

ERA23FA108

AIR TRAFFIC CONTROL

Group Chairman's Factual Report - Attachment 6
Facility Admin and Documentation

ECV Checklist for ZDC - Washington (Air Route Traffic Control Center)**Scheduled Dates: 04-Apr-2022 - 11-Apr-2022**

ECV Complete Date: 13-Apr-2022

CVT Year: 2022

Primary Evaluator: Shawn A Bibby

Secondary Evaluator: Dennis Comstock

102 of 102 items

id	Item	Description	Reference	Evaluation Area	ECV Rating	ECV Approval	Mitigation Plan?
2	Abbreviated Transmissions	Controllers use standard abbreviated transmissions phraseology	7110.65 par 2-4-9	Operations	Compliant	11-Apr-2022	
359	Air Traffic Control Operational Contingency Plans	Air Traffic Managers are responsible to have Operations Contingency Plans (OCPs) in place to respond to events that affect the Operational Contingency Levels (OCLs) of their facility to provide ATC services. Reference: FAA JO 1900.47 Air Traffic Control Operational Contingency Plans a. Ensure that the OCP conforms to the current version of the FAA JO 1900.47 Chapter 3, Documentation. b. Complete the annual requirements by December 31 of each calendar year.	1900.47 Ch 2 Section J; Ch 5 Section C	Operations	Compliant	11-Apr-2022	



1. Ensure that all network support agreements have been reviewed
2. Ensure that a facility ATC Zero exercise is conducted unless an actual ATC Zero or ATC Limited event occurred during the year.
3. Ensure certification of the facility OCP and support procedures in the National OCP Database.
4. Ensure certification of contact information in OCPs in the National OCP Database.
- c. Ensure the facility has conducted refresher training on the OCP in accordance with FAA JO 3120.4 Air Traffic Technical Training, which includes:
 1. Airspace divestment/assumption procedures
 2. Use of CPSS information, where applicable
 3. Operationally relevant information



		seen during an exercise or event.					
11	Altimeter Issued and Requirements	Altimeter issued in accordance with prescribed procedures	7110.65 Ch 2 Sec 7; 7210.3 par 2-10-3 and 2-10-4	Operations	Compliant	11-Apr-2022	
13	Altitude Assignment and Verification	Controllers apply standardized application of procedures, assigning and verifying altitudes and standard phraseology	7110.65 ch 4 sec 5	Operations	Compliant	11-Apr-2022	
14	Altitude Filter Limits	Mode C targets and data blocks are displayed correctly through the use of appropriate altitude limits and display filters	7110.65 par 5-14-5	Operations	Noncompliant - Low	11-Apr-2022	
16	AOV Credentialing	All requirements for conducting and recording initial credential ratings and biennial skill evaluations and completing return to duty plans are followed	8000.90	Administrative	Compliant	11-Apr-2022	
17	Approach Clearance Procedures and Phraseology	Controllers issue approach clearances, adhere to separation minima, and issue alternate missed approach instructions using prescribed phraseology	7110.65 ch 4 sec 8; ch 7 sec 4; par 4-7-6 and 4-7-10	Operations	Compliant	11-Apr-2022	



18	Approach Information and Arrival Procedures - Instructions	Controllers provide radar frequency, beacon changes, and advance approach information	7110.65 par 4-7-1; 5-9-4; 4-7-4a and b; 4-7-5 and 4-7-12	Operations	Compliant	11-Apr-2022	
19	Approach Separation Minima	Controllers adhere to separation minima for approach procedures	7110.65 par 5-9-5	Operations	Compliant	11-Apr-2022	
20	Arrival and Approach Information and TCP	Controllers provide arrival and approach information and execute TCP	7110.65 par 4-7-6; 4-7-9 and 4-7-10	Operations	Compliant	11-Apr-2022	
21	Arrival Procedures	Controllers meet required elements and phraseology requirements	7110.65 ch 3 sec 10; ch 4 sec 7; par 5-9-4 and 5-9-5	Operations	Compliant	11-Apr-2022	
22	Arrival Weather, Airport Conditions	Controllers provide and solicit weather information, airport conditions, and below minima reports as required	7110.65 par 4-7-7; 4-7-11 and 4-7-12a	Operations	Compliant	11-Apr-2022	
24	ATC Clearances, Advisories, or Requests	Specialist provides clearances, advisories and requests in accordance with prescribed procedures	7110.10 par 4-3-7	Operations	Compliant	11-Apr-2022	
26	Automated Information Transfer (AIT)	AIT is conducted under the proper conditions	7110.65 par 5-4-8	Operations	Compliant	11-Apr-2022	



29	Beacon Systems	Controllers use standardized procedures and phraseology related to beacon systems	7110.65 par 5-2-1 through 5-2-16 and 5-2-22	Operations	Compliant	11-Apr-2022	
30	Bird Hazard Procedures/Advisories	Controllers issue bird activity advisories using prescribed phraseology. Required notifications are accomplished.	7110.65 par 2-1-23	Operations	Not Observed	11-Apr-2022	
32	Call Sign Usage	Aircraft identification and similar sounding call signs are handled as required	7110.65 par 2-4-15 and 2-4-20	Operations	Noncompliant - Low	11-Apr-2022	
34	Clearances	Controllers use standardized manual and automated clearance formats and phraseology	7110.65 ch 4 sec 2 and 4; par 4-3-4	Operations	Compliant	11-Apr-2022	
36	Computer Assigned Altitude	Data block reflects current status of aircraft unless specified in a facility directive	7110.65 par 5-14-3	Operations	Compliant	11-Apr-2022	
40	Coordinate Use of Airspace	Controllers ensure necessary coordination is accomplished	7110.65 par 2-1-14 and 2-1-16	Operations	Compliant	11-Apr-2022	
41	Coordinating Delays	Controllers meet requirements for forwarding delays and coordinating departure clearances	7110.65 par 4-3-7 through 4-3-10	Operations	Compliant	11-Apr-2022	



42	Covered Event Reviews (CER)	CERs are conducted as directed and are completed in accordance with applicable directive	7210.634 par 3-4	Quality Control	Compliant	11-Apr-2022	
44	Data Blocks	Controllers display and retain data blocks as required	7110.65 par 5-3-8	Operations	Compliant	11-Apr-2022	
45	Data Blocks-Sector Eligibility	Controllers meet all requirements to override sector eligibility	7110.65 par 5-14-6	Operations	Compliant	11-Apr-2022	
49	Delays	Controllers use standard procedures and phraseology associated with departure delays, releases, ground stops, and delay sequencing	7110.65 par 4-3-4b2 and 4-3-5 through 4-3-7	Operations	Compliant	11-Apr-2022	
51	Departure Procedures	Controllers meet required elements and phraseology requirements	7110.65 par 4-3-1 through 4-3-4	Operations	Compliant	11-Apr-2022	
169	EDST/URET Usage	Controllers use EDST/URET in accordance with prescribed procedures	7110.65 ch 13 sec 1	Operations	Compliant	11-Apr-2022	
52	Emergency Frequencies	Facility ensures emergency frequencies are monitored continuously, in working order, and checked regularly	7210.3 par 3-3-3 and 3-3-4	Operations	Compliant	11-Apr-2022	



53	Emergency Procedures	Requirements are met for providing services in/to an emergency in accordance w/ prescribed procedures	7110.65 ch 10 sec 1 and 2	Operations	Compliant	11-Apr-2022	
58	Facility Coordination	The STMC ensures that an operational briefing is conducted at least once during the day and evening shift. The STMC communicates events that have an impact on the NAS.		Operations	Compliant	11-Apr-2022	
59	Flight Check Handling	Controllers use standard flight check handling procedures	7110.65 ch 9 sec 1	Operations	Compliant	11-Apr-2022	
62	GENOT Handling	Ensure that all employees with a need to know are thoroughly briefed prior to performing duties	7210.3 par 2-2-8	Operations	Informational	11-Apr-2022	
64	Handling Coast Tracks	Controllers meet requirement for coast tracks and updating them	7110.65 par 5-14-7 and 5-14-8	Operations	Compliant	11-Apr-2022	
66	Hazardous Weather Broadcast Procedures and Phraseology	Controllers/Specialists use correct procedures and phraseology for HIWAS broadcast	7110.65 par 2-6-6	Operations	Compliant	11-Apr-2022	



