstances dictate otherwise.

(c) Coordinate with N90 and ZNY STMCs if a GREKI track will not be published.

(d) The use of the HAPIE departure track, and fix YAHOO, are dependent upon the availability of W105.

(e) If possible, have a second TMC proofread the message to ensure accuracy.

5. Coordinate with N90 and ZNY Departure Director for flight plan amendments as required for departure route amendments.

6. Distribute copies of NAR Tracks to each impacted area during the stand-up briefing.

c. Westbound NARs.

1. Review the tracks received from Moncton Centre for impact on sectors in Areas A, B, C, and D. Provide copies of tracks to the effected OS/CICs.

2. Coordinate with ZUL and ZQM for spacing, reroutes, or to amend non-common routes.

9-1-15. ANALYSIS FUNCTION

The TMU analysis function must collect and analyze all available data as it pertains to sector/facility capacity, traffic flows, points of congestion, peak traffic hours, etc. Areas of consideration include, but are not limited to:

a. Monitor Alert Parameter.

b. Sector demand (by hour).

c. Sector/s flows.

d. Sector loading points.

e. Breakdown of traffic by category for each sector.

f. Normal restrictions utilized to prevent sector saturation.

g. Preferred routes.

h. NRP impact.

i. Facility traffic count.

j. Delay information per sector or airport.

9-1-16. ERAM COMPUTER FORMATS

a. The following is a list of computer GI message formats:

1. “A” – All approach control arrival positions.

2. “C” – All sector flight strip printers.

3. “D” – All approach control departure positions, except A90, is TM1A.

4. “F” – All AFSSs.

5. “O” – All approach control over flight positions.

6. “T” – All Tower positions.

7. “ALL” – All facilities/sectors/adjacent centers.

8. “xx” – Specific sector number, i.e., 36, 48, 53.

b. The following are the National Program formats for Traffic Management Programs:

1. “FE” message provides strip printing at the TMU on all flights exiting ZBW to any of the selected adjacent ARTCCs.

EXAMPLE –

FE ZCC ON/OFF – all exiting traffic to ZOB, FE ZCC/Q822– all exiting traffic on Q822 to ZOB

2. “FI” message provides strip printing at the TMU on all flights entering the ARTCC airspace from a selected adapted adjacent ARTCC.

EXAMPLES –

FI ZCN ON/OFF - all entering traffic from ZNY, FI ZCC/Q82ON – All flights enter from ZOB on Q82

FI ZCN/240+350 ON – all flights entering from ZNY between FL240 to 350

FI ZCC/240+410/09 ON – all flights from ZOB between FL240 to 410 into sector 09 and FI ZBW OFF – inhibits all FI processing

3. “FEET” message provides strip printing at TMU on all active or proposed flights landing/departing from a selected airport.

EXAMPLES –

FEET BOS AR ON – all flights destined to selected internal airports.

FEET BOS DP ON – all flights departing the selected airport.

FEET BOSTERM DA ON – all flights departing from selected terminal area.

4. “FA” message is used to establish EDCT program times.

EXAMPLES –

FA ORD hhmm/hhmm ddd hhmm/hhmm ddd (1245/1314 035).

FA ORD OFF – inhibits function.

NOTE:

hhmm = hour-minutes in 15-minute blocks using 00, 15, 30, or 45.

ddd = the delay time in minutes, delays less than 10 minutes require a leading 0.

CHAPTER 10. CENTER WEATHER SERVICE UNIT

10-1-1. GENERAL OPERATIONS

The purpose of the CWSU is to provide weather consultation, and advice to, managers and staff within ZBW, and to other FAA facilities. Additional details regarding the CWSU are contained in appropriate NWS Directives, CWSU Station Duty Manual, and the Interagency Agreement and Statement of Work between the FAA and NWS (Decision Support Services for Air Traffic Management).

10-1-2. THE CWSU METEOROLOGIST

a. The CWSU is staffed by NWS aviation-decision support meteorologists. These meteorologists maintain a meteorological watch pertaining to hazardous weather impacts. These impacts are pertinent to the airways and air traffic terminals, in and near, the ZBW area of responsibility.

b. The CWSU prepares briefings and forecasts to inform all ARTCC personnel, other FAA facilities, and the ATCSCC of any weather conditions, or changes, that may impact the safe flow of air traffic.

c. The CWSU disseminates information either directly to the user through the TMWC, or through the CWSU Web Pages.

10-1-3. CWSU RESPONSIBILITIES

a. Provide detailed briefings of current and forecast weather affecting the NAS for ARTCC, and/or control tower/approach control personnel, at least once per shift. Additional briefings are scheduled routinely or provided as conditions require.

b. Provide on-demand briefings and issue forecasts, MISs, and CWAs when conditions warrant.

c. Disseminate CWSU products, and other specified pertinent weather intelligence (Electronic Graphical products and information), within ZBW and to appropriate FAA facilities within the ZBW area of responsibility.

d. Solicit PIREPs directly, or through the TMWC, for known or suspected weather that meets, or approaches, established criteria.

e. Collaborate with NWS meteorologists at the ATCSCC, Aviation Weather Center (AWC) and local NWS Weather Forecast Offices (WFO). Act as consultants to the ATCSCC planners in situations where weather impedes the normal flow of traffic in their ARTCC area.

f. Ensure that reports of conditions meeting urgent PIREP criteria (including wind shear) reach the appropriate WFO and the AWC.

g. Relay PIREPs of conditions meeting Severe Weather Warning criteria to the appropriate WFO with local warning responsibility.

10-1-4. TMU WEATHER COORDINATION

CWSU meteorologists interact directly with other NWS forecasters. However, the TMWC is the designated point of contact between the CWSU meteorologist and ZBW controllers, FAA facilities within ZBW area of responsibility, and users to whom CWSU products are disseminated.

10-1-5. COLLABORATION

Forecast products issued by the CWSU and other NWS components will frequently address the same event within the same area and time period. The CWSU will be in frequent contact with the AWC, NWS meteorologists at the ATCSCC, neighboring CWSUs, and with WFOs issuing terminal forecasts within ZBW area to ensure a consistent message across the NAS.

10-1-6. CWSU ISSUANCES

a. At times designated by the watch desk, on each shift, briefings must be given to the OMIC, STMC, and all OS/CICs. These briefings must include all significant weather affecting the ZBW area.

b. The CWSU will utilize the WARP, or other web-based displays, for briefings which must contain, but not limited to, the following information: Thunderstorms, Areas of Precipitation, Icing, Turbulence, Winds Aloft, Low level wind shear, Areas of reduced visibility and/or ceilings, Significant pressure changes, and requests for Pilot Reports. This information must be updated as required.

c. Center Weather Advisory (CWA) – an unscheduled aviation weather warning for conditions meeting, or approaching, national in-flight advisory criteria (AIRMET, SIGMET or Convective SIGMET).

d. Meteorological Impact Statement (MIS) –an unscheduled flow control and air traffic/flight operation planning forecast.

e. Graphical Forecast Products. The CWSU will prepare, and electronically disseminate via the web, graphical forecast products that will support ARTCC, TRACON, and ATCT operations.

   1. Weather Briefing Sheet – minimum four (4) times per day (at approximately 0700, 1200, 1600 and 2045 local). Products contain hazardous weather information for icing, turbulence, precipitation, thunderstorms, ceilings below 5000 feet, and visibilities below 5 statute miles. This will also include requests for Pilot Reports.

   2. Seasonal Tactical Decision and Planning Aids - International Departure Gate and Arrival Fix forecasts, Boston Sea Breeze/Wind Forecast, Boston/A90 Icing/Snow Forecast.

10-1-7. DISSEMINATIONS OF WEATHER INFORMATION

The CWSU will brief the OMIC and TMWC on all severe thunderstorms, tornadoes, and Enroute advisories within 150nms of ZBW's area of responsibility, in accordance with Chapter 12 of this Order. This includes non-convective SIGMETs, unscheduled convective SIGMETs, Canadian SIGMETs, CWAs, and MISs. The CWSU will also ensure that WARP graphical plots of advisories are available. These briefings will be repeated for updated information, as often as necessary, at the discretion of the CWSU meteorologist.

10-1-8. SUPERVISION

a. The CWSU meteorologists are under the supervision of the CWSU Meteorologist-in-Charge (MIC). First Line Supervisor of the CWSU MIC is the WFO Boston MIC.

b. The ZBW OMIC has operational responsibility for the CWSU.

CHAPTER 11. FLIGHT DATA UNIT

11-1. GENERAL OPERATIONS

The Flight Data Unit (FDU) is responsible for providing continuous monitoring, communications, and Air Traffic Control Data Services to the Federal Aviation Administration (FAA) Air Traffic Control (ATC) and military aviation facilities within Boston Air Route Traffic Control Center (ZBW) airspace. The FDU responsibilities include, but are not limited to:

a. Flight data processing and flight plan entry into the National Airspace System (NAS) utilizing the Enroute Automation Modernization (ERAM) system.

b. National Airspace Digital Interchange Network (NADIN) Service A and Service B message recognition.

c. Distribution and dissemination through the Aeronautical Information System Replacement (AISR).

d. Monitoring the Enroute Information Display System (ERIDS).

e. Entering NOTAMs and Temporary Flight Restrictions (TFRs) into the NOTAM Entry System (NES).

f. Special Interest Flight verification.

g. Providing IFR clearance relay requests, and instructions, between a pilot and an Air Traffic Controller.

The employees assigned to the Flight Data Unit (FDU) are expected to exercise good judgment and take appropriate action in a timely manner when encountering situations not covered by this chapter. The FDU must perform other related duties as required by the OMIC and/or Area OS/CIC.

11-2. Flight Data Department Operational Systems and Programs

a. Monitor the Air Traffic workstations (ATWS) for flight plan and message processing. Report all ATWS problems to the Operations Manager-in-charge (OMIC), and to the National Airspace Operations Manager (NOM).

b. Monitor the AISR computer system to ensure that the NADIN system is operational. Report all AISR problems to the OMIC, and to the AISR/National Airspace Incident Monitoring System (NAIMS) helpdesk, [redacted]. ***

c. Monitor ERIDS, ensuring that the system is operational. Report all ERIDS problems to the OMIC and NOM.

d. Monitor the LAN computer-based programs and devices. Report problems to the OMIC and to the Information Technology (IT) help desk, [redacted]

e. Report all Aeronautical Information Management Systems (AIMS) anomalies to the Flight Data Supervisor or the OMIC.

11-3. FDU Position Relief Briefings

a. FDCS relieving, or being relieved, from position must jointly review the FDU Position Relief Briefing worksheet before performing operational duties.

b. The ZBW Watch Desk will assume primary responsibility of the FDU when the FDU is unable to perform their duties. The FDCS relieving, or being relieved, from position must jointly review the FDU Position Relief Briefing worksheet before performing operational duties.

11-4. ERAM Air Traffic Workstation (ATWS) General Operations

a. FDU must provide assistance to system users concerning flight plan input problems. This may include amending, removing, or filing flight plans.

b. FDU must monitor General Information (GI) messages, and Referred Messages, for 4 the FDU to take additional action as necessary.

c. FDU must disseminate AIRMETs, Oceanic SIGMETs, and Canadian SIGMETs via an ERAM General Information (GI) to the Boston District's Center (C), Departures (D), Towers (T), and Approaches (A). The FDU is responsible for ensuring the information disseminated is complete, accurate, and in accordance with Chapter 12.

d. In the event of a WMSCR outage, and the ZBW CWSU is closed, the FDU must utilize the Aviation Weather Center (AWC) website (https://www.aviationweather.gov/pirep) to ascertain SIGMET information, and then enter it into ERAM in accordance with Chapter 12.

e. In the event of a NADIN or CAATs outage, and under the direction of the OMIC, the FDU must enter time critical flight plans (within 30 minutes of departure, airborne aircraft have priority) into the ERAM computer.

11-5. Aeronautical Information System Replacement (AISR) General Operations

a. Service "A" Procedures:

1. FDU must transmit Service "A" (containing weather products) messages, for long line dissemination to WMSCR, utilizing the AISR workstation. The FDU is responsible for ensuring the information disseminated is complete, accurate, and in accordance with Chapter 12. In the event of an AISR outage, the FDU may utilize the Aviation Weather Center (AWC) website (https://www.aviationweather.gov/pirep) to enter PIREP information for long line dissemination.

(a) FDU must transmit ZBW PIREPs.

(b) FDU must assist with Terminal PIREPs entry when requested by the facility.

(c) FDU must assist with Terminal METARs entry when requested by the facility.

2. FDU must take action on all Service A incoming messages received for ZBW, and underlying facilities, using the following procedures:

   (a) FDC NOTAMs:

      (1) FDU must deliver a copy of the FDC NOTAM to the OMIC and/or OS of the affected area.

      (2) FDU must fax a copy of the FDC NOTAM to any affected external facilities listed in the Boston ARTCC FDC NOTAM Airport Listing.

   (b) NOTAM-D Coordination

      (1) FDU must notify an affected air traffic facility when a NOTAM-D has been issued or cancelled.

      (2) FDU must coordinate all NOTAM-Ds issued for Non-NOTAM Manager airports with the controlling approach control or terminal facility, when received via the AISR Non-NOTAM Manager folder. Coordination of NOTAM-Ds issued for Obstructions (OBST), received via the Non-NOTAM Manager folder with the underlying approach control or terminal facility, must be based on the following criteria:

         i. The obstruction is located 6NM or less from an airport.
         ii. The obstruction is more than 400 feet AGL.
         iii. The obstruction has been identified by the terminal facility as one not meeting the criteria stated above but is deemed critical by the facility.

      (3) FDU must coordinate all NOTAM-Ds cancellations for Non-NOTAM Manager airports with the controlling approach control or terminal facility, when received via the Non-NOTAM Manager folder. Coordination of a cancellation for an OBST NOTAM-Ds must be based on the following criteria:

         i. The obstruction is located 6NM or less from an airport.
         ii. The obstruction is more than 400 feet AGL.
         iii. The obstruction has been identified by the terminal facility as one not meeting the criteria stated above but is deemed critical by the facility.

      (4) FDU must coordinate OBST NOTAM-Ds issued for NOTAM-Manager airports with the controlling approach control or terminal facility, when received via the NOTAM-Manager folder. Coordination of the NOTAM Manager OBST NOTAM-Ds must be based on the following criteria:

         i. The obstruction is located 6NM or less from an airport.
         ii. The obstruction is more than 400 feet AGL.
         iii. The obstruction has been identified by the terminal facility as one not meeting the criteria stated above but is deemed critical by the facility.

      (5) FDU must coordinate NOTAM-Ds issued for AIRSPACE with the controlling approach control or terminal facility, when a Traffic Situational Display (TSD) plot displays that the affected airspace lies within the control area of a facility.

(6) FDU must log plotted NOTAM-Ds issued for AIRSPACE from the NOTAM Manager folder on the NOTAM-D Coordination. Once a plotted NOTAM-D is cancelled, indicate the cancellation by drawing a single line through the Coordination log entry.

(7) When ZBW FDU is unable to coordinate NOTAM-Ds with the controlling approach control/terminal facilities, coordination responsibilities must be transferred to Cleveland Air Route Traffic Control Center (ZOB) FDU, or Houston Air Traffic Control Center (ZHU) FDU. ZBW FDU must resume coordination of NOTAMs with the underlying facilities as soon as practicable.

(c) FDU must distribute hourly NOTAM updates to all ZBW Areas during an ERIDs outage. Printing NOTAMs will be accomplished using either of the two methods listed below:

(1) FDU may utilize the collectives in the AISR computer and print out each hour the NOTAM collectives built for each area.

(2) FDU may utilize PILOTWEB to print the NOTAM summary for each operational area. A list of the ZBW location identifiers for each of the areas is located on the ZBW LAN c:\ drive. Enter or paste the location identifiers for each area into: https://pilotweb.nas.faa.gov/distribution/home.html
Print and distribute each summary to the appropriate area.

b. Service "B" Procedures:

1. FDU must provide assistance to AFSS, Base-Ops, and other users concerning input problems. This may include amending, removing, filing, and/or re-transmitting flight plans.

2. FDU must transmit Service B messages listed below:

(a) ALNOTs
(b) ALTRV departure times
(c) FDC NOTAM requests
(d) International Departure Messages

3. FDU must deliver Service B messages to the appropriate ZBW personnel as listed below:

(a) GENOTs messages must be delivered to the Operations Manager-in-Charge (OMIC).

(b) ZBW ALERT Messages, NADIN OUTAGES, Circuit Notice (CIRNOT)s and Solar Alerts must be delivered to the NOM and OMIC.

(c) INREQ/ALNOT messages must be delivered to the OMIC

(d) Upon request, the FDU will assist TMU with ALTRV and North Atlantic Track message retrieval.

11-6. NOTAM Entry System (NES)

a. FDU must transmit and Sugarhouse Stationary ALTRV NOTAMs using the NES.

b. FDU must transmit and Sugarhouse Stationary ALTRV NOTAM Cancellations using the NES.

c. FDU must transmit TFRs using the NES.

d. FDU must transmit TFR cancellations using the NES.

11-7. SWIM (System Wide Information Management)

FDU must monitor and disseminate International departure messages via the System Wide Information Management program (SWIM).

11-8. Special Interest Flight (SIF) Verification and List

a. FDU has the primary responsibility for identifying and verifying routes of SIF that will traverse ZBW airspace. TMU has the secondary responsibility.

1. FDU must verify that the routes authorized on the SIF Website are the routes filed in the AISR computer.

2. FDU must create a SIF non-authorized flight plan filing list consisting of call signs and their conflicting routes.

3. FDU must print three (3) copies of the list. One (1) copy of the list must be delivered to the OMIC, one (1) copy of the list must be delivered to the TMU Supervisor, and one (1) copy of the list must be retained with the FDU daily traffic.

b. FDU has the primary responsibility for creating a daily SIF list.

1. The SIF list must include the call signs of aircraft authorized to traverse ZBW airspace.

2. FDU must print eight (8) copies of the list. Six (6) copies must be delivered to the TMU supervisor, one (1) copy must be delivered to the OMIC, and one (1) copy must be kept for the FDU daily traffic.

11-9. Clearance Relay

a. FDU has the primary responsibility for relaying Instrument Flight Rules (IFR) clearance requests received via telephone from the pilot to an Air Traffic Controller at the controlling facility/sector of the departing airport.

b. FDU has the primary responsibility for relaying an IFR flight plan cancellation received via telephone from the pilot to the Air Traffic Controller at the controlling facility/sector of the destination airport.

ZBW FLIGHT DATA UNIT
POSITION RELIEF WORKSHEET

(1) EQUIPMENT STATUS

- **A. ERAM**
- **B. AISR**
- **C. VSCS**
- **D. Commercial Telephones**
- **E. ERIDS**
- **F. LAN**

(2) SYSTEMS

- **A. NADIN – Service A and Service B**
- **B. NOTAM ENTRY SYSTEM (NES)**
- **C. Aviation Weather Center (AWC): https://www.aviationweather.gov/pirep**
- **D. Pilotweb - https://pilotweb.nas.faa.gov/PilotWeb**
- **E. Traffic Situation Display (TSD)**

(3) DAILY ITEMS

- **A. Active ALNOT/INREQ**
- **B. NOTAM-D COORDINATION**
- **C. NES – NOTAMS (Temporary Flight Restrictions)**
- **D. Clearance Relay**
- **E. Weather**
- **F. PIREPs**

(4) SPECIAL EVENTS

- **A. MILITARY EXCERCISES**
- **B. ZBW EVENTS**

(5) COMSEC

- **A. HSDN Equipment**
- **B. VIPER telephone**

CHAPTER 12. WEATHER

The solicitation, handling and dissemination of all weather products will be accomplished in accordance with FAA JO 7110.65, FAA JO 7210.3, and the following guidance.

12-1-1. DEVELOPMENT

As weather develops, the potential exists for convective activity on the front of the system. This convective activity can have turbulence, icing, wind shear, lightning, and other hazardous meteorological phenomena. Controllers must issue pertinent information on observed/reported weather to potentially affected aircraft. Controllers must share changing weather patterns, weather developments, and/or dissipations with their OS/CIC who must relay this information to the TMWC.

12-1-2. DEVIATIONS

Although ATC radar depicts precipitation, aircraft will often request to deviate around weather not displayed on radar. These deviations can be quite extensive and often occur around overhangs in front of developing lines of weather. Overhangs may not be depicted on radar depending on the amount of precipitation in the convective activity. It is prudent to plan ahead and be prepared to suggest, or approve, a pilot's request for the use of alternative routes/altitudes and/or deviations around weather. Controllers must report any discrepancies in radar displayed weather versus pilot reported weather to the OS/CIC. The OS/CIC must report the discrepancies to the SOC and the TMWC in a timely manner.

12-1-3. AUTOMATION

All weather products, with the exception of AIRMETs, PIREPs, and Canadian SIGMETs, are automatically forwarded to ERAM. Therefore, these three products must be manually entered through the ATWS. All weather products, excluding PIREPs, are transmitted through AISR via automation. Therefore, PIREPs must be manually entered into AISR for long line dissemination.

Because AIRMETs, PIREPs, and Canadian SIGMETs are entered into ERAM via the ATWS to C (Center), D (Departure), T (Tower), and A (Arrival), they are received by all sectors in ZBW. MISs are also received by all sectors since there is no specific geographic coding associated with them. Since domestic SIGMETs and CWAs are forwarded to ERAM with an identified location, they are only sent to sectors within 150 NM of the hazardous inflight weather.

12-1-4. DISSEMINATION

The Weather Coordinator has the primary responsibility for the inter/intra-facility dissemination of AIRMETs, SIGMETs, CWAs, MISs and PIREPs (/UA /UUA), and must ensure that sufficient information is disseminated to facilitate the required alert broadcasts.

PIREPs originate from sources within ZBW as well as external sources. External sources may include Terminal facilities, neighboring ARTCCs, FSSs, etc. Regardless of the method received, the TMWC is expected to evaluate the information and disseminate as appropriate.

OS/CICs must ensure all area personnel are briefed and kept updated on significant weather conditions and maintain liaison with the TMWC for required PIREPs and the effect of weather on

traffic flows. Controllers must disseminate hazardous weather that may impact operations within 150 miles of their sector, or area of jurisdiction, in accordance with FAA JO 7110.65. Controllers must also disseminate pertinent/relevant routine PIREPS (/UA) in a timely manner.

12-1-5. ROUTINE PIREPs (/UA)

PIREP solicitation during periods of developing weather is the best source of actual conditions. These PIREPs are used by meteorologists to help confirm/modify weather forecasts. Emphasis must be placed on the solicitation and dissemination of PIREPs. Meteorologists rely on PIREPs to enhance aviation weather forecasts. PIREPS provide information required by ATC to provide for the safe and efficient use of airspace. This section covers the handling of Routine PIREPs only. Procedures for handling Urgent PIREPs are outlined in section 12-1-6 Hazardous Weather Products.

All PIREPs not classified as URGENT (/UUA), as outlined in FAA JO 7110.10 Chapter 9, must be classified as Routine (/UA). Per FAA JO 7110.65, Routine PIREPs can have an impact on the safe and efficient use of airspace, such as reports of strong frontal activity, squall lines, thunderstorms, light icing, wind shear, moderate turbulence, braking action reports. These PIREPs may be contrary to previously reported or forecasted conditions. It is incumbent upon the TMWC to evaluate each PIREP for GI dissemination on a case-by-case basis.

a. ZBW Routine PIREPs (/UA)

1. Controllers must:

(a) Use the ZBW PIREP Solicitation Worksheet as a memory aid and Solicit PIREPs in accordance with FAA 7110.65 Section 2-6-2.

(b) Forward all PIREPs to the TMWC via ERIDS. If ERIDS is unavailable, controllers must forward PIREPs via a PIREP form to the OS/CIC who will hand-deliver the form to the TMWC.

(c) Advise pilots of pertinent/relevant PIREP information in a timely manner.

2. OS/CIC must:

(a) Hand-deliver PIREP forms to the TMWC in the event of an ERIDS outage.

(b) Upon CWSU issuance of the Weather Briefing Sheet, or when solicited by the CWSU/TMWC, distribute pertinent information to each active sector for input into the ZBW PIREP Solicitation Worksheet.

3. TMWC must:

(a) Monitor ERIDS for electronic notification of relayed ZBW PIREPs.

(b) Review all PIREPs to assess the weather phenomena, geographical area, operational impact, and trends.

(c) Using the ZBW Routine PIREP Dissemination Chart from APPENDIX 4-1.a,, disseminate all PIREPs deemed pertinent/relevant to the appropriate areas/sectors/facilities via GI message.

Note: The TMWC must ensure affected adjacent facilities, which do not receive ZBWs GI messages, are made aware of PIREPs that may impact their operation. The TMWC is expected to use prudent judgment on a case-by-case basis when determining which PIREPs are pertinent/relevant and should be forwarded.

4. FDU must:

(a) Disseminate long line, via AISR, all PIREPs received on the FDU ATWS printer that do not contain a *T after the date/time stamp at the end of the PIREP message. The FDU is delegated this responsibility by the TMWC.

Note: When the FDU is not available to long line disseminate Routine PIREPs via AISR, the TMWC must assume dissemination responsibility.

(b) Notify the TMWC anytime a PIREP without a *T has not been long line disseminated via AISR.

b. Terminal facility Routine PIREPs (/UA)

1. Terminal facilities are expected to:

(a) Relay all operationally significant PIREPs to ZBW via long line dissemination through AISR.

Note: If unable to enter into AISR locally, Terminal facilities are expected to contact the FDU for assistance with long line dissemination and verbally relay PIREP information to the FDU. In the event of a complete AISR outage, Terminal facilities must call the TMWC and relay PIREP information for GI dissemination.

2. TMWC must:

(a) Monitor AISR for electronic notification of relayed Terminal PIREPs.

(b) Review received PIREPs to assess the weather phenomena, geographical area, operational impact, trends, and correct AISR entry.

(c) Using the Terminal Routine PIREP Dissemination Chart from APPENDIX 4-1.b, disseminate all PIREPs deemed pertinent/relevant to the appropriate areas/sectors/facilities via GI message.

Note: The TMWC must ensure affected adjacent facilities, which do not receive ZBWs GI messages, are made aware of PIREPs that may impact their operation. The TMWC is expected to use prudent judgment on a case-by-case basis when determining which PIREPs are pertinent/relevant and should be forwarded.

(d) Enter a *T after the date/time stamp at the end of a PIREP GI message if the PIREP was received through AISR and correctly entered by the Terminal facility.

Note: The *T will indicate to the FDU that the PIREP was received through AISR and does not require re-entry.

3. FDU must:

(a) Disseminate long line, via AISR, all PIREPs received on the FDU ATWS printer that do not contain a *T after the date/time stamp at the end of the PIREP message. The FDU is delegated this responsibility by the TMWC.

Note: When the FDU is not available to long line disseminate PIREPs via AISR, the TMWC must assume dissemination responsibility.

(b) For PIREPs entered into AISR on behalf of a Terminal facility, provide the PIREP information to the TMWC by sending a message to the TMWC ATWS printer. Include a *T after the date/time stamp of that message to indicate the PIREP has already been long line disseminated.

(c) Notify the TMWC anytime a PIREP without a *T has not been long line disseminated via AISR.

4. Controllers must:

(a) Advise pilots of pertinent/relevant PIREP information in a timely manner.

12-1-6. HAZARDOUS WEATHER PRODUCTS

Controllers receive printed strips at each sector for the following weather products. At a minimum, if the weather information contained in any of these products is within 150 NM of the sector, the weather strip must be retained at the sector until expired. This does not preclude retaining other weather information that may exceed the minimum 150 NM distance for overall sector awareness. Retaining this information is encouraged for reference and awareness for subsequent controllers, OSs, and CICs. After the information has expired, the printed strips are to be collected by the OS/CIC and brought to the TMWC for retention. The TMU will collect these strips each night, bind them and place them in the nightly envelope.

The following procedures define responsibilities for handling hazardous weather products that may impact operations within 150 NM of ZBW. These products include AIRMETs, domestic SIGMETs, Canadian SIGMETs, CWAs, MISs, and PIREPs.

a. **AIRMETs.** The following will be accomplished when the 0300Z, 0900Z, 1500Z, and 2100Z AIRMETs, and/or any amendments/updates are received. AIRMETs are generated out of the Kansas City NWS and are generally valid for 6 hours. AIRMET UPDTs may be published at various times to include the issuance or cancellation of a SIGMET or newly forecasted conditions.

1. Center Weather Service Unit (CWSU) must:

(a) Review the AIRMET for accuracy and location when received.

NOTE: When the CWSU is not available to receive AIRMETs, the FDU must monitor the CWSU AISR printer and/or AIRMET folder for AIRMETs.

NOTE: When the FDU is not available to monitor for AIRMETs, the TMWC must assume monitoring responsibilities.

(b) Forward the AIRMET to the FDU for transmittal via the ATWS to C D T A. This ensures dissemination to ZBW and underlying terminal ATC facilities.

NOTE: If the FDU is not available, the CWSU must advise the TMWC who will disseminate the AIRMET via the ATWS.

2. Flight Data Unit (FDU) must:

(a) Transmit the AIRMET via the ATWS to C D T A for dissemination to ZBW and underlying terminal ATC facilities.

NOTE: When the FDU is not available to transmit AIRMETs, the TMWC must assume transmittal responsibility.

(b) Verbally notify the OMIC and TMWC that AIRMETs were received and disseminated via the ATWS.

3. Traffic Management Weather Coordinator (TMWC) must:

(a) Review the AIRMET for content and to assess the geographical area and operational impact.

(b) Verify dissemination to ERAM and proper distribution via a weather information strip.

(c) Verbally notify the affected areas' OS/ CIC that an AIRMET has been sent.

(d) Make an entry into the TMU 7230-4 after above notifications has been made.

4. Controllers must:

(a) Broadcast AIRMET information in a timely manner.

b. **SIGMETS.** The following will be accomplished when domestic SIGMETs (non-convective SIGMETs and Convective SIGMETs) are received. Both are issued out of the Kansas City NWS when conditions warrant. Non-convective SIGMETs are unscheduled and issued for weather significant to the safety of all aircraft. They are typically valid for four hours. Convective SIGMETs are scheduled hourly throughout the NAS, with updates as needed, and are issued for ZBW when tornadoes and/or thunderstorms are present. They are usually valid for two hours.

1. CWSU must:

(a) Review each SIGMET for accuracy and location when received.

NOTE: When the CWSU is not available to receive domestic SIGMETs, the FDU must monitor the AISR for incoming SIGMETs and notify the OMIC when a SIGMET is received.

(b) Verbally notify the OMIC and TMWC of all unscheduled convective and non-convective SIGMETs.

2. TMWC must:

(a) Review all SIGMETs for content and to assess the geographical area and operational impact.

(b) Verify dissemination to ERAM and proper distribution via a weather information strip.

(c) Verbally notify the affected areas OS/CIC of all convective and non-convective SIGMETs.

(d) Make an entry into the TMU 7230-4 after above notification has been made.

3. Controllers must:

(a) Broadcast SIGMET information in a timely manner.

c. **Canadian SIGMETS.** The following will be accomplished when Canadian SIGMETs are received by the CWSU. Canadian SIGMETs do not follow NWS encoding language, therefore, care must be exercised before dissemination to preclude any misinterpretation of information contained within the message. NAV Canada disseminates Canadian SIGMETs by way of WMSCR and are received at ZBW through AISR, WARP, or through other graphical displays. CWSUs AISR account is set up to receive CZY, CZU, and CZM SIGMETs.

1. Center Weather Service Unit (CWSU) must:

(a) Review each Canadian SIGMET for accuracy and geographical location to discern whether or not the hazardous weather is within 150 NM of ZBWs area of jurisdiction.

NOTE: When the CWSU is not available to receive Canadian SIGMETs, the FDU must monitor AISR for incoming Canadian SIGMETs.

NOTE: When the FDU is not available to monitor for Canadian SIGMETs, the TMWC must assume monitoring responsibilities.

(b) Forward all Canadian SIGMETs to the FDU for dissemination via the ATWS.

NOTE: If the FDU is not available, the CWSU must advise the TMWC who will disseminate the Canadian SIGMET via the ATWS.

2. FDU must:

(a) Transmit Canadian SIGMETs via the ATWS to C D T A for dissemination to ZBW and underlying terminal ATC facilities.

NOTE: When the FDU is not available to transmit Canadian SIGMETs, the TMWC must assume transmittal responsibility.

(b) Verbally notify the OMIC and TMWC after the Canadian SIGMET has been disseminated.

3. TMWC must:

(a) Review all Canadian SIGMETs for content and to assess the geographical area and operational impact.

(b) Verify dissemination to ERAM and proper distribution via a weather information strip.

(c) Verbally notify the affected areas OS/CIC that a Canadian SIGMET has been sent.

(d) Notify adjacent ARTCCs TMU if within 150 NM of their area of jurisdiction.

(e) Make an entry into the TMU 7230-4 after above notification has been made.

4. Controllers must:

(a) Broadcast Canadian SIGMET information in a timely manner.

d. **Oceanic SIGMETS**. The following will be accomplished when Oceanic SIGMETs are received by the CWSU.

1. Center Weather Service Unit (CWSU) will:

(a) Review each Oceanic SIGMET for accuracy and geographical location to discern whether or not the hazardous weather is within 150 NM of ZBWs area of jurisdiction.

Note: When the CWSU is not available to receive Oceanic SIGMETs, the FDU must monitor WMSCR for incoming Oceanic SIGMETs.

Note: When the FDU is not available to monitor for Oceanic SIGMETs, the TMWC must assume monitoring responsibilities.

(b) Forward all Oceanic SIGMETs to the FDU for dissemination via the ATWS.

Note: If the FDU is not available, the CWSU must advise the TMWC who will disseminate the Oceanic SIGMET via the ATWS.

2. FDU must:

(a) Transmit Oceanic SIGMETs via the ATWS to C D T A for dissemination to ZBW and underlying terminal ATC facilities.

Note: When the FDU is not available to transmit Oceanic SIGMETs, the TMWC must assume transmittal responsibility.

(b) Verbally notify the OMIC and TMWC after the Oceanic SIGMET has been disseminated.

3. TMWC must:

(a) Review all Oceanic SIGMETs for content and to assess the geographical area and operational impact.

(b) Verify proper distribution via a weather information (GI) strip.

(c) Verbally notify the affected areas OS/CIC that an Oceanic SIGMET has been sent.

(d) Make an entry into the TMU 7230-4 after above notification has been made.

4. Controllers must:

(a) Broadcast Oceanic SIGMET information in a timely manner.

e. **CWAs/MISs.** The following will be accomplished when CWAs/MISs are generated by the CWSU. CWAs/MISs are only issued when the CWSU is open. CWAs are unscheduled statements for conditions similar to a SIGMET, typically on a smaller scale, which are in existence or beginning within the next two hours. CWAs are usually valid for up to two hours. MISs are non-technical plain language weather products intended for use in making traffic management decisions. MISs are usually valid for up to 12 hours.

1. Center Weather Service Unit (CWSU) must:

(a) Enter all CWAs/MISs into AISR, or other NWS operational systems, which will deliver it to ERAM and generate a weather information strip.

(b) Verbally notify the OMIC and TMWC of all CWAs/MISs.

NOTE: In the event of an ERAM outage, the responsibility for disseminating CWAs/MISs via the ATWS is delegated to the FDU. The TMWC must act as a back up to the FDU for the transmittal procedures.

2. TMWC must:

(a) Review all CWAs/MISs to assess the geographical area and operational impact.

(b) Verify dissemination to ERAM and proper distribution via a weather information strip.

(c) Verbally notify the affected areas OS/CIC that a CWA/MIS has been sent.

(d) Make an entry into the TMU 7230-4 after above notification has been made.

3. Controllers must:

(a) Broadcast CWAs in a timely manner.

f. **URGENT PIREPs.** The FAA JO 7110.10 Chapter 9 defines Urgent PIREPs (/UUAs). Some examples of Urgent PIREPs include Tornadoes, Severe or Extreme Turbulence, Severe Icing, Hail, and Low Level Wind Shear with fluctuations of 10 knots or more within 2000’ of the surface. Urgent PIREPs are a form of hazardous inflight weather and controllers must advise pilots when the conditions may impact operations within 150 NM of their sector or area of jurisdiction. PIREPs are valid for a period of one hour.

1. ZBW Urgent PIREPs (/UUA). The following will be accomplished when Urgent PIREPs are received from within ZBW.

(a) Controllers must:

(1) Forward the Urgent PIREP to the TMWC via ERIDS. If ERIDS is unavailable, controllers must forward PIREPs via a PIREP form to the OS/CIC who will hand-deliver the form to the TMWC.

(2) Immediately notify the area OS/CIC of all Urgent PIREPs. During midshift operations or when the OS/CIC position is not staffed, the controller must immediately notify the OMIC of all Urgent PIREPs at #6655/VSCS #0327.

(3) Advise pilots of Urgent PIREPs that may impact operations within 150 miles of their area of jurisdiction.

(b) OS/CIC must:

(1) Immediately notify the TMWC when an Urgent PIREP has been entered in ERIDS or submitted on a PIREP Form during normal business hours at #6406/VSCS #0355.

(c) TMWC must:

(1) Monitor ERIDS for electronic notification of relayed ZBW PIREPs.

(2) Receive notification from the area OS/CIC for all Urgent PIREPs submitted.

(3) Review Urgent PIREPs to assess the weather phenomena, geographical area, operational impact, and trends.

(4) Disseminate Urgent PIREPs via GI message to the appropriate areas/sectors/facilities.
Note: The TMWC must ensure affected adjacent facilities, which do not receive ZBWs GI messages, are made aware of PIREPs that may impact their operation. This does not preclude the TMWC from reaching out to facilities which do receive ZBW GI messages to verbally inform them of an imminent hazard due to its type or location. The TMWC is expected to use prudent judgment on a case-by-case basis.

(5) Verbally notify the OMIC, CWSU, and FDU of all Urgent PIREPs.

(6) Verbally notify any affected ZBW area/s of the Urgent PIREP.

(7) Notify ATCSCC Severe Weather of the Urgent PIREP.

(8) Make an entry into the TMU 7230-4 after above notifications are made.

(d) FDU must:

(1) Disseminate long line via AISR all Urgent PIREPs received on the FDU ATWS printer that do not contain a *T after the date/time stamp at the end of the PIREP message. The FDU is delegated this responsibility by the TMWC.
Note: When the FDU is not available to long line disseminate PIREPs via AISR, the TMWC must assume dissemination responsibility.

(2) Notify the TMWC anytime an Urgent PIREP without a *T has not been long line disseminated via AISR.

2. Terminal facility Urgent PIREPs (/UUA). The following will be accomplished when Urgent PIREPs are received from a Terminal facility.

(a) Terminal facilities are expected to:

(1) Relay all Urgent PIREPs to ZBW via long line dissemination through AISR.

Note: If unable to enter into AISR locally, Terminal facilities are expected to contact the FDU for assistance with long line dissemination and verbally relay PIREP information to the FDU. If the AISR system is not operational and Terminal facilities notify ZBW of received PIREP information, the TMWC must disseminate via GI message all Urgent PIREPs received from the Terminal facilities.

(b) TMWC must:

(1) Monitor AISR for electronic notification of relayed Terminal Urgent PIREPs.

(2) Review received Urgent PIREPs to assess the weather phenomena, geographical area, operational impact, trends, and correct AISR entry.

(3) Disseminate Urgent PIREPs via GI message to the appropriate areas/sectors/facilities. Note: The TMWC must ensure affected adjacent facilities, which do not receive ZBWs GI messages, are made aware of PIREPs that may impact their operation. This does not preclude the TMWC from reaching out to facilities which do receive ZBW GI messages to verbally inform them of an imminent hazard due to its type or location. The TMWC is expected to use prudent judgment on a case-by-case basis.

(4) Enter a *T after the date/time stamp at the end of an Urgent PIREP GI message if the Urgent PIREP was received through AISR and correctly entered by the Terminal facility.

Note: The *T will indicate to the FDU that the Urgent PIREP was received through AISR and does not require re-entry.

(5) Verbally notify the OMIC, CWSU, and FDU of all Urgent PIREPs.

(6) Verbally notify any affected ZBW area/s of the Urgent PIREP.

(7) Notify ATCSCC Severe Weather of the Urgent PIREP.

(8) Make an entry into the TMU 7230-4 after above notifications are made.

(c) FDU must:

(1) Disseminate long line via AISR all Urgent PIREPs received on the FDU ATWS printer that do not contain a *T after the date/time stamp at the end of the Urgent PIREP message. The FDU is delegated this responsibility by the TMWC.

Note: When the FDU is not available to long line disseminate Urgent PIREPs via AISR, the TMWC must assume dissemination responsibility.

(2) For Urgent PIREPs entered into AISR on behalf of a Terminal facility, provide the Urgent PIREP information to the TMWC by sending a message to the TMWC ATWS printer. Include a *T after the date/time stamp of that message to indicate the Urgent PIREP has already been long line disseminated.

(3) Notify the TMWC anytime an Urgent PIREP without a *T has not been long line disseminated via AISR.

(d) Controllers must:

(1) Advise pilots of Urgent PIREPs that may impact operations within 150 miles of their area of jurisdiction.

APPENDIX 1. BOSTON ARTCC ACRONYM LIST

A90	Boston Consolidated Tracon
A	Radar Flight Data, commonly; Assistant Controller or A-Side
A/G	Air-to-Ground
ABCT	Active Boundary Crossing Time
ACFT	Aircraft
ACID	Aircraft Identification
ACM	Adjacent Center Metering
AERT	Automation Embedded Route Text
AFSS	Automated Flight Service Station
AIRMET	Airmen's Meteorological Information
AISR	Aeronautical Information Service Replacement
AIT	Automated Information Transfer
ALNOT	Alert Notice
ALTRV	Altitude Reservation
AM	Amendment Message
ANG	Air National Guard
APREQ	Approval Request
AR	Aerial Refueling
ARCP	Air Refueling Control Point
ARINC	Aeronautical Radio Incorporated
ARIP	Air Refueling Initial Point
ARTCC	Air Route Traffic Control Center
ASP	Arrival Sequencing Program
ATC	Air Traffic Control
ATCAA	Air Traffic Control Assigned Airspace
ATCSCC	David J. Hurley Air Traffic Control System Command Center
ATCS	Air Traffic Control Specialist
ATCT	Air Traffic Control Tower
ATIS	Automatic Terminal Information Service
ATM	Air Traffic Manager
ATWS	Air Traffic Work Station
AWACS	Airborne Warning and Control System
BUEC	Backup Emergency Communications
CARF	Central Altitude Reservation Function
CAWS	Collaborative Aviation Weather Statement
CCFP	Collaborative Convective Forecast Product
CDR	Coded Departure Route
CIC	Controller In Charge
CIRNOT	Circuit Notice
CIWS	Corridor Integrated Weather System
CWA	Center Weather Advisory
CWSU	Center Weather Service Unit
DAICC	Domestic Air Interdiction Coordination Center

DART	Data Analysis Reduction Tool
DHART	Dartmouth-Hitchcock Advanced Response Team
DCT	Delay Countdown Time
DEN	Domestic Event Network
DJM	Dual Jack Mode
DME	Distance Measuring Equipment
DR	Discrepancy Report
DSP	Departure Sequencing Program
DVFR	Defense VFR
DYSIM	Dynamic Simulation
EDCT	Expect Departure Clearance Time
EDST	Enroute Decision Support Tool
ELT	Emergency Locator Transmitter
E-MSAW	Enhanced Minimum Safe Altitude Warning
ERAM	En Route Automation Modernization
ERIDS	En Route Information Display System
ESIS	Enhanced Status Information System
ESP	En Route Sequencing Program
ETA	Estimated Time of Arrival
ETMS	Enhanced Traffic Management System
ETMS-MAP	Enhanced Traffic Management System - Monitor Alert Program
FAA	Federal Aviation Administration
FAAO	Federal Aviation Administration Order
FACSFAC VACAPES	Fleet Area Control and Surveillance Facility Virginia Capes
FAM	Familiarization
FD	Flight Data
FDC	Flight Data Center
FDCS	Flight Data Communications Specialist
FDU	Flight Data Unit
FDEP	Flight Data Entry and Printout
FL	Flight Level
FLOP	Functional Lapse of Operational Processing
FP	Flight Plan
FPA	Fix Posting Area
FRD	Fix/Radial/Distance
FSDO	Flight Standards District Office
FSS	Flight Service Station
FTS	Federal Telecommunications System
FW	Fighter Wing
G/G	Ground to Ground
GDP	Ground Delay Program
GENOT	General Notice
GI	General Information
GS	Ground Stop
H	Handoff Position (Tracker)

HOCSR	HOST Oceanic Control System Replacement
IAFDOF	Inappropriate Altitude for Direction of Flight
IAW	In accordance with
ICAO	International Civil Aviation Organization
ID	Identification
IFR	Instrument Flight Rules
ILS	Instrument Landing System
INREQ	Information Request
IOT	Input/Output Terminal
IR	IFR Military Training Route
KVDT	Keyboard Video Display Terminal
LOA	Letter of Agreement
LOCID	Location Identifier
LOP	Letter of Procedure
LUFL	Lowest Usable Flight Level
MAP	Missed Approach Procedure
MC	Mission Coordinator
METAR	Aviation Routine Weather Report
MFT	Meter Fix Time
MIA	Minimum IFR Altitude
MIC	Meteorologist In Charge
MINIT	Minutes-in-trail
MIS	Meteorological Impact Statements
MIT	Miles-in-trail
MOA	Military Operating Area
MRU	Military Radar Unit
MSL	Mean Sea Level
MTR	Military Training Route
N90	New York TRACON
NADIN	National Airspace Data Interchange Network
NAR	North American Route
NAS	National Airspace System
NAVAID	Navigational Aid
NAWAU	National Aviation Weather Advisory Unit
NE ADS	North East Air Defense Sector
NM	Nautical Mile
NMAC	Near Mid-Air Collision
NOM	NAS Operations Manager
NOPAR	Do Not Pass To Air Defense Radar
NOSUM	NOTAM Summary
NOTAM	Notice to Airmen
NTAP	National Track Analysis Program
NWS	National Weather Service
NWSO	National Weather Service Office
OEDP	Operational Error Detection Program
OIS	Operational Information System

OMIC	Operations Manager In Charge
OPSNET	Air Traffic Operations Network
OS	Operations Supervisor
PAR	Preferential Arrival Route (Stage A)
PATWING5	NHZ Patrol Wing Five
PBCT	Proposed Boundary Crossing Time
PC	Personal Computer
PDAR	Preferential Arrival/Departure Route (Stage A)
PDR	Preferential Departure Route (Stage A)
PIREP	Pilot Weather Report
PWB	Pilot Weather Briefings
QA	Quality Assurance
QAR	Quality Assurance Review
R	Radar Position
RA	Radar Associate
RAN	Route Action Notification
RCAG	Remote Communications Air/Ground Facility
RCC	Rescue Coordination Center
RDP	Radar Data Processing
RENOT	Regional Office Notice
ROC	Regional Operations Center
RS	Remove Strip
RVSM	Reduced Vertical Separation Minima
SAA	Special Activity Airspace
SAR	Search and Rescue
SCATANA	Security of Air Traffic and Air Navigational Aids
SCM	Single Center Metering
SIA	Status Information Area
SIAP	Standard Instrument Approach Procedure
SIGMET	Significant Meteorological Information
SISO	Sign In-Sign Out
SODAR	Simultaneous Opposite Direction Aerial Refueling
SOP	Standard Operating Procedures
SP	Stereo Flight Plan
SR	Strip Request
STAR	Standard Terminal Arrival Route
STMC	Supervisory Traffic Management Coordinator
SUA	Special Use Airspace
SVFR	Special Visual Flight Rules
SWAP	Severe Weather Avoidance Plan
SWM	Severe Weather Management
TACAN	Tactical Air Navigational Aid
TAF	Terminal Forecast
TBM	Time Based Metering
TC	Traffic Count
TCAS	Traffic Collision Avoidance System

TEC	Tower En-Route Control
TERM	Terminal
TFR	Temporary Flight Restriction
TMA	Traffic Management Advisor
TMAC	Traffic Management Arrival Coordinator
TMC	Traffic Management Coordinator
TMC-C	Traffic Management Coordinator - Center
TMC-T	Traffic Management Coordinator - Terminal
TMDC	Traffic Management Departure Coordinator
TMEC	Traffic Management Enroute Coordinator
TMI	Traffic Management Initiative
TMMC	Traffic Management Military Coordinator
TMNC	Traffic Management NAS Coordinator
TMS	Traffic Management System
TMU	Traffic Management Unit
TMWC	Traffic Management Weather Coordinator
TRACON	Terminal Radar Approach Control Facility
UCWA	Urgent Center Weather Advisory
USNOF	United States NOTAM Office
UTC	Coordinated Universal Time
UW	Upper Winds
VDM	VSCS Display Module
VFR	Visual Flight Rules
VM	Virtual Machine
VOR	VHF Omni-Directional Radio Range
VOR-DME	VOR and DME (collocated)
VORTAC	VOR and TACAN (collocated)
VR	VFR Military Training Route
VSCS	Voice Switching Communications System
VTABS	VSCS Training and Back-Up System
WARP	Weather and Radar Processor
WC	Weather Coordinator
WCLC	Watch Checklist Complete
WIND	Weather Information Network Display
WR	Weather Request
WFO	Weather Service Forecast Office(s)
WMSCR	Weather Message Switching Center Replacement
WSOM	Weather Service Operations Manual
WX	Weather
Y90	Yankee Tracon
ZBW	Boston ARTCC
ZDC	Washington ARTCC
ZNY	New York ARTCC
ZOB	Cleveland ARTCC

APPENDIX 2. BOSTON ARTCC DUTY FAMILIARIZATION AND TRANSFER OF POSITION RESPONSBILITY CHECKLISTS

Located in this appendix are checklists that must be used when assuming positions identified as requiring duty familiarization and/or a transfer of position responsibility. This includes checklists that must be used during position relief briefings.

A2-1. OMIC POSITION CHECKLISTS

A2-1-1. OMIC Position Relief Briefing Checklist

<table>
<tr><th colspan="2">OMIC Position Relief Briefing Checklist</th></tr>
<tr><td>1. Review WX:
a. WARP
b. CIWS
c. PIREPS
d. AIRMETs
e. SIGMETs
f. CWAs</td><td>8. TMIs, TFRs, VIP</td></tr>
<tr><td>2. OMIC Clipboard: Review</td><td rowspan="2">9. Scheduled Events:

0800L: Stand-up Briefing
0800L: Stuck Flight Plan Report
0830L: Verify ART Certified-Areas A-E, FD and TMU
1545L: Stand-up Briefing</td></tr>
<tr><td>3. Equipment Status:
a. ERAM
b. CPDLC
c. ERIDS</td></tr>
<tr><td>4. Active Items Binder:
a. BSEs
b. Currency
c. Training
d. Chart date changes
e. Other Items</td><td>10. Next day Supervisor schedule</td></tr>
<tr><td rowspan="2">5. ZBW Log review:
a. Equipment released/OTS/Carryovers
b. Pre duty WX briefing
c. Pre duty TEAM MBIs
d. Daily frequency check followed by WCLC
e. Currency Review (Notification and log entries see Active Items Binder)
f. DALR Normal Ops Verified followed by WCLC
g. Sunday: emergency checklists at all sectors followed by WCLC
h. VTABS followed by WCLC
i. GENOT/RENOT
e. Other Items</td><td>11. Tracks: Departure fixes reference WX and staffing</td></tr>
<tr><td>12. Training:
a. eLMS
b. Training Initiatives
c. Briefings
d. Other</td></tr>
<tr><td>j. OS/CIC/CPC Coverage in each Area, Flight Data staffing</td><td>13. Leave requests/Phones</td></tr>
<tr><td>6. OMIC files for today and tomorrow</td><td>14. Initials</td></tr>
</table>

A2-1-2. MIDSHIFT CHECKLIST

Shift Start

a. **Obtain Position Relief Briefing**: Use Initials to close.

b. **Review Daily Record of Operation:** FAA Form 7230-4.

c. **Sign on 7230-4 as: "Y. Name on."**

d. **Before Area OSs depart**:

1. Remind them to certify their ART.
2. Verify strip collection is complete.
3. If traffic is late/heavy, get input regarding the need for approach controls to stay open later; call facilities to arrange if necessary.

e. **Review Weather Briefing**

f. **Check Control Room operations to ensure sectors are configured and staffed appropriately.**

g. **Check with NOM (NAS Operations Manager) X6729 for scheduled outages.**

h. **NOTAMS Handled by FDU, when staffed**.

i. **During ERAM Operations**: After combining or decombining any facility utilize RC command to verify all fix postings are correct. A list of correct fix postings is kept in the OMIC Mid Shift Binder.

j. **PT APCH CLOSINGS:**

NOTE: When the PT Apch Cntls (BTV/A90 Cape Area/PVD/PWM) call the ZBW sectors to combine the airspace, the ZBW sector will call the OMIC via the VSCS and request that the airspace be combined with the center.

1. **2200L:**

(a) A90 Cape Area calls Sector 18 - 18 calls OS/CIC
Execute text file: –A90MIDCAPE

2. **MIDNIGHT:**

(a) PWM calls Sector 16 - 16 calls OMIC-Execute text file:
–PWMCLOSE
(b) BTV calls Sector 52 - 52 calls OMIC-Execute text file:
–BTVMID
(c) Turn off Tower Printers-Execute text file:-
TMUTWRSCLOSE
NOTE: This shuts off tower printers that are not staffed 24/7.

(d) BGR calls OMIC during midshift to reconfigure-Execute text file:
–BGRMID.
(e) ALB calls OMIC during midshift to reconfigure-Execute text file:
–ALBMID
NOTE: If you don't hear from the sector, call to verify the status of airspace.

k. **LOGS:**

1. Verify the daily log (7230-4). Ensure WCLC appears on form, if not, call the NOM at 6729 and ask what time the tapes were certified & enter this time as Normal Ops verified, WCLC on 7230-4.
2. Print and sign 7230-4
3. To open new 7230-4: "Edit", "Date", enter new date, close log and reopen, new date will now appear on log.
4. 7230-4 ENTRY: "**Y. Name, on. (if Carryovers) Carryovers: (specify).**

l. **CURRENCY:**

1. **Commencing on the 20th of the month, ensure appropriate currency entries are on the log for both day and evening shifts. "Operational Currency Dashboard reviewed. Plans to achieve currency have been initiated."**

m. **MON-SAT 0030L, SUN 0000L** or as coordinated:

1. PVD call Sector 34 - 34 calls OMIC-Execute text file:
–PVDMID

n. **0100L:**

1. ORH-calls OMIC- Execute text file:-ORHMID

o. **COLLECT:** Place the following forms in a holey envelope addressed to ZBW1.1:

1. Signed 7230-4
2. FAA Form 3120-25s
3. OT worksheets

p. **CERTIFY CRUART** for TMU/FD/OM/A/B/C/D/E

q. **WMT SCHEDULER:**

1. Save next 3 days of WMT Scheduler for Areas A/B/C/D/E/TMU and OS.
2. Save next 3 days of WMT Available for Overtime Report for Areas A/B/C/D/E/TMU and OS.

r. **CIC LIST BUSINESS OBJECTS:**

1. Print CIC List from Business Objects for Areas A/B/C/D/E and TMU.

s. **0400L:** The following text file entry at the ATWS turns on the TMU & tower printers, allowing strips to print prior to the facilities opening:

1. Execute text file:
   -TMUTWRSOPEN (prior to publishing AIRMETs)

t. **PART TIME APPROACH CONTROLS:**

NOTE: Advise sector that you are turning on automation.

1. When Requested
   (a) **ALB Apch - OMIC**
   Execute text file:-ALBDAY
   (b) **BTV Apch - Sector 52**
   Execute text file:-BTVDAY
   (c) **BGR Apch – OMIC**
   Execute text file:-BGRDAY
   (d) **PVD Apch - Passes Active Rwy & Arrival Rate (tell TMU) - Sector 34**
   Execute text file:-PVDDAY
   (e) **PWM Apch - Sector 16**.
   Execute appropriate text file:
   -PWMOPEN or
   -PWMTRACAB
   (f) **A90 Cape Area- Check w/TMU for TMIs affecting A90 Cape Area- Sector 18**
   Execute appropriate text file:
   -A90North (This is the file to run when A90 opens for the day)
   -A90South (A90 will ask for this when they want all strips to go to South Printer.)
   -A90Split (A90 will ask for this when they want printers spilt North/South)
   (g) **SYR Apch or SYR Tower may call to reconfigure FDIO**
   Execute text file:-SYRDAY or -SYRMID
   (h) **OQU Tower may call to reconfigure FDIO**.
   Execute text file:-OQUDAY or -OQUMID
   (i) **PSM GCA may call to reconfigure FDIO**.
   Execute text file:-PSMDAY or –PSMMID

u. **MISCELLANEOUS**

1. ZBW 7110.33, Chapter 3 spells out OMIC requirements.
   (a) OMIC DESK GUIDE contains detailed information & references to most things you will encounter on the MIDS
2. NOM has Master Key for facility. OMIC has sub master (Key #2) will open most doors
3. Phone #s for Ops Mgrs/Support Mgrs/Air Traffic Mgrs are under the Plexiglas near phone.

NOTE: If there is anything that you can't figure out, call one of these people.

Saved on J Drive J:\DATA.GRP\Operations Mgrs\Watch Desk\OMIC POSITION INFO BINDER/Mids

A2-2. OS/CIC POSITION CHECKLISTS

A2-2-1. OPEN POSITION CHECKLISTS

OS/CIC Open Position Checklist-- AREA A, C, D, E	
1. SIAs	5. Get air checks on all available frequencies-notify OMIC when complete.
	6. ESIS-Verify Configuration
2. Get Opening Briefing from Watch Desk	7. Review Training/Other Duty Assignments
3. Unforward Calls From Watch Desk	8. Move Next Day Schedule and Leave Pages on Clipboard—Compare Scheduled Employee Worksheet to ART
4. Open OS/CIC in ART	9. Give Watch Desk Next Days Staffing Info

OS/CIC Open Position Checklist--AREA B	
1. SIAs	5. Get air checks on all available frequencies-notify OMIC when complete.
2. Get Opening Briefing from Watch Desk	6. ESIS-Verify Configuration
3. Unforward Calls From Watch Desk	7. Review Training/Other Duty Assignments
4. Open OS/CIC in ART	8. WMT Review

A2-2-2. POSITION RELIEF BRIEFING CHECKLISTS

OS/CIC Position Relief Briefing Checklist—AREA A	
1.SIAs	7. Military Special Use Airspace Special Operations Warning Area Activity
2. Staffing Training-MBI/CBI/ELMS/OJT Details/Briefings Leave Requests	
3. Equipment Radar/Radios/NAVAIDS	8. Special Activities NORDO/DEN/PAJA
4. ERAM Outage and Status Buttons Acknowledge Outages Verify Sector is on Active Channel Check Text Files Remove Unneeded	9. Staffing Expectations Sectorization Shift Plan
5. WX Trends Altimeters Turbulence Icing PIREPs	10. Sign in Sign in ART Sign On-Off Computer
6. Airport Conditions Status Activity RWY (06 at MHT, 15 at BOS in use)	11. Traffic Review ESIS Flow Holding Deviations

OS/CIC Position Relief Briefing Checklist—AREA B and D	
1.SIAs	7. Military Special Use Airspace Special Operations Warning Area Activity
2. Staffing Training-MBI/CBI/ELMS/OJT Details/Briefings Leave Requests	8. Special Activities NORDO/DEN/PAJA
3. Equipment Radar/Radios/NAVAIDS	9. Staffing Expectations Sectorization Shift Plan
4. ERAM Outage and Status Buttons Acknowledge Outages Verify Sector is on Active Channel Check Text Files Remove Unneeded	10. Sign in Sign in ART Sign On-Off Computer
5. WX Trends Altimeters Turbulence Icing PIREPs	11. Traffic Review ESIS Flow Holding Deviations
6. Airport Conditions Status Activity Descend Via in use	

OS/CIC Position Relief Briefing Checklist—AREA C	
1. SIAs	7. Military Warning Areas TFRs/Fighter Caps
2. Staffing Training Details Briefings Leave Requests	8. Special Activities NORDO/ DEN
3. Equipment Radar/Radios/NAVAIDs	9. Staffing Expectations
4. ERAM Outage and Status Buttons Verify Sector is on Active Channel	10. Sign in Sign in/off ART Log off computer
5. WX Trends Convective Activity Altimeters PIREPs - Turbulence/Icing Deviations	11. Mid Ops
6. Airport Conditions Open/Closed Active Runway Descend Via	12. Traffic Review ESIS Flow Holding Deviations

OS/CIC Position Relief Briefing Checklist—AREA E	
1. SIAs	7. Military Special Use Airspace Special Operations
2. Staffing Training MBI/CBI/ELMS/OJT Details Briefings Leave Requests	8. Special Activities NORDO DEN
3. Equipment Radar Radios NAVAIDS	9. Staffing Expectations Sectorization Shift Plan
4. ERAM Outage and Status Buttons Acknowledge Outages Verify Sector is on Active Channel Check Text Files Remove Unneeded	10. Sign in Sign in ART Sign On-Off Computer
5. WX Trends Altimeters Turbulence Icing	11. Traffic Review ESIS Flow Holding Deviations
6. Airport Conditions Status Activity	

A2-2-3. CLOSE POSITION CHECKLIST

OS/CIC Close Position Checklist	
1. Complete strip collection. Bundle flight progress strips, label with Area/ Sector and date. Place in appropriate bin in strip retention cabinet. Discard bundles of strips that are over 15 days old.	4. Certify ART
2. Forward Calls to Watch Desk press call fwd button and dial 6655	5. Close OS/CIC in ART. Certify ART.
3. ESIS—Auto Accept to Restrictions	6. Call OMIC through VSCS (dial INIT 0327). Give briefing to include staffing; Mid Shift in/not Names of Those on Mid Sector Configuration Any instructions relayed to those remaining on position.

A2-3. TRAFFIC MANAGEMENT UNIT CHECKLISTS

A2-3-1. STMC CHECKLISTS

STMC Open Position Checklist	
1	SIAs
2	Get opening briefing from Watch Desk
3	Unforward calls from Watch Desk
4	Undo VSCS call forward
5	Open NTML/ESIS
6	Prepare logs for daily use (EDCT/Reroute/Delay, etc.)
7	Check Military for early ALTRVs/Airspace
8	Check NAVAID outage sheet
9	Check schedule page/ART for accuracy
10	Check FP Drop and set at 120
11	Give Watch Desk next day’s staffing info.

STMC Position Relief Checklist	
1	Status Information Area (ESIS)
2	Equipment Status
3	Forecasted Weather for ZBW/NAS (confirm receipt of WX briefing)
4	BOS Airport Conditions and Information
5	FSM
6	NTML
7	Alert Monitor
8	Special Activities (Photo Missions, TFR/VIP, etc)
9	TELCON Information (upcoming TELCONS, overview of previous TELCONS)
10	Staffing
11	Training

STMC Close Position Checklist	
1	End of shift summary NTML
2	Close NTML log
3	Paperwork/logs/reports/strips in Daily Envelope
4	Verify military prepared for midshift/next morning
5	Forward phone to Watch Desk at 6655 and VSCS to 0327
6	Close STMC/CIC in ART
7	Brief OMIC
8	Certify ART

A2-3-2. TMC CHECKLISTS

TMWC Position Relief Checklist	
1	Status Information Area (SIA) strips
2	Equipment Status
3	AISR Entries
4	7230-4 Pertinent Log Entries
5	PIREPs - Routine/Urgent
6	Current/Pending inter/intra-facility Coordination
7	WX Impacted Routes/Areas/NATs
8	WX impacted Airports
9	Forecasted Weather for ZBW/NAS (confirm receipt of WX briefing)
10	WX Telcons/Status

TMAC Position Relief Checklist (Meter)	
1	Status Information Area (ESIS)
2	Equipment Status
3	Airport Condition Status (runway configuration, braking action, etc)
4	Airport Activities (tall ship, snow removal, etc)
5	Weather Conditions Affecting Airport and Holding Areas
6	TBFM Configuration
7	Volume for Each Arrival Fix
8	FSM Outlook
9	Special or Unusual Activities
10	Pertinent Operational NOTAMs

TMNC Position Relief Checklist	
1	Status Information Area (ESIS)
2	Equipment Status
3	Weather
4	NTML
5	NATOTS
6	Monitor Alert
7	FSM
8	Special Activities (photo mission, VIP, etc)
9	*Review Checklist of Positions combined to TMNC*

TMDC Position Relief Checklist (Reroutes)	
1	Status Information Area (ESIS)
2	Equipment Status
3	Weather
4	Current Reroutes and Exemptions
5	Pending Reroutes
6	Special Activities (NASCAR, TFR, etc)

TMEC Position Relief Checklist (DSP)	
1	Status Information Area (ESIS, Strips)
2	Equipment Status
3	Airport Conditions/Activities (de-icing, etc)
4	Weather
5	IDAC Settings
6	Special Instructions (MIT exemptions/reductions, offloads, etc)

TMML Position Relief Checklist	
1	Status Information Area (white boards and clipboards)
2	Equipment Status
3	W105 Status
4	Lightning Status
5	ALTRVs
6	SAMS
7	EDST
8	Special Activities (Photo Missions, etc)

Military Coordinator Position Morning Shift Checklist	
1	Check Date File for Daily Missions.
2	Check 9-ANE-ZBW-SUA email and print relevant documentation. o Upon receipt TMML must enter airspace into SAMs. o Refer to Military Reference Binder for Specific Instructions. o Post schedules/SUA info as needed (Date File or Military Reference Binder). o Once email has been acted upon mark as complete with RED Completed Category. o
3	Verify SAA is scheduled into ATWS G2 for accuracy.
4	Look for conflicts on the schedule and with ALTRVs.
5	Special Interest Flights: Normal operations (FDU) has primary responsibility for identification/verification o Receive the list of SIF that will traverse ZBW airspace from FDU. o Distribute to each affected area, OM, and TMU SIF clipboard. o Advise STMC/TMCIC of SIF flight list for TSD input. When FDU is not available (TMU has secondary responsibility for identification/verification) o Log into the Special Interest Flights SIF website https://aspm.faa.gov/sif o Review and identify all SIF flights that transition ZBW airspace. o Verify that filed routes of proposed non-Part 129 flights comply with approved FAA routes. o Print the lists of SIF flights for the day's operation. Identify NON-Part 129 certified operators requiring approved routing and whose deviations must be reported to the DEN. o Make copies for each affected area, OMIC, Flight Data and TMU SIF clipboard. o Advise STMCIC/TMCIC of SIF flight list for TSD input.
6	Write Airspace GI/ALTRV delivery times on white board (1hr. prior to activation or departure/entry for ALTRV).
7	Call Adjacent Facilities and coordinate active airspace after 0630L.
8	Distribute daily airspace log (7610.14A), Warning Area Activity Sheet (7610-12) and SIF List to the appropriate operational areas, watch desk and flight data.
9	Provide STMC/TMCIC with pertinent military operations prior to 0800L Standup.

Military Coordinator Position Evening Shift Checklist	
1	Obtain next day's schedule worksheet and all other pertinent schedules from 9-ANE-ZBW-SUA. o Upon receipt, TMML must enter airspace into SAMs. o Post schedules as needed (Date File or Military Reference Binder). o Once email has been acted upon mark as complete with RED Completed Category. o Refer to Military Reference Binder for Specific Instructions regarding airspace as needed.
2	Check the Next Day Date File or Military Reference Binder and verify all coordination is complete and processed.
3	Check ALTRVs on White board, Inbox and In-process Box.
4	Enter appropriate schedule action entries in SAMS. Check and resolve conflictions. Verify all scheduled airspace NOTAMS are in the NOTAM LOG PENDING section.
5	Complete Daily Airspace Logs the Electronic Assigned Airspace Log (ZBW Paper Form 7610-14A) and Warning Area Activity Log (7610-12).
6	Enter airspace schedules in the ATWS G2 in the off position as per EADS schedule except for DEEPWOODS MOA, R6501A/B and R5206 (Scheduled Position).
7	Staple and place daily logs and items from Date file in Monthly file folder once missions are completed.
8	File SIF printouts in the Military file cabinet in the SIF folder.
9	Brief STMC/CIC/OMIC on any active missions/airspace.

BOS Meter Open Position Checklist	
1	Take back calls, both VSCS and landline (un-forward *908)
2	Get Briefing from CWSU
3	Setup TFMS TMU BOS METER
4	NK BOS/ON to display data block on the radar scope
5	Call BCT for briefing on runways/rate/wind, and give them what time TBM will start
6	Call areas (provide start time and expected delay)
7	Ensure TBM/CFR has been GI'd, and entered on ESIS
8	Ensure that a NTML restriction was sent to N90 to CFR
9	Set Runway configuration, confirm timelines are correct (BOS1RWY, BOS2RWY, offset)
10	Set MATRIX Buffer and Miles-In-Trail
11	Turn freeze horizon ON (F1 → Control →Freeze Horizions →On)
12	Ensure flights are in sequential order on timeline
13	Confirm EDCT on (F1 "CONFIRM EDCT Check BOS")

14	Ensure Broadcast Status Indicator is on (CTRL + D)
15	Ensure Hovering ON (F1 → Satellite → Parameters → ETD Hovering)
16	Show meter list & two-way ERAM connection
17	Broadcast → ALL **(Must broadcast to show times "on glass")**
****ENSURE 6 SECONDS BETWEEN BROADCASTING PROGRAM CHANGES****	

BOS Meter Close Position Checklist	
1	Advise areas to cancel/suspend metering
2	GI cancel metering
3	Ensure the NTML/ESIS are canceled
4	Remove meter times from the glass (F1 uncheck Show Meter List & Two Way ERAM Connection)
5	Turn Freeze Horizons Off (F1→Control→Freeze Horizions→Off)
6	Broadcast All
7	Forward calls back [redacted]

A2-4. SECTOR POSITION CHECKLISTS

A2-4-1. POSITION RELIEF BRIEFING CHECKLIST

R/RA/H/A Position Relief Briefing Checklist	
1. SIA	10. SPL INFO COMM/TRAFFIC
2. ACTIVE CHANNEL	11. PO/HLDG
3. OUTAGES	12. PRI W/NO TAG
4. EQUIPMENT/NAVAID	13. HANDED OFF
5. RADAR/RADIOS	14. NONRVSM
6. AIRPORT CONDITIONS/STATUS	15. NON RDR/ STANDING BY
7. WEATHER/TRENDS	16. VFR ACFT
8. SPL ACTIVITY	17. ACFT RLSD
9. TRAINING	18. COORD AGRMTS

A2-4-2. COMBINING/DE-COMBINING ZBW SECTOR CHECKLIST

Combining/De-Combining ZBW Sector Checklist	
1. Initiator (normally the OS/CIC) must begin action after coordination with RADAR Team(s).	6. Receiving ATCS accepts handoffs and control of frequencies
2. Receiving ATCS configures the RADAR, monitors appropriate frequencies and obtains necessary strips.	7. Call forwarding is initiated in VSCS as necessary
3. Initiator ensures automation entries are made	8. Receiving ATCS verbally notifies adjacent facilities/sectors (for de-combining sector)
4. Transferring ATCS gives briefing utilizing Position Relief Checklist, initiates handoffs, releases control of frequencies.	9. Transferring ATCS verbally notifies adjacent facilities/sectors (combining)
5. Transferring ATCS initiates communication changes as necessary.	

A2-4-3. OPENING/CLOSING APPROACH CONTROL BRIEFING CHECKLIST

Opening/Closing Approach Control Briefing Checklist	
1. NAVAID Status	4. NOTAMS and/or any known condition that might restrict approach or landing
2. Airport conditions/activity	5. Traffic
3. Special Activities	

A2-4-4. FDU SIA

FDU SIA	
1. EQUIPMENT STATUS a. ERAM b. AISR c. VSCS/PHONES d. ERIDS e. TFMS f. LAN/PC	3. DAILY ITEMS a. ALNOT/INREQ b. NOTAM COORDINATION c. TFR NOTAMS / AIRSHOWS / PUBLIC EVENTS / POLICE ACTIVITY d. WEATHER / RADAR OUTAGES / PIREPs e. ZBW FLIGHT PLANS
2. SYSTEMS a. NADIN b. FNS/NES c. AISR d. WMSC/ASOS e. GUARD	4. SPECIAL EVENTS a. MILITARY EXCERCISES b. ZBW EVENTS
	5. COMSEC a. SECURITY CONTROL POINT b. EQUIPMENT

A2-5. DEFINITION OF CHECKLIST ABBREVIATIONS

COMM – Communication Status (Two-way communication has been verified or the aircraft has been transferred to the next frequency)

COORD AGRMTS - Coordination agreements with other positions.

PO- Point out aircraft.

HLDG- Holding aircraft.

HANDED OFF - Aircraft handed off but still in the airspace.

NON RDR - Non-RADAR operations.

SPL ACTVY ACFT - Special activity aircraft, e.g., aircraft operating in a special use area/airspace, photo mission, etc.

SPL INFO - Special problems, requests, or instructions

STANDING BY - Aircraft standing by for service.

VFR ACFT - VFR advisory aircraft.

ACFT RLSD - Aircraft released but not yet airborne.

PRI W/NO TAG - Primary target with no associated alphanumeric characters.

NON-RVSM - Non RVSM exception aircraft operating in RVSM airspace.

WX--Weather

APPENDIX 3. SYSTEM/PROGRAM CHECKLISTS

A3-1. TEMPORARY FLIGHT RESTRICTION (TFR) REQUEST CHECKLIST

A3-1-1. OMIC TFR CHECKLIST

The 91.137 TFR Request Checklist (A3-1-2) must be used in conjunction with the OMIC TFR CHECKLIST to create a TFR when requested by Law Enforcement or other Agencies.

a. Solicit assistance from another OM, STMC or OS so you may focus on the TFR request.

b. Start a written log of times and phone calls and record on the -4 when time permits.

c. Record, at a minimum, the following information:

1. Name of Agency requesting the TFR.

2. Name of person (PoC) requesting the TFR.

3. Contact phone number.

4. Badge Number.

5. Reason for TFR request.

(a) Requestor should clearly explain the Hazard.

(b) Who could get hurt and how?

(c) You need enough information to determine the type of TFR needed.

6. Location in LAT/LONG format

(a) If LAT/LONG is not available, get street address:

(1) To obtain L/L go to https://latlong.net and enter the street address (street, city and state or intersecting street names, city and state (ex. Main St and Canal St, Nashua, NH) or the name of the location (ex. Boston ARTCC, Nashua High School South, Pheasant Lane Mall). This will display the location on the map and give you the Lat/Long and the GPS coordinates.

(b) Enter coordinates in degrees/minutes/seconds format and the NM radius form the center point.

(1) Enter multiple coordinates to define the TFR boundary, list coordinates clockwise around the perimeter.

7. Expected duration of TFR or UFA.

8. Size of TFR requested:

   (a) Radius in miles (usually 2-3 miles)

   (b) Height (usually 2000-3000 AGL or MSL)

9. NOTIFY Facility Manager or QC Manager and ROC that you have a request for a TFR.

10. Determine if request is legitimate and warrants a TFR. (ref. FAA 7210.3AA) and determine what type:

   (a) 91.137(a)(1) Protect persons and property on the surface or in the air from an existing or imminent hazard associated with an incident on the surface when the presence of low flying aircraft would magnify, alter, spread or compound that hazard.

      (1) **Requires SOSC Approval.** Law enforcement activities that present a direct hazard to aircraft or where aircraft may increase danger to personnel on the ground (SWAT, riot suppression, etc.).

      (2) Toxic gas leaks/spills, natural gas venting, flammable agents/fumes, explosive hazards, volcanic activity, etc. that present DIRECT harm to aircraft/pilot/crews in the air or people/property on the ground.

      (3) TFRs for hijacking are issued by HQ or Service Center in coordination with the DEN.

      NOTE: All (a)(1) TFRs must be coordinated with Service Center OSG and the SOSC ([redacted].

   (b) 91.137(a)(2) Provide a safe environment for the operation of disaster relief aircraft.

      (1) Firefighting-Fire name

      (2) Search and Rescue

      (3) Disaster relief activities following floods, earthquake, tornado, etc.

      NOTE: TFRs for pre-disaster planning and/or staging are NOT authorized.

   (c) 91-137(a)(3) Prevent an unsafe congestion of sightseeing and other aircraft above an incident or event that may generate a high degree of public interest.

      NOTE: (a)(3) TFRs require HQ authorization.
      NOTE: If you cannot determine the type required, call the Service Center for help.

11. Evaluate the impact to the NAS. TFR should be limited to the amount of airspace required for safety with the least impact to the NAS.

   (a) The requestor provides the hazard area.

(b) You can negotiate with the requestor to lessen the impact to the NAS.

(c) DO NOT determine or assign the hazard area.

(d) If the area is excessive, or negatively affects operations, you can ask the requestor for justification.

12. Coordinate Location, Altitude and effective times with:

(a) ATC Facilities

(1) Impacted FAA Facilities
(2) ROC
(3) OSG
(4) Sys Ops Security (as required in 7210.3 19-2-7(d))

(b) Other affected entities:

(1) SUA using agency
(2) Public use airports
(3) Etc.

13. Approve TFR if satisfactory and complete.

14. FDU: Ensure TFR information is entered into NES.

(a) Print a preview of the TFR and deliver to Watch Desk for review/approval.

(b) Include a Radial/DME info and/or graphics to help identify the TFR location.

(c) Transmit the approved TFR NOTAM to USNOF for publication and deliver a copy of the published NOTAM to the Watch Desk.

NOTE: Law Enforcement Operation/Activity is acceptable language for a NOTAM when it is for a barricaded subject, SWAT activity or active shooter. For other activities, the NOTAM must include the specific hazard/reason (chemical spill, explosive device, aircraft accident, etc.)

15. NOTAM: **[**Must comply with Procedures detailed in FAA 7930.2]

(a) Through system interface, the NOTAM requestor must forward the NOTAM information directly to the USNOF for FDC NOTAM issuance and to the FSS nearest the incident site for coordination purposes. The NS disseminates FDC NOTAMs, and the FSS must act as "coordination facility" for preflight briefings for the ARTCC.

(b) The NOTAM must follow FAA 7930.2 4-2-1.b.1-2, including:

(1) ARTCC designator/location (mandatory) followed by the state(s) abbreviation; for example: ZDC VA.

(2) Keyword “AIRSPACE.”

(3) City/Location(s), State(s) for each area; for example: Detroit, MI Ann Arbor, MI...; Beale AFB, CA...; Libby AAF, AZ...; Hibbing, MN...; Fargo, ND.

(4) Description of activity: “TEMPORARY FLIGHT RESTRICTIONS.”

(5) Plain language effective date; for example, February 26, 2014 LOCAL (applicable to 14 CFR Sections 91.141 and 99.7 only).

(6) The phrase “PURSUANT TO TITLE 14 CFR SECTION 9X.XXX…(the appropriate paragraph and sub-paragraph number) (plain language text, as needed). Include the phrase “PURSUANT TO 49 USC (section)…” as required for 14 CFR Sections 91.141 and 99.7 only.

(7) Description of area or areas impacted; each area will contain:

i. Stated as “WI AN AREA DEFINED AS…” and if appropriate “…TO POINT OF ORIGIN.” The area is defined as a nautical mile radius of a latitude/longitude, or an area defined by latitude/longitude or fixes. As necessary, include an alternate description as a fix/radial/distance in parentheses, to help clarify the location. For example, X (alt X) TO Y (alt Y) TO Z (alt Z).

ii. Lower limit then upper limit, or height, (when needed). Limits must be specified, as:

- For SFC, or 1 to 17,999FT with the unit of measurement (AGL or MSL). 1275FT AGL, 10500FT MSL.

- For 18,000FT and above, express in flight levels (FL), FL180, FL250, FL850, or UNL (altitudes greater than 99,900).

- Heights AGL may be added, for example, SFC-450FT AGL.

iii. Schedule of individual area, if needed. For example, EFFECTIVE 1402271900 UTC (1400 LOCAL 2/27/14) UNTIL 1402280200 UTC (2100 LOCAL 2/27/14). If a daily (or MON WED FRI) time is required, DLY 1900-0200 (1400-2100 LOCAL).

NOTE−Repeat (7) (i.)- (iii.), as necessary, for each defined area.

iv. Reason or purpose (when needed).

v. The FAA coordination facility and commercial telephone number.

vi. Remarks (when needed). Include other information that is required or considered important to the pilot.

NOTE: Do not use the 1−800−WX−BRIEF telephone number for the flight service stations.

vii. Start of Activity/End of Validity.

16. Refer all media requests for information to the SOSC: (1-202-267-8276)

17. Reference Documents:

(a) FAA 7930.2
(b) FAA 7210.3
(c) ZBW 91.137 TFR Request Form

A3-1-2. 91.137 TFR REQUEST FORM/CHECKLIST

Date/time: _____ **Received by:** _____

Requested by: _____
Method: Phone___ Fax___ NES ___ *(name/org/contact number)*

Reason for restriction: _____

Type TFR: (a)(1) ___ (a)(2) ___ Fire Name/Frequency: _____
(a(2) firefighting TFR)

Location: _____ **Altitude:** _____
(general location city/town/state) *(MSL/AGL)*

Area to be protected: *(circle or polygon, coordinates in degrees/minutes/seconds)*

Start date/time: _____ **End date/time:** _____
(UTC) *(UTC)*

Restriction required 24/7: _____ or **From** _____ **to** _____ **daily**
(yes/no) *(UTC)* *(UTC)*

Agency in charge: _____

Point of Contact: _____
(name / phone number)

FAA Coordination Facility: _____
(name / ID / phone number)

Approving authority: _____
(OM/WS Name)

Evaluation/Coordination/Notification

ATC _____ _____ _____ **ATC** _____ _____ _____
(Facility) *(Date/Time)* *(Initials)* *(Facility)* *(Date/Time)* *(Initials)*

SUA _____ _____ _____ **Other** _____ _____ _____
(ID) *(Date/Time)* *(Initials)* *(ID)* *(Date/Time)* *(Initials)*

ROC/OSG ([redacted]) _____ **SOSC** [redacted] _____

NOTAM Number _____ **Disseminated** _____
(Attach Copy) *(Date/Time)*

A3-2. GENOT AND RENOT PROCEDURES

a. FDU must deliver GENOT/RENOT messages to the Operations Manager-in-Charge (OMIC).

b. Operations Manager-in-Charge (OMIC). Upon receipt of a GENOT/RENOT the OMIC must:

1. Review the message and determine if immediate distribution is required.

   (a) If immediate distribution is required, follow the steps below and procedures in FAA 7210.3.

      (1) During Administrative hours, contact ZBW-17 for distribution via TEAM.

      (2) During Non-Administrative hours or without adequate time to disseminate via TEAM.

         i. OMIC or designee will disseminate utilizing paper sing-off rosters. Notify ZBW-17 for TEAM entry of the briefing material and acknowledgements.

2. If immediate distribution is not required, ensure delivery to ZBW-17 on the next administrative day.

3. Log the receipt of a GENOT/RENOT on FAA Form 7230-4 Daily Record of Facility Operations.

c. The Support Manager for Training must:

1. In conjunction with the office of primary responsibility, ensure that all employees with a need to know are thoroughly briefed on the change prior to performing their duties.

2. As annotated on the GENOT/RENOT, ensure that the appropriate entry is made in the employee's Training and Proficiency Record, FAA Form 3120-1.

A3-3. Facility UAS Checklist

ZBW - REPORTING UAS ACTIVITIES

1. Gather the following information: Not all information may be available at the time of reporting, provide as much as possible.

   a.) UTC date and time of incident _____

   b.) Reporting source(s) _____

   If pilot, reported: __ Vertical change __ Horizontal change

   __ Collision __ Injuries

   c.) Operational Impact to ATC: _____

   __ Possible Security Event __ Possibly Hazardous

   Response Action Taken: __ NOTAM __ ATIS __ Frequency Transmission

   __ Other: _____

   d.) Position (fixed radial distance) _____

   e.) Altitude and Course _____

   f.) Flight behavior (e.g. hovering, headed toward airport) _____

   g.) UAS description (type/size/color) _____

   h.) Number of UAS (single/swarm) _____

   i.) UAS Operator's physical location _____

   j.) UAS Operator info (name, address, phone #) _____

   _____

   Reporting Source, if applicable: __ Squawking/ Communicating/ Indicated on Radar

   __ Remote ID Present __ Lost Link Event

   k.) Description of event: _____

   _____

   _____

2. Check if COA is on file: <J:\AirSpace Public\0_COAs - Laser, UAS,Rocket and Balloon Launches\UAS COAs>

   Certificate Number: _____ Registration #: _____

3. Is this UAS considered suspicious: __ Yes __ No. If yes, notify:

   Local authorities: _____

   Domestic Events Network (DEN) – Report any operational impacts

   ATM

   Regional Operations Center (ROC) – if event is security related per FAA JO 1030.3

4. Log event on FAA Form 7230-4 - Document as an MOR – Event Type "UAS Suspicious Activity

Forward completed checklist to ZBW Quality Control (ZBW-505)

APPENDIX 4. CHARTS/ WORKSHEETS

A4-1. Routine PIREP (/UA) Dissemination Charts

a. ZBW Routine PIREP (/UA) Dissemination Chart

ZBW Routine PIREP (/UA) Dissemination Chart

SECTOR	ALTITUDE	DISSEMINATION
AREA A		
WATERTOWN (8)	000-120	ALFD, GTFD, SYFD, 08, 22, 23, 52
	121-209	08, 22, 23, 24, 52
	210-279	08, 09, 10, 22, 23, 24, 38, 39, 52, 53
UTICA (9)	280-300	08, 09, 10, 24, 38, 39, 53
	301-600	09, 10, 38, 39, 53
ROCKDALE (10)	280-300	08, 09, 10, 20, 24, 38, 39
	301-600	09, 10, 20, 38, 39
ALBANY (22)	101-120	ALFD, SYFD, BDFD, 07, 08, 21, 22, 23, 36, 37, 52
	121-209	05, 07, 08, 20, 21, 22, 23, 24, 36, 37, 47, 52
	210-239	08, 20, 22, 24, 36, 37, 38, 39, 46, 47, 52
HANCOCK (23)	000-120	ALFD, SYFD, 05, 08, 21, 22, 23
	121-179	05, 08, 21, 22, 23, 24
DELANCEY (24)	180-249	05, 08, 20, 21, 22, 23, 24, 38, 39
	250-279	08, 09, 10, 20, 24, 38, 39
AREA B		
GARDNER (36)	000-160	CLFD, CMMD, ALFD, BDFD, 07, 16, 22, 36, 37, 47
	161-209	07, 16, 22, 36, 37, 47
	210-239	02, 16, 22, 36, 37, 38, 39, 46, 47
CONCORD (37)	000-160	CLFD, CMMD, ALFD, LEFT, 16, 22, 36, 37, 47, 52
	161-209	16, 22, 36, 37, 47, 52
	210-239	02, 16, 22, 36, 37, 38, 39, 46, 47, 52, 53
ATHENS (38)	240-260	08, 09, 10, 20, 22, 24, 36, 37, 38, 39, 46, 47
	261-300	08, 09, 10, 20, 24, 38, 39, 46
	301-600	09, 10, 20, 38, 39, 46
CAMBRIDGE (39)	240-260	02, 08, 09, 10, 16, 22, 24, 36, 37, 38, 39, 46, 52, 53
	261-300	02, 08, 09, 10, 24, 38, 39, 46, 53
	301-600	02, 09, 10, 38, 39, 46, 53
MONTPELIER (52)	000-120	CMMD, ALFD, BTFD, PWFD, 08, 15, 16, 22, 37, 52
	121-209	08, 22, 37, 15, 16, 52
	210-239	02, 08, 09, 15, 16, 22, 37, 39, 52, 53
PLATTSBURG (53)	240-260	02, 08, 09, 15, 16, 37, 39, 52, 53
	261-310	01, 02, 08, 09, 15, 39, 53
	311-600	01, 02, 09, 39, 53
AREA C		
HAMPTON (31)	200-270	18, 19, 31, 32, 34, 46
	271-319	18, 31, 46, 49
CLIPPER (32)	000-120	PVFD, BDFD, 18, 19, 32, 34
	121-179	18, 19, 32, 34
	180-249	18, 19, 31, 32, 34, 46
PROVIDENCE (34)	000-160	CLFD, FMFD, PVFD, BDFD, 18, 19, 32, 34, 47
	161-239	18, 19, 31, 32, 34, 47, 46
BOSTON (46)	240-260	02, 16, 17, 18, 19, 20, 22, 31, 32, 36, 37, 38, 39, 46
	261-600	02, 17, 18, 19, 20, 31, 32, 38, 39, 46, 49
BOSOX (47)	101-160	CLFD, PVFD, BDFD, 07, 16, 18, 19, 34, 36, 37, 47
	161-209	07, 16, 18, 19, 20, 22, 34, 36, 37, 47
	210-230	07, 16, 18, 19, 20, 22, 34, 36, 37, 38, 46, 47
SOUTHIE (49)	280-340	18, 19, 20, 31, 46, 49
	341-600	18, 20, 46, 49
AREA D		
MILLINOCKET (1)	290-310	01, 02, 15, 53
	311-600	01, 02, 53
AUGUSTA (2)	240-260	01, 02, 15, 16, 17, 37, 39, 46, 52, 53
	261-600	01, 02, 15, 17, 39, 46, 53
SURRY (15)	000-120	BGFD, PWFD, 15, 16, 17, 52
	121-209	15, 16, 17, 52
	210-289	01, 02, 15, 16, 17, 52, 53
PARSO (16)	000-160	CLFD, CMMD, FMFD, PWFD, 15, 16, 17, 18, 37, 47, 52
	161-209	15, 16, 17, 18, 37, 47, 52
	210-230	02, 15, 16, 17, 18, 37, 39, 46, 47, 52, 53
NANTUCKET (17)	000-120	FMFD, 15, 16, 17, 18
	121-209	15, 16, 17, 18
	210-309	02, 15, 16, 17, 18, 46
	310-600	02, 17, 18, 46
CAPE (18)	000-160	CLFD, FMFD, PVFD, 16, 17, 18, 32, 34, 47
	161-209	16, 17, 18, 31, 32, 34, 47
	210-309	16, 17, 18, 31, 32, 46, 47, 49
	310-600	17, 18, 31, 46, 49

b. ZBW Terminal Routine PIREP (/UA) Dissemination Chart

ZBW Routine PIREP (/UA) Dissemination Chart

SECTOR	ALTITUDE	DISSEMINATION
AREA E		
STEWART (5)	051-149	ALFD, 05, 06, 21, 23
	150-199	05, 06, 20, 21, 22, 23, 24
PAWLING (6)	051-120	ALFD, BDFD, 05, 06, 07, 19, 21, 23
	121-199	05, 06, 07, 19, 20, 21, 22, 23
CHESTER (7)	101-120	ALFD, BDFD, 06, 07, 19, 21, 22, 36, 47
	121-179	06, 07, 19, 20, 21, 22, 36, 47

SECTOR	ALTITUDE	DISSEMINATION
DANBURY (19)	101-159	BDFD, 06, 07, 19, 31, 32, 34, 47
	160-209	06, 07, 19, 20, 31, 32, 34, 47
	210-279	06, 19, 20, 32, 34, 46, 47, 49
KINGSTON (20)	180-209	05, 06, 07, 19, 20, 21, 22, 24, 47
	210-300	05, 06, 10, 19, 20, 22, 24, 38, 46, 47, 49
	301-600	10, 20, 38, 46, 49
CANAN (21)	101-120	ALFD, BDFD, 05, 06, 07, 21, 22, 23
	121-179	05, 06, 07, 20, 21, 22, 23, 24

ZBW Terminal Routine PIREP (/UA) Dissemination Chart

FACILITY	ALTITUDE	DISSEMINATION
A90 North of BOS	000-079	PWFD, 16, 36, 37, 52
	080-140	PWFD, 16, 18, 36, 37, 47, 52
A90 South of BOS	000-079	BDFD, PVFD, 16, 17, 18, 36
	080-140	BDFD, PVFD, 16, 17, 18, 34, 36, 37, 47
ALB	000-079	SYFD, BDFD, 05, 06, 08, 23, 36, 37, 52
	080-100	SYFD, BDFD, 05, 06, 07, 08, 21, 22, 23, 36, 37, 52
AVP	000-100	05, 23
BGM	000-100	23
BGR	000-100	PWFD, 15
BTV	000-100	52

FACILITY	ALTITUDE	DISSEMINATION
GTB	000-100	08, SYFD
N90	000-079	ALFD, BDFD, PVFD, 05, 06, 23, 32
	080-190	ALFD, BDFD, PVFD, 05, 06, 19, 20, 23, 32
PVD	080-100	BDFD, CLFD, FMFD, 18, 19, 32, 34, 47
PWM	000-079	CMMD, 15, 52
	080-100	CMMD, 15, 16, 37, 52
ROC	080-100	SYFD, 08
SYR	000-079	ALFD, GTFD, 08, 23
	080-100	ALFD, GTFD, 08, 22, 23
Y90	000-079	ALFD, CLFD, PVFD, 05, 36
	080-100	ALFD, CLFD, PVFD, 05, 07, 21, 22, 34, 36, 47

A4-2. ZBW PIREP Solicitation Worksheet

ZBW PIREP SOLICITATION WORKSHEET		
Conditions	Forecast Requires Solicitation	Time (Z) Last PIREP Received
ICING		
TURB BLW 150		
TURB ABV 150		
TSTMS		
CIGS BLW 050 and/or VIS AOB 5 SM		
BRAKING ACTION		
Solicit PIREPs for forecasted weather conditions hourly, at a minimum. OS/CIC is responsible for communicating changes to forecasted weather conditions after receipt of each CWSU Weather Briefing.		