67	Inflight Equipment Malfunctions	Controllers properly follow procedures for inflight equipment malfunctions	7110.65 par 2-1-7	Operations	Compliant	11-Apr-2022	
366	International Flight Plan Departure (DEP) Message	Air Route Traffic Control Centers (ARTCC) shall develop and maintain a comprehensive local order/directive to clearly define responsibilities and procedures that international departure (DEP) messages are correctly processed for all required international departures originating in their airspace. Air Route Traffic Control Centers shall develop and conduct annual refresher training to process international DEP messages, and ensure this is added to their local training plan.	7210.3AA; 6-3-4; JO 7110.10Z; 7-1-10	Operations	Compliant	11-Apr-2022	
68	Interphone Format	Standard format is used on interphone	7110.65 par 2-4-12 and 2-4-13	Operations	Compliant	11-Apr-2022	Has Plan
69	Interphone, Frequency Monitoring and Testing	Controllers/Specialists monitor interphones and radio frequencies continuously (to include emergency	7110.65 par 2-4-2; 7210.3 par 3-3-3 and 3-3-4 (check for	Operations	Compliant	11-Apr-2022	



		frequencies when required)	emergency frequency testing)				
75	Low Level Wind Shear/Microburst Advisories	Using prescribed phraseology, controllers provide wind shear and microburst advisories as reported by equipment and/or pilots	7110.65 par 3-1-8	Operations	Not Observed	11-Apr-2022	
76	Manual Reported Altitudes	Manual entry of a reported altitude is completed when required	7110.65 par 5-14-4	Operations	Not Observed	11-Apr-2022	
79	Merging Target Procedures	Controllers apply merging target procedures as required	7110.65 par 5-1-8	Operations	Informational	11-Apr-2022	Has Plan
81	Minimum IFR Altitudes	Display minimum IFR altitudes at each sector	7210.3 par 6-4-2	Operations	Compliant	11-Apr-2022	
83	Mode C Validation	Controllers use prescribed phraseology for assigning and verifying altitudes	7110.65 par 5-2-18 through 5-2-22	Operations	Compliant	11-Apr-2022	
84	MSAW/Conflict/MCI Alert	Controllers take appropriate action with E-MSAW, conflict alert, and MCI requirements when a CA or MCI alert is displayed	7110.65 par 5-14-1 and 5-14-2	Operations	Compliant	11-Apr-2022	



86	National Playbook	National Playbook routes are coordinated as required and in compliance with applicable directives	7210.3 ch 18 sec 21	Operations	Compliant	11-Apr-2022	
87	National Traffic Management Log (NTML)	Required information is entered into the NTML	7210.3 par 18-5-3 through 18-5-4	Operations	Informational	11-Apr-2022	
89	Nonradar Procedures	Controllers apply nonradar procedures as required	7110.65 ch 6; sec 2-1	Operations	Compliant	11-Apr-2022	
90	NORDO/NORAC Aircraft	Proper procedures regarding NORDO/NORAC Aircraft are followed	7110.65 par 10-4-4; 7610.4 ch 7 sec 2 & 3	Operations	Compliant	11-Apr-2022	
93	NOTAM Distribution	Personnel adhere to standardized distribution of received NOTAM information to other ATC facilities	7210.3 par 6-3-2 and para 6-3-4d3; 7930.2 par 3-1-2a; 3-2-1; and 3-2-2	Operations	Compliant	11-Apr-2022	
95	NOTAM Handling	NOTAMs are included on checklists and status information areas and briefed to personnel	7210.3 6-3-4d.3; 7930.2 par 1-3-1a and b; 2-2-3; 3-2-1 and 3-2-2	Operations	Compliant	11-Apr-2022	
106	OJTI Selection, Certification and Evaluation	OJTIs are selected certified and evaluated in accordance with National Directive	3120.4; Ch 6	Training	Noncompliant - Low	11-Apr-2022	



107	Operational Currency	Operational and staff personnel maintain currency as required	7210.3 Ch 2; Section 3	Operations	Compliant	11-Apr-2022	Has Plan
108	Operational Oversight	FLM/CIC/OS monitors operation, anticipates traffic flow, manages and eliminates distractions, and takes appropriate actions	7210.3 par 2-6-1; 2-6-2; 2-6-5a and 2-6-6	Operations	Noncompliant - Low	11-Apr-2022	Has Plan
373	Operational Reference Material	Information areas, position binders, etc., are current and accurate.	FAAO 7210.3 paragraph 2-1-3 and 2-1-4	Operations	Compliant	11-Apr-2022	
287	Opposite Direction Operations (ODO)	Description: The facility has developed procedures that have been approved by the service area Director Of Operations (through the Operations Support Group). The facility has captured those procedures in a local directive. The facility complies with those procedures.	7210.3 par. 2-1-34; ATO-SG-15-7 ODO	Operations	Compliant	11-Apr-2022	
110	Overdue Aircraft	Controllers gather and share information on overdue aircraft and properly complete applicable control actions	7110.65 ch 10 sec 3; par 10-4-1 through 10-4-3	Operations	Not Observed	11-Apr-2022	



115	PIREP Dissemination and Classification	PIREPs are disseminated and classified as specified in orders	7210.3 par 6-3-1b	Operations	Compliant	11-Apr-2022	
116	PIREP Information	Controllers solicit, broadcast, and disseminate PIREPs, as required, using prescribed phraseology	7110.65 par 2-6-2	Operations	Noncompliant - Low	11-Apr-2022	Has Plan
117	Point Out Procedures	Controllers use point out procedures and phraseology either manually or via an automated method, as required	7110.65 par 5-4-3 and 5-4-7	Operations	Compliant	11-Apr-2022	
118	Position Certification Process	Facilities follow established requirements and procedures for OJT and position certification process	3120.4; Chapter 6	Training	Noncompliant - Low	11-Apr-2022	Has Plan
120	Position Relief Briefings	Controllers/Specialists ensure position briefings are completed and recorded, and checklists are used	7110.65 Appendix A; 7210.3 par 2-2-4 and 2-2-6	Operations	Noncompliant - Low	11-Apr-2022	Has Plan
121	Position Staffing	Assign personnel to positions as required by activity, equipment, and facility function	7210.3 ch 2 sec 6	Operations	Compliant	11-Apr-2022	
122	Prearranged Coordination	Specialists comply with the prearranged coordination procedures that have	7110.65 par 5-4-9	Operations	Not Observed	11-Apr-2022	



		been established and published in a facility directive/LOA					
127	Qualification Training	All required employees receive field qualification training IAW National and Local Directives	3120.4 par 4-2 and app D; F; G and H	Training	Compliant	11-Apr-2022	
128	Quality Control Monitoring	Quality Control Operational Skill assessments (QCOSA) are performed in accordance with applicable directive and include identified emphasis items (EI) as required	7210.634 ch 3	Quality Control	Informational	11-Apr-2022	
129	Quality Control Programs	Quality Control Checks (QCC) and Quality Control Validations (QCV) are completed as required	7210.634 ch 6	Quality Control	Compliant	11-Apr-2022	
131	Radar Handoff Procedures	Controllers use specified radar handoff phraseology and procedures	7110.65 par 2-1-15; 5-4-1 and 5-4-3 through 5-4-6	Operations	Compliant	11-Apr-2022	
132	Radar Identification Methods	Controllers use specified radar identification procedures and phraseology	7110.65 par 5-3-2 through 5-3-7	Operations	Compliant	11-Apr-2022	