APPENDIX 5. ZBW MAP NODES

H8AA	464130/	0695958	**DAP4**	455900/	0690000	**BB14**	413121/	0744703
H9AA	472700/	0691300	**H5AC**	430630/	0693000	**BN70**	420650/	0745450
I9AC	472335/	0690000	**G4DB**	423840/	0703600	**C4AC**	421030/	0741800
I9AD	471715/	0683400	**F4AN**	425220/	0710054	**D4AN**	420830/	0740000
I9AE	472430/	0682338	**F4AM**	425700/	0710930	**BN71**	420000/	0740235
I9AF	472730/	0681618	**F4AO**	430512/	0712438	**C4AR**	415918/	0740244
I9AG	472920/	0681158	**F5AJ**	432330/	0710630	**C4AL**	415025/	0740615
I9AH	473100/	0680358	**F5AE**	434300/	0711100	**C4BB**	413602/	0740456
J9AA	473130/	0680000	**F5AO**	434700/	0710930	**BB07**	412000/	0740330
J9AB	473200/	0674458	**F6AB**	440300/	0710000	**BB25**	411205/	0741540
J9AC	472820/	0673138	**G6AC**	441000/	0704900	**BB23**	410900/	0742520
J9AD	472310/	0671958	**G6AE**	441200/	0701500	**BB10**	413700/	0745100
J9AE	471610/	0671028	**G6AD**	440200/	0700500	**1025**	414430/	0745730
J9AF	470800/	0670458	**H5AA**	435000/	0693000	**1024**	415210/	0750330
J8AA	465850/	0670228	**H5AB**	433330/	0693000	**1102**	415900/	0745930
J8AB	464940/	0670328	**G6AK**	442000/	0705158	**BN67**	420130/	0745820
J8AC	464130/	0670758	**G6AM**	443452/	0705544	**BB08**	412400/	0741100
J8AD	463410/	0671518	**J7AD**	451500/	0671958	**BB11**	411800/	0741905
J8AE	463210/	0671758	**K6AA**	445600/	0670000	**BB12**	412430/	0742800
J8AF	461200/	0671258	**K6AD**	443000/	0670000	**NN07**	412824/	0743107
J8AI	460835/	0671258	**K6AB**	442030/	0670000	**NY06**	413230/	0744130
J7AA	454930/	0673458	**K5AA**	434800/	0670000	**D4AA**	420100/	0735530
J7AB	454700/	0674823	**I5AA**	432300/	0684330	**BB13**	413345/	0743130
J7AC	453730/	0674528	**PSM1**	430530/	0704848	**BN69**	420000/	0742645
G6AA	445500/	0702900	**PSM2**	430353/	0704843	**C4AT**	415959/	0742259
G6AB	444644/	0705920	**PSM3**	430438/	0705040	**C4BA**	420000/	0741842
F7AD	450400/	0712700	**PTAA**	413546/	0745009	**BB05**	413009/	0741423
F7AB	451700/	0711958	**PTZZ**	414100/	0743230	**BB09**	413225/	0742017
F7AC	451900/	0710000	**PTWW**	413530/	0742520	**BB03**	414400/	0744600
G7AJ	454110/	0703010	**PTXX**	413140/	0742600	**D4AQ**	421100/	0732315
G7AE	455430/	0701500	**1115**	412900/	0742040	**D4AI**	420310/	0732240
G8AE	461830/	0701230	**NY65**	412156/	0742427	**D3AA**	414555/	0731500
G8AF	462505/	0700331	**BB40**	411030/	0743100	**E3AD**	414200/	0731415
G8AG	463220/	0700218	**BB39**	411430/	0743930	**D3AH**	414010/	0731400
DAP1	460000/	0690000	**BB06**	411320/	0744310	**D3AG**	413823/	0731334
DAP2	460000/	0685900	**NY75**	411541/	0744701	**BN54**	413515/	0731250
DAP3	455900/	0685900	**BB15**	411810/	0745105	**C4BD**	413517/	0731631

BN53	413515/	0731800	***A5AQ***	431330/	0761100	***C7AH***	450531/	0743438
NT39	413345/	0731800	***A5AK***	431410/	0761700	***C7AI***	450500/	0743344
NT35	413230/	0732000	***A5AB***	431945/	0764630	***AAP1***	443000/	0750000
NT34	412045/	0733500	***A5AE***	432116/	0764642	***AAP2***	443000/	0745900
NT48	411920/	0734130	***A5AG***	432400/	0764650	***AAP3***	442900/	0745900
NT47	411800/	0734657	***A5AC***	433752/	0764748	***AAP4***	442900/	0750000
NT46	411845/	0735400	***A6AA***	440600/	0762529	***RMT1***	431454/	0752353
NT43	412000/	0740130	***A6AB***	440820/	0762029	***RMT2***	431315/	0752340
C4BC	420103/	0735355	***A6AC***	441130/	0761859	***RMT3***	431356/	0752543
BB36	411530/	0735345	***A6AD***	441320/	0761100	***C4AW***	424030/	0743345
E4DB	422114/	0723929	***A6AE***	441514/	0760819	***C4AJ***	423230/	0743500

E4DA	422215/	0721500	***B6AA***	442114/	0760024	***C4AS***	422032/	0741932
E3DP	415637/	0724238	***C5AB***	430000/	0743100	***BB02***	414530/	0744830
E3AA	414915/	0724700	***C4AM***	425600/	0743140	***BB01***	414805/	0745430
D4AB	423550/	0732000	***A5AU***	430028/	0762605	***NB10***	415426/	0750852
D4AC	423500/	0730000	***A5AD***	431100/	0761730	***BN51***	415920/	0752030
EAP1	420000/	0731000	***A5AI***	430100/	0764400	***NY08***	420615/	0753700
EAP2	420000/	0730900	***A5AA***	430400/	0764550	***BN52***	421700/	0760100
EAP3	415900/	0730900	***AG96***	441607/	0753241	***BN39***	422200/	0761400
EAP4	415900/	0731000	***AH96***	441124/	0752259	***BN35***	423630/	0764810
B6AC	443630/	0753800	***AI96***	440710/	0752649	***BN00***	424340/	0764150
C6AB	444848/	0744611	***AJ96***	440105/	0753714	***BN34***	424607/	0764121
C6AL	443600/	0743400	***AK96***	440320/	0754049	***A4AG***	425300/	0764000
C6AK	442130/	0743000	***AL96***	440655/	0754209	***TMU1***	402100/	0714700
C6AD	440430/	0743000	***AM96***	441050/	0753859	***TMU2***	402100/	0714600
C5AN	433340/	0741420	***C6AA***	445850/	0745700	***TMU6***	402000/	0714600
D5AN	431935/	0740207	***C7AA***	450400/	0745800	***TMU5***	402000/	0714700
C5AE	431600/	0742400	***C7AB***	450700/	0745100	***TMU3***	402100/	0714500
C5AG	433955/	0744650	***C7AC***	450700/	0743600	***TMU4***	402100/	0714400
A7AE	434006/	0750000	***C7AG***	450631/	0743347	***TMU8***	402000/	0714400
A7AA	441000/	0750000	***C7AJ***	450610/	0743232	***TMU7***	402000/	0714500
A7AD	441500/	0750859	***C6AH***	450100/	0741239	***I7AJ***	453500/	0680000
A7AC	441906/	0751507	***C7AD***	445930/	0741210	***I7AI***	452330/	0680700
A7AB	442100/	0751759	***C7AE***	445835/	0741140	***I7AD***	451130/	0682130
AA96	443202/	0754428	***B6AD***	444128/	0753619	***I7AG***	451700/	0683000
C5AH	430930/	0745100	***B6AE***	445027/	0753918	***I7AC***	451700/	0683800
B5AD	431130/	0754100	***B6AI***	445643/	0750212	***H7AG***	451415/	0690000
H7AH	450800/	0692200	***G4AS***	421104/	0702120	***G3E2***	411700/	0714000
G7BF	445053/	0694044	***F4MO***	422036/	0703724	***G3E1***	411403/	0714543
G6AF	444824/	0700612	***G4AB***	423207/	0703721	***F3MM***	411700/	0714600
G6AG	443250/	0701258	***F4T4***	424729/	0710242	***F3MK***	412630/	0712100
PW56	433909/	0691949	***G4MR***	422630/	0705000	***F3MP***	412709/	0712024
H5BG	434800/	0690335	***F4T1***	422550/	0712504	***F4AV***	413911/	0711143
I6AF	435200/	0684800	***F4DH***	422540/	0713230	***F3AL***	414145/	0710945
I6AC	441700/	0680000	***F4ED***	423000/	0712900	***F3AK***	414634/	0710550
J6AB	442800/	0675930	***F4T2***	423405/	0711057	***G3AF***	414617/	0705327
I7AN	444618/	0680841	***J4DA***	423230/	0670000	***G3AE***	414622/	0704316
G7BG	443919/	0694202	***BN96***	415200/	0670000	***G3AA***	414615/	0704000
G6AI	442000/	0702158	***BN92***	413700/	0670000	***G4AE***	420600/	0701900
H4AH	420500/	0693000	***BN93***	410000/	0690000	***F3ML***	411200/	0714530
H4AA	421700/	0694930	***BN94***	405530/	0692030	***G3DC***	415340/	0705530
G4AM	421840/	0701900	***H3DH***	405047/	0694103	***G3AG***	415422/	0705300
G4AI	423220/	0701830	***H3AA***	405356/	0694601	***G3DB***	415545/	0704815
G4AD	423700/	0703100	***H3AC***	410500/	0693658	***G3AD***	415700/	0704330
G4DR	424315/	0702500	***H3AD***	411000/	0693000	***G4AO***	420200/	0702800
G4DC	424845/	0702500	***H4AK***	413000/	0691000	***F4MB***	421240/	0703806
G5AV	430200/	0701700	***H4AJ***	415001/	0692123	***BSD1***	420311/	0710716
G5NW	431200/	0700900	***H3DG***	410000/	0695556	***F4MM***	420520/	0710151
G5AL	431900/	0695600	***H3DF***	410050/	0694400	***BSD2***	420833/	0704128
16U1	425000/	0695900	***H3AG***	413900/	0693000	***F4AU***	420325/	0703840
16U2	425000/	0695800	***H3AB***	414630/	0693000	***FMH1***	414016	0703016
16U3	424900/	0695800	***H4AF***	415835/	0702430	***FMH2***	413829	070305

16U4	424900/	0695900	***BN44***	405009/	0713432	***FMH3***	413940	070324
G4AF	421420/	0701900	***G3DG***	405750/	0710146	***18U1***	412500/	0695000
G4AH	421850/	0702120	***H3DJ***	404830/	0703000	***18U2***	412500/	0694900
H4AI	420720/	0694950	***H3DI***	405423/	0694650	***18U3***	412400/	0694900
G4AT	421048/	0701858	***BN90***	403436/	0705246	***18U4***	412400/	0695000
G4AJ	424154/	0703825	***H3GK***	402652/	0711840	***E3AP***	413400/	0723900
G4AA	424500/	0704300	***H3VC***	402629/	0712007	***E3AJ***	413300/	0723100
G4DA	424700/	0705400	***BN97***	402323/	0713000	***BN24***	412754/	0723100
F4AD	425130/	0710640	***BN33***	404100/	0713000	***E3AH***	411800/	0723230
F4T5	425935/	0712243	***BN29***	410320/	0714200	***E3AS***	411200/	0723930
F4T6	433700/	0712500	***G3E4***	410650/	0714325	***NT52***	410645/	0724500
F4T7	434820/	0713346	***G3E3***	411200/	0713600	***BB54***	405720/	0730420

TB03	410340/	0730600	***D5AO***	432442/	0733655	***BN68***	410740/	0715700
NT38	411720/	0725100	***D5AK***	432016/	0732509	***BN80***	400000/	0724150
NT33	412209/	0730000	***D5AL***	431600/	0731426	***BN81***	395108/	0725155
NT36	412825/	0731200	***D5AM***	431241/	0730621	***BN82***	394400/	0725301
BB50	405540/	0725600	***E4DR***	421615/	0724630	***BB43***	404000/	0723000
BB52	405430/	0725815	***C4AB***	421320/	0741020	***NT02***	404130/	0721030
NT21	404636/	0730817	***B4AJ***	424200/	0753500	***NT03***	404200/	0720700
TB02	405233/	0731937	***B4AS***	424200/	0752000	***BN37***	404400/	0720000
B19D	405352/	0731800	***C4AV***	424000/	0745700	***BN31***	404553/	0715110
B19C	405756/	0732040	***C4AU***	424000/	0743700	***NT23***	403300/	0730400
B19B	411049/	0732156	***BN11***	420715/	0751500	***BB51***	403800/	0725800
B19A	411412/	0732610	***BN10***	421425/	0751955	***BB53***	404020/	0725110
BB33	403935/	0731745	***BN06***	421425/	0753315	***NT50***	404200/	0724545
BB32	403520/	0732630	***BN08***	423000/	0754400	***BB49***	405350/	0724550
BB27	404805/	0731730	***BN02***	423150/	0760033	***BB48***	405535/	0724335
BB34	405051/	0732141	***A5AV***	424145/	0755810	***NT51***	410610/	0724345
BB26	405130/	0732240	***A5AW***	425145/	0760050	***NT16***	404326/	0725243
B19I	405112/	0733830	***A5AX***	425615/	0760520	***BB46***	402827/	0732453
B19J	410153/	0733308	***A5AL***	425630/	0762900	***BB35***	403241/	0732847
B19K	411113/	0734435	***BN49***	411630/	0720600	***NT49***	404932/	0732318
BB58	405105/	0734515	***BN89***	411030/	0721250	***56T1***	402100/	0715900
B19G	405103/	0734929	***BN48***	410345/	0722430	***56T2***	402100/	0715800
B19H	405220/	0735211	***NT24***	404945/	0722200	***56T3***	402000/	0715800
BB57	405805/	0735240	***BB16***	400420/	0723000	***56T4***	402000/	0715900
D2AA	410000/	0735242	***BB17***	401155/	0724655	***F4AF***	415849/	0711829
D3AD	410845/	0733305	***BB44***	401730/	0725920	***F5AF***	415933/	0711637
E3AW	412810/	0730940	***BB45***	402435/	0731515	***E3AK***	413400/	0722730
E3AI	413340/	0725700	***BB30***	401955/	0733810	***E3AC***	414630/	0720010
D3AE	411140/	0732930	***BB28***	403030/	0733000	***F3AF***	415130/	0713945
D4AE	420500/	0730530	***BB19***	395940/	0730030	***F3AG***	415800/	0712120
BB04	413730/	0743930	***BB22***	394400/	0730900	***34U1***	413500/	0714300
C4AD	422140/	0742645	***BB21***	394100/	0731000	***34U2***	413500/	0714200
C4AK	423200/	0735735	***BB20***	394400/	0731700	***34U3***	413400/	0714200
E5AI	430630/	0725130	***BB18***	395600/	0734345	***34U4***	413400/	0714300
E5AQ	430120/	0730100	***BB99***	400407/	0734300	***34U5***	413500/	0714500
D4AD	423800/	0730003	***BB98***	400855/	0734232	***34U6***	413500/	0714400
D5AG	432216/	0734920	***BB31***	401420/	0734155	***34U7***	413400/	0714400
34U8	413400/	0714500	***SCH1***	425200/	0735511	***HFF3***	414408/	0724013

F4DA	425200/	0715300	***SCH2***	425022/	0735500	***46U1***	413500/	0713500
F4AT	424400/	0715330	***SCH3***	425104/	0735701	***46U2***	413500/	0713400
F4DK	423700/	0715400	***D5AP***	433210/	0734500	***46U3***	413400/	0713400
F4DJ	423300/	0715230	***D5AF***	433130/	0732915	***46U4***	413400/	0713500
F4DI	422700/	0715000	***D5AR***	433045/	0731215	***ASF1***	424744/	0713018
E4DG	422420/	0720010	***LEF1***	433825/	0721740	***ASF2***	424607/	0713012
E4DP	422500/	0721710	***LEF2***	433647/	0721732	***ASF3***	424651/	0713210
E4DI	423214/	0724119	***LEF3***	433753/	0721931	***F4DG***	422200/	0713500
E4DN	423230/	0724400	***BEF1***	422902/	0711646	***F4DC***	420600/	0712900
E4DC	423550/	0725110	***BEF2***	422725/	0711639	***F4AG***	420056/	0712139
F5AN	430430/	0715800	***BEF3***	422809/	0711836	***47U1***	420200/	0721500
F4DP	425658/	0715452	***BVF1***	423553/	0705423	***47U2***	420200/	0721400
F4DB	424300/	0713500	***BVF2***	423416/	0705417	***47U3***	420100/	0721400
F4DE	423704/	0714546	***BVF3***	423500/	0705614	***47U4***	420100/	0721500
F4AA	424230/	0712400	***EWF1***	414126/	0705654	***CAP1***	402100/	0714900
F4DZ	422600/	0714400	***EWF2***	414021/	0705719	***CAP2***	402100/	0714800
F4DM	423600/	0713200	***EWF3***	414033/	0705843	***CAP3***	402000/	0714800
BOS1	424000/	0715600	***GOF1***	412039/	0720209	***CAP4***	402000/	0714900
BOS2	424000/	0715500	***GOF2***	411901/	0720201	***ULH1***	402100/	0715100
BOS3	423900/	0715500	***GOF3***	411945/	0720357	***ULH2***	402100/	0715000
BOS4	423900/	0715600	***OWF1***	421216/	0710948	***ULH3***	402000/	0715000
E5AA	440000/	0720000	***OWF2***	421039/	0710942	***ULH4***	402000/	0715100
F5AQ	435200/	0714940	***OWF3***	421123/	0711138	***E7AA***	445939/	0722519
F5AH	434530/	0712300	***LWF1***	424352/	0710649	***F7AA***	450100/	0712900
F5AS	434230/	0715400	***LWF2***	424115/	0710643	***G6AL***	443500/	0705800
F5AZ	431956/	0715631	***LWF3***	424300/	0710753	***F6AC***	440040/	0710400
F5AR	430800/	0715900	***BAF1***	421019/	0724223	***D5AE***	432200/	0732530
E5AD	432200/	0730030	***BAF2***	420841/	0724214	***C6AJ***	445930/	0740718
E5AC	432720/	0725030	***BAF3***	420924/	0724412	***D7AA***	445952/	0735832
E5AB	433330/	0724900	***ORH1***	421653/	0715159	***C6AE***	444630/	0740100
E5AG	434115/	0723500	***ORH2***	421515/	0715151	***D6AF***	444430/	0735300
E5AH	435745/	0722645	***ORH3***	421559/	0715348	***D6AL***	440000/	0735230
BB56	440200/	0722000	***CEF1***	421229/	0723132	***D5AC***	435300/	0733300
F4DD	424200/	0711600	***CEF2***	421052/	0723123	***D5AA***	435300/	0731700
D4AF	425300/	0732000	***CEF3***	421135/	0723321	***D6AI***	435600/	0730800
E4DD	424500/	0720200	***HFF1***	414503/	0723825	***E6AD***	440512/	0724530
F4AP	424427/	0720010	***HFF2***	414325/	0723816	***E6AF***	443251/	0724344
C6AI	445000/	0744100	***G5AR***	431730/	0703900	***G7BK***	441100/	0690000
C6AG	445100/	0743359	***F3AD***	412614/	0710150	***G7BJ***	441550/	0692410
D7AB	445957/	0734255	***G3DJ***	413350/	0705000	***BG65***	442435/	0692700
D7AE	445959/	0732430	***G3DK***	413744/	0704844	***G7BH***	443700/	0693100
D7AF	450000/	0731500	***G3DH***	414210/	0704715	***BG56***	440207/	0690626
52U1	445000/	0725000	***G3DA***	414800/	0704200	***BG57***	440500/	0691101
52U2	445000/	0724900	***BN25***	405634/	0715124	***G7BI***	443000/	0694300
52U3	444900/	0724900	***BN91***	410354/	0721027	***F5AG***	432500/	0705930
52U4	444900/	0725000	***BN88***	410730/	0721500	***I6AA***	440600/	0684900
BAP1	435000/	0735000	***BN8B***	411010/	0721715			
BAP2	435000/	0734900	***BN47***	412145/	0722300			
BAP3	434900/	0734900	***BN45***	412900/	0722800			
BAP4	434900/	0735000	***E3AB***	413625/	0720915			
G3DM	412540/	0701529	***F3AC***	414810/	0720345			

G3DR	412720/	0701330	***F3AA***	415945/	0715530
G3BA	410230/	0700000	***E4DK***	422217/	0725830
G3BB	410238/	0700030	***E4DH***	422640/	0725040
G3BC	410234/	0700126	***BN22***	412530/	0724050
G3BD	410229/	0700512	***BN21***	412513/	0724323
G3BE	410232/	0700924	***BN16***	412500/	0725545
G3BF	410321/	0701301	***BN32***	412600/	0730000
G3BG	410343/	0701410	***BN55***	413540/	0730000
G3BH	410435/	0701600	***NT32***	411951/	0724804
G3BI	410526/	0701947	***BN23***	411630/	0723300
G3BJ	410652/	0702251	***NT31***	411704/	0724430
G3DO	410329/	0703758	***BN74***	415830/	0732800
G3DN	412126/	0702319	***A5AF***	433800/	0761800
G3DF	410000/	0705243	***B5AB***	434030/	0755400
F4AZ	423950/	0712504	***B5AF***	432100/	0755130
F4AW	424234/	0703111	***B5AC***	430115/	0753830
F4AY	425229/	0704915	***B5AK***	425400/	0753130
F4AX	424914/	0703958	***BN01***	423300/	0761110
F3MI	415400/	0710000	***A4AI***	425050/	0765230
F3DA	415501/	0711314	***A5AN***	432015/	0765400
F4AK	420345/	0713845	***D7AC***	444827/	0733800
F4DL	422230/	0714910	***D7AD***	444829/	0732629

APPENDIX 6. CPDLC

A6-1. ABBREVIATIONS

Abbreviation	Meaning
CDA	Current Data Authority
CPDLC	Controller Pilot Data Link Communications **NOTE**: CPDLC/ DATA COMM / DATA LINK are sometimes used interchangeably. The ICAO standard term is CPDLC and should be used when referencing data link communications.
NAP	National Application Processors
NDA	Next Data Authority
PID	Pilot Initiated Downlink
TOC	Transfer of Communications
TAC	Trajectory Altering Clearance

A6-2. AUTOMATED INFORMATION TRANSFER (AIT)

a. The ZBW Air Traffic Manager authorizes the use of AIT procedures in accordance with FAA Orders 7110.65 and 7210.3, or as specified in facility directives.

b. Transfer of communication must be completed verbally with all AIT procedures.

A6-3. CPDLC ACTIVATION/SHUTDOWN

a. The OMIC is responsible for the activation/shutdown of CPDLC after coordination with SOC and operational areas.

b. Prior to the commencement of CPDLC activation or shutdown, controllers must use voice to broadcast a message alerting pilots to the change in status.

EXAMPLE: “Attention all aircraft, CPDLC will be shut down for Boston Center at [time].”

A6-4. RECORD OF OPERATIONAL STATUS

OMIC must log all CPDLC status changes in FAA Form 7210-4. Items to log include but are not limited to operational status, outages, and other pertinent information.

EXAMPLE: “CPDLC shutdown at 1200Z”

A6-5. FREQUENCY MANAGEMENT

a. Permanent changes

1. The Airspace and Procedures Office is responsible for maintaining the permanent frequency management table.

2. The Airspace and Procedures Office must coordinate permanent frequency changes with appropriate adjacent facilities.

b. Temporary outages

1. The OS/CIC must notify OMIC of frequency outage/change.

2. The OS/CIC must modify the frequency at the ATWS, as appropriate.

3. The OS/CIC must display the outage/change on the ESIS.

4. The OS/CIC must coordinate temporary outage/changes with the appropriate adjacent ARTCC facilities, to allow these facilities to make the appropriate ATWS entries. This does not alleviate the sector-to-sector coordination requirements.

c. Return to normal operations:

1. The preferred method is to individually return each frequency to its default state.

2. Only the OMIC may enter an RV (Revert) command. Prior to entering the RV command, coordination must be accomplished with Operational Areas.

NOTE: The RV command reverts the entire facility to default frequency configurations. It does not affect VTABS frequency assignment.

A6-6. BLOCKED LIST

The FDCS is responsible for contacting NAP (ZTL or ZLC) to have aircraft added or removed from the Blocked List.

A6-7. EMERGENCY PILOT INITIATED DOWNLINK

In the event of receipt of an Emergency Pilot Initiated Downlink, voice communication must be attempted, and if unsuccessful, sector frequency must be uplinked.

A6-8. SECTOR TEAM RESPONSIBILITIES

a. The Sector Team must maintain collective situational awareness and set clear guidelines regarding CPDLC.

b. Coordination with the Radar Controller must occur prior to up-linking any trajectory altering clearances and frequency changes.

c. The Radar Controller must be made aware of any other CPDLC action taken.

d. Ensure that all aircraft with TOC in progress, abnormal TOCs, open clearances, other uplinks/downlinks in progress, and any frequency management anomalies/configurations are acknowledged, coordinated, and include any other pertinent information in the position relief briefing. This includes sector combining/de-combining procedures.

e. If a CPDLC message requiring a closure response is subsequently negotiated by voice, make every effort to complete the CPDLC communication loop by having the pilot downlink an appropriate response.

f. Controllers must not issue any CPDLC clearances to an aircraft before they have checked on frequency and their Mode-C altitude has been verified.

NOTE: It is possible due to several factors that a CDA session can be established before voice contact has been made.

A6-9. CANADIAN BORDER OPERATIONS

a. If an aircraft is CPDLC equipped and has not automatically established a session after entering from Canada, the controller may instruct them to log on to KUSA to begin a CPDLC session.

b. For aircraft leaving domestic airspace into Canada that would require a transfer of communication, controllers must ensure that the current CPDLC session is terminated before the aircraft crosses the interfacility boundary. Controllers must use either the "UF+ED" (uplink frequency + end Data Comm) command to transfer communications using CPDLC, or the "ED" command if making communications transfer by voice. Failure to do so will result in the Canadian controller being unable to establish a current session with the aircraft.

c. For aircraft with in-out-in flight plans to Canada that do not require a transfer of communication, controllers should not terminate the session. CPDLC eligibility will be assigned to the sector that has control after a flight plan swap, handoff, or drop track/start track.

A6-10. ATOP BORDER OPERATIONS

When ZNY has Enroute CPDLC disabled, ZBW must End DataComm (ED) on all aircraft with a CPDLC session that will transition to ZNY Sectors ATLANTIC (86) JOBOC (65) and OHRYN (85). This must take place 30NM or greater from the ZBW/ZNY boundary.

A6-11. WAIVER ALTITUDES

Voice communications must be used in conjunction with all waiver altitudes.

NOTE: Per FAA 7210.3 waiver altitudes are defined within a facility directive that has been issued to waive the mandatory computer entry of interim altitudes.

A6-12. CPDLC USE DURING OJT

a. During Developmental Radar Associate OJT:

1. The Message Out View must be displayed as determined by the sector team.

2. Prior to up-linking a CPDLC entry, the developmental must receive verbal confirmation from the Radar controller.

b. During Developmental Radar OJT:

1. Developmentals must utilize voice communications for all clearances during the first 40% of the target hours on their initial two sectors and the TOC sector setting must be set to "Contact."

EXCEPTION: Developmentals may utilize CPDLC to respond to Pilot Initiated Downlinks (PID).

2. The Training Team must meet and document how and when CPDLC will be utilized after the developmental has completed 40% of the target hours on their initial sectors. Items the team should consider include:

   (a) Progress of the developmental
   (b) SET for Training Team members
   (c) Notification to instructor of CPDLC actions
   (d) Limitations to CPDLC use

3. If certification will occur prior to 40% of the target hours being met, the Training Team must meet and document how and when CPDLC will be trained on their initial sectors. Items the team should consider include:

   (a) Number of CPDLC hours needed prior to certification
   (b) Notification to instructor of CPDLC actions
   (c) Limitations to CPDLC use

c. During CPC-IT/ OS-IT OJT:

1. Enroute CPC-IT/ OS-IT - CPDLC use must be determined on an individual basis. Prior to using CPDLC, the Training Team must meet and document how and when CPDLC will be utilized.

2. Terminal CPC-IT/ OS-IT – Must be trained in accordance with paragraphs a and b of this section.

A6-13. CPDLC RESTRICTIONS

CPDLC must not be used while an aircraft is on an approach.

NOTE: Although it is not prohibited, controllers should minimize the use of CPDLC during any critical phases of flight.

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

ORDER
ZBW 3120.343N

Boston Center

SUBJ: Boston Center Air Traffic Technical Training Effective Date: **05/31/2023**

This order prescribes instructions, standards, and guidance for the administration of air traffic technical training at the Boston Air Route Traffic Control Center (ARTCC) (ZBW). All persons involved in air traffic technical training at ZBW are required to be familiar and comply with this order.

ZBW recognizes that field qualification training has a significant impact on the ATO's goals and objectives. The components of this order that relate to field qualification training were created using the **T.E.A.M. (Teach, Educate, Advise, and Mentor)** concept. This is a concept approach to field qualification training, through which the training team not only instructs ATC skills and principles, but also elevates the level of training through **teaching** basic and advanced ATC skills; **educating** on the importance and relevance of ATC fundamental skills; **advising** on professional standards; and **mentoring** to inspire success in the training program.

TARAH R PARK
Digitally signed by TARAH R PARK
Date: 2023.05.19 10:03:27 -04'00'

Tarah R. Park
Air Traffic Manager
Boston Air Route Traffic Control Center

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Chapter 1: General Information

1.1 Purpose of this Order. This order prescribes the instructions and guidance for the administration of Air Traffic (AT) technical training at ZBW. This order is supplemental to JO 3120.4, AT Technical Training. All ZBW air traffic control personnel involved in air traffic technical training are required to be familiar with and comply with this order.

1-2. Distribution. All Air Traffic, Traffic Management, Flight Data, and Training Contract Support personnel at Boston Center.

1-3. Where to Find This Order.

- En Route Information Displays (ERIDS)
- On the Facility Directives Repository

1-4. What This Order Cancels. ZBW Order 3120.343M, Boston ARTCC Air Traffic Training Directive, dated 04/26/2021, and all changes and notices to it are cancelled.

1-5. Acronyms: Note - For additional acronyms refer to JO 3120.4 Appendix M.

- AOS: Area of Specialization
- ATM: Air Traffic Manager
- ATR: NATCA Area Training Representative
- ATS: Area Training Supervisor
- ATT: Area Training Team
- CBI: Computer Based Instruction
- CEDAR: Comprehensive Electronic Data Analysis and Reporting
- CIC: Controller-in-charge
- COR: Facility Contract Officer Representative
- CPC: Certified Professional Controller
- CPC-IT: Certified Professional Controller in Training
- CSS: Contract Site Supervisor
- eLMS: e-Learning Management System
- ERAM: En Route Automation Modernization
- ERIDS: En Route Information Displays
- FDT: Flight Deck Training
- FTT: Facility Training Team (TA and TR)
- IAW: In Accordance With
- ILT: Instructor Led Training (instruction conducted in a classroom environment)
- LAN: Local Area Network
- LSC: Local Safety Council
- MBI: Mandatory Briefing Items
- NATCA: National Air Traffic Controllers Association
- OM: Operations Manager
- OMIC: Operations Manager in Charge
- OS: Operations Supervisor
- OJT: On the Job Training
- OJTI: On the Job Training Instructor
- PFR: Principal Facility Representative (FacRep)
- PMS: Performance Management System
- POC: Point of Contact
- SDT: Skill Development Training

- SET: Skill Enhancement Training
- SIT: Skill Improvement Training
- STMC: Supervisory Traffic Management Coordinator
- SUPCOM: Supervisor Committee
- TA: Training Administrator or designee
- TEAM-Training Enterprise Application and Management
- TMC: Traffic Management Coordinator
- TMC-IT: Traffic Management Coordinator-In Training
- TO: Training Office
- TR: Facility Training Representative
- TRB: Training Review Board
- TTL: Testing and Training Lab
- TTM: Training Team Meeting
- WBT: Web Based Training
- ZBW: Boston ARTCC

1-6. Definitions

Area Training Representative - The ATR is an OJTI that may be designated by the NATCA Area Representative to work collaboratively with the Area Training OS on the ATT.

Area Training Team (ATT) – An AOS training team comprised of an OM or OS designee and a NATCA counterpart (Area Representative or ATR). This team will work collaboratively on Area training items as requested by the Area OM or TA and required by this order.

Benchmarks – Management and NATCA have collaboratively developed ZBW Form 3120-02R, Radar Benchmarks Form, and ZBW Form 3120-02RA, Radar Associate Benchmarks Form for use in radar and radar associate OJT. The benchmark checklist items were developed to provide the training team with a systematic approach for evaluating a trainee's training progress and identifying the performance level of a trainee at specific checkpoints in their training program.

CPC Cadre Instructor – May provide classroom instruction to either a Stage 2A, Stage 2D, Stage 3 trainee(s) when operational staffing permits. In addition to national requirements, all CPC Cadre Instructors who provide instruction in the TTL must be a certified OJTI.

Facility Training Team (FTT) – A facility team comprised of the facility TA and the Facility Training Representative (TR). This team will work collaboratively on a variety of facility training processes. Additional members of the team may be added at the discretion of the ATM and FacRep.

Principal Facility Representative (PFR) – The NATCA FacRep.

TEAM– Training Enterprise Application & Management (TEAM) is the new web application system developed to electronically document training across the Air Traffic Organization. Locally, TEAM is replacing CEDAR for all training related items.

Trainee – For the purposes of this order, any instance where the word trainee is used, the term refers to a trainee (DEV), CPC in training (CPC-IT), Operational Supervisor in training (OS-IT), Traffic Management Coordinator in training (TMC-IT), or Supervisory TMC in training (STMC-IT), as appropriate.

Training Representative (TR) – The TR is a position that may be designated by the FacRep to work collaboratively with the TA on the FTT.

Scenario – Simulation conducted in a laboratory environment (e.g. Part-Task, Instructional, Evaluation, or Skill Enhancement).

Seasoning – For the purpose of this order, "Seasoning" refers to a period of time allotted for an individual in training to work positions he/she has recently certified on before commencing OJT on additional positions.

Signature – All signatures on any training document must be followed by legible, printed operating initials of the person signing or electronic equivalent.

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Chapter 2: Roles and Responsibilities

2-1. Air Traffic Manager (ATM). The ATM must:

a. Establish, administer, and support the facility training program, which includes an FTT comprised of the TA and the TR.

b. Designate the AOS OM and the AOS NATCA representative as the OJTI Selection panel IAW applicable Orders and Collective Bargaining Agreements (CBAs) for any AOS OJTI selections.

c. Support each AOS to develop an ATT comprised of an OS and an OJTI. Members of the ATT will be selected after a collaborative discussion by the AOS OM and AOS NATCA representative.

2-2. Training Administrator (TA). The TA must:

a. Satisfy requirements of JO 3120.4 to include maintaining and recording training records. The TA must ensure all training requirements and facility orientations are scheduled and completed IAW national and local training directives.

b. Develop and issue an annual list of required Refresher Training.

c. Serve as ZBW COR assuring that contractor provided training is performed IAW contract specifications and achieve/maintain the appropriate level of COR certification(s) IAW agency guidelines.

d. Provide direction, guidance, and support to the CSS IAW the national training contract. Provide oversight and guidance to onsite training contractor personnel and perform contractor personnel evaluations as required.

e. Oversee the FDT, and Facility Familiarization programs.

f. Ensure TRAX entries are completed for CIC and OJTI qualifications.

g. Ensure that all facility briefing items are entered and tracked for completion in CEDAR.

h. Ensure that all facility training documentation is entered into TEAM, where capability exists.

i. Coordinate OJT training schedules and completion dates with the ATT.

j. Call for Training – Prior to responding to the annual Call for Training, the TA will solicit feedback on facility training needs from the following personnel: ATM, LSC, OMs, CSS, NATCA, and Support Managers.

2-3. Operations Manager (OM)/Traffic Management Officer (TMO). The OM/TM must:

a. Provide oversight and direction to OSs/STMCs to ensure compliance with both national and local training directives and goals.

b. Assist the TA in the administration of training within the facility.

c. Remain aware of all Area Training Plans and the current status of all AOS trainees. Communicate with the TA any concerns or Area-specific issues regarding their AOS trainee employees.

d. Ensure the timeliness and accuracy of AOS Performance Assessment checks, Certification Skill Checks, OJT documentation, OJT Instructor evaluations, training team meetings, benchmarks, and other relevant training items. Follow the handling procedure outlined in Section 4-4, Completing FAA Forms 3120-1/25/32/36.

e. Ensure the timeliness and completion of TEAM, MBIs, and other briefing items as appropriate for all AOS personnel.

f. Once the ATT has completed an OJTI Panel recommendation and advised the OM, the OM will collaborate with the AOS NATCA Rep and forward the recommendation(s) to the ATM when applicable.

g. Provide opportunities for the ATT to meet regularly (every other month is recommended) to ensure area training objectives are met and that trainee training is being conducted IAW this order and JO 3120.4.

h. Ensure the AOS maintains a list of qualified OJTIs.

i. Advise the TA of any Area-specific training needs.

2-4. Collaborative Training Teams: Facility Training Team (FTT)/Area Training Team (ATT). The facility will create and employ the services of two collaborative training teams. These two teams will be known as the FTT and the ATT.

The FTT must:

a. Conduct regular meetings to review any identified concerns with facility training as well as upcoming training.

b. Conduct meetings with each ATT and area OM/TMO to review area training

c. Conduct meetings with all ATT members to ensure consistency in training.

d. The FTT will review and respond to all QC issues in CEDAR that are assigned to the TA.

e. The FTT will be responsible to ensure each ATT completes their required tasks.

The ATT must:

a. Conduct regular meetings to review any identified concerns with AOS training as well as upcoming training. The FTT, Area OM and Area NATCA Representative must be informed of any pertinent concerns.

b. Collaboratively provide input on the selection of the members of a trainee's training team.

c. Determine the need, if any, for area specific training needs or briefings, e.g. approach control training, non-radar training, military activity, etc., and advise the FTT in writing of those AOS specific training needs.

d. Review any submitted FAA Forms 3120-148 and determine if selections are necessary for an OJTI recommendation panel for AOS OJTIs, IAW JO 3120.4 and the NATCA/FAA CBA. Notify the AOS OM and the Area NATCA Representative when determined that recommendations are applicable.

e. Recommend in writing to the FTT any additions or deletions of items from the elements identified in the Facility Radar Associate and Radar position benchmarks (Appendix A and Appendix B).

f. Evaluate established training hours annually. The evaluation should include a review of historical data, airspace changes, or any impacting operational factor. Findings of this evaluation, including any recommendation to adjust hours, must be submitted to the FTT (Appendix C).

g. Seek the assistance and guidance of the FTT when necessary on AOS training issues or challenges.

2-5. Support Manager. Each facility Support Manager must:

a. Ensure that their Support Specialists complete the appropriate training courses, either electronically or through FAA approved training courses that are required for the functions of their support office.

b. Ensure that their Support Specialists complete currency and proficiency training requirements as applicable.

c. Each facility Support Manager should project office Support Specialist vacancies each fiscal year and make the required Call for Training requests to the TO under Chapter 2-2 of this order.

2-6. Operational Supervisor (OS)/ Supervisor Traffic Management (STMC). The OS/STMC must:

a. Ensure scheduled proficiency training requirements are completed for all personnel under their supervision. This includes the supervisor's direct reports, as well as personnel they provide general supervision over on a tactical basis. This training includes Recurrent, Refresher, Supplemental, and Skill Enhancement. Verbally brief personnel when required, IAW FAA Directives.

b. Recommend OJTI candidates to the ATT via FAA Form 3120-148.

c. Ensure trainees are assigned to operational positions to achieve currency requirements.

d. Conduct the Simulation Evaluation (Scored) for Stage 2D and Stage 3 simulation evaluations as determined by the TA. Where a CPC Cadre Instructor has performed the majority of the Stage 3 simulation instruction in the TTL for the trainee, every effort will be made to ensure the same CPC Cadre Instructor is assigned to work the RA position during the simulation evaluation. Any instance where a professional difference of opinion on an operating technique exists, the evaluator and the CPC Cadre Instructor should discuss the issue after the scenario is concluded.

Job subtasks cannot be evaluated as an error based on a technique the CPC Cadre Instructor may have taught to the trainee. Should a difference of opinion still exist, the TA will review the subtask with input from the OS and CPC Cadre Instructor. The TA will render a determination as to the outcome on any job subtask in question on an evaluation.

e. Ensure the trainee training is conducted only on those sectors/positions identified in their current training plan.

f. Ensure all consolidated positions during the training session(s) are approved sector configurations (Appendix D) and are indicated in Block 3 on FAA Forms 3120- 25/32/36.

g. Ensure FAA Forms 3120-25/32/36 are completed IAW JO 3120.4.

h. Ensure OJT that is conducted due to an interruption in training of thirty days or more is documented utilizing FAA Form 3120-25/32/36. In Purpose of Training (Block 9) check Other /Article 67 Time.

2-7. Supervisor of Record. The trainee/CPC-IT/OS-ITs Supervisor of Record must:

a. Promote a collaborative training team concept and coordinate resources to assist any trainee. The OS/STMC of Record will serve as the training team lead and will focus on collaborative training team decisions regarding the trainee on the team.

b. Discuss with the training team any training plan modifications including any modifications to training team members. The final determination to modify the training plan rests with the training team lead. Any modifications to the training plan must be entered in TEAM and communicated to the TA.

c. Conduct a training team meeting as often as needed, but no less than once per calendar month. Document the training team meeting in TEAM. In the event that the entire team cannot be present during the training team meeting, coordinate with the absent member(s) to allow input from all the members of the training team. Training team meetings are an important opportunity to discuss trainee progress and areas that need improvement. The OS/STMC and the training team must provide productive feedback to the trainee to include, but not limited to, an identification of strengths, weaknesses, and specific recommendations to improve the trainee's performance.

d. Conduct Benchmark assessments when appropriate.

e. Designate an alternate Supervisor of Record when away from the facility for an extended period. Utilize the delegated role function in TEAM to designate an alternate. Ensure the designee has acknowledged the designation.

f. Provide oversight to ensure completion of all items on ZBW Training Items Administrative Oversight and Progression Checklist (ZBW 3330.212F).

2-8. OJT Instructor (OJTI). The OJTI must:

a. Document all training on the appropriate OJT form. Ensure the training documentation is thorough, completely describes the training session, and is completed IAW JO 3120.4. Be sure

that comments in Block 12 identify both exemplary performance as well as deficient performance.

b. Document OJT that is conducted due to an interruption in training of thirty days or more utilizing FAA Form 3120-25/32/36. In Purpose of training (Block 9), check Other/Article 67 Time.

c. Determine the hours (based on traffic activity) to be allocated towards each of the positions at which training is being conducted when positions are consolidated/combined and the trainee is not certified on all the consolidated/combined positions.

d. Conduct thorough OJT debriefings prior to the end of shift, using replay tools when appropriate and available. Identify specific performance issues and include suggestions and recommendations to improve the trainee's performance. OJTIs may recommend to the training team lead specific SET tools (e.g. TTL, replay review, eLMS/CBI or any other method deemed appropriate) be assigned to the trainee for completion.+

e. Provide timely feedback to the training team on observed emerging trainee performance deficiency trends that might benefit from SET.

2-9. Trainee. The trainee must:

a. Exhibit a desire to learn and be receptive to performance feedback.

b. Perform operational assignments in order to maintain currency. If certified on a position (other than the Radar Assistant "A" position), ensure monthly operational currency requirements are met IAW JO 7210.3.

c. Maintain a thorough knowledge of JO 7110.65, JO 7610.4 (Special Military Operations), applicable Facility Letters of Agreement (LOAs), Facility Standard Operating Procedures (SOPs), MBIs, and facility/area/sector/adjacent airspace.

d. Avoid any extended absence from classroom or TTL. The extended absence of a trainee affects the entire class's ability to successfully complete the required training agenda. At the discretion of the TA, extended absences may be cause for re- assignment to a different class.

e. Follow the handling procedure outlined in Section 4-4 Completing FAA Forms 3120-1/25/32/36.

2-10. CPC Cadre Instructors. May provide classroom and/or simulation instruction in the TTL to either a Stage 2A, Stage 2D and Stage 3 trainee(s) when operational staffing permits.

a. CPC Cadre Instructor candidates may be recommended to the FTT from any source. Each calendar year, the FTT will solicit from the ATT the recommended names to be assigned as CPC Cadre instructors. The FTT will develop and maintain a list of AOS CPC Cadre Instructors. Changes to the AOS list of CPC Cadre Instructors may be made at any time by the FTT.

b. CPC Cadres will receive guidance and instruction from TO personnel on classroom and TTL procedures and protocols prior to conducting any TTL based instruction.

c. CPC Cadres will maintain currency while assigned to the TO.

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Chapter 3 - ZBW Training Requirements for Air Traffic Control Specialists (ATCS)

3-1. Proficiency Training. Proficiency training is required for all personnel who maintain currency.

a. Recurrent Training Recurrent Training is collaboratively developed and delivered national safety training. This training is delivered via electronic means, instructor-led presentations, or any combination thereof. Recurrent Training is intended to increase air traffic controller proficiency, enhance awareness of human factors affecting aviation, and promote behaviors essential for the identification, mitigation, and/or management of risk. Recurrent Training consists of 16 hours of training, conveyed in 8-hour sessions, conducted twice per year. Content need not be duplicated in facility Refresher Training if covered in the Recurrent Training curriculum within the current calendar year. When Recurrent Training is prescribed, AJI must provide instructions for its applicability and specific instructions for documentation in FAA Form 3120-1 or the electronic equivalent.

b. Refresher Training.

1. Annual refresher training is a nationally mandated curriculum to include simulation and may be supplemented with locally developed training. Additionally, IAW JO 3120.4 ZBW must maintain in writing an annual (calendar year) refresher training plan. The TA or his/her designee will continuously solicit during the year for items that require refresher training. Topics include, but is not limited to, seldom used procedures and complex operations. At a minimum, recommendations on topics should come from the following groups:

a. Operational Personnel
b. OMs/TMO/SMs
c. NATCA
d. SUPCOM
e. ATTs
f. Boston Center Safety Action Council
g. ZBW Quality Control Office

2. The FTT will review the list of recommended Refresher Training items to determine the Refresher Training Topics for the current year. The TA will issue an Annual Refresher Training memorandum containing nationally and/or facility developed curriculum and simulation training to be conducted during the year.

c. Supplemental Training. All operational personnel must complete supplemental training prior to the use of new/revised procedures, regulations, or equipment. The TA must review all supplemental training and update local training materials as appropriate.

d. Skill Enhancement Training (SET). There are two types of SET:

- **Skill Improvement Training (SIT)** The purpose of SIT is to provide an individual with the opportunity to participate in training that will enrich their ATC skills, abilities, and knowledge through simulation, electronic learning, observation, etc. SIT is not used to correct a specific performance deficiency.

- **Skill Development Training (SDT)**. The purpose of SDT is to improve a specific performance deficiency for an individual who is certified or receiving OJT on a position. SDT is different from SIT in that SDT is conducted when a performance deficiency is identified.

Both shall be administered at ZBW in accordance with FAA directives including JO 3120.4 along with the following:

1. For an individual not certified but training on a position(s), SET may be assigned to enhance specific skills, knowledge, or abilities to assist in their success with the training program. The OS/STMC, in collaboration with other members of the training team, will assign SET in writing to include the specific skills and requirements necessary to accomplish this training. All SET in the TTL will be coordinated through the TO. SET must be tailored to meet the individual's needs. Methods may include Web Based Training (CBI/eLMS), ILT or TTL, self-directed study, or any applicable form of SET.+

2. All SET must be documented on FAA Form 3120-25/32/36.

3. The Training Team should decide if OJT continues during SIT. Pause all OJT while conducting SDT.

4. SET may be assigned for a position on which the specialist is certified IAW JO 3120.4.

5. SET for a Trainee:

   a. FAA Form 3120-29(I) or (D) (Appendix F) must be completed by the OS in collaboration with the Training Team and uploaded into the Training Team Meeting in TEAM.

   b. A meeting will normally be scheduled with the Training Team and the TA as soon as practicable to develop a clear understanding of the intent of the requested training and the associated timeline for completion. At a minimum, the following will be discussed during the meeting:

      i. Type of SET requested (including but not limited to Simulation Scenarios, Falcon, ILT, WBT, Observation, or Other)

      ii. If SET TTL scenarios are requested:

         (a) Number of requested SET TTL scenarios.

         (b) Desired content (including but not limited to weather, volume level, crossing traffic, sequencing, arrivals, slow developing situations, departures, metering, SAAs, VFR activities, radar ID, air refueling, VFR-to-IFR, emergencies, hearback/readback, IFR arrivals, safety alerts).

         (c) The requesting OS will be asked to send a member of the Training Team to the TO to assist in developing the requested scenarios and review completed scenarios for content.

(d) An email will follow with the date and time of SET TTL scenarios scheduled in TTL.

(e) The Training Team should be prepared to meet with the TA 30 minutes prior to the first SET to discuss lab techniques, procedures and desired outcomes.

(f) FAA Form 3120-25 must be completed in TEAM.

iii. Upon completion of SET the Training Team OS will communicate the results and provide feedback to the TA and OM.

iv. Training team meeting must be conducted after SIT and SDT.

e. Recertification Requirements.

1. Operational personnel who need to be recertified due to loss of currency on an operational position must receive training IAW JO 3120.4 prior to receiving a recertification skill check. The training team must meet to establish a training plan in TEAM and determine minimum training time requirements.

2. OJT must be conducted on all previously certified radar positions. This satisfies OJT on the RA position if combined with the Radar Position. If no previously Radar Positions were held, OJT must be conducted on all previously certified RA positions.

3. The recertification skill check must be conducted for no less than 40 minutes. Recertification skill checks requiring OJT must be conducted by an OS who will be plugged into the position (with a position certified OJTI when appropriate).

4. Recertification skill checks must be documented on FAA Form 3120-25/32/36. If a single skill check is conducted for multiple positions, the OS/STMC must indicate in Block 3 of FAA Form 3120-25/32/36, which positions are covered under the recertification skill check.

Note: per 7210.3 2-3-3: Individuals recertified in a month must meet currency requirements for that month regardless of the day of recertification.

3-2. Electronic Learning Tools.

a. The eLMS learning tool is a robust learning management system that keeps track of organizational and personal learning needs and requests. OSs are encouraged to utilize eLMS as a training resource. Employees will complete eLMS training as assigned IAW FAA Orders. The eLMS learning tool provides a comprehensive map of learning with the Learning Plan, Competency Profile and Curriculum Status. The eLMS learning tool is designed to provide full support for career development. The system allows FAA employees to receive online learning from anywhere, at any time, and at their own pace.

b. CBI. Locally and nationally developed instruction and learning is hosted locally on CBI computers.

3-3. Briefings. All briefing items must be coordinated by the originating office through the TA. The TA must provide a hard copy of all briefing items to the OMIC to be maintained in the Master MBI Binder at the OMIC position.

a. **General Information (GI)**. These items are deemed informational in nature. GI items do not require documentation that the employee has read the briefing item. GI items will be placed in CEDAR as an Informational Briefing Item.

b. **Mandatory Briefing Items (MBIs).** These items are generally considered urgent and/or regulatory in nature. Also, JO 7210.3 mandates that certain changes to national Orders to be verbally briefed. MBIs will be disseminated as a Same Day or Prior to Work Item.

1. Same Day MBI: Briefing Items that must be acknowledged prior to the end of an employee's shift.
2. Prior to Work MBI: Briefing Items that must be acknowledged prior to assuming an operational position.

3-4. Briefing Item Dissemination and Acknowledgment. All Briefing Items, other than Verbal Briefings, must be entered by the TO and acknowledged by employees through CEDAR. For times when Briefing Items are not initially disseminated and/or acknowledged through CEDAR, paper sign-off rosters will be utilized. These sign- off rosters will be located at the OMIC position and will be updated quarterly by the TO. Briefing Material and employee acknowledgment that are initially disseminated using paper sign-off rosters will be entered into CEDAR by the TO.

a. New Briefing Item During Administrative Hours. To ensure consistent delivery, briefing items entered into CEDAR will normally become available for viewing at midnight the following day. Information that needs to be disseminated to the operational workforce must be disseminated by one of the methods listed on ZBW Form 3120-31, Briefing Item Distribution (Appendix G). The POC will complete the applicable sections of the form as a recommendation and submit it to the TA. The TA or designee must ensure the completion of all items on the form, approve the briefing method and deadline, sign the completed form, and ensure appropriate distribution. This form will indicate, at a minimum:

1. Briefing start date
2. Briefing expiration/no longer required date (this is the date that the material should be unassigned in CEDAR. Note: Do NOT delete the Briefing Item, only unassign personnel who did not complete it prior to the expiration date).