133	Radar Termination	Controllers apply standard radar termination procedures and phraseology	7110.65 par 5-1-13	Operations	Compliant	11-Apr-2022	
134	Radar Vectoring	Controllers use standard radar vectoring procedures and phraseology	7110.65 ch 5 sec 6	Operations	Compliant	11-Apr-2022	
135	Radio Communication	Controllers/Specialists use standard radio transmission format and phraseology and apply correct readback/hearback procedures and phraseology	7110.65 par 2-1-17d; 2-4-3; 2-4-8 and 2-4-14 through 2-4-22	Operations	Compliant	11-Apr-2022	Has Plan
136	Refresher Training	Each facility must establish and comply with a written annual refresher training program	3120.4 Ch 4 par 5b and Appendix A	Training	Compliant	11-Apr-2022	
137	Remedial Training	Remedial Training is administered in accordance with National Directive	3120.4 Ch 4 par 6	Training	Not Observed	11-Apr-2022	
141	RVSM Operations	Controllers properly follow procedures for RVSM/non-RVSM operations	7110.65 par 2-1-29	Operations	Compliant	11-Apr-2022	
142	Safety Alerts	Controllers apply safety alert requirements and phraseology	7110.65 par 2-1-6	Operations	Informational	11-Apr-2022	Has Plan



146	Severe Weather	Facility TMUs coordinate directly with the ATCSCC for matters pertaining to severe weather	7210.3 ch 18 sec 14 and 15	Operations	Compliant	11-Apr-2022	
147	Skill Enhancement Training	Skill enhancement training meets required elements of prescribed procedures	3120.4 Ch 4; Section 5d	Training	Compliant	11-Apr-2022	
268	SOP/LOA Reviews	Review LOAs/SOPs for accuracy and completeness of data annually and as needed.	7210.3 paras 2-1-2; 2-1-3; 2-1-4; 2-1-5; 2-1-6; 2-2-14; 3-3-2; 4-3-3;4-3-5; 4-3-6	Operations	Compliant	11-Apr-2022	
148	Special Flight Handling	Standard procedures are followed when handling Special Flights	7210.3 Ch 5; par 18-4-2	Operations	Compliant	11-Apr-2022	
150	Special Use Airspace Procedures	Controllers use standard special use airspace procedures: separation standards, clearance in and out, and VFR-on-top	7110.65 ch 9 sec 3	Operations	Exemplary	11-Apr-2022	
151	Special VFR	Controllers use standard procedures and phraseology for Special VFR operations	7110.65 ch 7 sec 5	Operations	Not Observed	11-Apr-2022	
152	Speed Adjustments	Controllers use standard speed control application, methods, minima, and	7110.65 ch 5 sec 7	Operations	Compliant	11-Apr-2022	



		phraseology					
153	Strip Marking	Controllers use standard flight progress strip marking	7110.65 par 2-3-1 through 2-3-3 and 2-3-5 through 2-3-10	Operations	Not Observed	11-Apr-2022	
154	Supplemental Duties	Supplemental duties are performed as required	7210.3 ch 18 sec 4	Operations	Compliant	11-Apr-2022	
155	Supplemental Training	Training provided prior to effective date of new/revised procedures, regulations or equipment, etc.	3120.4 Ch 4 par 5C and Appendix A	Training	Informational	11-Apr-2022	
156	System Service Review (SSR)	SSRs are conducted and documented as required and events were documented and closed	7210.634 ch 4	Quality Control	Compliant	11-Apr-2022	
157	Systemic Issue Reviews (SYSIR)	SYSIRs are conducted when issues that have potential system impact have been identified and are completed in accordance with applicable directive	7210.634 par 4-5	Quality Control	Compliant	11-Apr-2022	
159	TCAS/TAWS	Controllers handle TCAS/TAWS resolution advisories and reporting as required	7110.65 par 2-1-28	Operations	Compliant	11-Apr-2022	



162	TM Responsibilities of FLM/CIC and ATCS	FLM/CICs and ATCSs work to manage flows of traffic as required	7110.65 par 11-1-2b and c	Operations	Compliant	11-Apr-2022	
164	Traffic Advisories	Controllers apply traffic advisories as required	7110.65 par 2-1-21	Operations	Compliant	11-Apr-2022	
165	Traffic Management Duties and Responsibilities	TMUs are in compliance with applicable standard operating procedures	7110.65 par 11-1-2; 7210.3 par 18-2-4a and b	Operations	Compliant	11-Apr-2022	
166	Traffic Management Initiatives (TMIs)	System capacity and traffic demands are evaluated and initiatives are implemented as necessary	7210.3 par 18-7	Operations	Compliant	11-Apr-2022	
167	Traffic Management Reviews (TMR)	TMRs are conducted as applicable in order to identify issues that may impact system efficiency	7210.634 par 4-3	Quality Control	Compliant	11-Apr-2022	
170	Vectoring to Final Approach	Aircraft were vectored to the final approach course to intercept at the applicable point using proper procedures and phraseology	7110.65 par 5-9-1 through 5-9-3	Operations	Compliant	11-Apr-2022	
174	VFR-on-Top	Controllers use standard procedures and phraseology for applying VFR-on-top	7110.65 par 7-3-1; 7-3-2 and 9-3-3	Operations	Not Observed	11-Apr-2022	



176	Visual Approaches	Controllers use standard procedures and phraseology for applying Visual Approaches	7110.65 ch 7 sec 4	Operations	Compliant	11-Apr-2022	
178	Visual Separation	Controllers use standard procedures and phraseology for the application of visual separation	7110.65 par 7-2-1b	Operations	Not Observed	11-Apr-2022	
179	Wake Turbulence	Controllers apply standard separation and advisories for flights impacted by wake turbulence	7110.65 par 2-1-19; 2-1-20 and 5-5-4e; N JO 7110.582	Operations	Compliant	11-Apr-2022	
182	Weather Coordinator	WC performs duties as required	7210.3 par 6-3-1; 18-2-4b4; 18-26-3; 18-26-4b and 18-4-4	Operations	Noncompliant - Low	11-Apr-2022	
184	Weather Familiarization	Controllers/Specialists become familiar with pertinent weather information when coming on duty, and stay aware of current weather information needed to perform ATC duties	7110.65 par 2-6-1	Operations	Noncompliant - Medium	11-Apr-2022	Has Plan
186	Weather Processing	Receipt and dissemination of weather products	7110.65 par 2-9-2c and d; 7210.3 par 10-3-1	Operations	Compliant	11-Apr-2022	



187	Weather/Chaff Services	Controllers use correct procedures and phraseology for reporting weather and chaff information to pilots and other affected facilities	7110.65 par 2-6-4	Operations	Compliant	11-Apr-2022	Has Plan
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CVT Year: 2022

Date of most recent ECV: 04-Apr-2022 - 11-Apr-2022

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		the facility OCP and support procedures in the National OCP Database. 4. Ensure certification of contact information in OCPs in the National OCP Database. c. Ensure the facility has conducted refresher training on the OCP in accordance with FAA JO 3120.4 Air Traffic Technical Training, which includes: 1. Airspace divestment/assumption procedures 2. Use of CPSS information, where applicable 3. Operationally relevant information seen during an exercise or event.					
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20	Arrival and Approach Information and TCP	Controllers provide arrival and approach information and execute TCP	7110.65 par 4-7-6; 4-7-9 and 4-7-10	Operations	Compliant	31-Aug-2022	
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30	Bird Hazard Procedures/Advisories	Controllers issue bird activity advisories using prescribed phraseology. Required notifications are accomplished.	7110.65 par 2-1-23	Operations	Not Observed	31-Aug-2022	
32	Call Sign Usage	Aircraft identification and similar sounding call signs are handled as required	7110.65 par 2-4-15 and 2-4-20	Operations	Compliant	29-Sep-2022	
34	Clearances	Controllers use standardized manual and automated clearance formats and phraseology	7110.65 ch 4 sec 2 and 4; par 4-3-4	Operations	Compliant	31-Aug-2022	
36	Computer Assigned Altitude	Data block reflects current status of aircraft unless specified in a facility directive	7110.65 par 5-14-3	Operations	Compliant	31-Aug-2022	
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53	Emergency Procedures	Requirements are met for providing services in/to an emergency in accordance w/ prescribed procedures	7110.65 ch 10 sec 1 and 2	Operations	Compliant	31-Aug-2022	
58	Facility Coordination	The STMC ensures that an operational briefing is conducted at least once during the day and evening shift. The STMC communicates events that have an impact on the NAS.		Operations	Compliant	31-Aug-2022	
59	Flight Check Handling	Controllers use standard flight check handling procedures	7110.65 ch 9 sec 1	Operations	Not Observed	31-Aug-2022	