3. Briefing item/material
4. Briefing method
5. Personnel to be briefed
6. Area/group(s) requiring paper documentation

b. For briefing items received without adequate time to disseminate via CEDAR, the OMIC will disseminate the material utilizing the paper sign-off rosters and ensure employees initial and date the sign-off rosters after receiving the briefing item. Paper sign off rosters will be utilized until the item is available for acknowledgement in CEDAR. The OMIC will notify the TO for CEDAR entry of the briefing material and acknowledgments.

c. LAN Outage During Administrative Hours: The TO will coordinate with the OMIC for dissemination.

d. LAN Outage During Non-Administrative Hours: For briefing items that have already been entered into CEDAR, the OMIC will make copies of the briefing item located in the Master MBI Binder and utilize paper sign-off rosters to disseminate the briefing item. After completion of the MBI, the sign-off sheets will be sent to the TO and entered into CEDAR.

3-5. Verbal Briefings.

a. Determination of material as a Verbal Briefing Item will be accomplished by the Agency at the appropriate national, regional and/or local level.

b. The TA will coordinate with the appropriate office or AOS to designate a "Subject Matter Expert" to serve as the POC for the briefing item.

c. The POC will either conduct the briefing or task another individual to conduct the briefing. The POC will ensure that the other individual is properly prepared to conduct the verbal briefing.

d. To the maximum extent possible, briefings will be offered on all shifts.

e. The TA will determine if a verbal briefing will be recorded. This recording will be used to brief personnel who were not able to receive the initial POC briefing.

f. Recorded briefings meet the requirements of a verbal briefing.

g. To the maximum extent possible, no more than 30% of the briefing audience will receive a recorded verbal briefing.

h. During the recording of the briefing, the briefer will indicate the individual/office who may be contacted for additional information.

3-6. Crew Briefings.

a. The OM or the OS are responsible for determining the topics or items to be briefed.

b. Various methods of presenting the briefing may be employed, including presentations from employee volunteers on a given topic.

3-7. Facility Visit Familiarization Training. Facility Visit Familiarization Training is a valuable resource to educate controllers. Facility Visit Familiarization Training must be conducted IAW 3550.10, Pay Administration. Employees may not earn premium pay (holiday, overtime, or compensatory time) while familiarization training assignment. Approval of familiarization training is subject to budget availability. Employees must request Facility Visit Familiarization Training on ZBW Form 3120- 42 (Appendix H) at least three (3) full administrative workdays prior to the visit date. The form must be submitted to the OS/CIC of their Area.

a. The OS/STMC/CIC must determine whether the employee can be released from the area staffing for the period required (may or may not be an entire shift) and indicate the determination on ZBW Form 3120-42. This determination does not constitute final approval for the trip. The OS/CIC then must forward the completed form to the TA.

b. The TA or designee must ensure coordination for the facility visit, indication of approval on ZBW Form 3120-42, tracking of the training, ensure the Area OS/CIC is advised of approval or disapproval, and ensure ZBW Form 3120-42 has been returned to and retained in the Area until the date of the training.

c. Facility visits are an assignment of work and must be completed within the time the employee has been released from the Area schedule. Every effort will be made to accomplish this assignment subject to operational needs, staffing limitation, inclement weather, etc. If the training is cancelled, the employee must report to work.

d. Prior to beginning their trip, unless otherwise advised, employees must physically report to the OS/CIC in their AOS for final trip approval and duration of release. If the training visit is completed early, including travel time, the employee must return to ZBW. If the employee would like to request leave, the request must be submitted and considered IAW the A24 MOU.

e. ZBW Form 3120-42 must be marked “Completed” or “Cancelled” by the OS/CIC and returned to the TA.

3-8. Flight Deck Training (FDT). FDT is a voluntary training program authorizing eligible FAA employees’ access to the flight deck of a participating air carrier, air cargo, air taxi, general aviation or military aircraft. FDT shall be conducted IAW JO 3120.29 FDT and any applicable MOU.

3-9. Field Qualification Training.

a. **All** trainees from the FAA Academy who have successfully completed Stage 1 training will enter the facility training program for completion Stage 2A, Stage 2D and Stage 3, Field Qualification Training IAW JO 3120.4, Appendix E. En Route Instructional Program Guide, and as directed by the TA.

b. A CPC-IT that either transfers from an En Route facility, or has previous En Route experience, and enters the training program at ZBW may complete abbreviated portions of Stage 2A, Stage 2D and Stage 3, field qualification training as determined by the TA. The

TA will determine which portions of the instructor-led and simulation training will be administered based on experience and needs.

c. A CPC-IT transfer from a terminal facility that enters the training program at ZBW will complete the full Stage 2A, Stage 2D and Stage 3, field qualification training unless changes are requested by the CPC-IT's training team and approved by the ZBW TA in writing. If changes are requested by the training team, the ZBW TA will determine which portions of the instructor-led and simulation training will be administered based on the needs of the specialist.

d. A CPC/TMC/OS/STMC transfer between operational areas within ZBW will complete a training program as determined by the TA prior to the start of any OJT in the new AOS. The training program may include map study, classroom, simulation, and LOA/SOP reviews prior to the start of OJT as determined by the TA. ATTs may provide input into the training assigned to the area transferee.

e. **Stage 2A – Assistant Controller Training** (Course 55053 or current course) is a nationally designed and locally developed course administered by the TO that prepares the trainee for radar assistant position qualification and certification. The classroom schedule and duration of the course will be determined by the TA. The TO has developed a Stage 2A syllabus for the trainee that includes briefing items, instruction, instruction knowledge tests, and TTL. Stage 2A requirements include:

1. Center Map knowledge that includes Instructor Led Training (ILT) and map labeling in accordance with locally developed requirements.

2. Operating Communications System – Using a locally developed checklist, the trainee is required to demonstrate the skills necessary to operate the communications system in accordance with JO 3120.4.

3. OJT (Course 55053) consists of OJT and certification training on the assistant position in the operational environment and is supervised by an OS. See Appendix C for minimum and target OJF/OJT hours. The OS will observe the trainee operating an Assistant Controller position for a period of at least 40 minutes. One certification skill check is sufficient to certify on all Assistant Controller positions in the AOS. The TO will maintain and update a Radar Assistant Checklist (Appendix J) for use by the OS as a guide in the Radar Assistant certification process.

f. **Stage 2D – Non-Radar and Radar Associate Controller Training** (Course 55054 or current course) is a nationally designed and locally developed course administered by the TO that prepares the trainee for radar associate position qualification and certification. The classroom and TTL schedule and duration of the course will be determined by the TA. The TO has developed a Stage 2D syllabus for the trainee that includes lesson plans for requisite items in JO

3120.4, Appendix E, En Route Instructional Program Guide (IPG). Pass/Fail criteria apply to this stage of qualification training.

1. All lessons are listed within the ZBW Stage 2D syllabus. Lessons may conclude with an end of lesson test or a knowledge check. A score of 70 or greater is required on any end-of- lesson test. If the trainee does not score 70 or greater on an end-of-lesson test or a knowledge check, additional training will be provided to correct deficiencies identified; retake of a knowledge check is not required, but may be administered at the discretion of the TA.

2. The TO will develop, update, maintain and validate AOS exams that test the Area-specific knowledge of the trainee.+

3. The ZBW Stage 2D training includes part-task exercises in accordance with JO 3120.4. The TO will develop, update, maintain and validate part-task exercises. The part-task exercises will include as a minimum the required tasks as listed in JO 3120.4. These part-task exercises are not pass/fail and will be administered by an instructor using a facility created checklist to determine the trainee's ability to apply skills and knowledge acquired during academic instruction.

4. The ZBW Stage 2D training may include some non-radar instructor-led skills development exercises, if applicable. The ZBW Stage 2D training does not include any non-radar instructional/evaluation scenarios. However, an ATT can request, and the TO may conduct during Stage 2D, non-radar instructional scenarios specific to the non-radar operations in an AOS. There will be no pass/fail non-radar evaluation scenarios required.

5. All Stage 2D part-task/instructional/evaluation scenarios will be conducted with the Stage 2D trainee working the radar associate position and an instructor or other qualified individual working the radar position. Upon successful completion of the Stage 2D part- task, instructional, and evaluation scenarios, additional scenarios may be offered to the Stage 2D trainee where the trainee may work the radar position to gain understanding of the basic functions and operations of the radar position in order for the trainee to better understand the Radar Team Responsibilities at a sector. These additional scenarios will not be evaluated or documented on FAA Form 3120-25.

6. The number of part-task/instructional/evaluation scenarios in Stage 2D are established by the TA. New scenario development requiring validation by the TA in accordance with JO 3120.4, will take place after review and approval of the scenario by the ATT.

7. Additional non-graded/evaluated simulation scenarios may be conducted throughout the simulation training in the TTL at the discretion of the TA.

8. Stage 2D Instructional and Evaluation Scenarios must be conducted at the following Sectors for each AOS:

9. In all Stage 2 evaluation scenarios, the trainee will be evaluated IAW JO 3120.4. Every effort must be made for an AOS OS to conduct the evaluation.

Area	Sector(s)
A	23
B	52
C	47
D	16
E	05

10. A trainee who does not successfully complete one of the first two evaluation scenarios must be assigned skill enhancement training IAW with JO 3120.4 and this order.

11. When a trainee does not successfully complete Stage 2 in the TTL, a training review must be conducted IAW JO 3120.4 and the CBA.

g. Stage 3 – Radar Controller Training - (Course 55055 or current course) is a nationally designed and locally developed course administered by the TO that prepares the trainee for radar position qualification and certification. The classroom and TTL schedule and duration of the course will be determined by the TA. The ZBW Training Office has developed a Stage 3 syllabus for the trainee that includes lesson plans for requisite items in JO 3120.4, Appendix E, En Route Instructional Program Guide (IPG). Pass/Fail criteria apply to this stage of qualification training.

1. Trainees will be assigned to Stage 3 training based on scheduled Stage 3 class dates and a recommendation from the Stage 2D training team and/or the ATT.

2. All lessons are listed within the ZBW Stage 3 syllabus. Lessons may conclude with an end of lesson test or a knowledge check. A score of 70 or greater is required on any end-of- lesson test. If the trainee does not score 70 or greater on an end-of-lesson test or a knowledge check, additional training will be provided to correct deficiencies identified; retake of a knowledge check is not required.

3. The TO will develop, update, maintain, and validate AOS exams that test the Area-specific knowledge of the trainee.

4. JO 3120.4 requires Stage 3 trainees to complete a Radar Qualification Exam prior to entering the simulated radar environment (TTL). The trainee must meet the nationally established requirements for successful completion of the exam. If the trainee is not successful in meeting the established requirements, SET will be provided to the trainee. If the trainee does not pass the radar qualification examination after the additional training, the provisions of JO 3120.4, the FAA/NATCA CBA, and HRPM Volume 1: Employment (HRPM EMP) must be followed.

5. All Stage 3 part-task/instructional/evaluation scenarios will be conducted with the Stage 3 trainee working the radar position and an instructor or other qualified individual working the radar associate position. Upon successful completion of the Stage 3 part task/instructional/evaluation scenarios, four (4) additional scenarios must be provided to the Stage 3 trainee where recovery and safety alerts are the main focus of the scenario. These additional scenarios will not be evaluated as Pass/Fail but will be documented on FAA Form 3120-25.

6. The number of part-task/instructional/evaluation scenarios in Stage 3 are established by the TA. New scenario development requiring validation by the TA in accordance with JO 3120.4 will take place after review and approval of the scenario by the ATT.

7. Additional non-graded/evaluated simulation scenarios may be conducted throughout the simulation training in the TTL at the discretion of the TA.

8. Stage 3 Instructional and Evaluation Scenarios must be conducted at the following Sectors for each AOS:

Area	Sector(s)
A	**24**
B	**36**
C	**47**
D	**16**
E	**06**

9. In all Stage 3 evaluation scenarios, the trainee will be evaluated IAW JO 3120.4. Every effort must be made for an AOS OS to conduct the evaluation.

10. A trainee who does not successfully complete one of the first two evaluation scenarios must be assigned skill enhancement training IAW with JO 3120.4 and this order.

11. When a trainee does not successfully complete Stage 3 in the TTL, a training review must be conducted IAW JO 3120.4 and the CBA.

h. Scenario Development. All new simulation scenarios included in Stage 2A, Stage 2D and Stage 3 in the TTL will be developed IAW JO 3120.4.

1. Each scenario will have both an Instructor Guide and Remote (Ghost Pilot) Guide, created IAW JO 3120.4.

2. Conflict alert will be deactivated on every other scenario and on all evaluation scenarios.

3. Each evaluation scenario for each stage of training will be reviewed at least once per calendar year by a member(s) of the ATT to ensure they reflect current AOS operations.

4. The TA will use available tools, e.g., Preferential Arrival and Departure Route (PDARS), FALCON, in determining the ZBW training sector volume levels as per JO 3120.4, Appendix E.

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Chapter 4: Training and Proficiency Records and Reports

4-1. FAA Form 3120-1. An FAA Form 3120-1, or its electronic equivalent, will be maintained, stored, and updated by the TO for ATCS individuals IAW FAA Directives and the Privacy Act of 1974.

4-2. Training and Proficiency Records. ATCS training and proficiency records will be documented and distributed for the ATCS review on a quarterly basis by the TO. Records will be signed by the ATCS individual and a staff specialist, supervisor or manager, and then submitted back to the TO for retention in FAA Form 3120-1.

4-3. Mailing FAA Form 3120-1. The TO will prepare for mailing the FAA Form 3120-1 for any individual who transfers to another facility or separates from the agency.

4-4. Completing FAA Forms 3120-25/32/36. FAA Forms 3120-25/32/36 will be completed IAW JO 3120.4. When TEAM is unavailable the following process shall be followed:

a. The trainee shall give the original FAA Form 3120-25/32/36 to the OS/STMC. If there is not an OS/STMC, the form shall be given to the OMIC.

b. The OS/STMC/OMIC shall review the FAA Form 3120-25/32/36 for accuracy and completeness.

c. Once the form is accurate forward the FAA Form 3120-25/32/36 to the TO.

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Chapter 5: ZBW Trainee On-the-Job Training (OJT) and Position Certification

5-1. Training Team.

a. The training team must utilize opportunities for training success while maintaining the integrity of the training program. The training team is to be engaged with the trainee while assessing the trainee's skills, knowledge, and abilities, in order to foster effective learning. The training team must provide productive feedback when discussing the trainee's performance and progress (strengths and weaknesses). Finally, the training team commits to providing recommendations for SET as necessary to ensure the trainee can meet the requirements required to successfully complete each stage of the facility training program.

b. Training team members will be assigned for Stage 2A, Stage 2D and Stage 3 trainees prior to their beginning OJT so the training team members can observe and coach the trainees while in the classroom and/or simulation training in the TTL. The OS should attempt to assign OJTIs to trainee training teams that will foster the training environment productivity.

5-2. OJTI Selections and Evaluations. Selection of OJTIs will be IAW JO 3120.4 and the provisions of the FAA/NATCA CBA, Article 68. Evaluation and certification of OJTIs must be completed in TEAM utilizing FAA Form 3120-151 OJTI Certification/Evaluation. Report.

5-3. Training Plans. The training team lead will meet with the trainee's training team to discuss the training plan before beginning OJF or OJT. The training plan must be fully understood by all members of the training team. Training plan must be entered in TEAM and digitally signed by all members of the training team.

5-4. Training Team Meetings (TTMs). The purpose of training team meetings are for all training team members to provide input and recommendations regarding trainee training.

a. A TTM will be conducted within the first 30 days after OJT begins. While a trainee is receiving OJT, subsequent TTMs are required at least once every month. TTMs that occur at Benchmark assessment intervals meet this requirement. There is no limit to the number of TTMs that may be held each month. Additional TTMs are a valuable tool for the training team to identify and correct performance and skill gaps of the trainee. The team must cover topics required IAW JO 3120.4.

b. OSs must document completion of TTMs in TEAM. All team members in attendance must digitally sign the form. In the event that the entire team cannot be present, the OS should have a discussion with those not present to allow for input and signing of the TTM Form by all the members as soon as feasible.

5-5. On the Job Familiarization (OJF). OJF is a valuable tool in the trainee's training program. Training teams should use their creativity when conducting OJF to benefit the trainee in their OJF experience. Minimum OJF hours are established in Appendix C. Maximum OJF hours equal to no more than 10% of the target hours may be assigned by the trainee's training team. OJF must be conducted, at a minimum, on the first two Radar Associate and first two Radar positions. OJF hours on other positions in the AOS will be at the discretion of, and determined by, the training team. The OJTI conducting the OJF must document the session on FAA Form(s) 3120-25/32, completing blocks 1, 2, 3, 4, 5, 6, 7, 9, and 12. Block 12 must

include a description of control techniques utilized and discussed during the session, sector-specific actions observed, traffic flows, etc.

5-6. On-the-Job Training (OJT). OJT is the key to trainee's training. OJT will be conducted IAW JO 3120.4 and the trainees Training Plan.

5-7. Benchmarks. Management and NATCA have collaboratively developed benchmark checklists for use in Radar Associate and Radar OJT. The benchmark checklist items were collaboratively developed to provide the training team with a systematic approach for evaluating a trainee's training progress and identifying the performance level of a trainee at specific checkpoints in their training program.

a. Any trainee receiving OJT must receive periodic benchmark evaluations from their training team utilizing ZBW Form 3120-02RA, Radar Associate Benchmarks and ZBW Form 3120-02R, Radar Benchmarks as appropriate. A benchmark form must be completed for each position on which OJT is occurring; however, at the discretion of the training team, a single benchmark form may be used for multiple positions if they have been identified as routinely consolidated/combined position(s).

Note: *Exceptions: OJT on TMU positions are exempt from the benchmark process.*

b. Benchmark evaluation findings may be determined via direct observation by the training team lead, input from training team OJTIs, and/or a review of the training documentation.

c. Benchmark evaluations must be completed by the Training Team, during the Training Team Meeting.

d. After considering all the data gathered, the training team lead will determine whether the trainee EXCEEDS EXPECTATIONS, is PROFICIENT, or NOT PROFICIENT in the appropriate benchmark items. Following a review of the benchmark form with the trainee, the training team should request SET in those areas identified as "NOT PROFICIENT" on the benchmark form.

e. If SET is required, it must be conducted IAW JO 3120.4 and chapter 3-1(d) of this order.

f. Benchmark assessments must be completed within three specific intervals.

1. Level 1 – 25% Benchmark. Must be completed when the trainee OJT hours are between 15% and 35% of the target hours for the position.

2. 2. Level 2 – 50% Benchmark. Must be completed when the trainee OJT hours are between 40% and 60% of the target hours for the position.

3. Level 3 – 75% Benchmark. Must be completed when the trainee OJT hours are between 65% and 85% of the target hours for the position.

Note: *Once certification on a particular position is complete, any remaining benchmark assessments are no longer necessary for that position.*

g. All benchmark assessment forms must be uploaded into the Training Team Meeting in TEAM.

5-8. Performance Assessments/Skill Checks - All PA/skill checks must be administered IAW JO 3120.4, and will be conducted for a minimum of 40 minutes. PA/Skill checks must include specific references rules, orders, SOPs, agreements, etc., in block 12A, for any tasks marked as "Unsatisfactory" or "Needs Improvement."

a. Performance Assessment – Performance Assessments must be conducted by the employee's OS/STMC or their designee IAW JO3120.4. Performance Assessments are an excellent opportunity to observe the performance of a trainee and are encouraged at frequent intervals.

b. Certification skill checks – Certification skill checks must be conducted by the employee's OS/STMC or their designee. The OS who conducts the Certification Skill Check makes a recommendation in Block 13 of FAA Form(s) 3120-25/32. Only the training team lead, or their management designee, has the authority to certify (sign Block 15) the trainee on the position(s) where the certification skill check took place. The OS conducting the certification skill check may recommend suspension of training in Block 13 of FAA Form 3120-025/32, but only the training team lead (or their written designee) has the authority to suspend training.

c. Recertification skill checks - May be accomplished by individual position or a single action covering multiple positions. Position Certification(s) must be listed in Block 3 of FAA Form 3120-25. Document each position separately on FAA Form 3120-25 or write "All Positions" in Block 3 of FAA Form 3120-25 to indicate an Area certification.

5-9. Tracker and Combined Area/Midnight Operations. The Training Team lead will ensure completion of the following training by the trainee.

a. Prior to certification on the first radar position:

1. Training on the Radar Coordinator (Tracker) position at any sector in the AOS for at least two (2) hours of OJT. This OJT will be documented on FAA Form 3120-25. In Block 9 of FAA Form 3120-25 check the OTHER box and indicate "TRACKER". This training should involve at least one (1) hour with the trainee working the Tracker position and at least one (1) hour with the trainee working the Radar position with a Tracker assigned to the sector.

2. A minimum of one (1) hour, but no more than four (4) hours of OJF will be assigned to monitor the TMU personnel in the unit in order to better understand traffic management operations and their impact. This OJF will be conducted by a TMU OJTI and documented on FAA Form 3120-25. In Block 9 of FAA Form 3120-25 check the OTHER box and indicate"TMU".

b. Before certification on the last radar position:

1. At any time prior to certification on the last radar position the trainee must be assigned OJT on at least two midnight shifts and complete a minimum of 6 hours of OJT to fully understand facility/area operations while in combined area midnight sector configurations. This OJT must be documented on FAA Form 3120-25 and indicate the total time OJT was conducted. Supervisors are reminded to be sure the scheduled CPC staffing for the midnight shift includes at least one (1) OJTI who will perform the

midnight operations OJT. The OJTI conducting the midnight training experience will determine the best time periods during the midnight shift that OJT will be conducted. This OJT time will be included towards the number of Target Hours for both of the remaining radar sectors where the trainee is training.

c. Before certification in Area C:

1. At any time prior to certification on the last radar position in Area C, the trainee must complete the "Area C Mid Two-Day Training" class. The training is conducted in both the classroom and the TTL.

5-10. Seasoning. IAW ZBW 7110.33, following certification on an operational position trainees must work operationally at that position for a minimum of five (5) workdays. OJT may resume upon completion of this "seasoning" requirement.

5-11. Training Review. A Training Review must be held IAW JO 3120.4 and the FAA/NATCA CBA.

a. The TA will provide documentation and support to the Training Review. All pertinent documentation will be provided to the members conducting the review no later than 5 administrative days from the date training was suspended.

b. The Training Review Board (TRB) will strive to meet and provide a recommendation to the ATM no later than 20 calendar days from the date training was suspended.

c. The ATM must issue a written training determination within calendar 30 days of the training suspension. A copy of the training determination will be provided to the employee, the NATCA FacRep, the FTT, and the AOS ATT.

Chapter 6: Training - Management and Other

6-1 Operations Manager (OM) Training.

RESERVED

6-2. Front Line Manager (OS)/STMC Training.

RESERVED

6-3. Supervisory Traffic Management Coordinator Training (STMC). At the discretion of the ATM, or their designee, and documented in the STMC's training plan, specific elements below may be omitted based upon unique experiences of the individual. All STMCs will be certified or recertified, as appropriate, on TMU positions, in accordance with JO 3120.4 and JO 7210.3, prior to performing any STMCIC duties. All STMC training will be accomplished in accordance with JO 3120.4, Appendix G, Traffic Management Instructional Program Guide.

a. Supervisory Traffic Management Coordinators (STMCs) must:

1. Successfully complete Facility Traffic Management Coordinator Training (Course 55116)

2. Attend FAA Academy Training Courses 50115 (Enhanced Traffic Management Coordinator) at the first available date.

3. Successfully complete all briefings on policy and procedures of all national traffic management functions and ATCSCC operations and procedures.

4. Successfully complete Initial OS-IT Training Requirements (Section ##).

b. Traffic Management Officer (TMO) must:

1. Develop a training plan IAW JO 3120.4 and utilizing the target hours listen in Appendix C on the designated TMU positions prior to commencing OJT.

c. Upon completion of Sections a and b, the STMC-IT may begin OJT on the STMC position. OJT hours will be documented on FAA Form 3120-45 Operations Supervisor/Supervisory Traffic management Coordinator OJT Instruction/Evaluation Report in TEAM. After the minimum certification hours of OJT are achieved, and a training team recommendation for certification is documented on FAA form 3120.45, the TMO, or their designee, may perform a certification skill check.

6-4. Controller-In-Charge (CIC) Training. IAW JO 3120.4, JO 7210.3, and the CBA:

a. Prior to performing CIC duties:

1. Complete any agency required CBI training, currently En Route CBI 57057 (or current equivalent).

2. Complete FAA Course 55072 (or current equivalent), Facility CIC, En Route Part A and Part B.

3. The OM of the AOS for any newly selected CIC will brief the new CIC on being engaged in the operation, achieving facility/area goals, being an active part of the ZBW safety culture, risk mitigation, and other expectations pertinent to safety and efficiency in the NAS at the time of the individual's training. This discussion must be documented on FAA Form 3120-36, check OTHER box, and indicate OM/CIC discussion.

4. Operational Areas are allotted a maximum of twenty (20) target hours, a minimum of eight (8) hours of OJT, and two (2) hours OJF in TMU with an STMC prior to certification. All training will be documented on FAA Form 3120-36, CIC OJT Instruction/Evaluation Report. Any time after the minimum OJT hours and OJF hours in TMU are completed, an OS may conduct a Certification Skill Check utilizing FAA Form 3120-36. The OS conducting the skill check will indicate if certification is recommended in Block 13, and forward the form to the supervisor for the CIC who will sign block 15 on the FAA Form 3120-36, to indicate certification, and forward the form to the TO through the OMIC.

5. TMU is allotted a maximum of twenty (20) target hours with a minimum of eight (8) hours OJT, and two (2) hours OJF hours in each operational area with an OS (with the exception of an area currently certified in). The OJF in each Area is intended to provide awareness of traffic flows, sector combinations/configurations, holding, metering points, etc. All training will be documented on FAA Form 3120-36, CIC OJT Instruction/Evaluation Report. Any time after the minimum OJT hours and OJF hours in the areas are completed, an OS may conduct a Certification Skill Check utilizing FAA Form 3120-36. The OS conducting the skill check will indicate if certification is recommended in Block 13, and forward the form to the supervisor for the CIC who will sign block 15 on the FAA Form 3120-36, to indicate certification, and forward the form to the TO.

6-5. Support Specialist Training.

RESERVED

6-6. Traffic Management Coordinator (TMC) Training. All TMC training will be accomplished in accordance with JO 3120.4, Appendix G. Traffic Management Instructional Program Guide.

a. Stage 1. Facility Traffic Management Qualification and Certification (Course 55116 or current course.) Successfully complete Facility Traffic Management Qualification and Certification (Course 55116 or current course). The course must cover, as a minimum, requirements set forth in JO 3120.4 and JO 7210.3. Course 55116 will be administered in up to three parts: classroom, simulation (if elected by TA), and OJT.

1. Classroom training

a. Requirements:

i. Course Overview
ii. Maps
iii. ZBW Route Book
iv. Compliance Briefing
v. TSD Briefing and Exercises
vi. TMU Overview Briefing
vii. TMWC Briefing
viii. TMAC Briefing
ix. TMEC Briefing
x. TMDC Briefing a. ZBW SWAP Briefing
xi. TMNC Briefing a. North Atlantic Tracks Briefing
xii. TMML Briefing a. JDRIVE Review
xiii. STMC/TMCIC Briefing
xiv. TMU Contingency Plan Briefing
xv. AFP Briefing
xvi. eLMS as required on syllabus

b. Topics covered:

i. Facility orientation and course overview
ii. Traffic management overview
iii. Airspace review and traffic flows
iv. Traffic Flow Management System (TFMS) workstation (TMW)
v. Time-Based Flow Management (TBFM) En Route Air Traffic Control Specialist (ATCS) (Course 60004744 or current course, applicable for Terminal, En Route, and ATCSCC)
vi. Severe weather management
vii. Routes (Coded Departure Routes (CDRs), Playbook)
viii. TMIs
ix. Tower En Route Control (TEC)
x. Weather coordinator
xi. Mission coordinator
xii. Contingency plans
xiii. Administrative and other duties

2. Simulation: Not elected.

3. OJT: conducted in accordance with JO 3120.4 Chapter 6, the trainee must be able to perform all applicable traffic management duties and responsibilities independently under general supervision, including:

i. Use communication equipment
ii. Monitor TMW
iii. Use traffic management briefing terminal
iv. Use traffic management main display monitor
v. Use other equipment normally employed by facility TMCs/NTMSs
vi. Monitor and analyze AT operations
vii. Develop and implement traffic management programs and procedures necessary to regulate and balance arrival, departure, and En Route traffic flows
viii. Develop strategies to ensure maximum use of airspace
ix. Analyze and implement TMIs requested by facility personnel, adjacent facilities, and the ATCSCC
x. Periodically review, modify, or cancel TMIs as needed
xi. Perform the duties of the Arrival Coordinator and Departure Coordinator (e.g., using TBFM, SWAP)
xii. Perform the duties of the Mission Coordinator (e.g., processing ALTRVs and other missions, handling and disseminating requests for SAA, acting as a trusted agent, and serving as a liaison between the military and the facility)
xiii. Perform the duties of the Weather Coordinator (e.g., collecting and/or disseminating PIREP, SIGMET, CWA, Meteorological Impact Statement (MIS), and other weather data)
xiv. Establish and maintain effective and cooperative communication with intrafacility/interfacility personnel
xv. Document, maintain, and distribute accurate and timely records
xvi. Conduct and receive proper position relief briefings
xvii. Describe the duties of the Traffic Management Coordinator-in-Charge (TMC-IC)/National Traffic Management Specialist-in-Charge (NTMS-IC)

b. Stage 2. FAA Academy. Attend FAA Academy Training to complete Enhanced Traffic Management Coordinator (ETMC) Course 50115 or current course at the first available date. Course 50115 is mandatory for anyone certified as a TMC/NTMS and must receive training within 18 months of accepting a traffic management position. Course 50115 is administered in two parts: classroom and simulation training.

c. Instructions for Completing FAA Form 3120-32, Traffic Management Coordinator OJT Instruction/Evaluation Report. Complete FAA Form 3120-32 in TEAM and IAW JO 3120.4, Appendix G. Traffic Management Instructional Program Guide, Section 4. This form must be used by instructors, OJTIs, and STMCs to record their observations of the performance and progress.

6-7. Flight Data Communication Specialist

RESERVED

INTENTIONALLY LEFT BLANK

Radar Associate Benchmarks

Exceeds Expectations	Proficient	Not Proficient			
			Name:		Date: / Area:
			Sector:	Benchmark: ☐ 25% ☐ 50% ☐ 75%	

1. Separation is ensured.				
☐	☐	☐	25%	Obtains approval prior to entering another controller's area of jurisdiction.
☐	☐	☐	50%	Identifies and resolves conflictions with special use airspace.
☐	☐	☐	50%	Ensures aircraft entering/departing his/her airspace are not in conflict.
☐	☐	☐	75%	Provides control instructions/restrictions to ensure separation standards are maintained at all times.
2. Safety alerts are provided.				
☐	☐	☐	25%	Recognizes that safety alerts are a first priority duty along with separation of aircraft.
☐	☐	☐	50%	Issues alternate course of action when feasible.
☐	☐	☐	50%	Informs appropriate controller when an unsafe situation has been observed.
☐	☐	☐	75%	Remains constantly alert for unsafe proximity situations and advises radar controller.
3. Provides IFR/VFR conflict resolution.				
☐	☐	☐	25%	Demonstrates knowledge of merging target procedures and traffic advisories.
☐	☐	☐	50%	Recognizes LDBs in confliction with VFR or IFR aircraft.
☐	☐	☐	75%	Takes action to prevent collisions between aircraft operating in the system.
4. Issues observed/reported weather.				
☐	☐	☐	25%	Demonstrates knowledge of entering PIREPS into ERIDS.
☐	☐	☐	50%	Provides significant weather information to the Radar controller and affected sectors in a timely manner.
☐	☐	☐	75%	Exchanges weather information with users of the National Airspace System (NAS) in a timely manner.
5. Solicits/Issues PIREPs.				
☐	☐	☐	75%	Assists Radar controller in soliciting and issuing PIREPS as required.
6. Issues hazardous inflight weather information.				
☐	☐	☐	75%	Assists Radar controller with the collection and dissemination of all pertinent weather information.
7. Performs handoffs and pointouts.				
☐	☐	☐	25%	Understands the proper procedures for performing handoffs and pointouts.
☐	☐	☐	50%	Performs handoffs and pointouts correctly at the appropriate time and position with minimal prompting.
☐	☐	☐	75%	Assists radar controller in performing handoffs and pointouts with no prompting.
8. Required coordination's are performed.				
☐	☐	☐	25%	Understands the proper procedures for performing coordination.
☐	☐	☐	50%	Verifies aircraft position and altitude at the time of coordination.
☐	☐	☐	50%	Coordinates restrictions or special instructions with minimal prompting.
☐	☐	☐	50%	Ensures that information being coordinated is conveyed properly and thoroughly.
☐	☐	☐	75%	Performs required coordination with no prompting.
9. Good control judgment is applied.				

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☐	☐	☐	25%	Understands factors to consider when making control decisions.
☐	☐	☐	50%	Is familiar with subsequent controller requirements.
☐	☐	☐	50%	Issues appropriate clearances with regard to aircraft equipment capabilities and limitations.
☐	☐	☐	50%	Issues control instructions with regard to the impact on subsequent controllers.
☐	☐	☐	75%	Issues control instructions that provide a safe, expeditious flow of traffic.
10. Priority of duties is understood.				
☐	☐	☐	50%	Understands how to prioritize operational duties.
☐	☐	☐	75%	Demonstrates the ability to prioritize duties according to their significance.
11. Positive control is provided.				
☐	☐	☐	25%	Understands what factors to consider when assessing an overload situation.
☐	☐	☐	50%	Recognizes potential overload situations and communicates with appropriate personnel.
☐	☐	☐	50%	Takes appropriate action to prevent or lessen an overload situation.
☐	☐	☐	75%	Demonstrates confidence and takes command of control situations.
12. Effective traffic flow is maintained.				
☐	☐	☐	50%	Maintains an awareness of traffic management initiatives and procedures.
☐	☐	☐	50%	Considers aircraft characteristics and their effect on traffic flow and properly sequences traffic.
☐	☐	☐	50%	Implements and recovers from holding procedures.
☐	☐	☐	75%	Provides orderly traffic flow with proper spacing, and avoids use of excessive separation or restrictions.
13. Aircraft identity is maintained.				
☐	☐	☐	25%	Detects errors in aircraft identity.
☐	☐	☐	50%	Maintains awareness of non-radar, untracked, unassociated, or primary targets.
☐	☐	☐	50%	Remains aware of previously coordinated traffic.
14.EDST/Strip posting is complete and correct.				
☐	☐	☐	25%	Posts data in correct area on EDST and on strips if required.
☐	☐	☐	50%	Detects and corrects errors, ensuring that actual altitude and route agree with EDST/strip information.
☐	☐	☐	75%	Posts all required information on EDST/strips, and updates as required.
15. Clearance delivery is complete/correct and timely.				
☐	☐	☐	25%	Uses specific terms to describe a fix.
☐	☐	☐	50%	Adheres to departure clearance procedures.
☐	☐	☐	50%	Verifies correct read back of delivered clearances.
☐	☐	☐	75%	Transmits/issues clearances in a correct specific format, and uses correct phraseology.
16. LOAs/directives are adhered to.				
☐	☐	☐	25%	Understands LOA / SOP requirements.
☐	☐	☐	50%	Adheres to LOA / SOP requirements.
☐	☐	☐	50%	Adheres to other facility directives and local routing instructions.
☐	☐	☐	75%	Ensures control instructions are in compliance with handbooks, facility procedures, and directives.
17. Additional services are provided.				
☐	☐	☐	25%	Understands NOTAM, SIGMET, and CWA procedures.
☐	☐	☐	50%	Records pilot reports (PIREP's) and disseminates information as required.
☐	☐	☐	75%	Provides significant weather information in a timely manner to aircraft and other controllers/facilities.
18. Rapidly recovers from equipment failures and emergencies.				
☐	☐	☐	25%	Is knowledgeable of available backup equipment and properly transitions to its use.
☐	☐	☐	50%	Understands how to handle aircraft emergencies effectively, including radio failures.

☐	☐	☐	50%	Handles special flight operations, and unusual or nonstandard situations.
☐	☐	☐	75%	Handles equipment failures and emergencies correctly.
19. Scans entire control environment.				
☐	☐	☐	25%	Monitors equipment, equipment alarms, displays and status areas for changes in data or presentation.
☐	☐	☐	50%	Scans assigned control environment for potential errors and weather related problems.
☐	☐	☐	75%	Acts rapidly to correct identified errors.
☐	☐	☐	75%	Recognizes when incorrect information has been passed to aircraft or other positions.
20. Effective working speed is maintained.				
☐	☐	☐	25%	Records information at the same time that it is issued or received.
☐	☐	☐	50%	During periods of inactivity, reviews/updates pending/current information and plans actions.
☐	☐	☐	75%	Paces control actions and associated tasks at an acceptable rate.
21. Equipment status information is maintained.				
☐	☐	☐	25%	Determines status of equipment performance.
☐	☐	☐	50%	Reports equipment malfunctions.
☐	☐	☐	75%	Maintains constant awareness of equipment operating status.
22. Equipment capabilities are utilized/understood.				
☐	☐	☐	25%	Adjusts EDST presentation to present best display possible.
☐	☐	☐	25%	Understands how to use available equipment to the fullest extent possible.
☐	☐	☐	50%	Displays knowledge of capabilities and limitations of equipment and its associated backups.
☐	☐	☐	50%	Enters all required data into computer for required area of display.
☐	☐	☐	50%	Enters necessary corrections/updates in a timely manner.
☐	☐	☐	75%	Demonstrates knowledge of procedures for operating all equipment.
☐	☐	☐	75%	Demonstrates knowledge of required computer entries and ensures entries are complete and correct.
23. Functions effectively as a radar team member.				
☐	☐	☐	25%	Maintains a professional manner with a spirit of cooperation.
☐	☐	☐	50%	Is receptive to training team member's suggestions for improvement of job performance.
☐	☐	☐	50%	Conveys pertinent information to other team members in a timely manner.
☐	☐	☐	50%	Accepts equal responsibility for the safe and efficient operation of the position.
☐	☐	☐	75%	Remains calm working under heavy workloads and complex traffic situations.
24. Communication is clear and concise.				
☐	☐	☐	25%	Demonstrates clear pronunciation in a professional positive voice.
☐	☐	☐	25%	Identifies facility and/or position during landline communication.
☐	☐	☐	25%	Acknowledges interphone communications with operating initials.
☐	☐	☐	50%	Does not transpose words, numbers, or symbols.
☐	☐	☐	50%	Demonstrates moderate, rather than too fast or too slow, speech rate.
☐	☐	☐	50%	Does not have to repeat words to convey the intended meaning.
☐	☐	☐	75%	Listens carefully and verifies that correct information is transmitted and received.
25. Uses prescribed phraseology.				
☐	☐	☐	25%	Understands approved procedures, words, phrases, and formats.
☐	☐	☐	50%	Only uses approved procedures, words, phrases, and formats.
☐	☐	☐	75%	Issues instructions that are specific and in accordance with the duty being performed.
26. Makes only necessary transmissions.				
☐	☐	☐	25%	Uses radio/interphone only when necessary.

☐	☐	☐	50%	Is concise and does not use excessive verbiage.
☐	☐	☐	75%	Transmits only information that is required over radio or landlines.
27. Uses appropriate communications method.				
☐	☐	☐	25%	Understands the different communications methods that are available for use.
☐	☐	☐	50%	Formulates message before transmitter is keyed.
☐	☐	☐	75%	Transmits information using the communications method that is appropriate.
28. Relief briefings are complete and accurate.				
☐	☐	☐	25%	When assuming a position, completes the appropriate sign in for the position or combined positions.
☐	☐	☐	25%	Uses area status board to communicate pertinent status information.
☐	☐	☐	50%	Communicates overall traffic situation during relief briefings.
☐	☐	☐	50%	Communicates weather information to relieving specialist as necessary.
☐	☐	☐	50%	Ensures that questions about the operation of the position are resolved before transfer of responsibility.
☐	☐	☐	75%	Follows the checklist when exchanging information, and acknowledges the transfer of responsibility.
29. Other				
☐	☐	☐	75%	Understands all Radar Associate information contained the area-specific training binder.

Training Team Checklist	Yes	No	N/A
Training forms reviewed since last Training Team meeting (TTM)?			
Additional training information reviewed, e.g., forms prior to last TTM, SOP, etc.?			
Follow-up on previously assigned skill-enhancement training (SET)?			
Input solicited and/or received from the training team?			
Strengths and weaknesses identified?			
Specific ways to improve performance noted?			
Repeat errors identified and appropriate SET identified (may or may not be needed)?			
Need to modify or update training plan?			

Comments from Training Team Meeting:

Skill Enhancement Training Assigned:

	(Name)	(Signature)
Employee's Operations Supervisor		
OJTI		
OJTI		
OJTI		
Trainee		

Exceeds Expectations	Proficient	Not Proficient	(SAMPLE) Radar Associate Benchmarks		Date: 5/31/2023
			Name: Sarah Connors		Area: A
			Sector: Rockdale (10)	Benchmark: ☐ 25% ☒ 50% ☐ 75%	

1. Separation is ensured.				
☒	☐	☐	25%	Obtains approval prior to entering another controller's area of jurisdiction.
☐	☒	☐	50%	Identifies and resolves conflictions with special use airspace.
☐	☒	☐	50%	Ensures aircraft entering/departing his/her airspace are not in conflict.
☐	☐	☐	75%	Provides control instructions/restrictions to ensure separation standards are maintained at all times.
2. Safety alerts are provided.				
☐	☒	☐	25%	Recognizes that safety alerts are a first priority duty along with separation of aircraft.
☐	☒	☐	50%	Issues alternate course of action when feasible.
☐	☒	☐	50%	Informs appropriate controller when an unsafe situation has been observed.
☐	☐	☐	75%	Remains constantly alert for unsafe proximity situations and advises radar controller.
3. Provides IFR/VFR conflict resolution. N/A				
☐	☐	☐	25%	Demonstrates knowledge of merging target procedures and traffic advisories.
☐	☐	☐	50%	Recognizes LDBs in confliction with VFR or IFR aircraft.
☐	☐	☐	75%	Takes action to prevent collisions between aircraft operating in the system.
4. Issues observed/reported weather.				
☐	☒	☐	25%	Demonstrates knowledge of entering PIREPS into ERIDS.
☐	☒	☐	50%	Provides significant weather information to the Radar controller and affected sectors in a timely manner.
☐	☐	☐	75%	Exchanges weather information with users of the National Airspace System (NAS) in a timely manner.
5. Solicits/Issues PIREPs.				
☐	☐	☐	75%	Assists Radar controller in soliciting and issuing PIREPS as required.
6. Issues hazardous inflight weather information.				
☐	☐	☐	75%	Assists Radar controller with the collection and dissemination of all pertinent weather information.
7. Performs handoffs and pointouts.				
☒	☐	☐	25%	Understands the proper procedures for performing handoffs and pointouts.
☐	☒	☐	50%	Performs handoffs and pointouts correctly at the appropriate time and position with minimal prompting.
☐	☐	☐	75%	Assists radar controller in performing handoffs and pointouts with no prompting.
8. Required coordination's are performed.				
☒	☐	☐	25%	Understands the proper procedures for performing coordination.
☐	☒	☐	50%	Verifies aircraft position and altitude at the time of coordination.
☐	☒	☐	50%	Coordinates restrictions or special instructions with minimal prompting.
☐	☒	☐	50%	Ensures that information being coordinated is conveyed properly and thoroughly.
☐	☐	☐	75%	Performs required coordination with no prompting.

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9. Good control judgment is applied.		
☐ ☒ ☐	25%	Understands factors to consider when making control decisions.
☐ ☒ ☐	50%	Is familiar with subsequent controller requirements.
☐ ☒ ☐	50%	Issues appropriate clearances with regard to aircraft equipment capabilities and limitations.
☐ ☒ ☐	50%	Issues control instructions with regard to the impact on subsequent controllers.
☐ ☐ ☐	75%	Issues control instructions that provide a safe, expeditious flow of traffic.
10. Priority of duties is understood.		
☐ ☒ ☐	50%	Understands how to prioritize operational duties.
☐ ☐ ☐	75%	Demonstrates the ability to prioritize duties according to their significance.
11. Positive control is provided.		
☐ ☒ ☐	25%	Understands what factors to consider when assessing an overload situation.
☐ ☒ ☐	50%	Recognizes potential overload situations and communicates with appropriate personnel.
☐ ☒ ☐	50%	Takes appropriate action to prevent or lessen an overload situation.
☐ ☐ ☐	75%	Demonstrates confidence and takes command of control situations.
12. Effective traffic flow is maintained.		
☐ ☒ ☐	50%	Maintains an awareness of traffic management initiatives and procedures.
☐ ☒ ☐	50%	Considers aircraft characteristics and their effect on traffic flow and properly sequences traffic.
☐ ☒ ☐	50%	Implements and recovers from holding procedures.
☐ ☐ ☐	75%	Provides orderly traffic flow with proper spacing, and avoids use of excessive separation or restrictions.
13. Aircraft identity is maintained.		
☐ ☒ ☐	25%	Detects errors in aircraft identity.
☐ ☒ ☐	50%	Maintains awareness of non-radar, untracked, unassociated, or primary targets.
☐ ☒ ☐	50%	Remains aware of previously coordinated traffic.
14.EDST/Strip posting is complete and correct.		
☒ ☐ ☐	25%	Posts data in correct area on EDST and on strips if required.
☐ ☒ ☐	50%	Detects and corrects errors, ensuring that actual altitude and route agree with EDST/strip information.
☐ ☐ ☐	75%	Posts all required information on EDST/strips, and updates as required.
15. Clearance delivery is complete/correct and timely.		
☒ ☐ ☐	25%	Uses specific terms to describe a fix.
☐ ☒ ☐	50%	Adheres to departure clearance procedures.
☐ ☒ ☐	50%	Verifies correct read back of delivered clearances.
☐ ☐ ☐	75%	Transmits/issues clearances in a correct specific format, and uses correct phraseology.
16. LOAs/directives are adhered to.		
☒ ☐ ☐	25%	Understands LOA / SOP requirements.
☒ ☐ ☐	50%	Adheres to LOA / SOP requirements.
☒ ☐ ☐	50%	Adheres to other facility directives and local routing instructions.
☐ ☐ ☐	75%	Ensures control instructions are in compliance with handbooks, facility procedures, and directives.
17. Additional services are provided.		
☐ ☒ ☐	25%	Understands NOTAM, SIGMET, and CWA procedures.
☐ ☒ ☐	50%	Records pilot reports (PIREP's) and disseminates information as required.
☐ ☐ ☐	75%	Provides significant weather information in a timely manner to aircraft and other controllers/facilities.
18. Rapidly recovers from equipment failures and emergencies.		
☐ ☒ ☐	25%	Is knowledgeable of available backup equipment and properly transitions to its use.

☐	☒	☐	50%	Understands how to handle aircraft emergencies effectively, including radio failures.
☐	☒	☐	50%	Handles special flight operations and unusual or nonstandard situations.
☐	☐	☐	75%	Handles equipment failures and emergencies correctly.
19. Scans entire control environment.				
☐	☒	☐	25%	Monitors equipment, equipment alarms, displays and status areas for changes in data or presentation.
☐	☒	☐	50%	Scans assigned control environment for potential errors and weather related problems.
☐	☐	☐	75%	Acts rapidly to correct identified errors.
☐	☐	☐	75%	Recognizes when incorrect information has been passed to aircraft or other positions.
20. Effective working speed is maintained.				
☐	☒	☐	25%	Records information at the same time that it is issued or received.
☐	☒	☐	50%	During periods of inactivity, reviews/updates pending/current information and plans actions.
☐	☐	☐	75%	Paces control actions and associated tasks at an acceptable rate.
21. Equipment status information is maintained.				
☐	☒	☐	25%	Determines status of equipment performance.
☐	☒	☐	50%	Reports equipment malfunctions.
☐	☐	☐	75%	Maintains constant awareness of equipment operating status.
22. Equipment capabilities are utilized/understood.				
☒	☐	☐	25%	Adjusts EDST presentation to present best display possible.
☐	☒	☐	25%	Understands how to use available equipment to the fullest extent possible.
☐	☒	☐	50%	Displays knowledge of capabilities and limitations of equipment and its associated backups.
☐	☒	☐	50%	Enters all required data into computer for required area of display.
☐	☒	☐	50%	Enters necessary corrections/updates in a timely manner.
☐	☐	☐	75%	Demonstrates knowledge of procedures for operating all equipment.
☐	☐	☐	75%	Demonstrates knowledge of required computer entries and ensures entries are complete and correct.
23. Functions effectively as a radar team member.				
☒	☐	☐	25%	Maintains a professional manner with a spirit of cooperation.
☒	☐	☐	50%	Is receptive to training team member's suggestions for improvement of job performance.
☐	☒	☐	50%	Conveys pertinent information to other team members in a timely manner.
☐	☒	☐	50%	Accepts equal responsibility for the safe and efficient operation of the position.
☐	☐	☐	75%	Remains calm working under heavy workloads and complex traffic situations.
24. Communication is clear and concise.				
☐	☒	☐	25%	Demonstrates clear pronunciation in a professional positive voice.
☐	☒	☐	25%	Identifies facility and/or position during landline communication.
☐	☒	☐	25%	Acknowledges interphone communications with operating initials.
☐	☒	☐	50%	Does not transpose words, numbers, or symbols.
☐	☒	☐	50%	Demonstrates moderate, rather than too fast or too slow, speech rate.
☐	☒	☐	50%	Does not have to repeat words to convey the intended meaning.
☐	☐	☐	75%	Listens carefully and verifies that correct information is transmitted and received.
25. Uses prescribed phraseology.				
☒	☐	☐	25%	Understands approved procedures, words, phrases, and formats.
☐	☒	☐	50%	Only uses approved procedures, words, phrases, and formats.
☐	☐	☐	75%	Issues instructions that are specific and in accordance with the duty being performed.
26. Makes only necessary transmissions.				

☐	☒	☐	25%	Uses radio/interphone only when necessary.
☒	☐	☐	50%	Is concise and does not use excessive verbiage.
☐	☐	☐	75%	Transmits only information that is required over radio or landlines.
27. Uses appropriate communications method.				
☒	☐	☐	25%	Understands the different communications methods that are available for use.
☐	☒	☐	50%	Formulates message before transmitter is keyed.
☐	☐	☐	75%	Transmits information using the communications method that is appropriate.
28. Relief briefings are complete and accurate.				
☒	☐	☐	25%	When assuming a position, completes the appropriate sign in for the position or combined positions.
☒	☐	☐	25%	Uses area status board to communicate pertinent status information.
☒	☐	☐	50%	Communicates overall traffic situation during relief briefings.
☒	☐	☐	50%	Communicates weather information to relieving specialist as necessary.
☒	☐	☐	50%	Ensures that questions about the operation of the position are resolved before transfer of responsibility.
☐	☐	☐	75%	Follows the checklist when exchanging information, and acknowledges the transfer of responsibility.
29. Other				
☐	☐	☐	75%	Understands all Radar Associate information contained the area-specific training binder.

Training Team Checklist	Yes	No	N/A
Training forms reviewed since last Training Team meeting (TTM)?	x		
Additional training information reviewed, e.g., forms prior to last TTM, SOP, etc.?	x		
Follow-up on previously assigned skill-enhancement training (SET)?			x
Input solicited and/or received from the training team?	x		
Strengths and weaknesses identified?	x		
Specific ways to improve performance noted?			x
Repeat errors identified and appropriate SET identified (may or may not be needed)?			x
Need to modify or update training plan?		x	

Comments from Training Team Meeting: This was the 50% benchmark for the Radar Associate position at Rockdale for Ms. Connors. The training team agrees that Ms. Connors is progressing well and is where she should be at this stage of training. Ms. Connors is eager to train and proactively uses her down time to study and refresh herself on directives and airspace.

Strengths: Your diligence in studying is evident in exceeding expectations in many job subtasks. Your eagerness to train and excel has benefited your training greatly.

Weaknesses: You can be timid at times. You know the right thing to do but seem reluctant to tell the Radar. The OJTIs will simply say “do it” and you will do it effectively. The trainers would like to see the hesitation disappear. There is no need to fear being wrong, that is why trainers are there. You have good instincts, trust them!

Skill Enhancement Training Assigned: None at this time.

	(Name)	(Signature)
Employee’s Operations Supervisor	James Vadar	James Vadar
OJTI	Alice Annderson	Alice Annderson
OJTI	Scott Everett	Scott Everett
OJTI	Emily Solo	Emily Solo
Trainee	Sarah Connors	Sarah Connors

Exceeds Expectations	Proficient	Not Proficient			
			Radar Benchmarks		Date:
			Name:		Area:
			Sector:	Benchmark: ☐ 25% ☐ 50% ☐ 75%	

1. Separation is ensured.				
☐	☐	☐	25%	Obtains approval prior to entering another controller's area of jurisdiction.
☐	☐	☐	50%	Issues appropriate control instructions and restrictions with minimal prompting.
☐	☐	☐	50%	Ensures traffic entering/departing his/her airspace is not in conflict or about to lose separation.
☐	☐	☐	75%	Provides control instructions or restrictions to ensure separation standards are maintained at all times.
2. Safety alerts are provided.				
☐	☐	☐	25%	Recognizes that safety alerts are a first priority duty along with separation of aircraft.
☐	☐	☐	50%	Remains constantly alert for unsafe proximity situations.
☐	☐	☐	50%	Informs pilot or appropriate controller when an unsafe situation has been observed.
☐	☐	☐	75%	Issues alternate courses of action when feasible.
3. Provides IFR/VFR conflict resolution.				
☐	☐	☐	25%	Issues traffic advisories and advises aircraft if targets are likely to merge.
☐	☐	☐	50%	Is aware of LDBs, primary targets, etc. and their proximity to aircraft under their control.
☐	☐	☐	75%	Takes timely action to prevent collisions between aircraft operating in the system.
4. Issues observed/reported weather.				
☐	☐	☐	25%	Issues pertinent weather information on observed/reported weather areas by defining the area of coverage of azimuth, distance, and precipitation intensity.
☐	☐	☐	50%	Exchanges weather information with users of the National Airspace System (NAS).
☐	☐	☐	75%	Provides significant weather information to aircraft, controllers, and other facilities in a timely manner.
5. Solicits/Issues PIREPs.				
☐	☐	☐	75%	Solicits and issues PIREPS as required.
6. Issues hazardous inflight weather information.				
☐	☐	☐	25%	Adheres to SIGMET, AIRMET, and CWA procedures.
☐	☐	☐	75%	Issues hazardous weather information to pilots within the appropriate geographical area.
7. Performs handoffs and pointouts.				
☐	☐	☐	25%	Understands the proper procedures for performing handoffs and pointouts.
☐	☐	☐	50%	Performs handoffs and pointouts correctly at the appropriate time and position with minimal prompting.
☐	☐	☐	75%	Performs handoffs and pointouts with no prompting. Requests assistance in a timely manner.
8. Required coordination's are performed.				
☐	☐	☐	25%	Understands the proper procedures for performing coordination.
☐	☐	☐	50%	Verifies aircraft position and altitude at the time of coordination.
☐	☐	☐	50%	Coordinates restrictions or special instructions with minimal prompting.

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☐	☐	☐	50%	Ensures that information being coordinated is conveyed properly and thoroughly.
☐	☐	☐	75%	Performs required coordination with no prompting.
9. Good control judgment is applied.				
☐	☐	☐	25%	Understands factors to consider when making control decisions.
☐	☐	☐	25%	Demonstrates awareness of aircraft equipment capabilities and limitations that affect control instructions.
☐	☐	☐	25%	Informs aircraft and appropriate personnel of significant situations.
☐	☐	☐	50%	Carefully plans procedures prior to issuing instructions.
☐	☐	☐	50%	Considers subsequent controller requirements.
☐	☐	☐	50%	Uses correct speed control procedures and techniques.
☐	☐	☐	50%	Applies effective vectoring techniques.
☐	☐	☐	50%	Does not terminate or activate radar control prematurely.
☐	☐	☐	75%	Uses control procedures that do not place undue workload or stress on other controllers/facilities.
☐	☐	☐	75%	Issues control instructions that provide a safe, expeditious flow of traffic.
10. Priority of duties is understood.				
☐	☐	☐	50%	Understands how to prioritize operational duties.
☐	☐	☐	75%	Demonstrates the ability to prioritize duties according to their significance.
11. Positive control is provided.				
☐	☐	☐	25%	Understands what factors to consider when assessing an overload situation.
☐	☐	☐	50%	Recognizes potential overload situations and communicates with appropriate personnel.
☐	☐	☐	50%	Takes appropriate action to prevent or lessen an overload situation.
☐	☐	☐	75%	Demonstrates confidence and takes command of control situations.
12. Effective traffic flow is maintained.				
☐	☐	☐	50%	Maintains an awareness of traffic management initiatives and procedures.
☐	☐	☐	50%	Considers aircraft characteristics and their effect on traffic flow and properly sequences traffic.
☐	☐	☐	50%	Implements and recovers from holding procedures.
☐	☐	☐	75%	Provides orderly traffic flow with proper spacing, and avoids use of excessive separation or restrictions.
13. Aircraft identity is maintained.				
☐	☐	☐	25%	Uses radar display to assist in maintaining identity.
☐	☐	☐	25%	Detects errors in aircraft identity.
☐	☐	☐	50%	Re-identifies aircraft when doubt exists.
☐	☐	☐	50%	Employs correct beacon and radar procedures in identifying aircraft.
☐	☐	☐	50%	Maintains awareness of non-radar, untracked, unassociated, or primary targets.
☐	☐	☐	50%	Remains aware of previously coordinated traffic.
14.EDST/Strip posting is complete and correct.				
☐	☐	☐	25%	Posts data in correct area on EDST and on strips if required.
☐	☐	☐	50%	Detects and corrects errors, ensuring that actual altitude and route agree with EDST/strip information.
☐	☐	☐	75%	Posts all required information on EDST/strips, and updates as required.
15. Clearance delivery is complete/correct and timely.				
☐	☐	☐	25%	Uses specific terms to describe a fix.
☐	☐	☐	50%	Adheres to departure clearance procedures.
☐	☐	☐	50%	Verifies correct read back of delivered clearances.
☐	☐	☐	75%	Transmits/issues clearances in a correct specific format, and uses correct phraseology.
16. LOAs/directives are adhered to.				
☐	☐	☐	25%	Understands LOA / SOP requirements.

☐	☐	☐	50%	Adheres to LOA / SOP requirements.
☐	☐	☐	50%	Adheres to other facility directives and local routing instructions.
☐	☐	☐	75%	Ensures control instructions are in compliance with handbooks, facility procedures, and directives.
17. Additional services are provided.				
☐	☐	☐	25%	Solicits pilot reports (PIREP's) as required.
☐	☐	☐	25%	Adheres to NOTAM, SIGMET, and CWA procedures.
☐	☐	☐	25%	Provides significant weather information in a timely manner to aircraft and controllers/facilities.
☐	☐	☐	50%	Provides navigational assistance when operational advantage would be gained by pilot or controller.
☐	☐	☐	50%	Issues complete traffic information in required format for both radar-identified and non-radar aircraft.
☐	☐	☐	75%	Follows the required format for providing assistance, information, and traffic advisories.
18. Rapidly recovers from equipment failures and emergencies.				
☐	☐	☐	25%	Is knowledgeable of available backup equipment and properly transitions to its use.
☐	☐	☐	50%	Understands how to handle aircraft emergencies effectively, including radio failures.
☐	☐	☐	50%	Handles special flight operations, and unusual or nonstandard situations.
☐	☐	☐	75%	Handles equipment failures and emergencies correctly.
19. Scans entire control environment.				
☐	☐	☐	25%	Monitors equipment, equipment alarms, displays and status areas for changes in data or presentation.
☐	☐	☐	50%	Scans assigned control environment for potential errors and weather related problems.
☐	☐	☐	50%	Checks assigned control environment and equipment for changes in data or presentation.
☐	☐	☐	50%	Recognizes when incorrect information has been passed to aircraft or other positions.
☐	☐	☐	75%	Acts rapidly to correct errors.
20. Effective working speed is maintained.				
☐	☐	☐	25%	Records information at the same time that it is issued or received.
☐	☐	☐	50%	During periods of inactivity, reviews/updates pending/current information and plans actions.
☐	☐	☐	75%	Paces control actions and associated tasks at an acceptable rate.
21. Equipment status information is maintained.				
☐	☐	☐	25%	Determines status of equipment performance.
☐	☐	☐	50%	Reports equipment malfunctions.
☐	☐	☐	75%	Maintains constant awareness of equipment operating status.
22. Equipment capabilities are utilized/understood.				
☐	☐	☐	25%	Displays appropriate area of jurisdiction.
☐	☐	☐	25%	Displays appropriate filter limits.
☐	☐	☐	25%	Enters necessary corrections and updates in a timely manner.
☐	☐	☐	25%	Is aware of equipment peculiarities.
☐	☐	☐	50%	Enters all required data into computer for required area of display.
☐	☐	☐	50%	Adjusts radar presentation to present best display possible.
☐	☐	☐	50%	Displays knowledge of capabilities and limitations of equipment and its associated backup.
☐	☐	☐	50%	Uses available equipment to the fullest extent possible.
☐	☐	☐	75%	Demonstrates knowledge of procedures for operating all equipment.
☐	☐	☐	75%	Demonstrates knowledge of required computer entries and ensures entries are complete and correct.
23. Functions effectively as a radar team member.				
☐	☐	☐	25%	Maintains a professional manner with a spirit of cooperation.
☐	☐	☐	25%	Maintains a professional manner.
☐	☐	☐	50%	Is receptive to instructor's/supervisor's/team member's suggestions for improvement of job performance.

☐	☐	☐	50%	Conveys pertinent information to other team members in a timely manner.
☐	☐	☐	75%	Remains calm under stress.
☐	☐	☐	75%	Demonstrates team leadership in ensuring the safe and efficient operation of the position.
24. Communication is clear and concise.				
☐	☐	☐	25%	Demonstrates clear pronunciation in a professional positive voice.
☐	☐	☐	25%	Identifies facility and/or position during landline communication.
☐	☐	☐	25%	Acknowledges interphone communications with operating initials.
☐	☐	☐	50%	Does not transpose words, numbers, or symbols.
☐	☐	☐	50%	Demonstrates moderate, rather than too fast or too slow, speech rate.
☐	☐	☐	50%	Does not have to repeat words to convey the intended meaning.
☐	☐	☐	75%	Listens carefully and verifies that correct information is transmitted and received.
25. Uses prescribed phraseology.				
☐	☐	☐	25%	Understands approved procedures, words, phrases, and formats.
☐	☐	☐	50%	Only uses approved procedures, words, phrases, and formats.
☐	☐	☐	75%	Issues instructions that are specific and in accordance with the duty being performed.
26. Makes only necessary transmissions.				
☐	☐	☐	25%	Uses radio/interphone only when necessary.
☐	☐	☐	50%	Is concise and does not use excessive verbiage.
☐	☐	☐	75%	Transmits only information that is required over radio or landlines.
☐	☐	☐	75%	Combines transmissions when appropriate.
27. Uses appropriate communications method.				
☐	☐	☐	25%	Understands the different communications methods that are available for use.
☐	☐	☐	50%	Formulates message before transmitter is keyed.
☐	☐	☐	75%	Transmits information using the communications method that is appropriate.
28. Relief briefings are complete and accurate.				
☐	☐	☐	25%	When assuming a position, completes the appropriate sign in for the position or combined positions.
☐	☐	☐	25%	Uses area status board to communicate pertinent status information.
☐	☐	☐	50%	Communicates overall traffic situation during relief briefings.
☐	☐	☐	75%	Ensures that questions about the operation of the position are resolved before transfer of responsibility.
☐	☐	☐	75%	Follows the checklist when combining/de-combining sectors, ensuring proper transfer of all data blocks.
29. Other				
☐	☐	☐	75%	Understands all information contained the area-specific training binder.

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Training Team Checklist	Yes	No	N/A
Training forms reviewed since last Training Team meeting (TTM)?			
Additional training information reviewed, e.g., forms prior to last TTM, SOP, etc.?			
Follow-up on previously assigned skill-enhancement training (SET)?			
Input solicited and/or received from the training team?			
Strengths and weaknesses identified?			
Specific ways to improve performance noted?			
Repeat errors identified and appropriate SET identified (may or may not be needed)?			
Need to modify or update training plan?			

Comments from Training Team Meeting:

Skill Enhancement Training Assigned:

	(Name)	(Signature)
Employee's Operations Supervisor		
OJTI		
OJTI		
OJTI		
Trainee		

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Exceeds Expectations	Proficient	Not Proficient	(SAMPLE) Radar Benchmarks		Date: 06/28/2023
			Name: Harrison Fisher		Area: E
			Sector: Stewart (05)	Benchmark: ☐ 25% ☐ 50% 75%	

1. Separation is ensured.				
☐	☒	☐	25%	Obtains approval prior to entering another controller's area of jurisdiction.
☐	☒	☐	50%	Issues appropriate control instructions and restrictions with minimal prompting.
☐	☒	☐	50%	Ensures traffic entering/departing his/her airspace is not in conflict or about to lose separation.
☐	☐	☒	75%	Provides control instructions or restrictions to ensure separation standards are maintained at all times.
2. Safety alerts are provided.				
☐	☒	☐	25%	Recognizes that safety alerts are a first priority duty along with separation of aircraft.
☐	☒	☐	50%	Remains constantly alert for unsafe proximity situations.
☐	☒	☐	50%	Informs pilot or appropriate controller when an unsafe situation has been observed.
☐	☒	☐	75%	Issues alternate courses of action when feasible.
3. Provides IFR/VFR conflict resolution.				
☐	☒	☐	25%	Issues traffic advisories and advises aircraft if targets are likely to merge.
☐	☒	☐	50%	Is aware of LDBs, primary targets, etc. and their proximity to aircraft under their control.
☐	☒	☐	75%	Takes timely action to prevent collisions between aircraft operating in the system.
4. Issues observed/reported weather.				
☐	☒	☐	25%	Issues pertinent weather information on observed/reported weather areas by defining the area of coverage of azimuth, distance, and precipitation intensity.
☐	☒	☐	50%	Exchanges weather information with users of the National Airspace System (NAS).
☐	☒	☐	75%	Provides significant weather information to aircraft, controllers, and other facilities in a timely manner.
5. Solicits/Issues PIREPs.				
☐	☒	☐	75%	Solicits and issues PIREPS as required.
6. Issues hazardous inflight weather information.				
☐	☒	☐	25%	Adheres to SIGMET, AIRMET, and CWA procedures.
☐	☒	☐	75%	Issues hazardous weather information to pilots within the appropriate geographical area.
7. Performs handoffs and pointouts.				
☐	☒	☐	25%	Understands the proper procedures for performing handoffs and pointouts.
☐	☒	☐	50%	Performs handoffs and pointouts correctly at the appropriate time and position with minimal prompting.
☐	☒	☐	75%	Performs handoffs and pointouts with no prompting. Requests assistance in a timely manner.
8. Required coordination's are performed.				
☐	☒	☐	25%	Understands the proper procedures for performing coordination.
☐	☒	☐	50%	Verifies aircraft position and altitude at the time of coordination.

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☐	☒	☐	50%	Coordinates restrictions or special instructions with minimal prompting.
☐	☒	☐	50%	Ensures that information being coordinated is conveyed properly and thoroughly.
☐	☒	☐	75%	Performs required coordination with no prompting.
9. Good control judgment is applied.				
☐	☒	☐	25%	Understands factors to consider when making control decisions.
☐	☒	☐	25%	Demonstrates awareness of aircraft equipment capabilities and limitations that affect control instructions.
☐	☒	☐	25%	Informs aircraft and appropriate personnel of significant situations.
☐	☒	☐	50%	Carefully plans procedures prior to issuing instructions.
☐	☒	☐	50%	Considers subsequent controller requirements.
☐	☒	☐	50%	Uses correct speed control procedures and techniques.
☐	☒	☐	50%	Applies effective vectoring techniques.
☐	☒	☐	50%	Does not terminate or activate radar control prematurely.
☐	☐	☒	75%	Uses control procedures that do not place undue workload or stress on other controllers/facilities.
☐	☐	☒	75%	Issues control instructions that provide a safe, expeditious flow of traffic.
10. Priority of duties is understood.				
☐	☒	☐	50%	Understands how to prioritize operational duties.
☐	☐	☒	75%	Demonstrates the ability to prioritize duties according to their significance.
11. Positive control is provided.				
☐	☒	☐	25%	Understands what factors to consider when assessing an overload situation.
☐	☒	☐	50%	Recognizes potential overload situations and communicates with appropriate personnel.
☐	☒	☐	50%	Takes appropriate action to prevent or lessen an overload situation.
☐	☐	☒	75%	Demonstrates confidence and takes command of control situations.
12. Effective traffic flow is maintained.				
☐	☒	☐	50%	Maintains an awareness of traffic management initiatives and procedures.
☐	☒	☐	50%	Considers aircraft characteristics and their effect on traffic flow and properly sequences traffic.
☐	☒	☐	50%	Implements and recovers from holding procedures.
☐	☐	☒	75%	Provides orderly traffic flow with proper spacing, and avoids use of excessive separation or restrictions.
13. Aircraft identity is maintained.				
☐	☒	☐	25%	Uses radar display to assist in maintaining identity.
☐	☒	☐	25%	Detects errors in aircraft identity.
☐	☒	☐	50%	Re-identifies aircraft when doubt exists.
☐	☒	☐	50%	Employs correct beacon and radar procedures in identifying aircraft.
☐	☐	☒	50%	Maintains awareness of non-radar, untracked, unassociated, or primary targets.
☐	☒	☐	50%	Remains aware of previously coordinated traffic.
14.EDST/Strip posting is complete and correct.				
☐	☒	☐	25%	Posts data in correct area on EDST and on strips if required.
☐	☒	☐	50%	Detects and corrects errors, ensuring that actual altitude and route agree with EDST/strip information.
☐	☒	☐	75%	Posts all required information on EDST/strips, and updates as required.
15. Clearance delivery is complete/correct and timely.				
☐	☒	☐	25%	Uses specific terms to describe a fix.
☐	☒	☐	50%	Adheres to departure clearance procedures.
☐	☒	☐	50%	Verifies correct read back of delivered clearances.
☐	☒	☐	75%	Transmits/issues clearances in a correct specific format, and uses correct phraseology.
16. LOAs/directives are adhered to.				

☐	☒	☐	25%	Understands LOA / SOP requirements.
☐	☒	☐	50%	Adheres to LOA / SOP requirements.
☐	☒	☐	50%	Adheres to other facility directives and local routing instructions.
☐	☒	☐	75%	Ensures control instructions are in compliance with handbooks, facility procedures, and directives.
17. Additional services are provided.				
☐	☒	☐	25%	Solicits pilot reports (PIREP's) as required.
☐	☒	☐	25%	Adheres to NOTAM, SIGMET, and CWA procedures.
☐	☒	☐	25%	Provides significant weather information in a timely manner to aircraft and controllers/facilities.
☐	☒	☐	50%	Provides navigational assistance when operational advantage would be gained by pilot or controller.
☐	☒	☐	50%	Issues complete traffic information in required format for both radar-identified and non-radar aircraft.
☐	☒	☐	75%	Follows the required format for providing assistance, information, and traffic advisories.
18. Rapidly recovers from equipment failures and emergencies.				
☐	☒	☐	25%	Is knowledgeable of available backup equipment and properly transitions to its use.
☐	☒	☐	50%	Understands how to handle aircraft emergencies effectively, including radio failures.
☐	☒	☐	50%	Handles special flight operations, and unusual or nonstandard situations.
☐	☒	☐	75%	Handles equipment failures and emergencies correctly.
19. Scans entire control environment.				
☐	☒	☐	25%	Monitors equipment, equipment alarms, displays and status areas for changes in data or presentation.
☐	☒	☐	50%	Scans assigned control environment for potential errors and weather related problems.
☐	☒	☐	50%	Checks assigned control environment and equipment for changes in data or presentation.
☐	☒	☐	50%	Recognizes when incorrect information has been passed to aircraft or other positions.
☐	☐	☒	75%	Acts rapidly to correct errors.
20. Effective working speed is maintained.				
☐	☒	☐	25%	Records information at the same time that it is issued or received.
☐	☒	☐	50%	During periods of inactivity, reviews/updates pending/current information and plans actions.
☐	☐	☒	75%	Paces control actions and associated tasks at an acceptable rate.
21. Equipment status information is maintained.				
☐	☒	☐	25%	Determines status of equipment performance.
☐	☒	☐	50%	Reports equipment malfunctions.
☐	☒	☐	75%	Maintains constant awareness of equipment operating status.
22. Equipment capabilities are utilized/understood.				
☐	☒	☐	25%	Displays appropriate area of jurisdiction.
☐	☒	☐	25%	Displays appropriate filter limits.
☐	☒	☐	25%	Enters necessary corrections and updates in a timely manner.
☐	☒	☐	25%	Is aware of equipment peculiarities.
☐	☒	☐	50%	Enters all required data into computer for required area of display.
☐	☒	☐	50%	Adjusts radar presentation to present best display possible.
☐	☒	☐	50%	Displays knowledge of capabilities and limitations of equipment and its associated backup.
☐	☒	☐	50%	Uses available equipment to the fullest extent possible.
☐	☒	☐	75%	Demonstrates knowledge of procedures for operating all equipment.
☐	☒	☐	75%	Demonstrates knowledge of required computer entries and ensures entries are complete and correct.
23. Functions effectively as a radar team member.				
☒	☐	☐	25%	Maintains a professional manner with a spirit of cooperation.
☒	☐	☐	25%	Maintains a professional manner.

☐	☒	☐	50%	Is receptive to instructor's/supervisor's/team member's suggestions for improvement of job performance.
☐	☒	☐	50%	Conveys pertinent information to other team members in a timely manner.
☐	☐	☒	75%	Remains calm under stress.
☐	☐	☒	75%	Demonstrates team leadership in ensuring the safe and efficient operation of the position.
24. Communication is clear and concise.				
☐	☒	☐	25%	Demonstrates clear pronunciation in a professional positive voice.
☒	☐	☐	25%	Identifies facility and/or position during landline communication.
☒	☐	☐	25%	Acknowledges interphone communications with operating initials.
☐	☒	☐	50%	Does not transpose words, numbers, or symbols.
☐	☒	☐	50%	Demonstrates moderate, rather than too fast or too slow, speech rate.
☐	☒	☐	50%	Does not have to repeat words to convey the intended meaning.
☐	☐	☒	75%	Listens carefully and verifies that correct information is transmitted and received.
25. Uses prescribed phraseology.				
☒	☐	☐	25%	Understands approved procedures, words, phrases, and formats.
☒	☐	☐	50%	Only uses approved procedures, words, phrases, and formats.
☐	☒	☐	75%	Issues instructions that are specific and in accordance with the duty being performed.
26. Makes only necessary transmissions.				
☐	☒	☐	25%	Uses radio/interphone only when necessary.
☐	☒	☐	50%	Is concise and does not use excessive verbiage.
☐	☒	☐	75%	Transmits only information that is required over radio or landlines.
☐	☐	☒	75%	Combines transmissions when appropriate.
27. Uses appropriate communications method.				
☐	☒	☐	25%	Understands the different communications methods that are available for use.
☐	☒	☐	50%	Formulates message before transmitter is keyed.
☐	☒	☐	75%	Transmits information using the communications method that is appropriate.
28. Relief briefings are complete and accurate.				
☒	☐	☐	25%	When assuming a position, completes the appropriate sign in for the position or combined positions.
☒	☐	☐	25%	Uses area status board to communicate pertinent status information.
☐	☒	☐	50%	Communicates overall traffic situation during relief briefings.
☐	☒	☐	75%	Ensures that questions about the operation of the position are resolved before transfer of responsibility.
☐	☒	☐	75%	Follows the checklist when combining/de-combining sectors, ensuring proper transfer of all data blocks.
29. Other				
☒	☐	☐	75%	Understands all information contained the area-specific training binder.

Training Team Checklist	Yes	No	N/A
Training forms reviewed since last Training Team meeting (TTM)?	x		
Additional training information reviewed, e.g., forms prior to last TTM, SOP, etc.?	x		
Follow-up on previously assigned skill-enhancement training (SET)?	x		
Input solicited and/or received from the training team?	x		
Strengths and weaknesses identified?	x		
Specific ways to improve performance noted?	x		
Repeat errors identified and appropriate SET identified (may or may not be needed)?	x		
Need to modify or update training plan?		x	

Comments from Training Team Meeting: The purpose of this meeting is to review 75% benchmarks for Mr. Fisher. Since the previous benchmarks, we have conducted 2 SDT sessions which were deemed to be successful.

Strengths: You are very professional and take your training seriously. Your book knowledge and phraseology are impeccable.

Weaknesses: While "not proficient" was checked on several job subtasks, the training team believes your root issues are good control judgment, effective working speed, and scans entire control environment. You are methodical and efficient until the traffic becomes moderate to heavy, occasional to mostly difficult. You appear to be able to handle moderate traffic as long as it is there is little complexity. When the traffic increases or becomes more complex, your scan falls apart, your working speed is not where it should be, and your judgment becomes completely reactive.

Our plan moving forward is to complete Skill Development Training. The training team shall work with the training department to develop scenarios for the TTL to target scanning, proactive planning, and speed. We believe scanning and proactive planning will naturally increase your speed.

Skill Enhancement Training Assigned: Our plan moving forward is to complete Skill Development Training. The training team will work with the training department to develop scenarios for the TTL to target scanning, proactive planning, and speed. Mr. Fisher shall complete a minimum of 6 scenarios.

	(Name)	(Signature)
Employee's Operations Supervisor	Emily Amidala	Emily Amidala
OJTI	Michel Andor	Mike Andor
OJTI	Rey Tano	Rey Tano
OJTI	N/A	
Trainee	Harrison Fisher	Harrison Fisher

Figure C-1: Assistant Controller:

OJF Hours - Target Hours – Minimum Hours for Certification

Assistant Controller	OJF Hours	Target Hours	Minimum Hours
Area A	0	4	2
Area B	0	4	2
Area C	0	4	2
Area D	0	4	2
Area E	0	4	2

Figure C-2: Academy and Cross-Option Trainees

OJF Hours - Target Hours – Minimum Hours for Certification

	Radar Associate			Radar		
Area A	Min OJF	Target Hours	Min hours	Min OJF	Target hours	Min hours
08 WATERTOWN	1	120	36	1	140	42
09 UTICA	1	90	27	1	120	35
10 ROCKDALE	1	100	30	1	150	46
22 ALBANY	1	100	30	1	140	42
23 HANCOCK	1	90	27	1	120	35
24 DELANCEY	1	120	36	1	140	42
Area B						
36 GARDNER	2	125	30	1	175	32
37 CONCORD	2	125	30	1	175	32
38 ATHENS	2	113	30	1	175	32
39 CAMBRIDGE	2	113	30	1	175	32
52 MONTPELIAR	3	125	40	1	175	32
53 PLATTSBURGH	1	125	40	1	175	32
Area C						
31 HAMPTON	1	150	28	1	150	35
32 CLIPPER	1	140	30	1	150	35
34 PROVIDENCE	1	125	31	1	140	35
46 BOSTON	2	125	31	2	180	40
47 BOSOX	1	188	30	1	188	35
49 SOUTHIE	1	75	30	1	75	30
Area D						
01 MILLINOCKET	1	120	60	1	120	60
02 AUGUSTA	1	120	60	1	120	60
15 SURRY	1	175	70	1	175	80
16 PARSO	1	120	60	1	120	70
17 NANTUCKET	1	120	60	1	120	60
18 CAPE	1	175	70	1	175	80
Area E						
05 STEWART	1	160	50	1	210	60
06 PAWLING	1	130	50	1	150	60
07 CHESTER	1	90	25	.5*	80	25
19 DANBURY	1	130	50	1	130	50
20 KINGSTON	2	130	50	1	170	60
21 CANAN	1	90	25	.5*	80	25

*Note: Any OJF hours that are not a whole number must be written in the Objectives portion of the Training Plan as free text due to TEAM software limitations. If TEAM is updated to allow decimal numbers, that number must be entered in the OJF Hrs field of the Training Plan in TEAM.

Figure C-3: Transferring En Route CPC-IT Hours

OJF Hours - Target Hours – Minimum Hours for Certification

	RADAR ASSOCIATE			RADAR CONTROLLER		
AREA A	**MIN OJF**	**TARGET HRS**	**MIN HRS**	**MIN OJF**	**TARGET HRS**	**MIN HRS**
08 Watertown	1	80	16	.5*	100	20
09 UTICA	1	60	12	.5*	90	20
10 ROCKDALE	1	60	12	.5*	110	20
22 ALBANY	1	60	12	.5*	100	20
23 HANCOCK	1	80	16	.5*	100	20
24 DELANCEY	1	60	12	.5*	100	20
AREA B	**MIN OJF**	**TARGET HRS**	**MIN HRS**	**MIN OJF**	**TARGET HRS**	**MIN HRS**
36 GARDNER	2	50	13	1	**110**	22
37 CONCORD	2	50	13	1	110	22
38 ATHENS	2	50	13	1	110	22
39 CAMBRIDGE	2	50	13	1	110	22
52 MONTPELIER	3	70	17	1	110	22
53 PLATTSBURGH	1	70	13	1	110	22
AREA C	**MIN OJF**	**TARGET HRS**	**MIN HRS**	**MIN OJF**	**TARGET HRS**	**MIN HRS**
31 HAMPTON	1	105	21	1	115	23
32 CLIPPER	1	100	20	1	115	25
34 PROVIDENCE	1	95	19	1	105	26
46 BOSTON	2	95	19	2	115	23
47 BOSOX	1	115	23	1	115	23
49 SOUTHIE	1	75	20	1	75	20
AREA D	**MIN OJF**	**TARGET HRS**	**MIN HRS**	**MIN OJF**	**TARGET HRS**	**MIN HRS**
01 MILLINOCKET	1	60	20	1	70	20
02 AUGUSTA	1	60	20	1	70	20
15 SURRY	1	80	20	1	100	25
16 PARSO	1	60	20	1	80	25
17 NANTUCKET	1	60	20	1	70	20
18 CAPE	1	80	20	1	10	25
AREA E	**MIN OJF**	**TARGET HRS**	**MIN HRS**	**MIN OJF**	**TARGET HRS**	**MIN HRS**
05 STEWART	1	100	20	1	100	20
06 PAWLING	1	100	20	1	100	20
07 CHESTER	0	70	10	0	70	10
19 DANBURY	0	100	20	0	100	20
20 KINGSTON	0	100	20	0	100	20
21 CANAN	0	70	10	0	70	10

*Note: Any OJF hours that are not a whole number must be written in the Objectives portion of the Training Plan as free text due to TEAM software limitations. If TEAM is updated to allow decimal numbers, that number must be entered in the OJF Hrs field of the Training Plan in TEAM.

Figure C-4: Transferee Other

OJF Hours - Target Hours – Minimum Hours for Certification

	Radar Associate			Radar		
Area A	Min OJF	Target Hours	Min hours	Min OJF	Target hours	Min hours
08 WATERTOWN	1	110	35	1	140	42
09 UTICA	1	80	35	1	120	35
10 ROCKDALE	1	90	35	1	150	42
22 ALBANY	1	90	35	1	140	42
23 HANCOCK	1	80	35	1	120	35
24 DELANCEY	1	110	35	1	140	42
Area B						
36 GARDNER	2	125	20	1	175	27
37 CONCORD	2	125	20	1	175	27
38 ATHENS	2	113	18	1	175	27
39 CAMBRIDGE	2	113	18	1	175	27
52 MONTPELIAR	3	125	30	1	175	27
53 PLATTSBURGH	1	125	30	1	175	27
Area C						
31 HAMPTON	1	120	28	1	150	30
32 CLIPPER	1	140	20	1	150	35
34 PROVIDENCE	1	125	31	1	140	28
46 BOSTON	2	125	31	2	180	40
47 BOSOX	1	188	30	1	188	30
49 SOUTHIE	1	75	20	1	75	20
Area D						
01 MILLINOCKET	1	120	20	1	120	33
02 AUGUSTA	1	120	18	1	120	33
15 SURRY	1	175	30	1	175	40
16 PARSO	1	120	20	1	120	36
17 NANTUCKET	1	120	18	1	120	33
18 CAPE	1	175	20	1	188	36
Area E						
05 STEWART	1	160	33	1	210	30
06 PAWLING	1	130	33	1	150	30
07 CHESTER	1	100	25	.5*	60	15
19 DANBURY	1	130	25	1	130	30
20 KINGSTON	2	130	33	1	170	30
21 CANAN	1	100	25	.5*	60	15

*Note: Any OJF hours that are not a whole number must be written in the Objectives portion of the Training Plan as free text due to TEAM software limitations. If TEAM is updated to allow decimal numbers, that number must be entered in the OJF Hrs field of the Training Plan in TEAM.

Figure C-5: Traffic Management Coordinator/Supervisor

OJF Hours - Target Hours – Minimum Hours for Certification

POSITION	MIN OJF	Target Hours	Min Hours
STMCIC – Supervisory Traffic Management Coordinator-In -Charge	2	50	20
TMNC - Traffic Management NAS Coordinator	2	50	20
TMEC 1/2 – Traffic Management En Route Coordinator	2	40	20
TMDC1/2 – Traffic Management Departure Coordinator	2	50	20
TMAC 1 – TMAC-Boston Metering	2	40	15
TMAC 2/3 – Traffic Management Arrival Coordinator	2	40	20
TMWC – Traffic Management Weather Coordinator	2	20	5
TMML – Military/Security Coordinator	2	50	20

Figure C-6: OS En Route Transfer

OJF Hours - Target Hours – Minimum Hours for Certification

Promotion Internal		
	Target Hours	Min Hours
Area A	60	25
Area B	60	40
Area C	60	40
Area D	60	40
Area E	60	40
TMU	60	40
OMIC	80	50
Promotion External (Enroute)		
	Target Hours	Min Hours
Area A	120	40
Area B	120	60
Area C	120	60
Area D	120	60
Area E	120	60
TMU	120	60
OMIC	160	80
Promotion External (TRACON/Tower)		
	Target Hours	Min Hours
Area A	150	60
Area B	150	80
Area C	150	80
Area D	150	80
Area E	150	80
TMU	150	80
OMIC	150	80

Routinely Consolidated/Combined Position(s)

Figure D-1:

Area A	Area B	Area C
Any training configuration authorized provided sectors are specifically defined in the training plan and/or trainee is certified at the sectors not on the training plan.	**36 GDM/37 CON** **38 ATHENS/39 CAM** **52 MPV/53 PLB** **36 GDM/37 CON/38 ATHENS/39 CAM** **36 GDM/37 CON/52 MPV/53 PLB**	**46 BOS/34 PVD/47 BOSOX** **34 PVD/47 BOSOX** **49 SOUTHIE/31 HTO** **49 SOUTHIE/31 HTO/32 CLIPPER**
Area D	**Area E**	**TMU**
01 MLT/02 AUG **15 SURRY/16 PARSO** **17 ACK/18 CAPE** **01 MLT /02 AUG/15 SURRY/16 PARSO**	**Any training configuration authorized provided sectors are specifically defined in the training plan and/or trainee is certified at the sectors not on the training plan.**	**TMNC/TMEC** **TMAC/TMDC** **TMWC/TMML**

(Sector positions, i.e. R, RC, and RA, are considered routinely consolidated/combined positions)

(RESERVED)

Trainee Name: _____ **Date:** _____

SKILL DEVELOPMENT TRAINING

Skill Development Training (SDT) – training to improve a specific performance deficiency for an individual who is certified, or receiving OJT, on a position. Document SDT using the SDT Training Plan below.

SDT TRAINING PLAN

- SDT must be based on an ongoing performance assessment, not a single occurrence.
- SDT must be tailored to individual needs and must use Part Task Training (PTT).
  PTT - teaching a limited number of skills at a time to reinforce lessons learned.

SPECIFIC PERFORMANCE DEFICIENCY TO ADDRESS WITH SDT: *(use 3120-25 job task/ job subtasks Table B-2 in FAA Order 3120.4)*

(Each SDT session must be documented on 3120-25)

SDT METHODS TO BE USED (check all that apply, describe "OTHER" if used):

☐ TTL ☐ FALCON ☐ CLASSROOM ☐ PTT

☐ SELF-STUDY ☐ OBSERVATION ☐ OTHER: _____

IF TTL: Sector(s)/Positions Requested - _____ Number of Scenarios Requested -_____

For TTL Area Will Provide: ☐ Instructor ☐R/D side Controller ☐Remote

SDT EXPECTED PERFORMANCE OUTCOMES:

METHODS OF EVALUATING OUTCOMES:

SDT CONCLUSION***: A Training Team meeting must be conducted to discuss and document the effectiveness of SDT***.

REQUESTS FOR TRAINING DEPARTMENT: Please provide any additional requests for the training department to assist in creating effective training materials. Please include special scenario type (spacing, weather, volume, conflicts, departures, arrivals, vectors for final, tower coordination, etc.)

Trainee/Operating Initials	*Date*	*OS/Operating Initials*	*Date*
OJTI/Operating Initials	*Date*	*OJTI/Operating Initials*	*Date*
OJTI/Operating Initials	*Date*		

Must be signed by OS, Trainee, and at least one OJTI.* **Please print operating initials for legibility. *Scan signed copy of this form and email to 'AJT- ZBW-Training' (CC the Area OM or the appropriate delegate).*

Trainee Name: Nick Fury **Date:** 6/24/2023

SKILL DEVELOPMENT TRAINING

Skill Development Training (SDT) – training to improve a specific performance deficiency for an individual who is certified, or receiving OJT, on a position. Document SDT using the SDT Training Plan below.

SDT TRAINING PLAN

- SDT must be based on an ongoing performance assessment, not a single occurrence.
- SDT must be tailored to individual needs and must use Part Task Training (PTT).
  PTT - teaching a limited number of skills at a time to reinforce lessons learned.

SPECIFIC PERFORMANCE DEFICIENCY TO ADDRESS WITH SDT: *(use 3120-25 job task/ job subtasks Table B-2 in FAA Order 3120.4)*

Performs handoffs and pointouts and scans entire control environment.

(Each SDT session must be documented on 3120-25)

SDT METHODS TO BE USED (check all that apply, describe "OTHER" if used):

☒ TTL ☐ FALCON ☐ CLASSROOM ☐ PTT

☐ SELF-STUDY ☐ OBSERVATION ☐ OTHER: _____

IF TTL: Sector(s)/Positions Requested - 23/24 **Number of Scenarios Requested -** 6

For TTL Area Will Provide: ☒ **Instructor** ☐ **R/D side Controller** ☒ **Remote** ☐ **Remote**

SDT EXPECTED PERFORMANCE OUTCOMES:

Mr. Fury will need to demonstrate an improvement in scanning, specifically in taking/making handoffs and pointouts. OJTIs will discuss ways to improve scan with Mr. Fury prior to and during scenarios.

METHODS OF EVALUATING OUTCOMES:

In the training team meeting following 6 scenarios, the training team will discuss if Mr. Fury's scan improved and whether handoffs/pointouts were made/taken with minimal prompting. For purposes of this training minimal prompting will be defined as 1 or less prompt by instructor for a handoff/pointout to be taken or made per scenario in the last 2 scenarios.

SDT CONCLUSION*: A Training Team meeting must be conducted to discuss and document the effectiveness of SDT.*

REQUESTS FOR TRAINING DEPARTMENT: Please provide any additional requests for the training department to assist in creating effective training materials. Please include special scenario type (spacing, weather, volume, conflicts, departures, arrivals, vectors for final, tower coordination, etc.)

Request 6 scenarios at sectors 23/24 combined. We will need to script 3 times per scenario where the RPO does not take a handoff and a call is required. We will need to coordinate with RPO on handoff points where they need to call if handoff is not taken. We will also need a point out to be a part of the scenario. If it is not built into scenario, we need to review with Radar controller to give a control instruction where a point out will be necessary.

NF NICK FURY	6/24/23	JW Justin Winfield	6/24/23
Trainee/Operating Initials	*Date*	*OS/Operating Initials*	*Date*
MW Maa Winkler	6/24/23	LJ Liam Jinn	6/24/23
OJTI/Operating Initials	*Date*	*OJTI/Operating Initials*	*Date*
ES Emily Solo	6/24/23		
OJTI/Operating Initials	*Date*		

Must be signed by OS, Trainee, and at least one OJTI.* **Please print operating initials for legibility. *Scan signed copy of this form and email to 'AJT- ZBW-Training' (CC the Area OM or the appropriate delegate).*

Trainee/Controller: _____ **Date:** _____

SKILL IMPROVEMENT TRAINING

Skill Improvement Training (SIT) – training that provides an individual with the opportunity to participate in training that will enrich their ATC skills, abilities, and knowledge. SIT may be requested: by an individual for a position on which they are certified or by a trainee; SIT may be assigned to a trainee. Assigned SIT **must** be documented using the SIT Training Plan below.

SIT requested by an individual for a position on which they are certified is solely to reinforce an individual's skill. This form may be used to request SIT, however, the training must not be documented in an employees 3121-1 (Reference FAA Order 3120.4)

SIT TRAINING PLAN

SPECIFIC SKILLS TO BE ENHANCED WITH SIT: *(use 3120-25 job task/job subtasks Table B-2 in FAA Order 3120.4)*

(For Trainees Only: each SIT session must be documented on form 3120-25)

SIT METHODS TO BE USED (check all that apply, describe "OTHER" if used):

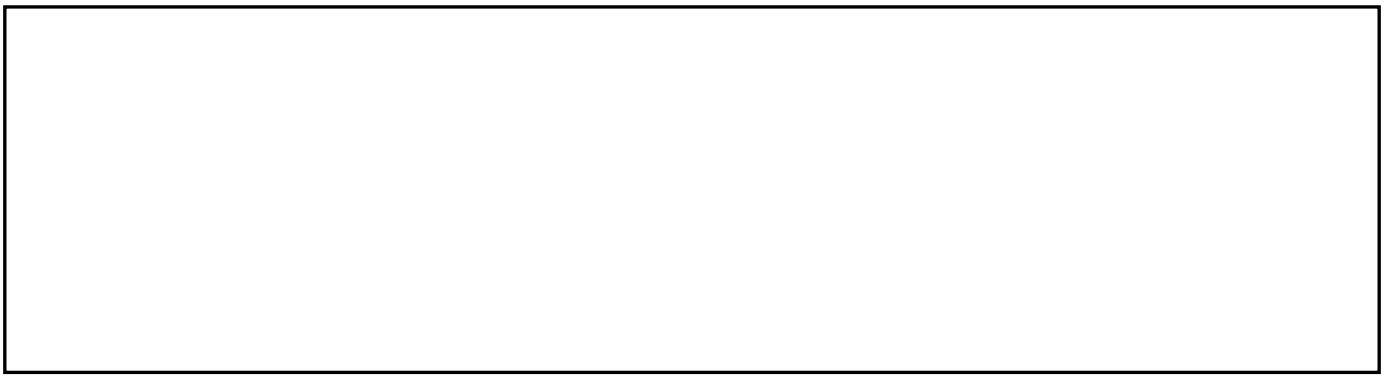
☐ TTL ☐ FALCON ☐ CLASSROOM ☐ PTT

☐ SELF-STUDY ☐ OBSERVATION ☐ OTHER: _____

If TTL - Sector(s) Requested -_____ Number of Scenarios Requested - _____

For TTL Area Will Provide: ☐Instructor ☐R/D-side Controller ☐Remote

SIT GOALS and METHODS USED:



FOR TRAINEES ONLY: ***A training team meeting must be conducted to document the suitability and effectiveness of SIT.***

Requests for Training Department: please provide any additional requests for the training department to assist in creating effective training materials. Please include special scenario type (spacing, weather, volume, conflicts, departures, arrivals, vectors for final, tower coordination, etc.)

Trainee/Operating Initials	*Date*	*Ops Supervisor/Operating Initials*	*Date*
OJTI/Operating Initials	*Date*	*OJTI/Operating Initials*	*Date*
OJTI/Operating Initials	*Date*		

For Trainees Only: Must be signed by OS, Trainee, and at least one OJTI.* **Please print operating initials for legibility. *Scan signed copy of this form and email to 'AJT-ZBW-Training' (CC the Area OM or the appropriate delegate).*

Trainee/Controller: Nick Fury **Date:** 6/24/2023

SKILL IMPROVEMENT TRAINING

Skill Improvement Training (SIT) – training that provides an individual with the opportunity to participate in training that will enrich their ATC skills, abilities, and knowledge. SIT may be requested: by an individual for a position on which they are certified or by a trainee; SIT may be assigned to a trainee. Assigned SIT **must** be documented using the SIT Training Plan below.