62	GENOT Handling	Ensure that all employees with a need to know are thoroughly briefed prior to performing duties	7210.3 par 2-2-8	Operations	Compliant	31-Aug-2022	
64	Handling Coast Tracks	Controllers meet requirement for coast tracks and updating them	7110.65 par 5-14-7 and 5-14-8	Operations	Compliant	31-Aug-2022	
66	Hazardous Weather Broadcast Procedures and Phraseology	Controllers/Specialists use correct procedures and phraseology for HIWAS broadcast	7110.65 par 2-6-6	Operations	Compliant	31-Aug-2022	
67	Inflight Equipment Malfunctions	Controllers properly follow procedures for inflight equipment malfunctions	7110.65 par 2-1-7	Operations	Compliant	31-Aug-2022	
366	International Flight Plan Departure (DEP) Message	Air Route Traffic Control Centers (ARTCC) shall develop and maintain a comprehensive local order/directive to clearly define responsibilities and procedures that international departure (DEP) messages are correctly processed for all required international departures originating in their airspace. Air Route Traffic Control Centers shall develop and conduct annual refresher training to process international DEP messages, and ensure this is added to their local training plan.	7210.3AA; 6-3-4; JO 7110.10Z; 7-1-10	Operations	Compliant	31-Aug-2022	
68	Interphone Format	Standard format is used on interphone	7110.65 par 2-4-12 and 2-4-13	Operations	Noncompliant - Low	31-Aug-2022	Has Plan

69	Interphone, Frequency Monitoring and Testing	Controllers/Specialists monitor interphones and radio frequencies continuously (to include emergency frequencies when required)	7110.65 par 2-4-2; 7210.3 par 3-3-3 and 3-3-4 (check for emergency frequency testing)	Operations	Compliant	31-Aug-2022	
76	Manual Reported Altitudes	Manual entry of a reported altitude is completed when required	7110.65 par 5-14-4	Operations	Compliant	31-Aug-2022	
79	Merging Target Procedures	Controllers apply merging target procedures as required	7110.65 par 5-1-8	Operations	Noncompliant - Low	27-Sep-2022	Has Plan
81	Minimum IFR Altitudes	Display minimum IFR altitudes at each sector	7210.3 par 6-4-2	Operations	Compliant	31-Aug-2022	
83	Mode C Validation	Controllers use prescribed phraseology for assigning and verifying altitudes	7110.65 par 5-2-18 through 5-2-22	Operations	Compliant	31-Aug-2022	
84	MSAW/Conflict/MCI Alert	Controllers take appropriate action with E-MSAW, conflict alert, and MCI requirements when a CA or MCI alert is displayed	7110.65 par 5-14-1 and 5-14-2	Operations	Compliant	31-Aug-2022	
86	National Playbook	National Playbook routes are coordinated as required and in compliance with applicable directives	7210.3 ch 18 sec 21	Operations	Compliant	31-Aug-2022	
87	National Traffic Management Log (NTML)	Required information is entered into the NTML	7210.3 par 18-5-3 through 18-5-4	Operations	Compliant	31-Aug-2022	
89	Nonradar Procedures	Controllers apply nonradar procedures as required	7110.65 ch 6; sec 2-1	Operations	Compliant	31-Aug-2022	
90	NORDO/NORAC Aircraft	Proper procedures regarding NORDO/NORAC Aircraft are followed	7110.65 par 10-4-4; 7610.4 ch 7 sec 2 & 3	Operations	Compliant	31-Aug-2022	

93	NOTAM Distribution	Personnel adhere to standardized distribution of received NOTAM information to other ATC facilities	7210.3 par 6-3-2 and para 6-3-4d3; 7930.2 par 3-1-2a; 3-2-1; and 3-2-2	Operations	Compliant	31-Aug-2022	
95	NOTAM Handling	NOTAMs are included on checklists and status information areas and briefed to personnel	7210.3 6-3-4d.3; 7930.2 par 1-3-1a and b; 2-2-3; 3-2-1 and 3-2-2	Operations	Compliant	31-Aug-2022	
106	OJTI Selection, Certification and Evaluation	OJTIs are selected certified and evaluated in accordance with National Directive	3120.4; Ch 6	Training	Compliant	10-Jun-2022	
107	Operational Currency	Operational and staff personnel maintain currency as required	7210.3 Ch 2; Section 3	Operations	Unrated		Has Plan
108	Operational Oversight	FLM/CIC/OS monitors operation, anticipates traffic flow, manages and eliminates distractions, and takes appropriate actions	7210.3 par 2-6-1; 2-6-2; 2-6-5a and 2-6-6	Operations	Noncompliant - Low	29-Sep-2022	Has Plan
373	Operational Reference Material	Information areas, position binders, etc., are current and accurate.	FAAO 7210.3 paragraph 2-1-3 and 2-1-4	Operations	Compliant	31-Aug-2022	
287	Opposite Direction Operations (ODO)	Description: The facility has developed procedures that have been approved by the service area Director Of Operations (through the Operations Support Group). The facility has captured those procedures in a local directive.	7210.3 par. 2-1-34; ATO-SG-15-7 ODO	Operations	Compliant	31-Aug-2022	

		The facility complies with those procedures.					
110	Overdue Aircraft	Controllers gather and share information on overdue aircraft and properly complete applicable control actions	7110.65 ch 10 sec 3; par 10-4-1 through 10-4-3	Operations	Compliant	31-Aug-2022	
115	PIREP Dissemination and Classification	PIREPs are disseminated and classified as specified in orders	7210.3 par 6-3-1b	Operations	Compliant	31-Aug-2022	
116	PIREP Information	Controllers solicit, broadcast, and disseminate PIREPs, as required, using prescribed phraseology	7110.65 par 2-6-2	Operations	Noncompliant - Low	29-Sep-2022	Has Plan
117	Point Out Procedures	Controllers use point out procedures and phraseology either manually or via an automated method, as required	7110.65 par 5-4-3 and 5-4-7	Operations	Compliant	31-Aug-2022	
118	Position Certification Process	Facilities follow established requirements and procedures for OJT and position certification process	3120.4; Chapter 6	Training	Noncompliant - Low	29-Sep-2022	Has Plan
120	Position Relief Briefings	Controllers/Specialists ensure position briefings are completed and recorded, and checklists are used	7110.65 Appendix A; 7210.3 par 2-2-4 and 2-2-6	Operations	Noncompliant - Low	29-Sep-2022	Has Plan
121	Position Staffing	Assign personnel to positions as required by activity, equipment, and facility function	7210.3 ch 2 sec 6	Operations	Compliant	31-Aug-2022	
122	P rearranged Coordination	Specialists comply with the prearranged coordination procedures that have been established and published in a facility directive/LOA	7110.65 par 5-4-9	Operations	Compliant	31-Aug-2022	