SIT requested by an individual for a position on which they are certified is solely to reinforce an individual's skill. This form may be used to request SIT, however, the training must not be documented in an employees 3121-1 (Reference FAA Order 3120.4)

SIT TRAINING PLAN

SPECIFIC SKILLS TO BE ENHANCED WITH SIT: *(use 3120-25 job task/job subtasks Table B-2 in FAA Order 3120.4)*

Effective traffic flow is maintained

(For Trainees Only: each SIT session must be documented on form 3120-25)

SIT METHODS TO BE USED (check all that apply, describe "OTHER" if used):

- [■] TTL
- [ ] FALCON
- [ ] CLASSROOM
- [ ] PTT
- [ ] SELF-STUDY
- [ ] OBSERVATION
- [ ] OTHER: _____

If TTL - Sector(s) Requested - 05/06 **Number of Scenarios Requested -** 6

For TTL Area Will Provide: [■] **Instructor** [■] **R/D-side Controller** [■] **Remote** [ ] **Remote**

SIT GOALS and METHODS USED:

Request TTL scenarios that require extensive sequencing to EWR and LGA so Mr. McLean can practice sequencing techniques such as speed control, vectoring, and coordination. Using a scenario with high volume to EWR and LGA, we can implement a MIT restriction and holding to practice maintaining an effective traffic flow. Mr. McLean will demonstrate techniques to "S-turn" spacing, when to have other sectors stop and start traffic, and how to use speed control to assist.

FOR TRAINEES ONLY: ***A training team meeting must be conducted to document the suitability and effectiveness of SIT.***

Requests for Training Department: please provide any additional requests for the training department to assist in creating effective training materials. Please include special scenario type (spacing, weather, volume, conflicts, departures, arrivals, vectors for final, tower coordination, etc.)

Request one sector 05 scenario with heavy volume to EWR with some traffic to EWR Satellites and HPN. Request one sector 06 scenario with heavy volume to LGA with normal sector 06 traffic mixed in. Request 2 sector 05/06 combined scenarios with heavy volume to EWR and other normal traffic mixed in. Preferably have one period with LGA spacing to do as well.

JM John McLean	4/25/23	JW	4/25/23
Trainee/Operating Initials	*Date*	*Ops Supervisor/Operating Initials*	*Date*
MW	4/25/23	LJ Liam Jinn	4/25/23
OJTI/Operating Initials	*Date*	*OJTI/Operating Initials*	*Date*
N/A			
OJTI/Operating Initials	*Date*		

For Trainees Only: Must be signed by OS, Trainee, and at least one OJTI.* **Please print operating initials for legibility. *Scan signed copy of this form and email to 'AJT-ZBW-Training' (CC the Area OM or the appropriate*

delegate).

BRIEFING ITEM DISTRIBUTION

ID # _____ ☐ **MASTER** ☐ **FILE**

SUBJECT: _____

POC: _____ **POC Contact Info:** _____

Briefing Type: ☐ **Pre-Duty** ☐ **Same Day** ☐ **Team Brief** ☐ **Verbal**

Training Type: ☐ **Supplemental** ☐ **Informational** ☐ **Refresher**

Training Length (Minutes): _____ ☐ **TRAX**

Originator: ☐ **By Office:** _____ ☐ **By Employee:** _____

Date(s): **Display date:** _____ ☐ **Briefing Deadline:** _____

☐ **Expiration Date:** _____

DISTRIBUTION	METHOD		DISTRIBUTION	METHOD	
	CEDAR	PAPER		CEDAR	PAPER
All Personnel			SLT		
Operational Personnel			OM		
Area A			OS		
Area B			CIC*		
Area C			ZBW-17		
Area D			ZBW-505		
Area E			ZBW-530		
TMU			ZBW-531		
Flight Data			TRNG CONTRACT		

Training Administrator DATE

ZBW Form 3120-31 REV (02/23)

INTENTIONALLY LEFT BLANK

Facility Visit Familiarization Training

Employee Section

Employee: _____ **Date:** _____ **Recall Phone #:** _____

Facility to Visit: _____ **Primary Date of Requested Visit:** _____ **Shift:** _____

Alternate Date of Requested Visit: _____ **Shift:** _____ **Arrival Time:** _____

Driver: **Vehicle Info:** Year: Make:

For BOS ATCT Only - License Plate # Model:

Operations Supervisor-in-Charge (OS) / Controller-in-Charge (CIC) Section

Date Received: _____ Time Received: _____

Primary

Released from Area Schedule

☐ Can Be Released

☐ Cannot Be Released

(Print) **OS /CIC Name:** _____ **Date:** _____

Reason Employee Can Not Be Released: ☐ Staffing ☐ Operational Needs

Alternate (*Complete alternate even if employee can be released on the primary date)*

Released from Area Schedule

☐ Can Be Released

☐ Cannot Be Released

(Print) **OS / CIC Name:** _____ **Date:** _____

Reason Employee Can Not Be Released: ☐ Staffing ☐ Operational Needs

Training Department Section

Visit Coordination

Date of Coordination: _____ **Receiving Facility Employee:** _____

Visit Approved: ☐ Primary ☐ Alternate **Arrival Time at Facility:** _____ **Return Time if Appropriate:** _____

Reason for Receiving Facility Disapproval: ☐ Staffing ☐ Other (Explain)

_____
Coordinating ZBW Employee (Print)

Date

OS / CIC Section

☐ Completed

☐ Cancelled OS / CIC Initials: _____

Instructions

1. Traveler must:

a. Make the request on ZBW Form 3120-42, and hand delivered to the Operations Supervisor -in-Charge / Controller-in-Charge.

b. For travel only to BOS ATCT enter vehicle license plate number.

c. Report to the Operations Supervisor-in-Charge or Controller-in-Charge prior to leaving the facility.

d. Complete the traveler section in its entirety.

2. Operationa Supervisor-in-Charge must:

a. Determine whether the employee can be released from the area staffing and indicate on ZBW Form 3120-42.

b. Hand deliver the completed ZBW Form 3120-42 to the Support Manager for Training or their designee.

c. Use ART code "Training- Offsite-ATC".

d. Upon receiving the approved ZBW Form 3120-42 from the Support Manager for Training, advise the employee and retain until the date of travel in area schedule folder.

e. Mark "Completed" or "Cancelled" in OS / CIC section, initial the section and place ZBW Form 3120-42 in the developmental OJT form folder.

3. Support Manager for Training or their designee must:

a. Advise the Operations Supervisor-in-Charge of the approval or disapproval.

b. Forward ZBW Form 3120-42 to the area to be retained in area folders until the date of the visit.

ASSISTANT CONTROLLER TRAINING
OJT CHECKLIST

		OJTI	DEV	DATE
Knowledge	Area map.			
	Identifiers: NAVAIDs, Air Carriers, Aircraft Types, Airports (Introduce satellite airport list).			
	Preferred high/low altitude routings from ZBW airports via exit fixes/routes, i.e. HTO, HANAA, CAM, GONZZ, BIZEX, SYR, HNK, J174, J121, Q480/J80, Q406/J6, Q29, Q816, Q822, Q448/J48.			
	NOTAM abbreviations, common contractions			
Knowledge Area Specific				
Computer Entries	Enter flight data into the computer correctly. (Demonstrate changes to fields 2 through 11).			
	Explain the purpose of each QAK.			
	Demonstrates the ability to enter flight plans.			
	Demonstrates the ability to amend incorrect routings.			
	Demonstrates the ability to input AR and IR flight plans appropriate for their area. Also, demonstrates SP function.			
	Demonstrates the ability to enter CDRs and NARs in the route field.			
	Demonstrates the ability to enter a weather sequence and altimeter setting (WX and AS).			
	Demonstrates the ability to enter a GI message.			
	SISO entries are correct.			
	ART entries are correct.			
Communication / Coordination	Uses proper phraseology on landlines.			
	VSCS-Training/Instructor slots. Demonstrates R-Monitor and indirect access codes 0,1,2,4,9. Can locate and identify the functions on the utility screen.			
	Knows the dial numbers and demonstrates the ability to coordinate flight plan revisions with all surrounding facilities.			
	Properly uses FRC.			
	Coordinate flight processing errors.			
	Knows procedures for VTABS.			
	Relief briefing procedures are complete.			

ASSISTANT CONTROLLER TRAINING
OJT CHECKLIST

		OJTI	DEV	DATE
Disseminate Information	Advises the operations supervisor of equipment problems.			
	Delivers traffic management messages, NOTAMs, MOA status and wx information to the proper sector and the operational supervisor.			
	Equipment status information.			
	Handling ALTRV departures and overflights.			
URET	Distinguish between ACL, GPD and Departure list and identify meanings of any color coding.			
	Apply air traffic preferential routes.			
	Correct routes of flight containing "???" and "XXX"			
	Identify Non-RVSM equipped aircraft & IAFDOF. Locate and modify A/C equipment list			
ERIDS	Demonstrates the following ERIDS functions.			
	-Find call sign.			
	-Find destination name.			
	-Find preferential route and CDRs.			
	-Find specific 7110.65 paragraph.			
	-Find NOTAMs for specific airport.			
	-Find instrument approach plate for a specific airport.			
	-Find a specific STAR or departure procedures.			
Recording Information	Process flight progress strips manually.			
	Weather reporting formats and ability to copy/read/enter (WX, WR, AS, and AR).			
	Record and deliver PIREP information.			
	Properly record holding delays. (7110.33 2-1-6)			
	IFR Aircraft Handling "Strip Count". Demonstrate the ability to input TC messages. (7110.33 2-1-39)			
Flight Progress Strips	Receive, process and deliver flight plan information.			
	Location of backup printers.			
	Identify when the printer is off-line.			
	Location of supplies for flight progress strip printers.			
	Demonstrates the replacement of paper for the printer.			
	Knows that putting printer online too fast will result in a printer error.			

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Forward to Training Administrator when checklist is completed.

RADAR CONTROLLER TRAINING

R08 Review

		OJTI	DEV	DATE
Separation	Knowedge of common boundary with four different Canadian facilities			
	Knowledge of various military activities including IRs, VRs, ARs, MOAs, ATCAAs, and Restircted Areas			
	Identify all boundaries--surface to Flight Level 270 except for the airspace delegated to Syracuse ATCT, Wheeler Sack ATCT. Montreal Area Control Center and that airspace underlying Utica Sector			
Coordination	Coordination requirements for NL3, MSS, SLK, LKP, K09			
Control Judgment				
Methods and Procedures	IFR approaches and departures to MAL, MSS, YCC, OGS, and PTD airports what the sector is responsible for			
	Sector 52 SLK Departure procedures			
	ALB Approach turbojet departures flight planned over SYR			
	BOS arrivals being handed off to Area B			
	Sectors 53 and 39 procedures clearing aircraft landing CYOW			
	PHL and PHL satellite airport arrivals entering sector 08			
	CYUL and CYOW terminal arrival procedures			
	Burlington terminal area arrival procedures			
	Responsibilites with westbound traffic entering ZOB			
	MHT and ASH arrivals			
	AIT procedure for ALB terminal arrivals			
	Holding at MSS			
	SIAP			
	Adirondack airspace complex knowledge			
	AKS ATCAA			
	East enteries into Adirondack airspace complex/AKS			

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Methods and Procedures Cont.	Oswego ATCAA			
	Misty and R5203			
	Misty MOAs altimeter requirements			
	Lightning ATCAAs			
	AR 609 and associated points			
	AR 631 and associated points			
	AR206 (H/L) and associated points			
	KBUF Arrivals			
	KIAG arrivals			
	KGTB arrivals			
	What arrivals does ZOB have control for?			
Equipment	Pre-set map			
	Alt map			
	Backup printer			
	Sector SIA items			
	ERAM-status, outages, drawings, annotations, GI, and weather messages			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items, PIREPS, etc.			
	Flight progress strips (arrivals and departures)			
	Printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Written notes			
Communication	Frequency RCAG site locations			
	Primary frequency			
	Backup frequency			
	Backup emergency communications (BUEC)\			
	Position combining knowledge -- The VSCS must be utilized in combining positions. When combining, Sector 08 is normally sombined at Sector 09			

REV 01/23

Leave form in OJTI training folder for reference.

RADAR CONTROLLER TRAINING

R09 Review

		OJTI	DEV	DATE
Separation	Knowedge of common boundary with four different Canadian facilities			
	Knowledge of various military activities including IRs, VRs, ARs, MOAs, ATCAAs, and Restircted Areas			
	Identify all boundaries--Fl280 to FL600. Common boundaries with two ZOB sectors and four ZBW sectors			
Coordination				
Control Judgment	Primary traffic flows			
Methods and Procedures	Entering Sector 09 Area B requirments			
	Sector 09 requirements for entering ZOB			
	BOS arrivals			
	BOS JFUND STAR			
	PSM/CON/SFW arrivals			
	CYUL and CYOW terminal arrival procedures			
	MHT and ASH arrivals			
	Adirondack airspace complex knowledge			
	AKS ATCAA			
	East enteries into Adirondack airspace complex/AKS			
	Oswego ATCAA			
	Misty and R5203			
	Misty MOAs altimeter requirements			
	Lightning ATCAAs			
	AR 609 and associated points			
	AR 631 and associated points			
	AR206 (H/L) and associated points			
	KIAD arrivals			

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	CYKZ/CYTZ arrivals			
	CYYZ arrivals			
	What arrivals does ZOB have control for?			
Equipment	Pre-set map			
	Alt map			
	Backup printer			
	Sector SIA items			
	ERAM-status, outages, drawings, annotations, GI, and weather messages			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items, PIREPS, etc.			
	Flight progress strips (arrivals and departures)			
	Printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Written notes			
Communication	Frequency RCAG site locations			
	Primary frequency			
	Backup frequency			
	Backup emergency communications (BUEC)\			
	Position combining knowledge -- The VSCS must be utilized in combining positions. When combining, Sector 08 is normally			

REV 01/23

Leave form in OJTI training folder for reference.

RADAR CONTROLLER TRAINING

R10 Review

		OJTI	DEV	DATE
Separation	Sector's primary purpose is?			
	Sector airspace FL280 and above			
	Common boundaries with ZOB, ZNY, and six ZBW sectors			
Coordination				
Control Judgment	Experience hot spots in sector			
	HNK, just east of RKA, and south of SYR			
	At HNK, PIT and PVD arrivals cross JFK arrivals			
	South of SYR, aircraft flight planned toward JHW conflict with IAD and YUL arrivals			
	All above traffic flows conflict with eastbound from ZOB			
Methods and Procedures	Area B sector entry requirements			
	Sector 22 restrictions entering sector and coordination requirements			
	Cape and islands seasonal routing			
	BOS arrivals			
	Sector 38 control for turns on KBOS arrivals			
	BOS metering requirments			
	Aircraft direct MNSTA requirements			
	BED, LWM, and BVY arrivals			
	PVD and PVD satellites arrivals			
	ISP and FOK jets arrivals			
	JFK and satellites requirements with jet and HPTP (AOA 250kts)			
	BDR/HVN/OXC and satellite arrivals			
	MHT and ASH arrivals			
	HPN/DXR arrivals			
	Jet and HPTP arrivals			
	Prop arrivals			
	PSM/CON arrivals			
	Holding at RKA			
	Holding at KODEY			
	KBDL/SATs arrivals			

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	KALB/SATs arrivals			
	KPIT/SATs arrivals			
	KIAD/SATs arrivals			
Equipment	Pre-set map -- AREAA			
	Normal mid configuration			
	Alt map -- ZBWMAP			
	Backup printer -- Sector 09			
	Sector SIA items			
	ERAM-status, outages, drawings, annotations, GI, and weather			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items,			
	Flight progress strips (arrivals and departures)			
	Printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Written notes			
Comunication	Primary frequency			
	Backup frequency			
	Backup emergency communications (BUEC)			
	Emergency frequency			

REV 01/23

Leave form in OJTI training folder for reference.

RADAR CONTROLLER TRAINING

R22 Review

		OJTI	DEV	DATE
Separation	Identify Albany Sector airspace from 110 to FL230			
	Identify Albany ATCT airspace			
	Identify common boundaries with fourteen ZBW sectors			
Coordination	Sector 22 point out responsibilty to Sector 36			
	Sector 22 responsibility with arrivals to:			
	MHT			
	ASH			
	EEN			
	PSM			
	SFM			
Control Judgment				
Methods and Procedures	BED, LWM, and BVY arrivals			
	PVD and PVD satellites arrivals			
	Sector 38 requirements for aircraft landing PVD and ISP			
	Sector 24 requirements for aircraft landing BDL			
	Sector 39 requirements with HPN/SWF/POU/EWR and EWR Satellite jets and HPTP			
	Sector 38 requirements with ASH/CON arrivals			
	Sector 38 requirements with MHT arrivals			
	Sector 22 control for turns with sector 7			
	Sector responsibility with LGA jets and HPTP			
	ALB departures filed J6 requirements			
	ALB Terminal Area turbojet departues flight planned over SYR			
	Sector 21 control for turns and descent from Sector 22			
	Sector 21 control on KEWR arrival traffic south of ALB			
	ISP and ISP Satellite			
	Requirement for Y90 departures, requesting FL240 or above and filed over CAM			
	Requirement for KEWR arrivals delivered descending to 16,000ft MSL or lower			

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	EWR metering			
	AIT for ALB Terminal arrival aircraft between Sectors 08, 22, & 23			
	Holding at HANAA			
	Procedures for militray operations in LASER SOUTH			
	AR631 points and altitudes			
Equipment	Pre-set map			
	Alt map -- ZBWMAP			
	Backup printer			
	Sector SIA items			
	ERAM-status, outages, drawings, annotations, GI, and weather			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items,			
	Flight progress strips (arrivals and departures)			
	Printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Written notes			
Comunication	Primary frequency			
	Backup frequency			
	Backup emergency communications (BUEC)			
	UHF Emergency			

REV 01/23

Leave form in OJTI training folder for reference.

RADAR CONTROLLER TRAINING

R23 Review

		OJTI	DEV	DATE
Separation	The Hancock Sector airspace from ground up to 17,000ft MSL			
	Common airspace boundaries with:			
	Syracuse ATCT, Binghampton ATCT, Albany ATCT, AVP ATCT			
	New York Approach			
	ZBW, ZNY, ZOB Sectors			
Coordination	SIAP Adjacent Facility coordination requirements			
	Coordination requirements with SYR ATCT			
	Coordination requirements with BGM ATCT			
Control Judgment	Hancock sector hot spots			
Methods and Procedures	BOS Satellite arrivals			
	BED, LWM, and BVY arrivals			
	DXR/LGA/HPN and satellites props/turboprop arrivals via NOBBI STAR			
	SWF and satellite arrivals			
	Sector responsibilities for EWR jet and HPTP and prop arrivals			
	Sector 5 control procedures on SWF, EWR turbojet/HPTP arrivals and other aircraft			
	ALB Approach turbojet departures over SYR			
	MHT and ASH arrivals			
	JFK and FRG props/turboprops via PWL STAR			
	BDR/HVN/OXC and satellite prop/turboprop traffic via DENNA STAR			
	ISP prop/turboprop arrivals via LOVES STAR			
	BDR/HVN/OXC/3B9/4B2 turbojet arrivals			
	AIT for ALB terminal arrival aircraft			
	Holding for RKA			
	KAVP exiting the sector requirements			
	KALB/KSCH entering the sector requirements			
	KSWF entering the sector requirements			

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Equipment	Pre-set map			
	Alt map -- ZBWMAP			
	Backup printer			
	Sector SIA items			
	ERAM-status, outages, drawings, annotations, GI, and weather			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items,			
	Flight progress strips (arrivals and departures)			
	Printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Written notes			
Comunication	Primary frequency			
	Backup frequency			

REV 01/23

Leave form in OJTI training folder for reference.

RADAR CONTROLLER TRAINING

R24 Review

		OJTI	DEV	DATE
Separation	DNY Sector main operational responsibility			
	DNY Sector airspace from FL180 to FL270			
	Describe common boundaries with ZOB, ZNY, ZBW Sectors			
Coordination				
Control Judgment				
Methods and Procedures	Sector 38 entry responibilities for aircraft landing MDT, PHL and PHL satellites (ACY, DOV, PNE, TTL, ILG, ABE and MQS)			
	Sector 24 control from Sector 10			
	PVD and satellites exit routing			
	ISP and satellites jets exit routing			
	HPN/DXR jets and HPTP arrivals routing			
	LGA jets and HPTP			
	LGA/HPN/DXR and satellite props/turboprops			
	JFK and satellite jets and HPTP			
	JFK/FRG props/turboprops			
	BDR/HVN/OXC and satellite prop/turboprops			
	ISP prop/turboprop arrivals			
	BDR/HVN/OXC/3B9/N04/42B turbojet arrivals			
	BOS arrivals			
	BOS satellite arrivals			
	EWR jet and HPTP arrivals			
	EWR metering			
	Sector 5 control for turns on EWR turbojet/HPTP arrivals			
	Sector 5 control for speed on EWR turbojet/HPTP arrivals			
	BDL arrivals to enter sector 22			
	Holding at RKA			

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Methods and Procedures	Holding at KODEY and coordination requirements			
	KPHL and KPHL satellites exting the sector requirements and restrictions			
	KPHL metering requirements			
	KACY/SATs exiting sector requirements			
	KIAD/SATs exitin sector requirements			
	KWRI/SATs exiting sector requirements			
	KHPN requirements entering the sector			
	KISP requirements entering the sector			
	KBDL/KORH requirements entering the sector			
	KSWF/KPOU/KMSV entering the sector requirements			
Equipment	Pre-set map			
	Alt map -- ZBWMAP			
	Backup printer			
	Sector SIA items			
	ERAM-status, outages, drawings, annotations, GI, and weather			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items,			
	Flight progress strips (arrivals and departures)			
	Printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Written notes			
Comunication	Primary frequency			
	Backup frequency			
	BUEC frequency			

REV 01/23

Leave form in OJTI training folder for reference.

RADAR ASSOCIATE CONTROLLER TRAINING

RA08 Review

		OJTI	DEV	DATE
Separation	Knowedge of common boundary with four different Canadian facilities			
	Knowledge of various military activities including IRs, VRs, ARs, MOAs, ATCAAs, and Restircted Areas			
	Identify all boundaries--surface to Flight Level 270 except for the airspace delegated to Syracuse ATCT, Wheeler Sack ATCT. Montreal Area Control Center and that airspace underlying Utica Sector			
Coordination	Coordination requirements for NL3, MSS, SLK, LKP, K09			
Control Judgment				
Methods and Procedures	IFR approaches and departures to MAL, MSS, YCC, OGS, and PTD airports what the sector is responsible for			
	Sector 52 SLK Departure procedures			
	ALB Approach turbojet departures flight planned over SYR			
	BOS arrivals being handed off to Area B			
	Sectors 53 and 39 procedures clearing aircraft landing CYOW			
	PHL and PHL satellite airport arrivals entering sector 08			
	CYUL and CYOW terminal arrival procedures			
	Burlington terminal area arrival procedures			
	Responsibilites with westbound traffic entering ZOB			
	MHT and ASH arrivals			
	AIT procedure for ALB terminal arrivals			
	Holding at MSS			
	SIAP			
	Adirondack airspace complex knowledge			
	AKS ATCAA			
	East enteries into Adirondack airspace complex/AKS			

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Methods and Procedures cont.	Oswego ATCAA			
	Misty and R5203			
	Misty MOAs altimeter requirements			
	Lightning ATCAAs			
	AR 609 and associated points			
	AR 631 and associated points			
	AR206 (H/L) and associated points			
	KBUF Arrivals			
	KIAG arrivals			
	KGTB arrivals			
	What arrivals does ZOB have control for?			
Equipment	Pre-set map			
	Alt map			
	Backup printer			
	Sector SIA items :			
	ERAM-status, outages, drawings, annotations, GI, and weather messages			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items, PIREPS, etc.			
	Flight progress strips (arrivals and departures)			
	Printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Written notes			
Communication	Frequency RCAG site locations			
	Primary frequency			
	Backup frequency			
	Backup emergency communications (BUEC)\			
	Position combining knowledge -- The VSCS must be utilized in combining positions. When combining, Sector 08 is normally sombined at Sector 09			

REV 01/23

Leave form in OJTI training folder for reference.

RADAR ASSOCIATE CONTROLLER TRAINING

RA09 Review

		OJTI	DEV	DATE
Separation	Knowedge of common boundary with four different Canadian facilities			
	Knowledge of various military activities including IRs, VRs, ARs, MOAs, ATCAAs, and Restircted Areas			
	Identify all boundaries--Fl280 to FL600. Common boundaries with two ZOB sectors and four ZBW sectors			
Coordination				
Control Judgment	Primary traffic flows			
Methods and Procedures	Entering Sector 09 Area B requirments			
	Sector 09 requirements for entering ZOB			
	BOS arrivals			
	BOS JFUND STAR			
	PSM/CON/SFW arrivals			
	CYUL and CYOW terminal arrival procedures			
	MHT and ASH arrivals			
	Adirondack airspace complex knowledge			
	AKS ATCAA			
	East enteries into Adirondack airspace complex/AKS			
	Oswego ATCAA			
	Misty and R5203			
	Misty MOAs altimeter requirements			
	Lightning ATCAAs			
	AR 609 and associated points			
	AR 631 and associated points			
	AR206 (H/L) and associated points			
	KIAD arrivals			
	CYKZ/CYTZ arrivals			
	CYYZ arrivals			
	What arrivals does ZOB have control for?			

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Equipment	Pre-set map			
	Alt map			
	Backup printer			
	Sector SIA items :			
	ERAM-status, outages, drawings, annotations, GI, and weather messages			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items, PIREPS, etc.			
	Flight progress strips (arrivals and departures)			
	Printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Written notes			
Communication	Frequency RCAG site locations			
	Primary frequency			
	Backup frequency			
	Backup emergency communications (BUEC)\			
	Position combining knowledge -- The VSCS must be utilized in combining positions. When combining, Sector 08 is normally			

REV 01/23

Leave form in OJTI training folder for reference.

RADAR ASSOCIATE CONTROLLER TRAINING

RA10 Review

		OJTI	DEV	DATE
Separation	Sector's primary purpose is?			
	Sector airspace FL280 and above			
	Common boundaries with ZOB, ZNY, and six ZBW sectors			
Coordination				
Control Judgment	Experience hot spots in sector			
	HNK, just east of RKA, and south of SYR			
	At HNK, PIT and PVD arrivals cross JFK arrivals			
	South of SYR, aircraft flight planned toward JHW conflict with IAD and YUL arrivals			
	All above traffic flows conflict with eastbound from ZOB			
Methods and Procedures	Area B sector entry requirements			
	Sector 22 restrictions entering sector and coordination requirements			
	Cape and islands seasonal routing			
	BOS arrivals			
	Sector 38 control for turns on KBOS arrivals			
	BOS metering requirments			
	Aircraft direct MNSTA requirements			
	BED, LWM, and BVY arrivals			
	PVD and PVD satellites arrivals			
	ISP and FOK jets arrivals			
	JFK and satellites requirements with jet and HPTP (AOA 250kts)			
	BDR/HVN/OXC and satellite arrivals			
	MHT and ASH arrivals			
	HPN/DXR arrivals			
	Jet and HPTP arrivals			
	Prop arrivals			
	PSM/CON arrivals			
	Holding at RKA			
	Holding at KODEY			

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Equipment	Pre-set map -- AREAA			
	Normal mid configuration			
	Alt map -- ZBWMAP			
	Backup printer -- Sector 09			
	Sector SIA items:			
	ERAM-status, outages, drawings, annotations, GI, and weather			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items,			
	Flight progress strips (arrivals and departures)			
	Printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Written notes			
Comunication	Primary frequency			
	Backup frequency			
	Backup emergency communications (BUEC)			
	Backup emergency communications (BUEC)			
	Emergency frequency			

REV 01/23

Leave form in OJTI training folder for reference.

RADAR ASSOCIATE CONTROLLER TRAINING

RA22 Review

		OJTI	DEV	DATE
Separation	Identify Albany Sector airspace from 110 to FL230			
	Identify Albany ATCT airspace			
	Identify common boundaries with fourteen ZBW sectors			
Coordination	Sector 22 point out responsibilty to Sector 36			
	Sector 22 responsibility with arrivals to:			
	MHT			
	ASH			
	EEN			
	PSM			
	SFM			
Control Judgment				
Methods and Procedures	BED, LWM, and BVY arrivals			
	PVD and PVD satellites arrivals			
	Sector 38 requirements for aircraft landing PVD and ISP			
	Sector 24 requirements for aircraft landing BDL			
	Sector 39 requirements with HPN/SWF/POU/EWR and EWR Satellite jets and HPTP			
	Sector 38 requirements with ASH/CON arrivals			
	Sector 38 requirements with MHT arrivals			
	Sector 22 control for turns with sector 7			
	Sector responsibility with LGA jets and HPTP			
	ALB departures filed J6 requirements			
	ALB Terminal Area turbojet departues flight planned over SYR			
	Sector 21 control for turns and descent from Sector 22			
	Sector 21 control on KEWR arrival traffic south of ALB			
	ISP and ISP Satellite			

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Methods and Procedures cont	Requirement for Y90 departures, requesting FL240 or above and filed over CAM			
	Requirement for KEWR arrivals delivered descending to 16,000ft MSL or lower			
	EWR metering			
	AIT for ALB Terminal arrival aircraft between Sectors 08, 22, and 23			
	Holding at HANAA			
	Procedures for militray operations in LASER SOUTH			
	AR631 points and altitudes			
Equipment	Pre-set map			
	Alt map -- ZBWMAP			
	Backup printer			
	Sector SIA items			
	ERAM-status, outages, drawings, annotations, GI, and weather			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items,			
	Flight progress strips (arrivals and departures)			
	Printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Written notes			
Comunication	Primary frequency			
	Backup frequency			
	Backup emergency communications (BUEC)			
	UHF Emergency			

REV 01/23

Leave form in OJTI training folder for reference.

RADAR ASSOCIATE CONTROLLER TRAINING

RA23 Review

		OJTI	DEV	DATE
Separation	The Hancock Sector airspace from ground up to 17,000ft MSL			
	Common airspace boundaries with:			
	Syracuse ATCT, Binghampton ATCT, Albany ATCT, AVP ATCT			
	New York Approach			
	ZBW, ZNY, ZOB Sectors			
Coordination	SIAP Adjacent Facility coordination requirements			
	Coordination requirements with SYR ATCT			
	Coordination requirements with BGM ATCT			
Control Judgment	Hancock sector hot spots			
Methods and Procedures	BOS Satellite arrivals			
	BED, LWM, and BVY arrivals			
	DXR/LGA/HPN and satellites props/turboprop arrivals via NOBBI STAR			
	SWF and satellite arrivals			
	Sector responsibilities for EWR jet and HPTP and prop arrivals			
	Sector 5 control procedures on SWF, EWR turbojet/HPTP arrivals and other aircraft			
	ALB Approach turbojet departures over SYR			
	MHT and ASH arrivals			
	JFK and FRG props/turboprops via PWL STAR			
	BDR/HVN/OXC and satellite prop/turboprop traffic via DENNA STAR			
	ISP prop/turboprop arrivals via LOVES STAR			
	BDR/HVN/OXC/3B9/4B2 turbojet arrivals			
	AIT for ALB terminal arrival aircraft			
	Holding for RKA			
	KAVP exiting the sector requirements			
	KALB/KSCH entering the sector requirements			
	KSWF entering the sector requirements			

REV 01/23

Equipment	Pre-set map			
	Alt map -- ZBWMAP			
	Backup printer			
	Sector SIA items			
	ERAM-status, outages, drawings, annotations, GI, and weather			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items,			
	Flight progress strips (arrivals and departures)			
	Printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Written notes			
Comunication	Primary frequency			
	Backup frequency			

REV 01/23

Leave form in OJTI training folder for reference.

RADAR ASSOCIATE CONTROLLER TRAINING

RA24 Review

		OJTI	DEV	DATE
Separation	DNY Sector main operational responsibility			
	DNY Sector airspace from FL180 to FL270			
	Describe common boundaries with ZOB, ZNY, ZBW Sectors			
Coordination				
Control Judgment				
Methods and Procedures	Sector 38 entry responibilities for aircraft landing MDT, PHL and PHL satellites (ACY, DOV, PNE, TTL, ILG, ABE and MQS)			
	Sector 24 control from Sector 10			
	PVD and satellites exit routing			
	ISP and satellites jets exit routing			
	HPN/DXR jets and HPTP arrivals routing			
	LGA jets and HPTP			
	LGA/HPN/DXR and satellite props/turboprops			
	JFK and satellite jets and HPTP			
	JFK/FRG props/turboprops			
	BDR/HVN/OXC and satellite prop/turboprops			
	ISP prop/turboprop arrivals			
	BDR/HVN/OXC/3B9/N04/42B turbojet arrivals			
	BOS arrivals			
	BOS satellite arrivals			
	EWR jet and HPTP arrivals			
	Sector 5 control for turns on EWR turbojet/HPTP arrivals			
	Sector 5 control for speed on EWR turbojet/HPTP arrivals			
	BDL arrivals to enter sector 22			
	Holding at RKA			

REV 01/23

Methods and Procedures cont	Holding at KODEY and coordination requirements			
	KPHL and KPHL satellites exting the sector requirements and restrictions			
	KPHL metering requirements			
	KACY/SATs exiting sector requirements			
	KIAD/SATs exitin sector requirements			
	KWRI/SATs exiting sector requirements			
	KHPN requirements entering the sector			
	KISP requirements entering the sector			
	KBDL/KORH requirements entering the sector			
	KSWF/KPOU/KMSV entering the sector requirements			
Equipment	Pre-set map			
	Alt map -- ZBWMAP			
	Backup printer			
	Sector SIA items			
	ERAM-status, outages, drawings, annotations, GI, and weather			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items,			
	Flight progress strips (arrivals and departures)			
	Printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Written notes			
Comunication	Primary frequency			
	Backup frequency			
	BUEC frequency			

REV 01/23

Leave form in OJTI training folder for reference.

RADAR CONTROLLER TRAINING

R36 Review

		OJTI	DEV	DATE
Separation	Identify all boundaries -- SFC-FL230, A90, ALB, Y90, and surrounding ZBW sectors			
	MIAs. Terrain including elevation and location of Mt. Mondanock and Greylock			
Coordination	Knowledge of various military activities including IRs, VRs, ARs, MOAs, ATCAAs and restricted areas.			
	Coordination requirements and effects to traffic flows			
	CHUGGS			
	SIAP adjacent facility			
	GDM VOR-A			
	4V8 GPS RWY 1			
Control Judgment	Primary traffic flows			
	A90 satellite airports including Cape Cod			
	EEN arrivals from Area A			
	MHT/ASH arrivals from Area A			
	PSM/CON/SFM arrivals from Area A			
	MHT arrivals from Area E			
	PSM arrivals from Area C			
	BOS JFUND, GDM, 15R operations			
	BED ZELKA arrival			
	TEC routes			
	EEN departures			
Methods and Procedures	Holding fixes -- SEETS, JFUND, ONDEC, GDM, LOBBY			
	Parajump activities, activate in EDST			
	Turner Falls			
	Pepperell			
	Orange -- include flight plan with delay			
	DHART			
	Adjacent terminal airports			
	A90 satellite airports including Cape and islands			
	FIT arrivals -- LOA, handoff to A90			
	PSF/AQW arrivals -- limitations of ALB Radar and frequencies			
Equipment	Pre-set map -- AREAB			
	Alt. map -- ZBWMAP			
	Sector SIA items			
	ERAM- status, outages, drawings and annotations, GI and weather messages			
	ERIDS including pertinent NOTAMs			

Equipment	Weather products such as graphical displays, briefing items, PIREPs, etc.			
	Flight progress strips (arrivals and departures)			
	printed messages on strips such as GI, hazardous weather			
	Areas of limited radio/radar coverage/ADS-B antenna locations			
Communication	Frequency RCAG site locations			
	Primary/backup/BUEC frequency			
	Landlines			
	Position combining knowledge -- The VSCS must be utiilized in combining positions			

Leave form in OJTI training folder for reference.

RADAR CONTROLLER TRAINING

R37 Review

		OJTI	DEV	DATE
Separation	Identify all boundaries -- SFC-FL230, A90, ALB, PWM and surrounding ZBW sectors			
	MIAs. Terrain including Mt. Ascutney (not on map), CT River Valley			
Coordination	Knowledge of various military activities including IRs, VRs, ARs, MOAs, ATCAAs and restricted areas.			
	Coordination requirements and effects to traffic flows			
	LASER SOUTH			
	AR631			
	AITs			
	Adjacent facility coordination			
	LEB -- Paper stop, SYD with FCT (LOA Phraseology)			
	VSF			
	CHN			
	RUT			
	5B9			
Ccontrol Judgment	Primary traffic flows			
Methods andPprocedures	BAF, CEF, ORH, BAF via EEN from Area D			
	PSM/SFM arrivals from Area A			
	Altitude assignments			
	BOS departures -- Including SR CID /T 56 for international departures			
	DHART -- Route book, HEMS MOCA, icing procedures			
Equipment	Pre-set map -- AREAB			
	Alt. map -- ZBWMAP			
	Sector SIA items			
	ERAM- status, outages, drawings and annotations, GI and weather messages			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items, PIREPs, etc.			

Equipment	Flight progress strips (arrivals and departures)			
	Printed messages on strips such as GI, hazardous weather			
	Areas of limited radio/radar coverage/ADS-B antenna locations			
Communication	Frequency RCAG site locations			
	Primary/backup/BUEC frequency			
	Landlines			
	Position combining knowledge -- The VSCS must be utiilized in combining positions			

Leave form in OJTI training folder for reference.

RADAR CONTROLLER TRAINING

R38 Review

		OJTI	DEV	DATE
Separation	Identify all boundaries -- FL240 and above and surrounding ZBW sectors			
Coordination	Knowledge of various military activities including IRs, VRs, ARs, MOAs, ATCAAs and restricted areas.			
	AITs			
Control Judgment	Primary traffic flows			
	BED, LWM, BVY arrivals from Area A			
	PVD/ISP arrivals			
	MHT/ASH arrivals			
	PSM/CON/SFM arrivals			
	ALB departures			
	JFK arrivals			
	BOS JFUND, 15R operations			
	IAD arrivals			
	PHL and PHL SATs arrivals			
	SYR arrivals			
	SWAP			
Methods and Procedures	Holding fixes -- SEETS, ONDEC, GDM			
	Conflict points			
	Metering			
	Tracker operations			
	PIREPs			
	CWSU including forecast			
	4th line usage			
Equipment	Pre-set map -- AREAB			
	Alt. map -- ZBWMAP			
	Sector SIA items			
	ERAM- status, outages, drawings and annotations, GI and weather messages			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items, PIREPs, etc.			

Equipment	Flight progress strips (arrivals and departures)			
	printed messages on strips such as GI, hazardous weather			
	Areas of limited radio/radar coverage/ADS-B antenna locations			
Communication	Frequency RCAG site locations			
	Primary/backup/BUEC frequency			
	Landlines			
	Position combining knowledge -- The VSCS must be utiilized in combining positions			

Leave form in OJTI training folder for reference.

RADAR CONTROLLER TRAINING

R39 Review

		OJTI	DEV	DATE
Separation	Identify all boundaries -- FL240 and above and surrounding ZBW sectors			
Coordination	Knowledge of various military activities including IRs, VRs, ARs, MOAs, ATCAAs and restricted areas.			
	Coordination requirements and effects to traffic flows			
	LASER			
	AR631			
	Lightning			
	Adirondack Airspace Complex			
Dontrol Judgment	Primary traffic flows			
	BOS departures			
	PWM departures			
	NY Metro arrivals			
	PHL and PHL SATs			
	BOS JFUND arrival			
	BOS ENE arrival			
	IAD arrivals			
	CYOW arrivals			
	SYR arrivals			
	Discretionary altitude clearance			
Methods and Procedures	Holding fixes -- HANNA			
	Tracker Operations			
	PIREPS -- Include CWSU forecast			
	4th line usage			
Equipment	Pre-set map -- AREAB			
	Alt. map -- ZBWMAP			
	Sector SIA items			
	ERAM- status, outages, drawings and annotations, GI and weather messages			
	ERIDS including pertinent NOTAMs			

Equipment	Weather products such as graphical displays, briefing items, PIREPs, etc.			
	Flight progress strips (arrivals and departures)			
	printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Areas of limited radio/radar coverage/ADS-B antenna locations			
Communication	Frequency RCAG site locations			
	Primary/backup/BUEC frequency			
	Landlines			
	Position combining knowledge -- The VSCS must be utiilized in combining positions			

Leave form in OJTI training folder for reference.

RADAR CONTROLLER TRAINING

R52 Review

		OJTI	DEV	DATE
Separation	Knowledge of common boundaries with different Canadian facilities			
	Identify all boundaries -- SFC-FL230, BTV, ALB, PWM, A90, and surrounding ZBW sectors			
	MIAs/MEAs/MOCAs. Terrain including elevation and location of Mt. Marcy and Mt. Washington			
Coordination	Knowledge of various military activities including IRs, VRs, ARs, MOAs, ATCAAs and restricted areas.			
	Coordination requirements and effects to traffic flows			
	Cranberry MOA			
	Tupper MOA			
	LIGHTNING ATCAAs and procedures			
	Adirondack Airspace Complex			
	AKS ATCAA - AR609			
	LASER SUAs			
	YANKEE 1/2			
	AR212NE			
	AR212SW			
	AR631			
	SIAP Coordination			
	MPV			
	LEB			
	8B0 - M57			
	BML			
	5B9			
	SLK			
	LKP			
	MSS			
Control Judgment	Primary traffic flows			
	BTV arrival from Sector 08			
	RUT arrival from Sector 37			
	BOS arrivals			
	BOS ENE STAR			
	PWM arrivals			
	CYUL and CYOW terminal arrivals			
	CYJN and CYHU arrivals			

Methods and Procedures	PIREPs			
	Include CWSU forecast			
	Glider activites			
	Sugarbush			
	Mt. Washington			
	Lake Placid			
	4th line usage			
	SWAP procedures			
	N90			
	ZBW			
	JFK			
Equipment	Pre-set map -- AREAB			
	Alt. map -- ZBWMAP			
	Sector SIA items			
	ERAM- status, outages, drawings and annotations, GI and weather messages			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items, PIREPs, etc.			
	Flight progress strips (arrivals and departures)			
	printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Areas of limited radio/radar coverage/ADS-B antenna locations			
Communication	Frequency RCAG site locations			
	Primary/backup/BUEC frequency			
	Landlines			
	Position combining knowledge -- The VSCS must be utiilized in combining positions			

Leave form in OJTI training folder for reference.

RADAR CONTROLLER TRAINING

R53 Review

		OJTI	DEV	DATE
Separation	Identify all boundaries -- FL240 and above, and surrounding ZBW sectors			
	Knowledge of common boundary with different Canadian facilities			
Coordination	Knowledge of various military activities including IRs, VRs, ARs, MOAs, ATCAAs and restricted areas.			
	Coordination requirements and effects to traffic flows			
	Adirondack Airspace Complex			
	LIGHTNING ATCAAs and procedures			
	AKS ATCAA - AR609			
	LASER SUAs			
	YANKEE 1/2			
	AR212NE			
	AR212SW			
	AR204			
	AR205			
	AR631			
	Scotty			
	Condor			
	AITs			
Control Judgment	Primary traffic flows			
Methods and Procedures	Holding fixes -- KJOHN, PBERG, CAMTN, SKEEE			
	Exiting the sector			
	NY Metro trafic and Sector 39's control			
	IAD traffic			
	PHL traffic			
	BOS arrivals			
	Metering			
	CYOW and CYUL landing traffic			
	SWAP Procedures			
	N90			
	ZBW			
	JFK			

Equipment	Pre-set map -- AREAB			
	Alt. map -- ZBWMAP			
	Sector SIA items			
	ERAM- status, outages, drawings and annotations, GI and weather messages			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items, PIREPs, etc.			
	Flight progress strips (arrivals and departures)			
	printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Areas of limited radio/radar coverage/ADS-B antenna locations			
Communication	Frequency RCAG site locations			
	Primary/backup/BUEC frequency			
	Landlines			
	Position combining knowledge -- The VSCS must be utiilized in combining positions			

Leave form in OJTI training folder for reference.

RADAR ASSOCIATE CONTROLLER TRAINING

RA36 Review

		OJTI	DEV	DATE
Separation	Identify all boundaries -- SFC-FL230, A90, ALB, Y90, and surrounding ZBW sectors			
	MIAs. Terrain including elevation and location of Mt. Mondanock and Greylock			
Coordination	Knowledge of various military activities including IRs, VRs, ARs, MOAs, ATCAAs and restricted areas.			
	Coordination requirements and effects to traffic flows			
	CHUGGS			
	SIAP adjacent facility			
	GDM VOR-A			
	4V8 GPS RWY 1			
Control Judgment	Primary traffic flows			
	A90 satellite airports including Cape Cod			
	EEN arrivals from Area A			
	MHT/ASH arrivals from Area A			
	PSM/CON/SFM arrivals from Area A			
	MHT arrivals from Area E			
	PSM arrivals from Area C			
	BOS JFUND, GDM, 15R operations			
	BED ZELKA arrival			
Methods and Procedures	Holding fixes -- SEETS, JFUND, ONDEC, GDM, LOBBY			
	Parajump activities, activate in EDST			
	Turner Falls			
	Pepperell			
	Orange -- include flight plan with delay			
	DHART			
Equipment	Pre-set map -- AREAB			
	Alt. map -- ZBWMAP			
	Sector SIA items			
	ERAM- status, outages, drawings and annotations, GI and weather messages			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items, PIREPs, etc.			
	Flight progress strips (arrivals and departures)			
	printed messages on strips such as GI, hazardous weather			
	Areas of limited radio/radar coverage/ADS-B antenna locations			

Communication	Frequency RCAG site locations			
	Primary/backup/BUEC frequency			
	Landlines			
	Position combining knowledge -- The VSCS must be utiilized in combining positions			

Leave form in OJTI training folder for reference.

RADAR ASSOCIATE CONTROLLER TRAINING

RA37 Review

		OJTI	DEV	DATE
Separation	Identify all boundaries -- SFC-FL230, A90, ALB, PWM and surrounding ZBW sectors			
	MIAs. Terrain including Mt. Ascutney (not on map), CT River Valley			
Coordination	Knowledge of various military activities including IRs, VRs, ARs, MOAs, ATCAAs and restricted areas.			
	Coordination requirements and effects to traffic flows			
	LASER SOUTH			
	AR631			
	AITs			
	Adjacent facility coordination			
	LEB -- Paper stop, SYD with FCT (LOA Phraseology)			
	VSF			
	CHN			
	RUT			
	5B9			
Control Judgment	Primary traffic flows			
Methods and Procedures	BAF, CEF, ORH, BAF via EEN from Area D			
	PSM/SFM arrivals from Area A			
	Altitude assignments			
	BOS departures -- Including SR CID /T 56 for international departures			
Equipment	Pre-set map -- AREAB			
	Alt. map -- ZBWMAP			
	Sector SIA items			
	ERAM- status, outages, drawings and annotations, GI and weather messages			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items, PIREPs, etc.			
	Flight progress strips (arrivals and departures)			
	printed messages on strips such as GI, hazardous weather			
	Areas of limited radio/radar coverage/ADS-B antenna locations			

Communication	Frequency RCAG site locations			
	Primary/backup/BUEC frequency			
	Landlines			
	Position combining knowledge -- The VSCS must be utiilized in combining positions			

Leave form in OJTI training folder for reference.

RADAR ASSOCIATE CONTROLLER TRAINING

RA38 Review

		OJTI	DEV	DATE
Separation	Identify all boundaries -- FL240 and above and surrounding ZBW sectors			
Coordination	Knowledge of various military activities including IRs, VRs, ARs, MOAs, ATCAAs and restricted areas.			
	AITs			
Control Judgment	Primary traffic flows			
	BED, LWM, BVY arrivals from Area A			
	PVD/ISP arrivals			
	MHT/ASH arrivals			
	PSM/CON/SFM arrivals			
	ALB departures			
	JFK arrivals			
	BOS JFUND, 15R operations			
	IAD arrivals			
	PHL and PHL SATs arrivals			
	SYR arrivals			
	SWAP			
Methods and Procedures	Holding fixes -- SEETS, ONDEC, GDM			
	Conflict points			
	Metering			
Equipment	Pre-set map -- AREAB			
	Alt. map -- ZBWMAP			
	Sector SIA items			
	ERAM- status, outages, drawings and annotations, GI and weather messages			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items, PIREPs, etc.			
	Flight progress strips (arrivals and departures)			
	printed messages on strips such as GI, hazardous weather			
	Areas of limited radio/radar coverage/ADS-B antenna locations			

Communication	Frequency RCAG site locations			
	Primary/backup/BUEC frequency			
	Landlines			
	Position combining knowledge -- The VSCS must be utiilized in combining positions			

Leave form in OJTI training folder for reference.