127	Qualification Training	All required employees receive field qualification training IAW National and Local Directives	3120.4 par 4-2 and app D; F; G and H	Training	Compliant	31-Aug-2022	
128	Quality Control Monitoring	Quality Control Operational Skill assessments (QCOSA) are performed in accordance with applicable directive and include identified emphasis items (EI) as required	7210.634 ch 3	Quality Control	Compliant	31-Aug-2022	
129	Quality Control Programs	Quality Control Checks (QCC) and Quality Control Validations (QCV) are completed as required	7210.634 ch 6	Quality Control	Compliant	31-Aug-2022	
131	Radar Handoff Procedures	Controllers use specified radar handoff phraseology and procedures	7110.65 par 2-1-15; 5-4-1 and 5-4-3 through 5-4-6	Operations	Compliant	31-Aug-2022	
132	Radar Identification Methods	Controllers use specified radar identification procedures and phraseology	7110.65 par 5-3-2 through 5-3-7	Operations	Compliant	31-Aug-2022	
133	Radar Termination	Controllers apply standard radar termination procedures and phraseology	7110.65 par 5-1-13	Operations	Compliant	31-Aug-2022	
134	Radar Vectoring	Controllers use standard radar vectoring procedures and phraseology	7110.65 ch 5 sec 6	Operations	Compliant	31-Aug-2022	
135	Radio Communication	Controllers/Specialists use standard radio transmission format and phraseology and apply correct readback/hearback procedures and phraseology	7110.65 par 2-1-17d; 2-4-3; 2-4-8 and 2-4-14 through 2-4-22	Operations	Noncompliant - Low	27-Sep-2022	Has Plan

136	Refresher Training	Each facility must establish and comply with a written annual refresher training program	3120.4 Ch 4 par 5b and Appendix A	Training	Compliant	31-Aug-2022	
137	Remedial Training	Remedial Training is administered in accordance with National Directive	3120.4 Ch 4 par 6	Training	Not Observed	31-Aug-2022	
141	RVSM Operations	Controllers properly follow procedures for RVSM/non-RVSM operations	7110.65 par 2-1-29	Operations	Compliant	31-Aug-2022	
142	Safety Alerts	Controllers apply safety alert requirements and phraseology	7110.65 par 2-1-6	Operations	Noncompliant - Low	27-Sep-2022	Has Plan
146	Severe Weather	Facility TMUs coordinate directly with the ATCSCC for matters pertaining to severe weather	7210.3 ch 18 sec 14 and 15	Operations	Compliant	31-Aug-2022	
147	Skill Enhancement Training	Skill enhancement training meets required elements of prescribed procedures	3120.4 Ch 4; Section 5d	Training	Compliant	31-Aug-2022	
268	SOP/LOA Reviews	Review LOAs/SOPs for accuracy and completeness of data annually and as needed.	7210.3 paras 2-1-2; 2-1-3; 2-1-4; 2-1-5; 2-1-6; 2-2-14; 3-3-2; 4-3-3;4-3-5; 4-3-6	Operations	Compliant	27-Sep-2022	
148	Special Flight Handling	Standard procedures are followed when handling Special Flights	7210.3 Ch 5; par 18-4-2	Operations	Compliant	31-Aug-2022	
150	Special Use Airspace Procedures	Controllers use standard special use airspace procedures: separation standards, clearance in and out, and VFR-on-top	7110.65 ch 9 sec 3	Operations	Compliant	31-Aug-2022	

151	Special VFR	Controllers use standard procedures and phraseology for Special VFR operations	7110.65 ch 7 sec 5	Operations	Not Observed	31-Aug-2022	
152	Speed Adjustments	Controllers use standard speed control application, methods, minima, and phraseology	7110.65 ch 5 sec 7	Operations	Compliant	31-Aug-2022	
153	Strip Marking	Controllers use standard flight progress strip marking	7110.65 par 2-3-1 through 2-3-3 and 2-3-5 through 2-3-10	Operations	Compliant	31-Aug-2022	
154	Supplemental Duties	Supplemental duties are performed as required	7210.3 ch 18 sec 4	Operations	Compliant	31-Aug-2022	
155	Supplemental Training	Training provided prior to effective date of new/revised procedures, regulations or equipment, etc.	3120.4 Ch 4 par 5C and Appendix A	Training	Compliant	31-Aug-2022	
156	System Service Review (SSR)	SSRs are conducted and documented as required and events were documented and closed	7210.634 ch 4	Quality Control	Compliant	31-Aug-2022	
157	Systemic Issue Reviews (SYSIR)	SYSIRs are conducted when issues that have potential system impact have been identified and are completed in accordance with applicable directive	7210.634 par 4-5	Quality Control	Compliant	31-Aug-2022	
159	TCAS/TAWS	Controllers handle TCAS/TAWS resolution advisories and reporting as required	7110.65 par 2-1-28	Operations	Compliant	31-Aug-2022	

162	TM Responsibilities of FLM/CIC and ATCS	FLM/CICs and ATCSs work to manage flows of traffic as required	7110.65 par 11-1-2b and c	Operations	Compliant	31-Aug-2022	
164	Traffic Advisories	Controllers apply traffic advisories as required	7110.65 par 2-1-21	Operations	Compliant	31-Aug-2022	
165	Traffic Management Duties and Responsibilities	TMUs are in compliance with applicable standard operating procedures	7110.65 par 11-1-2; 7210.3 par 18-2-4a and b	Operations	Compliant	31-Aug-2022	
166	Traffic Management Initiatives (TMIs)	System capacity and traffic demands are evaluated and initiatives are implemented as necessary	7210.3 par 18-7	Operations	Compliant	31-Aug-2022	
167	Traffic Management Reviews (TMR)	TMRs are conducted as applicable in order to identify issues that may impact system efficiency	7210.634 par 4-3	Quality Control	Compliant	31-Aug-2022	
170	Vectoring to Final Approach	Aircraft were vectored to the final approach course to intercept at the applicable point using proper procedures and phraseology	7110.65 par 5-9-1 through 5-9-3	Operations	Compliant	31-Aug-2022	
174	VFR-on-Top	Controllers use standard procedures and phraseology for applying VFR-on-top	7110.65 par 7-3-1; 7-3-2 and 9-3-3	Operations	Not Observed	31-Aug-2022	
176	Visual Approaches	Controllers use standard procedures and phraseology for applying Visual Approaches	7110.65 ch 7 sec 4	Operations	Compliant	31-Aug-2022	
178	Visual Separation	Controllers use standard procedures and phraseology for the application of visual separation	7110.65 par 7-2-1b	Operations	Not Observed	31-Aug-2022	

179	Wake Turbulence	Controllers apply standard separation and advisories for flights impacted by wake turbulence	7110.65 par 2-1-19; 2-1-20 and 5-5-4e; N JO 7110.582	Operations	Compliant	31-Aug-2022	
182	Weather Coordinator	WC performs duties as required	7210.3 par 6-3-1; 18-2-4b4; 18-26-3; 18-26-4b and 18-4-4	Operations	Compliant	26-May-2022	
184	Weather Familiarization	Controllers/Specialists become familiar with pertinent weather information when coming on duty, and stay aware of current weather information needed to perform ATC duties	7110.65 par 2-6-1	Operations	Noncompliant - Medium	29-Sep-2022	Has Plan
186	Weather Processing	Receipt and dissemination of weather products	7110.65 par 2-9-2c and d; 7210.3 par 10-3-1	Operations	Compliant	31-Aug-2022	
187	Weather/Chaff Services	Controllers use correct procedures and phraseology for reporting weather and chaff information to pilots and other affected facilities	7110.65 par 2-6-4	Operations	Noncompliant - Low	31-Aug-2022	Has Plan

BOSTON ARTCC
STANDARD OPERATING PROCEDURES

FOREWORD

ZBW 7110.33CC 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
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 7110.33CC, Boston ARTCC Standard Operating Procedures, dated May 10, 2022 is cancelled.

1-4. EFFECTIVE DATE

This Order is effective on **November 15th, 2022**.

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 7110.293 2-5 BOS Metering
- N ZBW 7110.296 Recorded Telephone Lines
- N ZBW 7110.297 J68 and V58

Bulletin only Changes:

None.

Notable editorial changes:

- All Sector maps and nodes updated to current specifications.

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 7110.33DD	2/19/2023	05/09/2023
ZBW 7110.33DD Change 1	8/26/2023	11/14/2023
ZBW 7110.33EE	2/18/2024	05/07/2024

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 En Route 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 EXERCISES
- 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. 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](#).

2-1-5. 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.

2-1-6. 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.

2-1-7. 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.

2-1-8. 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 [2-1-9](#) 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 2-1-8 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.

2-1-9. 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/markings 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

WIG443 C208/G T168 52 53 407 01		V < 1245 (50) ↑			KMPV KALB	5337
						D-A
		KMPV P1230		(80 10 < D)	BTW ↓ 060	

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

WIG1046 BE99/G T180 G201 52 53 512 03	PQI 233 154 1228	13 20 ↓	90		KMHT KPQI/1322	5236
						<u>1LS 01</u> <u>1306</u>
		1315 KPQI	WX / N			

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

3	1	2	11	15	16	20	21	25	27
4			12				22		28
5			13						
6			14				23		
7	8			17	18				
	9			19		20a	24	26	29
		10	14a						30

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

 - For arrival airports operating with a VFR tower, after receipt of the current ATIS code, write and circle ATIS code.
- Block 25 – Indicate entry and acceptance of routing into the computer with a check after the routing.
- Block 26 – Space permitting, this block must contain the following entries:
 - Transfer of communications instructions.
 - Radar vector information, except when coordinated via 4th line data entry.
 - 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.
 - Use the letter "D" with a direction indicator through the D, in order to indicate that a route deviation has been approved, e.g. $\overrightarrow{D}$ to mean "deviation east of course approved," except when coordinated via 4th line data entry.
 - Circle point out or blocking information in black after approval has been received.
- 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.
- Block 27 - Underline the discrete beacon code when it must be assigned to the aircraft.
- 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.

2-1-10. 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.

2-1-11. FOURTH LINE DATA BLOCK USAGE

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  to prefix free text entries. (NO SPACE).

1. Aircraft assigned maximum forward airspeed:  FF
2. Aircraft assigned minimum practical airspeed:  SS

2-1-12. 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.

2-1-13. 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

2-1-14. 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			
<u>AREA 1</u> LGA/HPN	N	HAARP	NNN1V
	N	NOBBI	NNN1X
	N	NYACK	NNN1Y
	N	HPN F/V	NNN1Z
	N	SPARE	NNN1R
<u>AREA 2</u> JFK	N	LENDY	NNN2E
	N	JFK DEPT	NNN2J
	N	ROBER	NNN2K
	N	JFK SAT	NNN2M
	N	ILS MON	NNN2O
	N	ILS MON 2	NNN2T
<u>AREA 3</u> SEALL/ VIKKY	N	BEADS	NNN3B
	N	ISP	NNN3H
	N	BEADS LO	NNN3I
	N	CCC	NNN3N
	N	VIKKY	NNN3O
	N	SEALL	NNN3R
	N	LOVES	NNN3Z
	N	SPARE	NNN3U
<u>AREA 4</u>	N	NOR ARR	NNN4A
	N	METRO	NNN4H
	N	EWR SAT	NNN4I
	N	22 FINAL	NNN4M

EWR/ EWR SATS	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
BTB BTA	T		
ZDC W(dd)	W	(dd)	W(dd)
		VACAPES	W00

2-1-15. GENERAL INFORMATION MESSAGES

- GI messages are authorized only for operational matters.
- Scan the radar associate display for electronically distributed information, evaluate the information, and take action as appropriate.
- 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.

2-1-16. DATA BLOCKS

- 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.

2-1-17. 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

2-1-18. 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.

2-1-19. 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 2-1-20 below.

2-1-20. 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.

2-1-21. 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 2-1-12, 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.

2-1-22. 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.

2-1-23. 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.

2-1-24. 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.

2-1-25. 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.

2-1-26. 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.

2-1-27. 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.

2-1-28. 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.

2-1-29. 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 En Route 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.

2-1-30. 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.

2-1-31. 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. MODIFIER – 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

2-1-32. 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

2-1-33. 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](#).

2-1-34. 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.

2-1-35. AREA MBI BOARD

All current bulletins must be maintained in CEDAR.

2-1-36. 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.

2-1-37. 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

2-1-38. 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.

2-1-39. 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

2-1-40. 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.

2-1-41. 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.

2-1-42. 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.

2-1-43. AUTOMATED POINT OUT DISPLAYED ALTITUDE

If a controller utilizes intrafacility 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.

2-1-44. 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.

2-1-45. 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.

2-1-46. 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.

2-2. 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. ATCAA ALTITUDE ADJUSTMENT

- a. The sector controller must ensure that the real-time altitude adjustments are made to ATCAAs as needed for low altimeters, per FAA JO 7110.65 TBL 4-5-3.
- b. The EDST SAA must reflect the altitude that is being blocked, including adjusted altitudes for low altimeters. This will allow the conflict Probe to function properly.

EXAMPLE: Blocked airspace is "100B260" altimeter is 29.82, add additional 500 feet to block altitude. The controller is now blocking "100B265". The EDST SAA Filter must reflect this altitude. FAA JO 7110.65 requires 500 feet separation from blocked air space below FL290; with the low altimeter, the required separation is now "FL270". Aircraft can pass overhead the blocked airspace at FL270.

EXAMPLE: Blocked airspace is “100B320” altimeter is 29.82, add additional 500 feet to block altitude. The controller is now blocking “100B325”. The EDST SAA Filter must reflect this altitude. FAA JO 7110.65 requires 1,000 feet separation from blocked air space above FL290; with the low altimeter, the required separation is now “FL335”. Aircraft can pass overhead the blocked airspace theoretically at FL335, but FL340 is now sufficient.

2-2-4. 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.

2-2-5. 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.

2-2-6. 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. OPEN SKIES TREATY AIRCRAFT

In addition to the procedures in FAA JO 7110.65, the following procedures must be utilized for OPEN SKIES TREATY AIRCRAFT:

- a. The Air Traffic Control System Command Center (ATCSCC) must forward advance information on OPEN SKIES TREATY AIRCRAFT to the affected ARTCCs. [Ref. JO 7210.3, 5-3-7.]
- b. The ARTCC must inform all affected FAA facilities and any facility/agency it deems necessary within their area of responsibility of the flight path of the OPEN SKIES aircraft.
- c. 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:
 1. Be present at each sector providing ATC service to the aircraft.
 2. Monitor the flight to ensure that separation, control, and coordination are accomplished.
- d. The Traffic Management Military Liaison TMML must coordinate with all affected facilities, including military facilities, for the altitude/route of flight.

NOTE: The possible deviation path of an OPEN SKIES aircraft is 30 NM either side of the intended route of flight without crossing an international boundary.

2-3-3. 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 INFORMATIONMANAGEMENT

- 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

- 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.)
- 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.