RADAR ASSOCIATE CONTROLLER TRAINING

RA39 Review

		OJTI	DEV	DATE
Separation	Identify all boundaries -- FL240 and above and surrounding ZBW sectors			
Coordination	Knowledge of various military activities including IRs, VRs, ARs, MOAs, ATCAAs and restricted areas.			
	Coordination requirements and effects to traffic flows			
	LASER			
	AR631			
	Lightning			
	Adirondack Airspace Complex			
Control Judgment	Primary traffic flows			
	Discretionary altitude clearance			
Methods and Procedures	Holding fixes -- HANNA			
	BOS departures			
	PWM departures			
	NY Metro arrivals			
	PHL and PHL SATs			
	BOS JFUND arrival			
	BOS ENE arrival			
	IAD arrivals			
	CYOW arrivals			
	SYR arrivals			
Equipment	Pre-set map -- AREAB			
	Alt. map -- ZBWMAP			
	Sector SIA items			
	ERAM- status, outages, drawings and annotations, GI and weather messages			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items, PIREPs, etc.			
	Flight progress strips (arrivals and departures)			
	printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Areas of limited radio/radar coverage/ADS-B antenna locations			

Communication	Frequency RCAG site locations			
	Primary/backup/BUEC frequency			
	Landlines			
	Position combining knowledge -- The VSCS must be utiilized in combining positions			

Leave form in OJTI training folder for reference.

RADAR ASSOCIATE CONTROLLER TRAINING

RA52 Review

		OJTI	DEV	DATE
Separation	Knowledge of common boundaries with different Canadian facilities			
	Identify all boundaries -- SFC-FL230, BTV, ALB, PWM, A90, and surrounding ZBW sectors			
	MIAs/MEAs/MOCAs. Terrain including elevation and location of Mt. Marcy and Mt. Washington			
Coordination	Knowledge of various military activities including IRs, VRs, ARs, MOAs, ATCAAs and restricted areas.			
	Coordination requirements and effects to traffic flows			
	Cranberry MOA			
	Tupper MOA			
	LIGHTNING ATCAAs and procedures			
	Adirondack Airspace Complex			
	AKS ATCAA - AR609			
	LASER SUAs			
	YANKEE 1/2			
	AR212NE			
	AR212SW			
	AR631			
	SIAP Coordination			
	MPV			
	LEB			
	8B0 - M57			
	BML			
	5B9			
	SLK			
	LKP			
	MSS			
Control Judgment	Primary traffic flows			
Methods and Procedures	Glider activites			
	Sugarbush			
	Mt. Washington			
	Lake Placid			
	SIAP Protected airspace			
	Cranberry MOA			

Methods and Procedures	Tupper MOA			
	BTV arrival from Sector 08			
	RUT arrival from Sector 37			
	BOS arrivals			
	BOS ENE STAR			
	PWM arrivals			
	CYUL and CYOW terminal arrivals			
	CYJN and CYHU arrivals			
Equipment	Pre-set map -- AREAB			
	Alt. map -- ZBWMAP			
	Sector SIA items			
	ERAM- status, outages, drawings and annotations, GI and weather messages			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items, PIREPs, etc.			
	Flight progress strips (arrivals and departures)			
	printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Areas of limited radio/radar coverage/ADS-B antenna locations			
Communication	Frequency RCAG site locations			
	Primary/backup/BUEC frequency			
	Landlines			
	Position combining knowledge -- The VSCS must be utiilized in combining positions			

Leave form in OJTI training folder for reference.

RADAR ASSOCIATE CONTROLLER TRAINING

RA53 Review

		OJTI	DEV	DATE
Separation	Identify all boundaries FL240 & above, & surrounding ZBW sectors			
	Knowledge of common boundary with different Canadian facilities			
Coordination	Knowledge of various military activities including IRs, VRs, ARs, MOAs, ATCAAs and restricted areas.			
	Coordination requirements and effects to traffic flows			
	Adirondack Airspace Complex			
	LIGHTNING ATCAAs and procedures			
	AKS ATCAA - AR609			
	LASER SUAs			
	YANKEE 1/2			
	AR212NE			
	AR212SW			
	AR204			
	AR205			
	AR631			
	Scotty			
	Condor			
	AITs			
Control Judgment	Primary traffic flows			
Methods and Procedures	Holding fixes -- KJOHN, PBERG, CAMTN, SKEEE			
	Exiting the sector			
	NY Metro trafic and Sector 39's control			
	IAD traffic			
	PHL traffic			
	BOS arrivals			
	CYOW and CYUL landing traffic			
	Glider areas			
	Sugarbush			
	Mt. Washington			
	Lake Placid			
	SWAP Procedures			
	N90			
	ZBW			
	JFK			

Equipment	Pre-set map -- AREAB			
	Alt. map -- ZBWMAP			
	Sector SIA items			
	ERAM- status, outages, drawings and annotations, GI and weather messages			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items, PIREPs, etc.			
	Flight progress strips (arrivals and departures)			
	printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Areas of limited radio/radar coverage/ADS-B antenna locations			
Communication	Frequency RCAG site locations			
	Primary/backup/BUEC frequency			
	Landlines			
	Position combining knowledge -- The VSCS must be utiilized in combining positions			

Leave form in OJTI training folder for reference.

RADAR CONTROLLER TRAINING

R31 Review

		OJTI	DEV	DATE
Separation				
	Sector/adjacent ZBW sectors and facilities boundaries/altitudes/jet and Q routes			
Coordination	Military airspace (Boundaries, altitudes, frequencies)			
Control Judgment	General traffic flows/altitude restrictions			
	Traffic management initiatives (TMI's) for controlling departure volume (miles-in-trail)			
	Weather impacts			
	Managing shortcuts (ie. "The Big Three")			
Methods and Procedures	Cape and islands arrivals with altitude restrictions			
	Alternative arivals routes for BOS arrivals/TMU playbook routes/ OOSHN STAR			
	N90 departures via BEADS/BETTE/HAPIE			
	No NAR routes/inner and outer fixes			
	J174/J121 "per strat" spacing (List the altitudes/potential impacts)			
	FAA Order 7110.65, ZBW LOA/SOP, Adjacent facilities LOA/MOU's			
Equipment	Equipment knowledge			
	Emergency checklists			
	VTABS			
	Pre-set map -- AREAC			
	Alt. map --ZBWMAP			
	ERAM channels A/B and DARC			
	Sector SIA Items			
	ERAM- status, outages, drawings and annotations, GI and			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items,			
	Flight progress strips (arrivals and departures)			
	Printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Written notes			

Communication	Sector frequency(ies) UHF/VHF and adjacent facilities frequencies			
	VSCS operation utilizing frequencies and landlines			
	Opening/combining/decombining radar positions			
	Be able to utilize primary/backup/BUEC frequencies			

Leave form in OJTI training folder for reference.

RADAR CONTROLLER TRAINING

R32 Review

		OJTI	DEV	DATE
Separation	VFR/IFR conflict resolution			
	Sector/adjacent ZBW sectors and facilities boundaries/altitudes/jet and Q routes and Victor airways			
Coordination	Military airspace (Boundaries, altitudes, frequencies)			
Control Judgment	General traffic flows/altitude restrictions			
	Traffic management initiatives (TMI's) for controlling departure volume (miles-in-trail)			
	Weather impacts			
	Specific traffic flows for R32			
	JFK arrivals/spacing/holding fix(es), PARCH and ROBER STARS			
	PHL/Satellite arrivals/spacing/holding fix(es)			
	HPN arrivals with altitude/speed restrictions			
	Long Island (ISP, FRG, FOK, HTO) arrivals with any altitude/speed restrictions			
Methods and Procedures	Cape and islands IFR and VFR arrivals with altitude restrictions			
	Alternative arivals routes for BOS arrivals/TMU playbook routes			
	N90 departures via BEADS/BETTE/HAPIE			
	PVD arrivals with altitude and speed restrictions			
	JFK/LGA offloads from ZNY Ocean via RICED/BUONO			
	FAA Order 7110.65, ZBW LOA/SOP, Adjacent facilities LOA/MOU's			
Equipment	Equipment knowledge			
	Emergency checklists			
	VTABS			
	Pre-set map -- AREAC			
	Alt. map --ZBWMAP			
	ERAM channels A/B and DARC			
	Sector SIA Items			
	ERAM- status, outages, drawings and annotations, GI and			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items,			

Equipment cont.	Flight progress strips (arrivals and departures)			
	Printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Written notes			
Communication	Sector frequency(ies) UHF/VHF and adjacent facilities frequencies			
	VSCS operation utilizing frequencies and landlines			
	Opening/combining/decombining radar positions			
	Be able to utilize primary/backup/BUEC frequencies			

Leave form in OJTI training folder for reference.

RADAR CONTROLLER TRAINING

R34 Review

		OJTI	DEV	DATE
Separation	VFR/IFR conflict resolution			
	Sector/adjacent ZBW sectors and facilities boundaries/altitudes/jet and Q routes and Victor airways			
Coordination	Military airspace (Boundaries, altitudes, frequencies)			
Control Judgment	General traffic flows/altitude restrictions			
	Traffic management initiatives (TMI's) for controlling departure volume (miles-in-trail, minutes-in-trail)			
	Weather impacts			
	Specific trafic flows for R34			
	BOS arrivals/spacing/holding fix(es), ROBUC STAR			
	PVD/satellite arrivals/departures/holding fix(es), altitude restrictions			
	BDL/satellite arrivals/departures/altitudes/holding (if any)			
	Long Island (ISP/FRG/FOK/HTO) arrivals with any altitude/speed restrictions			
Methods and Procedures	Cape and islands IFR/VFR arrivals and overflights with altitude restrictions			
	Alternative arivals routes for BOS arrivals/TMU playbook routes			
	FAA Order 7110.65, ZBW LOA/SOP, Adjacent facilities LOA/MOU's			
Equipment	Equipment knowledge			
	Emergency checklists			
	VTABS			
	Pre-set map -- AREAC			
	Alt. map --ZBWMAP			
	ERAM channels A/B and DARC			
	Sector SIA Items			
	ERAM- status, outages, drawings and annotations, GI and			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items,			
	Flight progress strips (arrivals and departures)			

EQPMT cont.	Printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Written notes			
Communication	Sector frequency(ies) UHF/VHF and adjacent facilities frequencies			
	VSCS operation utilizing frequencies and landlines			
	Opening/combining/decombining radar positions			
	Be able to utilize primary/backup/BUEC frequencies			

Leave form in OJTI training folder for reference.

RADAR CONTROLLER TRAINING

R46 Review

		OJTI	DEV	DATE
Separation				
	Sector/adjacent ZBW sectors and facilities boundaries/altitudes/jet and Q routes			
Coordination	Military airspace (Boundaries, altitudes, frequencies)			
Control Judgment	General traffic flows/altitude restrictions			
	Traffic management initiatives (TMI's) for controlling departure volume (miles-in-trail)			
	Weather impacts			
	Specific traffic flows			
	JFK arrivals/spacing/altitudes/speeds, PARCH and ROBER STARs			
	EWR arrivals from Area D/altitude/speed restrictions			
	N90 departures via MERIT			
Methods and Procedures	No NAR routes/inner and outer fixes			
	BOS arrivals via the OOSHN STAR due to weather/volume, preferred altitudes			
	FAA Order 7110.65, ZBW LOA/SOP, Adjacent facilities LOA/MOU's			
Equipment	Equipment knowledge			
	Emergency checklists			
	VTABS			
	Pre-set map -- AREAC			
	Alt. map --ZBWMAP			
	ERAM channels A/B and DARC			
	Sector SIA Items			
	ERAM- status, outages, drawings and annotations, GI and			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items,			
	Flight progress strips (arrivals and departures)			
	Printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Written notes			

Communication	Sector frequency(ies) UHF/VHF and adjacent facilities frequencies			
	VSCS operation utilizing frequencies and landlines			
	Opening/combining/decombining radar positions			
	Be able to utilize primary/backup/BUEC frequencies			

Leave form in OJTI training folder for reference.

RADAR CONTROLLER TRAINING

R47 Review

		OJTI	DEV	DATE
Separation	IFR/VFR conflict resolution			
	Sector/adjacent ZBW sectors and facilities boundaries/altitudes/jet and Q routes			
Coordination	Military airspace (Boundaries, altitudes, frequencies)			
Control Judgment	General traffic flows/altitude restrictions			
	Traffic management initiatives (TMI's) for controlling departure volume (miles-in-trail, minutes-in-trail)			
	Weather impacts			
	Specific traffic flows for R47			
	BOS departures/satellite arrivals spacing/altitude restrictions			
	PVD/satellite arrivals/departures/holding fix(es), altitude restriction			
	BDL/satellite arrivals/departures/altitudes			
	Long Island (ISP/FRG/FOK/HTO) arrivals with any altitude/speed restriction			
Methods and Procedures	Cape and islands IFR/VFR arrivals and overflights with altitude restrictions			
	Alternative arivals routes for BOS arrivals/TMU playbook routes			
	N90 arrivals/spacing/altitudes (EWR/TEB/HPN/MMU/LGA etc)			
	FAA Order 7110.65, ZBW LOA/SOP, Adjacent facilities LOA/MOU's			
Equipment	Equipment knowledge			
	Emergency checklists			
	VTABS			
	Pre-set map -- AREAC			
	Alt. map --ZBWMAP			
	ERAM channels A/B and DARC			
	Sector SIA Items			
	ERAM- status, outages, drawings and annotations, GI and			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items,			

EQPMT cont.	Flight progress strips (arrivals and departures)			
	Printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Written notes			
Communication	Sector frequency(ies) UHF/VHF and adjacent facilities frequencies			
	VSCS operation utilizing frequencies and landlines			
	Opening/combining/decombining radar positions			
	Be able to utilize primary/backup/BUEC frequencies			

Leave form in OJTI training folder for reference.

RADAR CONTROLLER TRAINING

R49 Review

		OJTI	DEV	DATE
Separation				
	Sector/adjacent ZBW sectors and facilities boundaries/altitudes/jet and Q routes			
Coordination	Military airspace (Boundaries, altitudes, frequencies)			
Control Judgment	General traffic flows/altitude restrictions			
	Traffic management initiatives (TMI's) for controlling departure volume (milees-in-trail)			
	Weather impacts			
	Managing shortcuts (ie. "The Big Three")			
Methods and Procedures	Cape and islands arrivals with altitude restrictions/impacts to adjacent facilities			
	Alternative arivals routes for BOS arrivals/TMU playbook routes/ OOSHN STAR			
	N90 departures via BEADS/BETTE/HAPIE			
	No NAR routes/inner and outer fixes			
	J174/J121 "per strat" spacing (List the altitudes/potential impacts)			
	FAA Order 7110.65, ZBW LOA/SOP, Adjacent facilities LOA/MOU's			
Equipment	Equipment knowledge			
	Emergency checklists			
	VTABS			
	Pre-set map -- AREAC			
	Alt. map --ZBWMAP			
	ERAM channels A/B and DARC			
	Sector SIA Items			
	ERAM- status, outages, drawings and annotations, GI and			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items,			
	Flight progress strips (arrivals and departures)			
	Printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Written notes			

Communication	Sector frequency(ies) UHF/VHF and adjacent facilities frequencies			
	VSCS operation utilizing frequencies and landlines			
	Opening/combining/decombining radar positions			
	Be able to utilize primary/backup/BUEC frequencies			

Leave form in OJTI training folder for reference.

RADAR ASSOCIATE CONTROLLER TRAINING

RA31 Review

		OJTI	DEV	DATE
Separation				
	Sector/adjacent ZBW sectors and facilities boundaries/altitudes/jet and Q routes			
Coordination	Military airspace (Boundaries, altitudes, frequencies)			
Control Judgment	General traffic flows/altitude restrictions			
	Traffic management initiatives (TMI's) for controlling departure volume (miles-in-trail)			
	Weather impacts			
	Managing shortcuts (ie. "The Big Three")			
Methods and Procedures	Cape and islands arrivals with altitude restrictions			
	Alternative arivals routes for BOS arrivals/TMU playbook routes/ OOSHN STAR			
	N90 departures via BEADS/BETTE/HAPIE			
	No NAR routes/inner and outer fixes			
	J174/J121 "per strat" spacing (what are the altitudes/potential impacts)			
	FAA Order 7110.65, ZBW LOA/SOP, Adjacent facilities LOA/MOU's			
Equipment	Equipment knowledge			
	Emergency checklists			
	VTABS			
	Pre-set map -- AREAC			
	Alt. map --ZBWMAP			
	ERAM channels A/B and DARC			
	Sector SIA Items			
	ERAM- status, outages, drawings and annotations, GI and weather			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items, PIREPs,			
	Flight progress strips (arrivals and departures)			
	Printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Written notes			

Communication	Sector frequency(ies) UHF/VHF and adjacent facilities frequencies			
	VSCS operation utilizing frequencies and landlines			
	Opening/combining/decombining radar positions			
	Be able to utilize primary/backup/BUEC frequencies			

Leave form in OJTI training folder for reference.

RADAR ASSOCIATE CONTROLLER TRAINING

RA32 Review

		OJTI	DEV	DATE
Separation	VFR/IFR conflict resolution			
	Sector/adjacent ZBW sectors and facilities boundaries/altitudes/jet and Q routes and Victor airways			
Coordination	Military airspace (Boundaries, altitudes, frequencies)			
Control Judgment	General traffic flows/altitude restrictions			
	Traffic management initiatives (TMI's) for controlling departure volume (miles-in-trail)			
	Weather impacts			
	Specific traffic flows for R32			
	JFK arrivals/spacing/holding fix(es), PARCH and ROBER STARS			
	PHL/Satellite arrivals/spacing/holding fix(es)			
	HPN arrivals with altitude/speed restrictions			
	Long Island (ISP, FRG, FOK, HTO) arrivals with any altitude/speed restrictions			
Methods and Procedures	Cape and islands IFR and VFR arrivals with altitude restrictions			
	Alternative arivals routes for BOS arrivals/TMU playbook routes			
	N90 departures via BEADS/BETTE/HAPIE			
	PVD arrivals with altitude and speed restrictions			
	JFK/LGA offloads from ZNY Ocean via RICED/BUONO			
	FAA Order 7110.65, ZBW LOA/SOP, Adjacent facilities LOA/MOU's			
Equipment	Equipment knowledge			
	Emergency checklists			
	VTABS			
	Pre-set map -- AREAC			
	Alt. map --ZBWMAP			
	ERAM channels A/B and DARC			
	Sector SIA Items			
	ERAM- status, outages, drawings and annotations, GI and			
	ERIDS including pertinent NOTAMs			

Equipment cont.	Weather products such as graphical displays, briefing items,			
	Flight progress strips (arrivals and departures)			
	Printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Written notes			
Communication	Sector frequency(ies) UHF/VHF and adjacent facilities frequencies			
	VSCS operation utilizing frequencies and landlines			
	Opening/combining/decombining radar positions			
	Be able to utilize primary/backup/BUEC frequencies			

Leave form in OJTI training folder for reference.

RADAR ASSOCIATE CONTROLLER TRAINING

RA34 Review

		OJTI	DEV	DATE
Separation	VFR/IFR conflict resolution			
	Sector/adjacent ZBW sectors and facilities boundaries/altitudes/jet and Q routes and Victor airways			
Coordination	Military airspace (Boundaries, altitudes, frequencies)			
Control Judgment	General traffic flows/altitude restrictions			
	Traffic management initiatives (TMI's) for controlling departure volume (miles-in-trail, minutes-in-trail)			
	Weather impacts			
	Specific trafic flows for R34			
	BOS arrivals/spacing/holding fix(es), ROBUC STAR			
	PVD/satellite arrivals/departures/holding fix(es), altitude restrictions			
	BDL/satellite arrivals/departures/altitudes/holding (if any)			
	Long Island (ISP/FRG/FOK/HTO) arrivals with any altitude/speed restrictions			
Methods and Procedures	Cape and islands IFR/VFR arrivals and overflights with altitude restrictions			
	Alternative arivals routes for BOS arrivals/TMU playbook routes			
	FAA Order 7110.65, ZBW LOA/SOP, Adjacent facilities LOA/MOU's			
Equipment	Equipment knowledge			
	Emergency checklists			
	VTABS			
	Pre-set map -- AREAC			
	Alt. map --ZBWMAP			
	ERAM channels A/B and DARC			
	Sector SIA Items			
	ERAM- status, outages, drawings and annotations, GI and			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items,			

Equipment cont.	Flight progress strips (arrivals and departures)			
	Printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Written notes			
Communication	Sector frequency(ies) UHF/VHF and adjacent facilities frequencies			
	VSCS operation utilizing frequencies and landlines			
	Opening/combining/decombining radar positions			
	Be able to utilize primary/backup/BUEC frequencies			

Leave form in OJTI training folder for reference.

RADAR ASSOCIATE CONTROLLER TRAINING

RA46 Review

		OJTI	DEV	DATE
Separation				
	Sector/adjacent ZBW sectors and facilities boundaries/altitudes/jet and Q routes			
Coordination	Military airspace (Boundaries, altitudes, frequencies)			
Control Judgment	General traffic flows/altitude restrictions			
	Traffic management initiatives (TMI's) for controlling departure volume (miles-in-trail)			
	Weather impacts			
	Specific traffic flows			
	JFK arrivals/spacing/altitudes/speeds, PARCH and ROBER STARs			
	EWR arrivals from Area D/altitude/speed restrictions			
	N90 departures via MERIT			
Methods and Procedures	No NAR routes/inner and outer fixes			
	BOS arrivals via the OOSHN STAR due to weather/volume, preferred altitudes			
	FAA Order 7110.65, ZBW LOA/SOP, Adjacent facilities LOA/MOU's			
Equipment	Equipment knowledge			
	Emergency checklists			
	VTABS			
	Pre-set map -- AREAC			
	Alt. map --ZBWMAP			
	ERAM channels A/B and DARC			
	Sector SIA Items			
	ERAM- status, outages, drawings and annotations, GI and			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items,			
	Flight progress strips (arrivals and departures)			
	Printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Written notes			

Communication	Sector frequency(ies) UHF/VHF and adjacent facilities frequencies			
	VSCS operation utilizing frequencies and landlines			
	Opening/combining/decombining radar positions			
	Be able to utilize primary/backup/BUEC frequencies			

Leave form in OJTI training folder for reference.

RADAR ASSOCIATE CONTROLLER TRAINING

RA47 Review

		OJTI	DEV	DATE
Separation	IFR/VFR conflict resolution			
	Sector/adjacent ZBW sectors and facilities boundaries/altitudes/jet and Q routes			
Coordination	Military airspace (Boundaries, altitudes, frequencies)			
Control Judgment	General traffic flows/altitude restrictions			
	Traffic management initiatives (TMI's) for controlling departure volume (miles-in-trail, minutes-in-trail)			
	Weather impacts			
	Specific traffic flows for R47			
	BOS departures/satellite arrivals spacing/altitude restrictions			
	PVD/satellite arrivals/departures/holding fix(es), altitude restriction			
	BDL/satellite arrivals/departures/altitudes			
	Long Island (ISP/FRG/FOK/HTO) arrivals with any altitude/speed restriction			
Methods and Procedures	Cape and islands IFR/VFR arrivals and overflights with altitude restrictions			
	Alternative arivals routes for BOS arrivals/TMU playbook routes			
	N90 arrivals/spacing/altitudes (EWR/TEB/HPN/MMU/LGA etc)			
	FAA Order 7110.65, ZBW LOA/SOP, Adjacent facilities LOA/MOU's			
Equipment	Equipment knowledge			
	Emergency checklists			
	VTABS			
	Pre-set map -- AREAC			
	Alt. map --ZBWMAP			
	ERAM channels A/B and DARC			
	Sector SIA Items			
	ERAM- status, outages, drawings and annotations, GI and			
	ERIDS including pertinent NOTAMs			

Equipment cont.	Weather products such as graphical displays, briefing items,			
	Flight progress strips (arrivals and departures)			
	Printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Written notes			
Communication	Sector frequency(ies) UHF/VHF and adjacent facilities frequencies			
	VSCS operation utilizing frequencies and landlines			
	Opening/combining/decombining radar positions			
	Be able to utilize primary/backup/BUEC frequencies			

Leave form in OJTI training folder for reference.

RADAR ASSOCIATE CONTROLLER TRAINING

RA49 Review

		OJTI	DEV	DATE
Separation				
	Sector/adjacent ZBW sectors and facilities boundaries/altitudes/jet and Q routes			
Coordination	Military airspace (Boundaries, altitudes, frequencies)			
Control Judgment	General traffic flows/altitude restrictions			
	Traffic management initiatives (TMI's) for controlling departure volume (milees-in-trail)			
	Weather impacts			
	Managing shortcuts (ie. "The Big Three")			
Methods and Procedures	Cape and islands arrivals with altitude restrictions/impacts to adjacent facilities			
	Alternative arivals routes for BOS arrivals/TMU playbook routes/ OOSHN STAR			
	N90 departures via BEADS/BETTE/HAPIE			
	No NAR routes/inner and outer fixes			
	J174/J121 "per strat" spacing (what are the altitudes/potential impacts)			
	FAA Order 7110.65, ZBW LOA/SOP, Adjacent facilities LOA/MOU's			
Equipment	Equipment knowledge			
	Emergency checklists			
	VTABS			
	Pre-set map -- AREAC			
	Alt. map --ZBWMAP			
	ERAM channels A/B and DARC			
	Sector SIA Items			
	ERAM- status, outages, drawings and annotations, GI and weather			
	ERIDS including pertinent NOTAMs			
	Weather products such as graphical displays, briefing items,			
	Flight progress strips (arrivals and departures)			
	Printed messages on strips such as GI, hazardous weather			
	Special mission information			
	Written notes			

Communication	Sector frequency(ies) UHF/VHF and adjacent facilities frequencies			
	VSCS operation utilizing frequencies and landlines			
	Opening/combining/decombining radar positions			
	Be able to utilize primary/backup/BUEC frequencies			

Leave form in OJTI training folder for reference.

CONTROLLER TRAINING

Millinocket R01 Objectives

		%	DATE
Separation	Separation requirements from adjacent airspace and SUAs	30	
	Utilizes effective radar vectoring techniques	60	
	Ensures all conflicts are resolved in a timely manner	60	
	Issues appropriate control instructions to maintain separation	60	
	Appropriate vectoring/speed control to maintain separation	90	
	Proper use of immediately/expedite	60	
Coordination	Proper manual handoffs (using position/mileage)	30	
	Proper point out procedure	30	
	Aerial Refueling coordination	60	
	Transfer of flight to EADS	90	
Ccontrol Judgment	Proper radar vectoring	60	
	Understands workload and task saturation	90	
	Adheres to metering/TMI/TMU restrictions	90	
	SWAP routes	60	
	Demonstrates situational awareness	90	
	Recognition of aircraft performance differences	60	
	Complies with SOP/LOA restrictions	30	
	Implements and recovers from holding efficiently	90	
	Positive control is maintained	60	
Methods and Procedures	Validation of Mode-C altitude	30	
	Change of destination (IFR or military)	30	
	AIT's	30	
	Preferential routes	30	
	RVSM airspace	30	
	Moncton structured airspace altitudes	30	
	PIREP solicitation requirements	30	
	Manual flight plan entry	30	
	ADS-B	30	
	TFR procedures	60	
	Disseminating PIREPS/SIGMETS/AIRMETS/CWA/METAR	30	
	Proper use of radar identification methods	30	
	WX Routes	60	
	Merging targets procedures	30	
	Proper handling of priority aircraft (eg. Medevac/AF1/Open Skies/etc.)	30	
	Published holding locations	30	
	Recognition when aircraft are off route	60	
	Sequences traffic flows with multiple sectors	90	
	Weather issuance, avoidance and deviations	60	
	ALTRVs	90	
	Proper application of MARSA	60	

CONTROLLER TRAINING

Millinocket R01 Objectives

		%	DATE
Methods and Procedures cont.	Military formation flights	60	
	Air refueling (AR tracks)	60	
	Random refueling	90	
	TCAS resolution advisories (RA)	60	
	Minimum fuel declaration	30	
	Inflight equipment malfunctions	30	
	Inflight emergencies	90	
	Fuel dumping	90	
	ATC zero/limited procedures	90	
	Overnight/Mid operations	90	
	Discrete/non-discrete beacon codes	30	
	Laser illumination events	60	
	Blue lightning event	90	
Equipment			
	Tracker position operation	90	
	Transition to VTABS (including split mode)	90	
	BUEC and standby frequencies	60	
	Emergency frequencies (physical and logical locations)	30	
	Aircraft equipment suffixes	30	
	Equipment familiarity (ESIS/EDST/ERIDS/ERAM)	30	
	WARP/NEXRAD settings and limitations	60	
	Transition to EBUS and backup channel	60	
	Sector equipment outages	90	
	NADIN/CAATS outage	90	
	Radar site locations, identifiers and capabilities	30	
Communication			
	Proper use of relief briefing checklists	30	
	NORDO procedures	60	
	Radio/transponder failure	90	
	Frequency coverage	30	
	Uses prescribed phraseology	60	
	CPDLC	90	

CONTROLLER TRAINING

Augusta R02 Objectives

		%	DATE
Separation	Separation requirements from adjacent airspace and SUAs	30	
	Utilizes effective radar vectoring techniques	60	
	Ensures all conflicts are resolved in a timely manner	60	
	Issues appropriate control instructions to maintain separation	60	
	Appropriate vectoring/speed control to maintain separation	90	
	Proper use of immediately/expedite	60	
Coordination	Proper manual handoffs (using position/mileage)	30	
	Proper point out procedure	30	
	Transfer of flight to EADS	90	
	LASER/SCOTY ATCAA and W102 coordination	60	
	Aerial Refueling coordination	60	
Ccontrol Judgment	Proper radar vectoring	60	
	Understands workload and task saturation	90	
	Adheres to metering/TMI/TMU restrictions	90	
	SWAP routes	60	
	Demonstrates situational awareness	90	
	Recognition of aircraft performance differences	60	
	Complies with SOP/LOA restrictions	30	
	Implements and recovers from holding efficiently	90	
	Positive control is maintained	60	
Methods and Procedures	Validation of Mode-C altitude	30	
	Change of destination (IFR or military)	30	
	AIT's	30	
	Preferential routes	30	
	RVSM airspace	30	
	Moncton structured airspace altitudes	30	
	PIREP solicitation requirements	30	
	Manual flight plan entry	30	
	ADS-B	30	
	TFR procedures	60	
	Disseminating PIREPS/SIGMETS/AIRMETS/CWA/METAR	30	
	Proper use of radar identification methods	30	
	WX Routes	60	
	Merging targets procedures	30	
	Proper handling of priority aircraft (eg. Medevac/AF1/Open Skies/etc.)	30	
	Published holding locations	30	
	Recognition when aircraft are off route	60	
	Sequences traffic flows with multiple sectors	90	
	Weather issuance, avoidance and deviations	60	
	ALTRVs	90	
	Proper application of MARSA	60	

CONTROLLER TRAINING

Augusta R02 Objectives

		%	DATE
Methods and Procedures cont.	Clearance into and out of SUA and ATCAA	90	
	Military formation flights	60	
	Air refueling (AR tracks)	60	
	Random refueling	90	
	TCAS resolution advisories (RA)	60	
	Minimum fuel declaration	30	
	Inflight equipment malfunctions	30	
	Inflight emergencies	90	
	Fuel dumping	90	
	Mt. Washington glider area	90	
	ATC zero/limited procedures	90	
	Overnight/Mid operations	90	
	Discrete/non-discrete beacon codes	30	
	Laser illumination events	60	
	Blue lightning event	90	
Equipment	Tracker position operation	90	
	Transition to VTABS (including split mode)	90	
	BUEC and standby frequencies	60	
	Emergency frequencies (physical and logical locations)	30	
	Aircraft equipment suffixes	30	
	Equipment familiarity (ESIS/EDST/ERIDS/ERAM)	30	
	WARP/NEXRAD settings and limitations	60	
	Transition to EBUS and backup channel	60	
	Sector equipment outages	90	
	NADIN/CAATS outage	90	
	Radar site locations, identifiers and capabilities	30	
Communication	Proper use of relief briefing checklists	30	
	NORDO procedures	60	
	Radio/transponder failure	90	
	Frequency coverage	30	
	Uses prescribed phraseology	60	
	CPDLC	90	

CONTROLLER TRAINING

Surry R15 Objectives

		%	DATE
Seperation	Separation requirements from adjacent airspace and SUAs	30	
	Utilizes effective radar vectoring techniques	60	
	Ensures all conflicts are resolved in a timely manner	60	
	Issues appropriate control instructions to maintain separation	60	
	Appropriate vectoring/speed control to maintain separation	90	
	Proper use of immediately/expedite	60	
	Issues safety alerts and traffic advisories	30	
	Proper use of visual separation	90	
	Understanding of conflicting approaches	90	
	Single site procedures	30	
Coordination	Proper manual handoffs (using position/mileage)	30	
	Proper point out procedure	30	
	Transfer of flight to EADS	90	
	8B0 approach coordination	30	
	KLRG arrival/departure coordination	30	
	CCS3 arrival/departure coordination	30	
	CYES arrival coordination	90	
	CONDOR MOA, LASER/SCOTY ATCAA and W102 coordination	60	
	Aerial Refueling coordination	60	
Control Judgment	Proper radar vectoring	60	
	Understands workload and task saturation	90	
	Adheres to metering/TMI/TMU restrictions	90	
	SWAP routes	60	
	Demonstrates situational awareness	90	
	Recognition of aircraft performance differences	60	
	Complies with SOP/LOA restrictions	30	
	Implements and recovers from holding efficiently	90	
	Positive control is maintained	60	
Methods and Procedures	Validation of Mode-C altitude	30	
	Issuance of required approach information (NOTAMS/WX)	30	
	Understanding of approaches	60	
	NAVAID use limitations	30	
	Change of destination (IFR or military)	30	
	Limited radar/radio coverage areas	60	
	AIT's	30	
	Preferential routes	30	
	PIREP solicitation requirements	30	
	Manual flight plan entry	30	
	ADS-B	30	
	TFR procedures	60	
	Disseminating PIREPS/SIGMETS/AIRMETS/CWA/METAR	30	
	Proper use of radar identification methods	30	
	WX Routes	60	
	Merging targets procedures	30	
	Proper handling of priority aircraft (eg. Medevac/AF1/Open Skies/etc.)	30	
	Published holding locations	30	
	Recognition when aircraft are off route	60	
	Sequences traffic flows with multiple sectors	90	
	Weather issuance, avoidance and deviations	60	
	ALTRVs	90	
	Proper application of MARSA	60	

CONTROLLER TRAINING

Surry R15 Objectives

		%	DATE
Methods and Procedures cont.	Clearance into and out of SUA and ATCAA	90	
	Military formation flights	60	
	Air refueling (AR tracks)	60	
	Random refueling	90	
	Due regard	90	
	TCAS resolution advisories (RA)	60	
	Minimum fuel declaration	30	
	Inflight equipment malfunctions	30	
	Inflight emergencies	90	
	Fuel dumping	90	
	Skydive operations	60	
	Mt. Washington glider area	90	
	ATC zero/limited procedures	90	
	Overnight/Mid operations	90	
	Non-radar routes	30	
	Visual approaches	30	
	Contact approach	90	
	Through clearance	90	
	VFR on Top	90	
	VFR practice approach	60	
	Class E surface areas	60	
	Special VFR	90	
	IR/VR Routes	90	
	Canadian Class B airspace (controlled VFR)	90	
	Clearance out of controlled airspace	60	
	Cold temperature restricted airports	90	
	Obstacle Departure Procedures (ODPs)	60	
	Discrete/non-discrete beacon codes	30	
	Laser illumination events	60	
	Blue lightning event	90	
Equipment	Tracker position operation	90	
	Transition to VTABS (including split mode)	90	
	BUEC and standby frequencies	60	
	Emergency frequencies (physical and logical locations)	30	
	Aircraft equipment suffixes	30	
	Equipment familiarity (ESIS/EDST/ERIDS/ERAM)	30	
	WARP/NEXRAD settings and limitations	60	
	Transition to EBUS and backup channel	60	
	Sector equipment outages	90	
	NADIN/CAATS outage	90	
	Radar site locations, identifiers and capabilities	30	
Communications	Proper use of relief briefing checklists	30	
	NORDO procedures	60	
	Radio/transponder failure	90	
	Frequency coverage	30	
	Lost aircraft orientation	60	
	Uses prescribed phraseology	60	
	CPDLC	90	

CONTROLLER TRAINING

Parso R16 Objectives

		%	DATE
Seperation	Separation requirements from adjacent airspace and SUAs	30	
	Utilizes effective radar vectoring techniques	60	
	Ensures all conflicts are resolved in a timely manner	60	
	Issues appropriate control instructions to maintain separation	60	
	Appropriate vectoring/speed control to maintain separation	90	
	Proper use of immediately/expedite	60	
	Issues safety alerts and traffic advisories	30	
	Proper use of visual separation	90	
	Understanding of conflicting approaches	90	
	Single site procedures	30	
Coordination			
	Proper point out procedure	30	
	Transfer of flight to EADS	90	
	W102 coordination	60	
	Aerial Refueling coordination	60	
Control Judgment	Understands workload and task saturation	90	
	Adheres to metering/TMI/TMU restrictions	90	
	SWAP routes	60	
	Demonstrates situational awareness	90	
	Recognition of aircraft performance differences	60	
	Complies with SOP/LOA restrictions	30	
	Implements and recovers from holding efficiently	90	
	Positive control is maintained	60	
Methods and Procedures	Validation of Mode-C altitude	30	
	Issuance of required approach information (NOTAMS/WX)	30	
	Understanding of approaches	60	
	NAVAID use limitations	30	
	Change of destination (IFR or military)	30	
	Limited radar/radio coverage areas	60	
	AIT's	30	
	Preferential routes	30	
	Descend Via	30	
	Manual flight plan entry	30	
	ADS-B	30	
	TFR procedures	60	
	Disseminating PIREPS/SIGMETS/AIRMETS/CWA/METAR	30	
	Proper use of radar identification methods	30	
	WX Routes	60	
	Merging targets procedures	30	
	Proper handling of priority aircraft (eg. Medevac/AF1/Open Skies/etc.)	30	
	Published holding locations	30	
	Recognition when aircraft are off route	60	
	Sequences traffic flows with multiple sectors	90	
	Weather issuance, avoidance and deviations	60	
	ALTRVs	90	
	Proper application of MARSA	60	

CONTROLLER TRAINING

Parso R16 Objectives

		%	DATE
Methods and Procedures cont.	Clearance into and out of SUA and ATCAA	90	
	Military formation flights	60	
	Air refueling (AR tracks)	60	
	Random refueling	90	
	Due regard	90	
	TCAS resolution advisories (RA)	60	
	Minimum fuel declaration	30	
	Inflight equipment malfunctions	30	
	Inflight emergencies	90	
	Fuel dumping	90	
	Skydive operations	60	
	Mt. Washington glider area	90	
	ATC zero/limited procedures	90	
	Overnight/Mid operations	90	
	Visual approaches	30	
	Contact approach	90	
	Through clearance	90	
	VFR on Top	90	
	VFR practice approach	60	
	Class E surface areas	60	
	Special VFR	90	
	IR/VR Routes	90	
	Discrete/non-discrete beacon codes	30	
	Laser illumination events	60	
	Blue lightning event	90	
Equipment	Tracker position operation	90	
	Transition to VTABS (including split mode)	90	
	BUEC and standby frequencies	60	
	Emergency frequencies (physical and logical locations)	30	
	Aircraft equipment suffixes	30	
	Equipment familiarity (ESIS/EDST/ERIDS/ERAM)	30	
	WARP/NEXRAD settings and limitations	60	
	Transition to EBUS and backup channel	60	
	Sector equipment outages	90	
	Radar site locations, identifiers and capabilities	30	
Communications	Proper use of relief briefing checklists	30	
	NORDO procedures	60	
	Radio/transponder failure	90	
	Frequency coverage	30	
	Lost aircraft orientation	60	
	Uses prescribed phraseology	60	
	CPDLC	90	

CONTROLLER TRAINING

Nantucket R17 Objectives

		%	DATE
Seperation	Separation requirements from adjacent airspace and SUAs	30	
	Utilizes effective radar vectoring techniques	60	
	Ensures all conflicts are resolved in a timely manner	60	
	Issues appropriate control instructions to maintain separation	60	
	Appropriate vectoring/speed control to maintain separation	90	
	Proper use of immediately/expedite	60	
	Issues safety alerts and traffic advisories	30	
	Proper use of visual separation	90	
	Understanding of conflicting approaches	90	
	Single site procedures	30	
Co rdination	Proper manual handoffs (using position/mileage)	30	
	Proper point out procedure	30	
	Handoff/coordination with Giant Killer	60	
	Transfer of flight to EADS	90	
	Warning Area and ATCAA coordination	60	
	Aerial Refueling coordination	60	
Control Judgment	Proper radar vectoring	60	
	Understands workload and task saturation	90	
	Adheres to metering/TMI/TMU restrictions	90	
	SWAP routes	60	
	Demonstrates situational awareness	90	
	Recognition of aircraft performance differences	60	
	Complies with SOP/LOA restrictions	30	
	Implements and recovers from holding efficiently	90	
	Positive control is maintained	60	
Methods and Procedures	Validation of Mode-C altitude	30	
	NAVAID use limitations	30	
	Change of destination (IFR or military)	30	
	Limited radar/radio coverage areas	60	
	AIT's	30	
	Preferential routes	30	
	RVSM airspace	30	
	Moncton structured airspace altitudes	30	
	PIREP solicitation requirements	30	
	Descend via	30	
	Manual flight plan entry	30	
	ADS-B	30	
	TFR procedures	60	
	Disseminating PIREPS/SIGMETS/AIRMETS/CWA/METAR	30	
	Proper use of radar identification methods	30	
	WX Routes	60	
	Merging targets procedures	30	
	Proper handling of priority aircraft (eg. Medevac/AF1/Open Skies/etc.)	30	
	Published holding locations	30	
	Recognition when aircraft are off route	60	
	Sequences traffic flows with multiple sectors	90	
	Weather issuance, avoidance and deviations	60	
	ALTRVs	90	
	Proper application of MARSA	60	

CONTROLLER TRAINING

Nantucket R17 Objectives

		%	DATE
Methods and Procedures cont.	Clearance into and out of SUA and ATCAA	90	
	Military formation flights	60	
	Air refueling (AR tracks)	60	
	Random refueling	90	
	Due regard	90	
	TCAS resolution advisories (RA)	60	
	Minimum fuel declaration	30	
	Inflight equipment malfunctions	30	
	Inflight emergencies	90	
	Fuel dumping	90	
	ATC zero/limited procedures	90	
	Overnight/Mid operations	90	
	Non-radar routes	30	
	Canadian Class B airspace (controlled VFR)	90	
	Discrete/non-discrete beacon codes	30	
	Laser illumination events	60	
	Blue lightning event	90	
Equipment	Tracker position operation	90	
	Transition to VTABS (including split mode)	90	
	BUEC and standby frequencies	60	
	Emergency frequencies (physical and logical locations)	30	
	Aircraft equipment suffixes	30	
	Equipment familiarity (ESIS/EDST/ERIDS/ERAM)	30	
	WARP/NEXRAD settings and limitations	60	
	Transition to EBUS and backup channel	60	
	Sector equipment outages	90	
	NADIN/CAATS outage	90	
	Radar site locations, identifiers and capabilities	30	
Communications	Proper use of relief briefing checklists	30	
	NORDO procedures	60	
	Radio/transponder failure	90	
	Frequency coverage	30	
	Lost aircraft orientation	60	
	Uses prescribed phraseology	60	
	CPDLC	90	

CONTROLLER TRAINING

Cape R18 Objectives

		%	DATE
Seperation	Separation requirements from adjacent airspace and SUAs	30	
	Utilizes effective radar vectoring techniques	60	
	Ensures all conflicts are resolved in a timely manner	60	
	Issues appropriate control instructions to maintain separation	60	
	Appropriate vectoring/speed control to maintain separation	90	
	Proper use of immediately/expedite	60	
	Issues safety alerts and traffic advisories	30	
	Proper use of visual separation	90	
	Understanding of conflicting approaches	90	
	Single site procedures	30	
Coordination	Proper manual handoffs (using position/mileage)	30	
	Proper point out procedure	30	
	Handoff/coordination with Giant Killer	60	
	Transfer of flight to EADS	90	
	KFMH arrival and departure procedures	90	
	W105 coordination	60	
	Aerial Refueling coordination	60	
Control Judgment	Proper radar vectoring	60	
	Understands workload and task saturation	90	
	Adheres to metering/TMI/TMU restrictions	90	
	SWAP routes	60	
	Demonstrates situational awareness	90	
	Recognition of aircraft performance differences	60	
	Complies with SOP/LOA restrictions	30	
	Implements and recovers from holding efficiently	90	
	Positive control is maintained	60	
Methods and Procedures	Validation of Mode-C altitude	30	
	Issuance of required approach information (NOTAMS/WX)	30	
	Understanding of approaches	60	
	NAVAID use limitations	30	
	Change of destination (IFR or military)	30	
	Limited radar/radio coverage areas	60	
	AIT's	30	
	Preferential routes	30	
	RVSM airspace	30	
	PIREP solicitation requirements	30	
	Manual flight plan entry	30	
	ADS-B	30	
	TFR procedures	60	
	Disseminating PIREPS/SIGMETS/AIRMETS/CWA/METAR	30	
	Proper use of radar identification methods	30	
	WX Routes	60	
	Merging targets procedures	30	
	Proper handling of priority aircraft (eg. Medevac/AF1/Open Skies/etc.)	30	
	Published holding locations	30	
	Recognition when aircraft are off route	60	
	Sequences traffic flows with multiple sectors	90	
	Weather issuance, avoidance and deviations	60	
	ALTRVs	90	
	Proper application of MARSA	60	

CONTROLLER TRAINING

Cape R18 Objectives

		%	DATE
Methods and Procedures cont.	Clearance into and out of SUA and ATCAA	90	
	Military formation flights	60	
	Air refueling (AR tracks)	60	
	Random refueling	90	
	Due regard	90	
	TCAS resolution advisories (RA)	60	
	Minimum fuel declaration	30	
	Inflight equipment malfunctions	30	
	Inflight emergencies	90	
	Fuel dumping	90	
	Skydive operations	60	
	ATC zero/limited procedures	90	
	Overnight/Mid operations	90	
	Visual approaches	30	
	Contact approach	90	
	Through clearance	90	
	VFR on Top	90	
	VFR practice approach	60	
	Class E surface areas	60	
	Special VFR	90	
	Discrete/non-discrete beacon codes	30	
	Laser illumination events	60	
	Blue lightning event	90	
Equipment	Tracker position operation	90	
	Transition to VTABS (including split mode)	90	
	BUEC and standby frequencies	60	
	Emergency frequencies (physical and logical locations)	30	
	Aircraft equipment suffixes	30	
	Equipment familiarity (ESIS/EDST/ERIDS/ERAM)	30	
	WARP/NEXRAD settings and limitations	60	
	Transition to EBUS and backup channel	60	
	Sector equipment outages	90	
	Radar site locations, identifiers and capabilities	30	
Communications	Proper use of relief briefing checklists	30	
	NORDO procedures	60	
	Radio/transponder failure	90	
	Frequency coverage	30	
	Lost aircraft orientation	60	
	Uses prescribed phraseology	60	
	CPDLC	90	

CONTROLLER TRAINING

Millinocket D01 Objectives

		%	DATE
Separation	Separation requirements from adjacent airspace and SUAs	30	
	Ensures all conflicts are resolved in a timely manner	60	
	Issues appropriate control instructions to maintain separation	60	
Coordination	Proper manual handoffs (using position/mileage)	30	
	Proper point out procedure	30	
	Aerial Refueling coordination	60	
	Transfer of flight to EADS	90	
Control Judgment	Understands workload and task saturation	90	
	Adheres to metering/TMI/TMU restrictions	90	
	SWAP routes	60	
	Demonstrates situational awareness	90	
	Recognition of aircraft performance differences	60	
	Complies with SOP/LOA restrictions	30	
	Implements and recovers from holding efficiently	90	
	Positive control is maintained	60	
Methods and Procedures	Validation of Mode-C altitude	30	
	Change of destination (IFR or military)	30	
	AIT's	30	
	Preferential routes	30	
	RVSM airspace	30	
	Moncton structured airspace altitudes	30	
	PIREP solicitation requirements	30	
	Manual flight plan entry	30	
	ADS-B	30	
	TFR procedures	60	
	Disseminating PIREPS/SIGMETS/AIRMETS/CWA/METAR	30	
	Proper use of radar identification methods	30	
	WX Routes	60	
	Merging targets procedures	30	
	Proper handling of priority aircraft (eg. Medevac/AF1/Open Skies/etc.)	30	
	Published holding locations	30	
	Recognition when aircraft are off route	60	
	Weather issuance, avoidance and deviations	60	
	ALTRVs	90	
	Proper application of MARSA	60	