- 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.
- Delay exceptions for metering of:
 - BOS Arrivals:

(a) Sector 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 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	None

				(Vicinity of ALB)	
Sector 34	PROVI	PROVI	JET	15 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	110NM 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	JET	65 NM east of BOS	None

		boundary (15 east BOS)			
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:

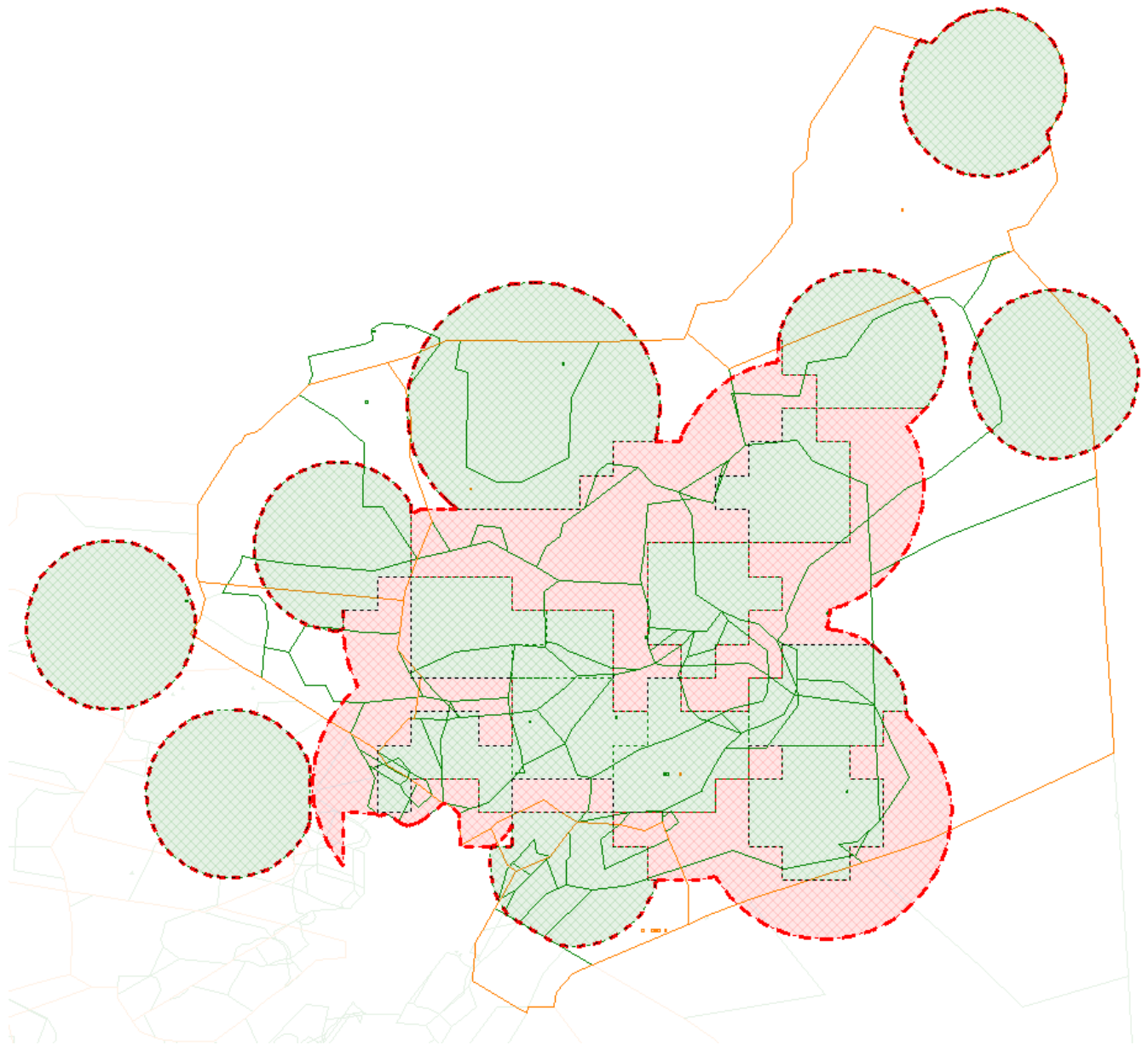
NOTE: It is important to remember that the controller may be the first person to notice a sensor anomaly. Always report the anomaly immediately to the OS/CIC, during the MID shift report it to the OMIC. OMIC reports anomalies to the NOM.

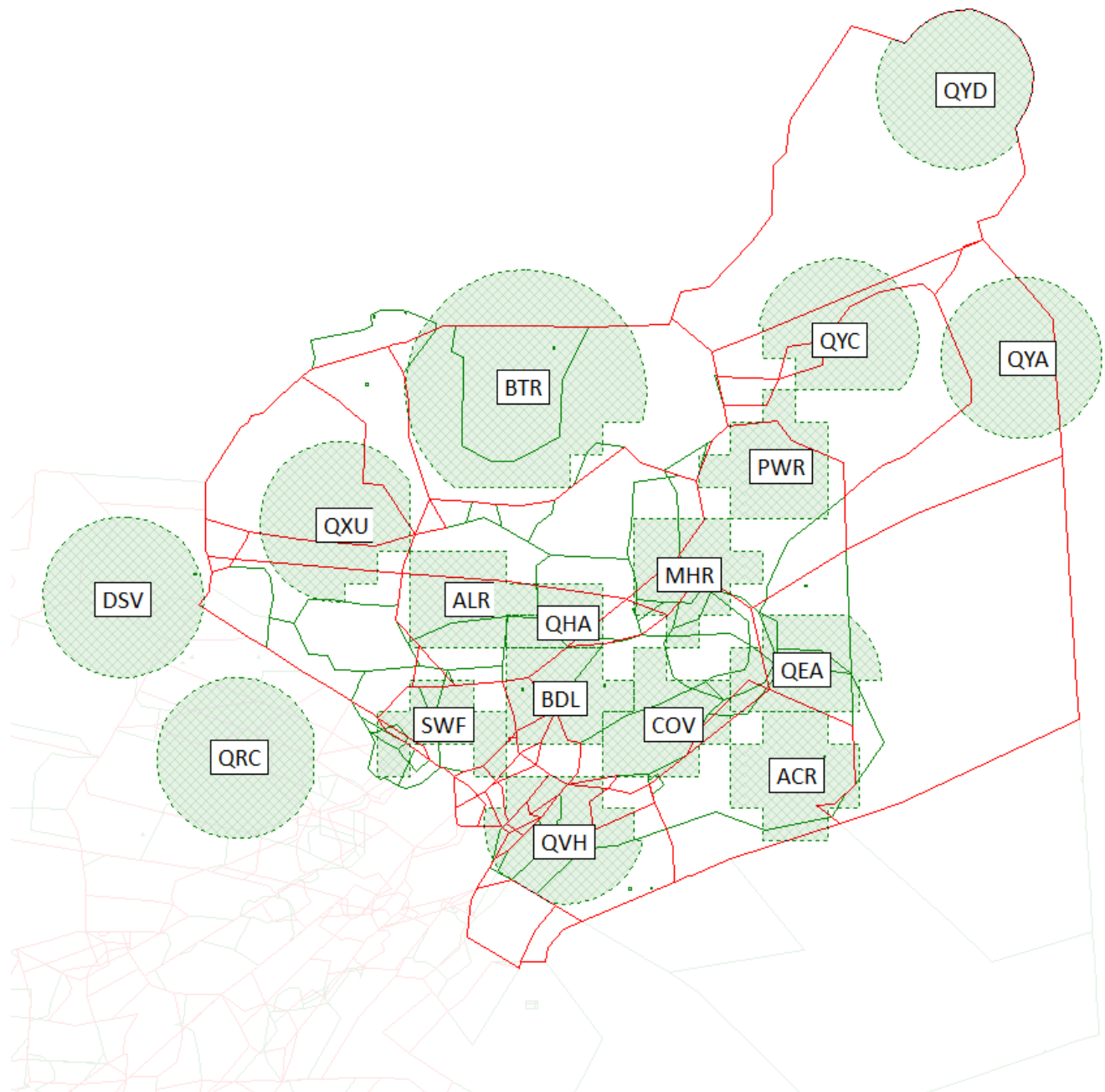
NOTE: The OMIC must display any pertinent radar outage or contingency situation on the Enhanced Status Information System (ESIS) and forward the information to the appropriate operational areas via GI. Operations Managers, Operations Supervisors, Controllers-in-Charge and TMU specialists must ensure 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 placed 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 administer breaks in accordance with F A A 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 [2-3-3](#) 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 CEDAR 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 medically disqualifying substances 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. CEDAR
 3. Weather products such as graphical displays, briefing items, PIREPs, etc.

4. Playbook
 5. Staffing; training, leave, details
 6. Flight schedule monitor
 7. National traffic management log
 8. SAMS
 9. 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 JO 7110.65 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.
- s. 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.