CONTROLLER TRAINING

Millinocket D01 Objectives

		%	DATE
Methods and Procedures cont.	Military formation flights	60	
	Air refueling (AR tracks)	60	
	Random refueling	90	
	TCAS resolution advisories (RA)	60	
	Minimum fuel declaration	30	
	Inflight equipment malfunctions	30	
	Inflight emergencies	90	
	Fuel dumping	90	
	ATC zero/limited procedures	90	
	Overnight/Mid operations	90	
	Discrete/non-discrete beacon codes	30	
	Laser illumination events	60	
	Blue lightning event	90	
Equipment			
	Tracker position operation	90	
	Transition to VTABS (including split mode)	90	
	BUEC and standby frequencies	60	
	Emergency frequencies (physical and logical locations)	30	
	Aircraft equipment suffixes	30	
	Equipment familiarity (ESIS/EDST/ERIDS/ERAM)	30	
	WARP/NEXRAD settings and limitations	60	
	Transition to EBUS and backup channel	60	
	Sector equipment outages	90	
	NADIN/CAATS outage	90	
	Radar site locations, identifiers and capabilities	30	
Communication			
	Proper use of relief briefing checklists	30	
	NORDO procedures	60	
	Radio/transponder failure	90	
	Frequency coverage	30	
	Uses prescribed phraseology	60	
	CPDLC	90	

CONTROLLER TRAINING

Augusta D02 Objectives

		%	DATE
Separation	Separation requirements from adjacent airspace and SUAs	30	
	Ensures all conflicts are resolved in a timely manner	60	
	Issues appropriate control instructions to maintain separation	60	
Coordination	Proper manual handoffs (using position/mileage)	30	
	Proper point out procedure	30	
	Transfer of flight to EADS	90	
	LASER/SCOTY ATCAA and W102 coordination	60	
	Aerial Refueling coordination	60	
Ccontrol Judgment	Understands workload and task saturation	90	
	Adheres to metering/TMI/TMU restrictions	90	
	SWAP routes	60	
	Demonstrates situational awareness	90	
	Recognition of aircraft performance differences	60	
	Complies with SOP/LOA restrictions	30	
	Implements and recovers from holding efficiently	90	
	Positive control is maintained	60	
Methods and Procedures	Validation of Mode-C altitude	30	
	Change of destination (IFR or military)	30	
	AIT's	30	
	Preferential routes	30	
	RVSM airspace	30	
	Moncton structured airspace altitudes	30	
	PIREP solicitation requirements	30	
	Manual flight plan entry	30	
	ADS-B	30	
	TFR procedures	60	
	Disseminating PIREPS/SIGMETS/AIRMETS/CWA/METAR	30	
	Proper use of radar identification methods	30	
	WX Routes	60	
	Merging targets procedures	30	
	Proper handling of priority aircraft (eg. Medevac/AF1/Open Skies/etc.)	30	
	Published holding locations	30	
	Recognition when aircraft are off route	60	
	Weather issuance, avoidance and deviations	60	
	ALTRVs	90	
	Proper application of MARSA	60	
	Military formation flights	60	
	Air refueling (AR tracks)	60	

CONTROLLER TRAINING

Augusta D02 Objectives

		%	DATE
Methods and Procedures cont.	Random refueling	90	
	TCAS resolution advisories (RA)	60	
	Minimum fuel declaration	30	
	Inflight equipment malfunctions	30	
	Inflight emergencies	90	
	Fuel dumping	90	
	Mt. Washington glider area	90	
	ATC zero/limited procedures	90	
	Overnight/Mid operations	90	
	Discrete/non-discrete beacon codes	30	
	Laser illumination events	60	
	Blue lightning event	90	
Equipment			
	Tracker position operation	90	
	Transition to VTABS (including split mode)	90	
	BUEC and standby frequencies	60	
	Emergency frequencies (physical and logical locations)	30	
	Aircraft equipment suffixes	30	
	Equipment familiarity (ESIS/EDST/ERIDS/ERAM)	30	
	WARP/NEXRAD settings and limitations	60	
	Transition to EBUS and backup channel	60	
	Sector equipment outages	90	
	NADIN/CAATS outage	90	
	Radar site locations, identifiers and capabilities	30	
Communication			
	Proper use of relief briefing checklists	30	
	NORDO procedures	60	
	Radio/transponder failure	90	
	Frequency coverage	30	
	Uses prescribed phraseology	60	
	CPDLC	90	

CONTROLLER TRAINING

Surry D15 Objectives

		%	DATE
Seperation	Separation requirements from adjacent airspace and SUAs	30	
	Ensures all conflicts are resolved in a timely manner	60	
	Issues appropriate control instructions to maintain separation	60	
	Proper use of immediately/expedite	60	
	Issues safety alerts and traffic advisories	30	
	Understanding of conflicting approaches	90	
	Single site procedures	30	
Coordination	Proper manual handoffs (using position/mileage)	30	
	Proper point out procedure	30	
	Transfer of flight to EADS	90	
	8B0 approach coordination	30	
	KLRG arrival/departure coordination	30	
	CCS3 arrival/departure coordination	30	
	CYES arrival coordination	90	
	CONDOR MOA, LASER/SCOTY ATCAA and W102 coordination	60	
	Aerial Refueling coordination	60	
Control Judgment	Proper radar vectoring	60	
	Understands workload and task saturation	90	
	Adheres to metering/TMI/TMU restrictions	90	
	SWAP routes	60	
	Demonstrates situational awareness	90	
	Recognition of aircraft performance differences	60	
	Complies with SOP/LOA restrictions	30	
	Implements and recovers from holding efficiently	90	
	Positive control is maintained	60	
Methods and Procedures	Validation of Mode-C altitude	30	
	Issuance of required approach information (NOTAMS/WX)	30	
	Understanding of approaches	60	
	NAVAID use limitations	30	
	Change of destination (IFR or military)	30	
	Limited radar/radio coverage areas	60	
	AIT's	30	
	Preferential routes	30	
	PIREP solicitation requirements	30	
	Manual flight plan entry	30	
	ADS-B	30	
	TFR procedures	60	
	Disseminating PIREPS/SIGMETS/AIRMETS/CWA/METAR	30	
	Proper use of radar identification methods	30	
	WX Routes	60	
	Merging targets procedures	30	
	Proper handling of priority aircraft (eg. Medevac/AF1/Open Skies/etc.)	30	
	Published holding locations	30	
	Recognition when aircraft are off route	60	
	Sequences traffic flows with multiple sectors	90	
	Weather issuance, avoidance and deviations	60	
	ALTRVs	90	
	Proper application of MARSA	60	

CONTROLLER TRAINING

Surry D15 Objectives

		%	DATE
Methods and Procedures cont.	Clearance into and out of SUA and ATCAA	90	
	Military formation flights	60	
	Air refueling (AR tracks)	60	
	Random refueling	90	
	Due regard	90	
	TCAS resolution advisories (RA)	60	
	Minimum fuel declaration	30	
	Inflight equipment malfunctions	30	
	Inflight emergencies	90	
	Fuel dumping	90	
	Skydive operations	60	
	Mt. Washington glider area	90	
	ATC zero/limited procedures	90	
	Overnight/Mid operations	90	
	Non-radar routes	30	
	Visual approaches	30	
	Contact approach	90	
	Through clearance	90	
	VFR on Top	90	
	VFR practice approach	60	
	Class E surface areas	60	
	Special VFR	90	
	IR/VR Routes	90	
	Canadian Class B airspace (controlled VFR)	90	
	Clearance out of controlled airspace	60	
	Cold temperature restricted airports	90	
	Obstacle Departure Procedures (ODPs)	60	
	Discrete/non-discrete beacon codes	30	
	Laser illumination events	60	
	Blue lightning event	90	
Equipment	Tracker position operation	90	
	Transition to VTABS (including split mode)	90	
	BUEC and standby frequencies	60	
	Emergency frequencies (physical and logical locations)	30	
	Aircraft equipment suffixes	30	
	Equipment familiarity (ESIS/EDST/ERIDS/ERAM)	30	
	WARP/NEXRAD settings and limitations	60	
	Transition to EBUS and backup channel	60	
	Sector equipment outages	90	
	NADIN/CAATS outage	90	
	Radar site locations, identifiers and capabilities	30	
Communications	Proper use of relief briefing checklists	30	
	NORDO procedures	60	
	Radio/transponder failure	90	
	Frequency coverage	30	
	Lost aircraft orientation	60	
	Uses prescribed phraseology	60	
	CPDLC	90	

CONTROLLER TRAINING

Parso D16 Objectives

		%	DATE
Seperation	Separation requirements from adjacent airspace and SUAs	30	
	Ensures all conflicts are resolved in a timely manner	60	
	Issues appropriate control instructions to maintain separation	60	
	Understanding of conflicting approaches	90	
	Single site procedures	30	
Coordination			
	Proper point out procedure	30	
	Transfer of flight to EADS	90	
	W102 coordination	60	
	Aerial Refueling coordination	60	
Control Judgment	Understands workload and task saturation	90	
	Adheres to metering/TMI/TMU restrictions	90	
	SWAP routes	60	
	Demonstrates situational awareness	90	
	Recognition of aircraft performance differences	60	
	Complies with SOP/LOA restrictions	30	
	Implements and recovers from holding efficiently	90	
	Positive control is maintained	60	
Methods and Procedures	Validation of Mode-C altitude	30	
	Issuance of required approach information (NOTAMS/WX)	30	
	Understanding of approaches	60	
	NAVAID use limitations	30	
	Change of destination (IFR or military)	30	
	Limited radar/radio coverage areas	60	
	AIT's	30	
	Preferential routes	30	
	Descend Via	30	
	Manual flight plan entry	30	
	ADS-B	30	
	TFR procedures	60	
	Disseminating PIREPS/SIGMETS/AIRMETS/CWA/METAR	30	
	Proper use of radar identification methods	30	
	WX Routes	60	
	Merging targets procedures	30	
	Proper handling of priority aircraft (eg. Medevac/AF1/Open Skies/etc.)	30	
	Published holding locations	30	
	Recognition when aircraft are off route	60	
	Sequences traffic flows with multiple sectors	90	
	Weather issuance, avoidance and deviations	60	
	ALTRVs	90	
	Proper application of MARSA	60	

CONTROLLER TRAINING

Parso D16 Objectives

		%	DATE
Methods and Procedures cont.	Clearance into and out of SUA and ATCAA	90	
	Military formation flights	60	
	Air refueling (AR tracks)	60	
	Random refueling	90	
	Due regard	90	
	TCAS resolution advisories (RA)	60	
	Minimum fuel declaration	30	
	Inflight equipment malfunctions	30	
	Inflight emergencies	90	
	Fuel dumping	90	
	Skydive operations	60	
	Mt. Washington glider area	90	
	ATC zero/limited procedures	90	
	Overnight/Mid operations	90	
	Visual approaches	30	
	Contact approach	90	
	Through clearance	90	
	VFR on Top	90	
	VFR practice approach	60	
	Class E surface areas	60	
	Special VFR	90	
	IR/VR Routes	90	
	Discrete/non-discrete beacon codes	30	
	Laser illumination events	60	
	Blue lightning event	90	
Equipment	Tracker position operation	90	
	Transition to VTABS (including split mode)	90	
	BUEC and standby frequencies	60	
	Emergency frequencies (physical and logical locations)	30	
	Aircraft equipment suffixes	30	
	Equipment familiarity (ESIS/EDST/ERIDS/ERAM)	30	
	WARP/NEXRAD settings and limitations	60	
	Transition to EBUS and backup channel	60	
	Sector equipment outages	90	
	Radar site locations, identifiers and capabilities	30	
Communications	Proper use of relief briefing checklists	30	
	NORDO procedures	60	
	Radio/transponder failure	90	
	Frequency coverage	30	
	Lost aircraft orientation	60	
	Uses prescribed phraseology	60	
	CPDLC	90	

CONTROLLER TRAINING

Nantucket D17 Objectives

		%	DATE
Seperation	Separation requirements from adjacent airspace and SUAs	30	
	Ensures all conflicts are resolved in a timely manner	60	
	Issues appropriate control instructions to maintain separation	60	
	Single site procedures	30	
Coordination	Proper manual handoffs (using position/mileage)	30	
	Proper point out procedure	30	
	Handoff/coordination with Giant Killer	60	
	Transfer of flight to EADS	90	
	Warning Area and ATCAA coordination	60	
	Aerial Refueling coordination	60	
	Understands workload and task saturation	90	
	Adheres to metering/TMI/TMU restrictions	90	
	SWAP routes	60	
	Demonstrates situational awareness	90	
	Recognition of aircraft performance differences	60	
	Complies with SOP/LOA restrictions	30	
	Implements and recovers from holding efficiently	90	
	Positive control is maintained	60	
Methods and Procedures	Validation of Mode-C altitude	30	
	NAVAID use limitations	30	
	Change of destination (IFR or military)	30	
	Limited radar/radio coverage areas	60	
	AIT's	30	
	Preferential routes	30	
	RVSM airspace	30	
	Moncton structured airspace altitudes	30	
	PIREP solicitation requirements	30	
	Descend via	30	
	Manual flight plan entry	30	
	ADS-B	30	
	TFR procedures	60	
	Disseminating PIREPS/SIGMETS/AIRMETS/CWA/METAR	30	
	Proper use of radar identification methods	30	
	WX Routes	60	
	Merging targets procedures	30	
	Proper handling of priority aircraft (eg. Medevac/AF1/Open Skies/etc.)	30	
	Published holding locations	30	
	Recognition when aircraft are off route	60	
	Sequences traffic flows with multiple sectors	90	
	Weather issuance, avoidance and deviations	60	
	ALTRVs	90	
	Proper application of MARSA	60	

CONTROLLER TRAINING

Nantucket D17 Objectives

		%	DATE
Methods and Procedures cont.	Clearance into and out of SUA and ATCAA	90	
	Military formation flights	60	
	Air refueling (AR tracks)	60	
	Random refueling	90	
	Due regard	90	
	TCAS resolution advisories (RA)	60	
	Minimum fuel declaration	30	
	Inflight equipment malfunctions	30	
	Inflight emergencies	90	
	Fuel dumping	90	
	ATC zero/limited procedures	90	
	Overnight/Mid operations	90	
	Non-radar routes	30	
	Canadian Class B airspace (controlled VFR)	90	
	Discrete/non-discrete beacon codes	30	
	Laser illumination events	60	
	Blue lightning event	90	
Equipment	Tracker position operation	90	
	Transition to VTABS (including split mode)	90	
	BUEC and standby frequencies	60	
	Emergency frequencies (physical and logical locations)	30	
	Aircraft equipment suffixes	30	
	Equipment familiarity (ESIS/EDST/ERIDS/ERAM)	30	
	WARP/NEXRAD settings and limitations	60	
	Transition to EBUS and backup channel	60	
	Sector equipment outages	90	
	NADIN/CAATS outage	90	
	Radar site locations, identifiers and capabilities	30	
Communications	Proper use of relief briefing checklists	30	
	NORDO procedures	60	
	Radio/transponder failure	90	
	Frequency coverage	30	
	Lost aircraft orientation	60	
	Uses prescribed phraseology	60	
	CPDLC	90	

CONTROLLER TRAINING

Cape D18 Objectives

		%	DATE
Seperation	Separation requirements from adjacent airspace and SUAs	30	
	Ensures all conflicts are resolved in a timely manner	60	
	Issues appropriate control instructions to maintain separation	60	
	Understanding of conflicting approaches	90	
	Single site procedures	30	
Coordination	Proper manual handoffs (using position/mileage)	30	
	Proper point out procedure	30	
	Handoff/coordination with Giant Killer	60	
	Transfer of flight to EADS	90	
	KFMH arrival and departure procedures	90	
	W105 coordination	60	
	Aerial Refueling coordination	60	
Control Judgment	Understands workload and task saturation	90	
	Adheres to metering/TMI/TMU restrictions	90	
	SWAP routes	60	
	Demonstrates situational awareness	90	
	Recognition of aircraft performance differences	60	
	Complies with SOP/LOA restrictions	30	
	Implements and recovers from holding efficiently	90	
	Positive control is maintained	60	
Methods and Procedures	Validation of Mode-C altitude	30	
	Issuance of required approach information (NOTAMS/WX)	30	
	Understanding of approaches	60	
	NAVAID use limitations	30	
	Change of destination (IFR or military)	30	
	Limited radar/radio coverage areas	60	
	AIT's	30	
	Preferential routes	30	
	RVSM airspace	30	
	PIREP solicitation requirements	30	
	Manual flight plan entry	30	
	ADS-B	30	
	TFR procedures	60	
	Disseminating PIREPS/SIGMETS/AIRMETS/CWA/METAR	30	
	Proper use of radar identification methods	30	
	WX Routes	60	
	Merging targets procedures	30	
	Proper handling of priority aircraft (eg. Medevac/AF1/Open Skies/etc.)	30	
	Published holding locations	30	
	Recognition when aircraft are off route	60	
	Sequences traffic flows with multiple sectors	90	
	Weather issuance, avoidance and deviations	60	
	ALTRVs	90	
	Proper application of MARSA	60	

CONTROLLER TRAINING

Cape D18 Objectives

		%	DATE
Methods and Procedures cont.	Military formation flights	60	
	Air refueling (AR tracks)	60	
	Random refueling	90	
	Due regard	90	
	TCAS resolution advisories (RA)	60	
	Minimum fuel declaration	30	
	Inflight equipment malfunctions	30	
	Inflight emergencies	90	
	Fuel dumping	90	
	Skydive operations	60	
	ATC zero/limited procedures	90	
	Overnight/Mid operations	90	
	Visual approaches	30	
	Contact approach	90	
	Through clearance	90	
	VFR on Top	90	
	VFR practice approach	60	
	Class E surface areas	60	
	Special VFR	90	
	Discrete/non-discrete beacon codes	30	
	Laser illumination events	60	
	Blue lightning event	90	
Equipment	Tracker position operation	90	
	Transition to VTABS (including split mode)	90	
	BUEC and standby frequencies	60	
	Emergency frequencies (physical and logical locations)	30	
	Aircraft equipment suffixes	30	
	Equipment familiarity (ESIS/EDST/ERIDS/ERAM)	30	
	WARP/NEXRAD settings and limitations	60	
	Transition to EBUS and backup channel	60	
	Sector equipment outages	90	
	Radar site locations, identifiers and capabilities	30	
Communications	Proper use of relief briefing checklists	30	
	NORDO procedures	60	
	Radio/transponder failure	90	
	Frequency coverage	30	
	Lost aircraft orientation	60	
	Uses prescribed phraseology	60	
	CPDLC	90	

RADAR CONTROLLER TRAINING

R05 Review

		OJTI	DEV	DATE
Separation	Developing a scan			
	How to ensure positive separation with a descending sector with converging airways			
	How to identify glider and VFR traffic threats and how to avoid them			
Coordination	Addressing handoff's with N90			
Control Judgment	Review priorities of traffic in sector			
	Prioritize getting a/c descending as soon as possible			
	Spacing with speed and vectors			
	Discuss aircraft performance and how they respond to speed and descent			
	how winds affect spacing			
	How 5NY5 jumpers affect vectoring and spacing decisions			
	Use of the bypass if needed			
	Use of CRR while spacing EWR, EWR sats			
	Holding patterns and best practices			
	How to handle no notice hold			
	How to issue hold when a/c cannot find published			
	How many to hold			
	How many at SHAFF			
	Holding at HELON and WEARD simultaneously			
	How to hold at HUO when running other traffic on V489			
	How traffic down V489 impacts HELON holding pattern			
	Handling weather deviations and best practices			
Methods and Procedures	Calculating climb/descent rates			
	5 mile airspace = 12 second radar updates = 5 updates/minute			
	For every 100 foot change per update, multiply by 5 to get feet per minute (FPM)			
	Ex. A/C showing 098 ALT, then next update 099 ALT = 500 FPM (100x5)			
	Ex. A/C showing 098 ALT, then next update 102 ALT = 2000 FPM (400x5)			
	3 mile = 4.6 second radar updates = 13.04 updates/minute			

Methods and Procedures cont.	For every 100 foot change per update, multiply by 13 (rounded) to get feet per minute			
	Ex. A/C showing 098 ALT, then next update 099 ALT = 1300 FPM (100x13)			
	Ex. A/C showing 098 ALT, then next update 102 ALT = 5200 FPM (400x13)			
	Calculating speed overtakes			
	For every 60 nautical miles per hour speed difference between a/c in trail you will gain or lose 1 mile per minute			
	For every 30 nautical miles per hour speed difference you will gain or lose 1 mile every 2 minutes, or 1/2 mile per minute			
	Ex. A/C 1 is showing 300 kts A/C 2 is in-trail showing 360 kts. You have a 1 mile per minute overtake			
	Ex. A/C 1 is showing 2800 kts A/C 2 is in-trail showing 310 kts. You have a 1/2 mile per minute overtake or 1 mile every 2 minutes overtake			
	Crossing and delivery altitudes for traffic			
	Delivering HPN traffic to Sector 6 with and without jumpers up and/or holding at HELON			
Equipment	Understand equipment at the sector			
	How to manually call sector using Indirect Access (IA) line (9, then 3 digit code			
	Tracker position for the sector and how it is used			
Communication	Frequency selections (including Main, Standby, BUEC)			
	VSCS configuration (Split mode, VTABS)			

Leave form in OJTI training folder for reference.

RADAR CONTROLLER TRAINING

R06 Review

		OJTI	DEV	DATE
Separation	Developing a scan			
	How to ensure positive separation with a descending sector with converging airways			
Coordination	AIT with ALB arrivals and looking for crossing traffic on T295			
	Addressing handoffs to N90			
Control Judgment	Review priorities of traffic in sector			
	Handling the BDL dep/ALB arr/LGA from the north tie			
	Spacing with speed and vectors			
	Discuss aircraft performance and how they respond to speed and descent			
	how winds affect spacing			
	Use of CRR while spacing			
	Holding patterns and best practices at VALRE and IGN			
	How to issue hold when a/c cannot find published			
	How many to hold at VALRE and NOBBI			
	Technique and phraseology for spacing on the LOC to HPN			
	Decision making on delivering EWR jet traffic to Sector 05 when Sector 05 is spacing and jumpers are up			
	Handling EWR jet arrivals when you're holding for LGA			
	Handling EWR jet arrivals in conflict with HPN/LGA arrivals			
	Handling weather deviations and best practices			
Methods and Procedures	Calculating climb/descent rates			
	5 mile airspace = 12 second radar updates = 5 updates/minute			
	For every 100 foot change per update, multiply by 5 to get feet per minute (FPM)			
	Ex. A/C showing 098 ALT, then next update 099 ALT = 500 FPM (100x5)			
	Ex. A/C showing 098 ALT, then next update 102 ALT = 2000 FPM (400x5)			
	3 mile = 4.6 second radar updates = 13.04 updates/minute			

Methods and Procedures cont.	For every 100 foot change per update, multiply by 13 (rounded) to get feet per minute			
	Ex. A/C showing 098 ALT, then next update 099 ALT = 1300 FPM (100x13)			
	Ex. A/C showing 098 ALT, then next update 102 ALT = 5200 FPM (400x13)			
	Calculating speed overtakes			
	For every 60 nautical miles per hour speed difference between a/c in trail you will gain or lose 1 mile per minute			
	For every 30 nautical miles per hour speed difference you will gain or lose 1 mile every 2 minutes, or 1/2 mile per minute			
	Ex. A/C 1 is showing 300 kts A/C 2 is in-trail showing 360 kts. You have a 1 mile per minute overtake			
	Ex. A/C 1 is showing 2800 kts A/C 2 is in-trail showing 310 kts. You have a 1/2 mile per minute overtake or 1 mile every 2 minutes overtake			
	Crossing and delivery altitudes for traffic			
	Technique and phraseology how to vector non-RNAV a/c onto airway (Ex. V157 DPK338R)			
Equipment	Understand equipment at the sector			
	Tracker position for the sector and how it is used			
Communication	Frequency selections (including Main, Standby, BUEC)			
	VSCS configuration (Split mode, VTABS)			

Leave form in OJTI training folder for reference.

RADAR CONTROLLER TRAINING

R07/21 Review

		OJTI	DEV	DATE
Separation	Developing a scan			
Coordination	ALB AIT and crossing traffic on T295			
Control Judgment	Review priorities of traffic in sector			
	Handling BDL and ALB arrivals when tied near HIDAL			
	Spacing for N90 airports and dealing with holds			
	Spacing for EWR and holding at ACOVE			
	Spacing for sats and holding at AGNEZ			
	Spacing for HPN and holding at ATHOS or on the east side			
	Spcaing for LGA and making up holding			
	Using direct WEARD or CAMMO to aid spacing for EWR sat			
	Handling BDL arrivals over STELA and CTR..HNK departures			
	Handling weather deviations and best practices			
Methods and Procedures	Calculating climb/descent rates			
	5 mile airspace = 12 second radar updates = 5 updates/minute			
	For every 100 foot change per update, multiply by 5 to get feet per minute (FPM)			
	Ex. A/C showing 098 ALT, then next update 099 ALT = 500 FPM (100x5)			
	Ex. A/C showing 098 ALT, then next update 102 ALT = 2000 FPM (400x5)			
	3 mile = 4.6 second radar updates = 13.04 updates/minute			
	For every 100 foot change per update, multiply by 13 (rounded) to get feet per minute			
	Ex. A/C showing 098 ALT, then next update 099 ALT = 1300 FPM (100x13)			
	Ex. A/C showing 098 ALT, then next update 102 ALT = 5200 FPM (400x13)			
	Calculating speed overtakes			

Methods and Procedures cont.	For every 60 nautical miles per hour speed difference between a/c in trail you will gain or lose 1 mile per minute			
	For every 30 nautical miles per hour speed difference you will gain or lose 1 mile every 2 minutes, or 1/2 mile per minute			
	Ex. A/C 1 is showing 300 kts A/C 2 is in-trail showing 360 kts. You have a 1 mile per minute overtake			
	Ex. A/C 1 is showing 2800 kts A/C 2 is in-trail showing 310 kts. You have a 1/2 mile per minute overtake or 1 mile every 2 minutes overtake			
	Handling BDL arrivals and the crossing restriction at STELA			
	EWR bypass and holding at BOWAN			
	MHT arrivals direct CRIBB into Sector 36			
	EEN arrivals from the south			
	BAF scramble procedures and how to handle them			
Equipment	Understand equipment at the sector			
	Tracker position for the sector and how it is used			
Communication	Frequency selections (including Main, Standby, BUEC)			
	VSCS configuration (Split mode, VTABS)			

Leave form in OJTI training folder for reference.

RADAR CONTROLLER TRAINING

R19 Review

		OJTI	DEV	DATE
Separation	Developing a scan			
	Learn how to keep track of the different flows			
Coordination	Addressing handoff's with N90			
Control Judgment	Review priorities of traffic in sector			
	How to handle being shut off for BOS from Sector 34			
	Spacing BOS arrivals from N56 and N90			
	Use of speed control and the normal turns for each flow			
	How winds affect spacing			
	How altitude can affect the speed assigned			
	Accepting handoffs from N56 with inadequate spacing			
	How to ensure separation when vectoring two flows into one			
	Ensuring Lib E spaces properly over each fix			
	Scan for speeds and angles that will not work			
	If you don't like it, call and fix it			
	Handling ALB arrivals with GREKI's			
	Handling weather deviations and best practices			
Methods and Procedures	Calculating climb/descent rates			
	5 mile airspace = 12 second radar updates = 5 updates/minute			
	For every 100 foot change per update, multiply by 5 to get feet per minute (FPM)			
	Ex. A/C showing 098 ALT, then next update 099 ALT = 500 FPM (100x5)			
	Ex. A/C showing 098 ALT, then next update 102 ALT = 2000 FPM (400x5)			
	3 mile = 4.6 second radar updates = 13.04 updates/minute			
	For every 100 foot change per update, multiply by 13 (rounded) to get feet per minute			
	Ex. A/C showing 098 ALT, then next update 099 ALT = 1300 FPM (100x13)			

Methods and Procedures cont.	Ex. A/C showing 098 ALT, then next update 102 ALT = 5200 FPM (400x13)			
	Calculating speed overtakes			
	For every 60 nautical miles per hour speed difference between a/c in trail you will gain or lose 1 mile per minute			
	For every 30 nautical miles per hour speed difference you will gain or lose 1 mile every 2 minutes, or 1/2 mile per minute			
	Ex. A/C 1 is showing 300 kts A/C 2 is in-trail showing 360 kts. You have a 1 mile per minute overtake			
	Ex. A/C 1 is showing 2800 kts A/C 2 is in-trail showing 310 kts. You have a 1/2 mile per minute overtake or 1 mile every 2 minutes overtake			
	BOS south sat traffic and delivery into Sector 47			
	Approving direct CCC from Area C			
	SWAP traffic over GREKI			
	Cape traffic and VFR's from Lib E			
	Do not take GON arrivals from N90			
Equipment	Understand equipment at the sector			
	Tracker position for the sector and how it is used			
Communication	Frequency selections (including Main, Standby, BUEC)			
	VSCS configuration (Split mode, VTABS)			

Leave form in OJTI training folder for reference.

RADAR CONTROLLER TRAINING

R05 Review

		OJTI	DEV	DATE
Separation	Developing a scan			
	Very important in this sector to maintain positive separation			
	How to safely swap a/c out of altitudes			
	How to scan entire route to check for conflicts			
	Typical to have multiple conflicts with one a/c			
Coordination				
Control Judgment	Review priorities of traffic in sector			
	Using indicated speeds and Mach numbers and how to mix			
	How altitude differences can affect ground speed when assigning			
	Know altitudes to transition between the two			
	Crossing tie points on airways with traffic from the north and east			
	Specifically from Sector 38 and 46			
	Crossing traffic via direct VILLS and the priorities for altitude			
	Spacing for JFK arrivals			
	Holding at YODAA and IGN			
	Handling weather deviations and best practices			
Methods and Procedures	Calculating climb/descent rates			
	5 mile airspace = 12 second radar updates = 5 updates/minute			
	For every 100 foot change per update, multiply by 5 to get feet per minute (FPM)			
	Ex. A/C showing 098 ALT, then next update 099 ALT = 500 FPM (100x5)			
	Ex. A/C showing 098 ALT, then next update 102 ALT = 2000 FPM (400x5)			
	3 mile = 4.6 second radar updates = 13.04 updates/minute			
	For every 100 foot change per update, multiply by 13 (rounded) to get feet per minute			
	Ex. A/C showing 098 ALT, then next update 099 ALT = 1300 FPM (100x13)			
	Ex. A/C showing 098 ALT, then next update 102 ALT = 5200 FPM (400x13)			
	Calculating speed overtakes			

Methods and Procedures cont.	For every 60 nautical miles per hour speed difference between a/c in trail you will gain or lose 1 mile per minute			
	For every 30 nautical miles per hour speed difference you will gain or lose 1 mile every 2 minutes, or 1/2 mile per minute			
	Ex. A/C 1 is showing 300 kts A/C 2 is in-trail showing 360 kts. You have a 1 mile per minute overtake			
	Ex. A/C 1 is showing 2800 kts A/C 2 is in-trail showing 310 kts. You have a 1/2 mile per minute overtake or 1 mile every 2 minutes overtake			
	Know the flows per airway Q480, Q448, Q406, and Q75			
	Know the routes into ZNY airspace			
	IAD arrivals via HYPER STAR and delivery to N42			
	Know alternate routes if shut off from N42			
	BWI/DCA and sats via Q75 and the proper stack into N42			
	Know alternate routes if shut off from N42			
	RVSM -- when it begins and ends			
	MHT arrivals into Sector 38			
	Traffic northbound into Sector 38 when Lightning is active			
Equipment	Understand equipment at the sector			
	Tracker position for the sector and how it is used			
Communication	Frequency selections (including Main, Standby, BUEC)			
	VSCS configuration (Split mode, VTABS)			

Leave form in OJTI training folder for reference.

RADAR ASSOCIATE CONTROLLER TRAINING

RA05 Review

		OJTI	DEV	DATE
Separation	Shelving and conditional use airspace			
	Surrounding sectors and airspace including number, shelving and frequencies			
Coordination	Landlines			
	Shout and ringing lines, show the difference			
	Demonstrate understanding of how each work			
Control Judgement	Confliction/tie points			
	Problem areas for focus on for scan			
	Tie points for EWR jets and EWR SATs			
	Holding at HELON with BLUSKY			
	Holding patterns			
Methods and Procedures	Calculating climb/descent rates			
	5 mile airspace = 12 second radar updates = 5 updates/minute			
	For every 100 foot change per update, multiply by 5 to get feet per minute (FPM)			
	Ex. A/C showing 098 ALT, then next update 099 ALT = 500 FPM (100x5)			
	Ex. A/C showing 098 ALT, then next update 102 ALT = 2000 FPM (400x5)			
	3 mile = 4.6 second radar updates = 13.04 updates/minute			
	For every 100 foot change per update, multiply by 13 (rounded) to get feet per min			
	Ex. A/C showing 098 ALT, then next update 099 ALT = 1300 FPM (100x13)			
	Ex. A/C showing 098 ALT, then next update 102 ALT = 5200 FPM (400x13)			
	Calculating speed overtakes			
	For every 60 nautical miles per hour speed difference between a/c in trail you will gain or lose 1 mile per minute			
	For every 30 nautical miles per hour speed difference you will gain or lose 1 mile every 2 minutes, or 1/2 mile per minute			
	Ex. A/C 1 is showing 300 kts A/C 2 is in-trail showing 360 kts. You have a 1 mile per minute overtake			
	Ex. A/C 1 is showing 2800 kts A/C 2 is in-trail showing 310 kts. You have a 1/2 mile per minute overtake or 1 mile every 2 minutes overtake			
	Blue sky procedures, codes used, how to track and enter flight plan			
	Sussex jumper procedures and codes			
	Major flows			
	General sector operation			
	Show EWR jet, EWR SAT flows			
	Show HPN jet, HPN prop flow			
	Glider code and understanding them			

Methods and Procedures cont.	Arrival/departure fixes for each sector			
	Fixes and delivery altitudes for arrivals and departures			
	Explain crossing fixes for arrivals/departures and their required altitudes (SHAFF, MUGSY, ALB, Sector 06, Catskill)			
	Explain a/c departure routes, altitudes delivered and what sector and altitudes			
Equipment	MIA's and how to display them			
	Status Information Area (SIA) how to keep it updated, how to write in-trails, frequencies, runways in use			
	Printers			
	Demonstrate replacing paper			
	Demonstrate how to print a strip of an a/c to your sector			
	Explain what printers back up others if down			
	Print one strip with lines, one without			
	VSCS Operation			
	Changing all pages			
	All buttons			
	Split mode			
	VTABS			
	How to manually call sector using indirect access (IA) line (9 then 3 digit code)			
	EDST			
	Show understanding of how to fix settings, change routing, evaluate conflicts			
	Enter a/c into holding			
	ERIDS			
	Basic functions and PIREP entry			
	Finding a route to a major airport			
	Finding a route to a smaller airport using ERIDS and ATLAS			
	Find SOPs for SWF sector			
Communication	Communicating clearly and concisely to R-Side, Supervisor, and other controllers on the land lines			
	Demonstrate how to contact each of the surrounding sectors (which ring line, dial line, shout line)			
	Frequencies			
	VHF/UHF			
	Location of RCAG sites			
	Location of BUEC			
	How to pull up frequency of sector if needed			

Leave form in OJTI training folder for reference.

RADAR ASSOCIATE CONTROLLER TRAINING

RA06 Review

		OJTI	DEV	DATE
Separation	Shelving and conditional use airspace			
	Surrounding sectors and airspace including number, shelving and frequencies			
	R5206			
Coordination	Demonstrate how to do a VFR pickup on frequency			
	Demonstrate how to receive a manual VFR handoff from N90			
	Demonstrate how to give a manual handoff to N90			
Control Judgment	Confliction/tie points			
	Problem areas for focus on for scan			
	Tie points for ALB arrivals with BDL departures. This is the hardest conflict to figure out at this sector as a trainee. Need to understand how to handle conflict safely and know options to solve the conflict			
	LGA jet conflicts from 24 and 22			
	HPN tie points at IGN			
	T216 overflight traffic with N90 arrivals			
	EWR jets on SHAFF arrival with HPN and LGA arrivals			
	Holding at HELON with BLUSKY			
Methods and Procedures	Calculating climb/descent rates			
	5 mile airspace = 12 second radar updates = 5 updates/minute			
	For every 100 foot change per update, multiply by 5 to get feet per minute (FPM)			
	Ex. A/C showing 098 ALT, then next update 099 ALT = 500 FPM (100x5)			
	Ex. A/C showing 098 ALT, then next update 102 ALT = 2000 FPM (400x5)			
	3 mile = 4.6 second radar updates = 13.04 updates/minute			
	For every 100 foot change per update, multiply by 13 (rounded) to get feet per			
	Ex. A/C showing 098 ALT, then next update 099 ALT = 1300 FPM (100x13)			
	Ex. A/C showing 098 ALT, then next update 102 ALT = 5200 FPM (400x13)			
	Calculating speed overtakes			
	For every 60 nautical miles per hour speed difference between a/c in trail you will gain or lose 1 mile per minute			
	For every 30 nautical miles per hour speed difference you will gain or lose 1 mile every 2 minutes, or 1/2 mile per minute			
	Ex. A/C 1 is showing 300 kts A/C 2 is in-trail showing 360 kts. You have a 1 mile per minute overtake			
	Ex. A/C 1 is showing 2800 kts A/C 2 is in-trail showing 310 kts. You have a 1/2 mile per minute overtake or 1 mile every 2 minutes overtake			

Methods and Procedures cont.	Major Flows			
	General sector operation and primary traffic			
	Show LGA jet, LGA prop flows			
	Show HPN jet, HPN prop flows			
	Show V44 flow and what airports this route accepts			
	Show EWR jet flow			
	Show ALB arrival flow, explain altitudes coming to and altitudes required leaving the airspace			
	Show BDL area departure flows, explain altitudes coming to and altitudes leaving airspace			
	Explain ALB AIT between 06 and 21			
	Explain BDL area AIT between 06 and 07			
	Arrival/departure fixes for each sector			
	Fixes and delivery altitudes for arrivals and departures			
	Explain crossing fixes for arrivals/departures and their required altitudes (HAARP, NOBBI, LOVES, ALB, BDL, Sector 05, 21, Catskill)			
	Explain a/c departure routes, altitudes delivered and what sector and altitudes			
Equipment	MIA's and how to display them			
	Status Information Area (SIA) how to keep it updated, how to write in-trails, frequencies, runways in use			
	EDST			
	Demonstrate how to use this in this sector			
	Show how to amend a departure from ALB or BDL			
	ERIDS			
	Basic functions and PIREP entry			
	Finding a route to a major airport			
	Finding a route to a smaller airport using ERIDS and ATLAS			
	Find SOPs for PWL sector			
Communication	Communicating clearly and concisely to R-Side, Supervisor, and other controllers on the land lines			
	Demonstrate how to contact each of the surrounding sectors (which ring line, dial line, shout line)			
	Frequencies			
	VHF/UHF			

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RADAR ASSOCIATE CONTROLLER TRAINING

RA07/21 Review

		OJTI	DEV	DATE
Separation	Shelving and conditional use airspace			
	Surrounding sectors and airspace including number, shelving and frequencies			
Coordination	Landlines			
	Shout and ringing lines, show the difference			
	Demonstrate understanding of how each work			
	Demonstrate how to contact BAF and CEF tower			
	Military scrambles			
Control Judgment	BDL departure flows			
	Confliction/ tie points			
	Problem areas for focus on for scan			
	Conflicts with BDL CTR departures and BDL arrivals			
	Conflicts with T295 westbound overflights with EWR and HPN arrivals			
	Tie points for EWR jets and EWR sats			
	Tie points for HPN jets and props			
Methods and Procedures	Calculating climb/descent rates			
	5 mile airspace = 12 second radar updates = 5 updates/minute			
	For every 100 foot change per update, multiply by 5 to get feet per minute (FPM)			
	Ex. A/C showing 098 ALT, then next update 099 ALT = 500 FPM (100x5)			
	Ex. A/C showing 098 ALT, then next update 102 ALT = 2000 FPM (400x5)			
	3 mile = 4.6 second radar updates = 13.04 updates/minute			
	For every 100 foot change per update, multiply by 13 (rounded) to get feet per minute			
	Ex. A/C showing 098 ALT, then next update 099 ALT = 1300 FPM (100x13)			
	Ex. A/C showing 098 ALT, then next update 102 ALT = 5200 FPM (400x13)			
	Calculating speed overtakes			
	For every 60 nautical miles per hour speed difference between a/c in trail you will gain or lose 1 mile per minute			
	For every 30 nautical miles per hour speed difference you will gain or lose 1 mile every 2 minutes, or 1/2 mile per minute			

Methods and Procedures cont.	Ex. A/C 1 is showing 300 kts A/C 2 is in-trail showing 360 kts. You have a 1 mile per minute overtake			
	Ex. A/C 1 is showing 2800 kts A/C 2 is in-trail showing 310 kts. You have a 1/2 mile per minute overtake or 1 mile every 2 minutes overtake			
	Major flows			
	General sector operation			
	Show EWR jet, EWR prop and SAT flows			
	Show HPN jet, HPN prop flow			
	BDL departure flow			
	ALB departure flow			
	Arrival/departure fixes for each sector			
	Fixes and delivery altitudes for arrivals and departures			
	Explain crossing fixes for arrivals/departures and their required altitudes (ALB, BDL, Sector 06, and 05)			
	Explain a/c departure routes, altitudes delivered and what sector and altitudes			
Equipment	MIA's and how to display them			
	Status Information Area (SIA) how to keep it updated, how to write in-trails, frequencies, runways in use			
	EDST			
	Show understanding of how to fix settings, change routing, evaluate conflicts			
	Demonstrate how to amend departure flight plan			
	Demonstrate how to evaluate multiple flight plans with the came call sign			
	ERIDS			
	Basic functions and PIREP entry			
	Finding a route to a major airport			
	Finding a route to a smaller airport using ERIDS and ATLAS			
	Find SOPs for CTR/CANAN sector			
Communication	Communicating clearly and concisely to R-Side, Supervisor, and other controllers on the land lines			
	Demonstrate how to contact each of the surrounding sectors (which ring line, dial line, shout line)			
	Frequencies			
	VHF/UHF			
	Location of RCAG sites			
	Location of BUEC			
	How to pull up frequency of sector if needed			

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RADAR ASSOCIATE CONTROLLER TRAINING

RA19 Review

		OJTI	DEV	DATE
Separation	Shelving and conditional use airspace			
	Surrounding sectors and airspace including number, shelving and frequencies			
	Conditional use airspace for Lib East			
Coordination	Landlines			
	Shout and ringing lines, show the difference			
	Demonstrate understanding of how each work			
	Demonstrate how to do a VFR pickup on frequency			
	Demonstrate how to receive a manual VFR handoff from N90			
	Demonstrate how to give a manual handoff to N90			
Control Judgment	Confliction/tie points			
	Problem areas for focus on for scan			
	Point out responsibility to sector 20 for ALB arrivals			
	Point out responsibility to sector 47 on MERIT departures not on AIT			
	Point out responsibility to sector 46 on KBOS arrivals			
	Overtakes on all flows			
	Conflictions with ALB arrivals and GREKI departures			
	Conflictions with KBED/KORH arrivals with KBOS and KPVD area arrivals			
Methods and Procedures	Calculating climb/descent rates			
	5 mile airspace = 12 second radar updates = 5 updates/minute			
	For every 100 foot change per update, multiply by 5 to get feet per minute (FPM)			
	Ex. A/C showing 098 ALT, then next update 099 ALT = 500 FPM (100x5)			
	Ex. A/C showing 098 ALT, then next update 102 ALT = 2000 FPM (400x5)			
	3 mile = 4.6 second radar updates = 13.04 updates/minute			
	For every 100 foot change per update, multiply by 13 (rounded) to get feet per minute			
	Ex. A/C showing 098 ALT, then next update 099 ALT = 1300 FPM (100x13)			
	Ex. A/C showing 098 ALT, then next update 102 ALT = 5200 FPM (400x13)			
	Calculating speed overtakes			

Methods and Procedures cont.	For every 60 nautical miles per hour speed difference between a/c in trail you will gain or lose 1 mile per minute			
	For every 30 nautical miles per hour speed difference you will gain or lose 1 mile every 2 minutes, or 1/2 mile per minute			
	Ex. A/C 1 is showing 300 kts A/C 2 is in-trail showing 360 kts. You have a 1 mile per minute overtake			
	Ex. A/C 1 is showing 2800 kts A/C 2 is in-trail showing 310 kts. You have a 1/2 mile per minute overtake or 1 mile every 2 minutes overtake			
	Major flows			
	General sector operation and primary traffic			
	Show GREKI flow			
	Show MERIT flow			
	Show BAAYS flow			
	Show BDL arrival flow			
	Show KBOS overflight flow and how it blends with MERIT flow			
	Arrival/departure fixes for each sector			
	Fixes and delivery altitudes for arrivals and departures			
	Explain crossing fixes for arrivals/departures and their required altitudes (BDL, Sector 06, 47, 34)			
	Explain a/c departure routes, altitudes delivered and what sector and altitudes			
Equipment	MIA's and how to display them			
	Status Information Area (SIA) how to keep it updated, how to write in-trails, frequencies, runways in use			
	EDST			
	Show how to accept manual IFR handoff from LIB East on a/c with multiple flight plan			
	Demonstrate how to use this in this sector			
	ERIDS			
	Basic functions and PIREP entry			
	Finding a route to a major airport			
	Finding a route to a smaller airport using ERIDS and ATLAS			
	Find SOPs for DXR sector			
Communication	Communicating clearly and concisely to R-Side, Supervisor, and other controllers on the land lines			
	Demonstrate how to contact each of the surrounding sectors (which ring line, dial line, shout line)			
	Frequencies			
	VHF/UHF			

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RADAR ASSOCIATE CONTROLLER TRAINING

RA20 Review

		OJTI	DEV	DATE
Separation	Shelving and conditional use airspace			
	Surrounding sectors and airspace including number, shelving and frequencies			
Coordination	Landlines			
	Shout and ringing lines, show the difference			
	Demonstrate understanding of how each work			
	Demonstrate how to address a TMU reroute			
	Demonstrate how to find alternative routes if shut off for KIAD from N42			
Control Judgment	Confliction/tie points			
	Problem areas for focus on for scan			
	J79 southbound with all a/c			
	Climbing traffic from sector 46 with GREKI departures			
	Northbound traffic from ZNY with all south and westbound traffic			
Methods and Procedures	Calculating climb/descent rates			
	5 mile airspace = 12 second radar updates = 5 updates/minute			
	For every 100 foot change per update, multiply by 5 to get feet per minute (FPM)			
	Ex. A/C showing 098 ALT, then next update 099 ALT = 500 FPM (100x5)			
	Ex. A/C showing 098 ALT, then next update 102 ALT = 2000 FPM (400x5)			
	3 mile = 4.6 second radar updates = 13.04 updates/minute			
	For every 100 foot change per update, multiply by 13 (rounded) to get feet per minute			
	Ex. A/C showing 098 ALT, then next update 099 ALT = 1300 FPM (100x13)			
	Ex. A/C showing 098 ALT, then next update 102 ALT = 5200 FPM (400x13)			
	Calculating speed overtakes			
	For every 60 nautical miles per hour speed difference between a/c in trail you will gain or lose 1 mile per minute			
	For every 30 nautical miles per hour speed difference you will gain or lose 1 mile every 2 minutes, or 1/2 mile per minute			

Methods and Procedures cont.	Ex. A/C 1 is showing 300 kts A/C 2 is in-trail showing 360 kts. You have a 1 mile per minute overtake			
	Ex. A/C 1 is showing 2800 kts A/C 2 is in-trail showing 310 kts. You have a 1/2 mile per minute overtake or 1 mile every 2 minutes overtake			
	Major flows			
	General sector operation			
	Show JFK arrival flow			
	Show Q480 flow			
	Show Q406 flow			
	Show Q448 flow			
	Show Q75 flow			
	Arrival/departure fixes for each sector			
	Fixes and delivery altitudes for arrivals and departures			
	Explain crossing fixes for arrivals/departures and their required altitudes (Lendy, East Texas)			
	Explain a/c departure routes, altitudes delivered and what sector and altitudes			
Equipment	MIA's and how to display them			
	Status Information Area (SIA) how to keep it updated, how to write in-trails, frequencies, runways in use			
	EDST			
	Demonstrate how to use this in this sector			
	Show how to see potential conflicts			
	ERIDS			
	Basic functions and PIREP entry			
	Finding a route to a major airport			
	Find SOPs for IGN sector			
Communication	Communicating clearly and concisely to R-Side, Supervisor, and other controllers on the land lines			
	Demonstrate how to contact each of the surrounding sectors (which ring line, dial line, shout line)			
	Frequencies			
	VHF/UHF			

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