- t. 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
- u. Direct ESCAT (EMERGENCY SECURITY CONTROL OF AIR TRAFFIC) procedures when implemented. IAW FAA JO 7610.4, Chapter 6.
- v. 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.
- w. RVSM (Reduced Vertical Separation Minimum) Procedures. OMICs must:
 - 1. Maintain an operational awareness of RVSM impact 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.
- x. Presidential and Open Skies Aircraft (IAW 7210.3 Chapter 5). OMICs must:
 - 1. Assign an OS/CIC to monitor the affected aircraft from the flight's entry into ZBW airspace until the flight lands or exits ZBW airspace.
 - 2. Ensure that the Presidential/Open Skies Tracking Form (ZBW Form 7210-42) is completed for each flight within ZBW airspace and forwarded to ZBW-530.
- y. 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.
- z. 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.
- aa. 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. 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.
- h. Verify/Print/Sign the automated Daily Record of Facility Operations Log, FAA Form 7230-4.
- i. 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.
- j. 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).
- k. Certify CruArt for TMU/FD/OM/A/B/C/D/E.
- l. Post next day's assignment sheet at OMIC position.
- m. Authorize leave for specialists assigned mid/day shifts.

- n. 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 631-468-5959
Cleveland ARTCC	OMIC 440-774-0426
Washington ARTCC	OMIC 703-771-3470
Moncton ACC	506-867-7173 506-867-7212
Toronto ACC	905-676-1590
Montreal TCU	514-633-3014
Ottawa TCU	514-633-3671

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 2-1-29.

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 other Designee as assigned by ATM
 2. Air Traffic Approver Position - Plans and Programs Support Manager (ZBW-510) or other 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. 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 Charge 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	AMI1	AAREAMGR1
AREA A	Sup1	SUPER1
AREA B	Sup2	SUPER2
AREA C	Sup3	SUPER3
AREA D	Sup4	SUPER4
AREA E	Sup5	SUPER5

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	BTB	A-B-E	ALB/ZNY/ ZCC	HVN	VOR/DME	BDR	E	N90-ZNY
ART	VORTAC	BTB	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	BTB	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
BTB	VOR/DME	BTB	B	BTB-ZUL	MAD	VOR/DME	BDR	C-E	Y90-N90-ZNY
CAM	VOR/DME	BTB	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	BTB	B	BTB
CON	VORTAC	BGR	B	A90	MSS	TACAN	BTB	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	BTB	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)	(603) 879-6655 (603) 879-6266	Flight Data Unit (FDU)	(603) 879-6859 (603) 879-6860
Area A	(603) 879-6656 (603) 879-6261	Traffic Management Unit (TMU)	(603) 879-6270 (603) 879-6294 (603) 879-6393 (603) 879-6406 (603) 879-6407 (603) 879-6408
Area B	(603) 879-6677 (603) 879-6262		(603) 879-6663 (603) 879-6666 (603) 879-6861 (603) 879-6945 (603) 879-6965
Area C	(603) 879-6668 (603) 879-6263		
Area D	(603) 879-6669 (603) 879-6264		
Area E	(603) 879-6722 (603) 879-6272		
Systems Operations Services (SOC)	(603) 879-6729		

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 Flight Level 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, 2-1-10]
- 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. 2-1-6 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 Becks Procedures 080B500			
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 Becks Procedures 080B500			
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 Becks Procedures 080B500			
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 Becks Procedures 080B180			
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
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
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 are 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 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 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. 2-1-8 and 2-2.
- (b) LIGHTNING 4 - Watertown Sector (08) is the controlling sector. Activation/deactivation procedures are contained under Par. 2-1-8 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

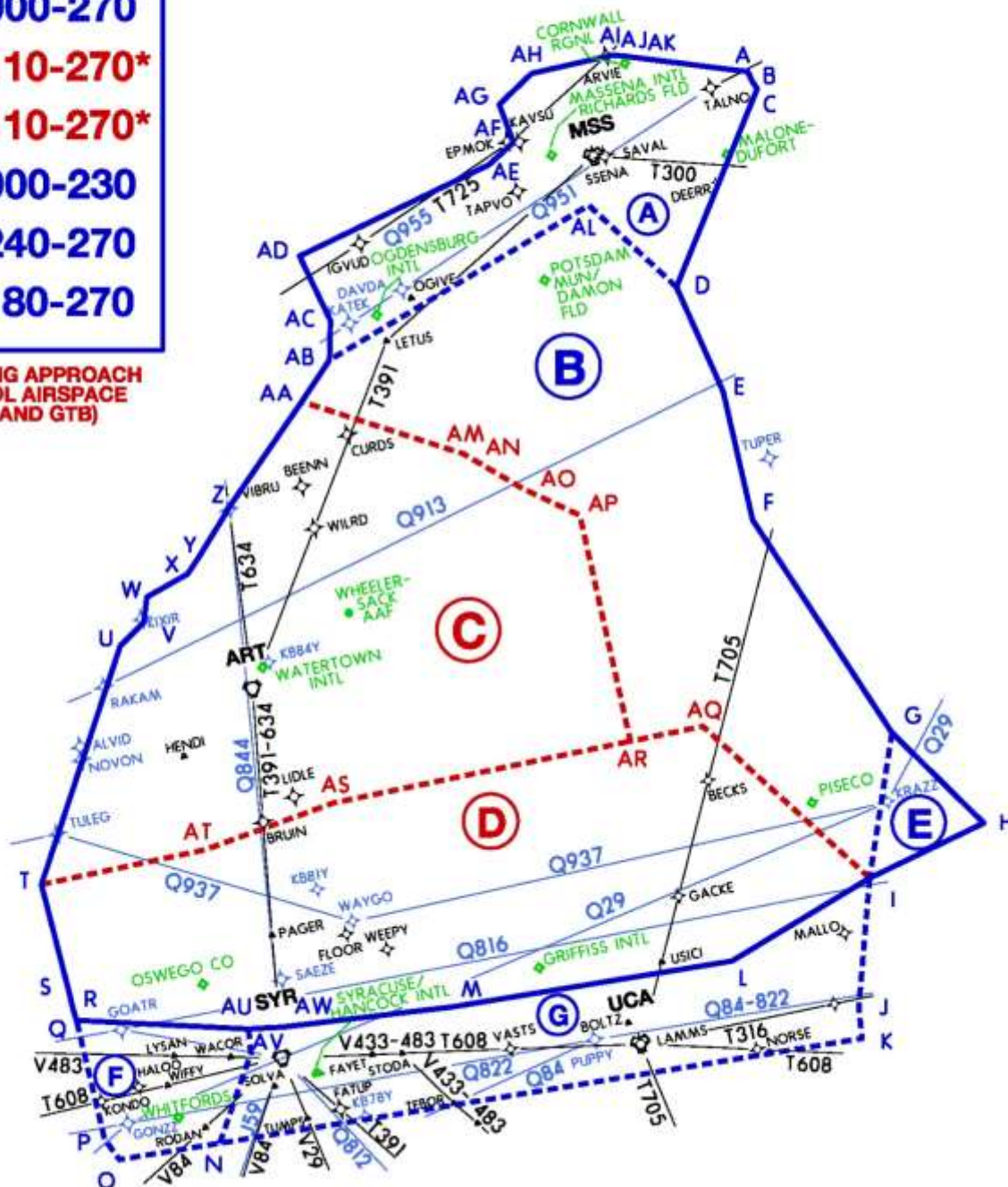
f. ART Nodes:

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

ART (08)

(A) 000-060
 (B) 000-270
 (C) 110-270*
 (D) 110-270*
 (E) 000-230
 (F) 240-270
 (G) 180-270

* EXCLUDING APPROACH
CONTROL AIRSPACE
(SYR AND GTB)



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 2-1-6 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 Becks Procedures 080B500			
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 Becks Procedures 080B500			
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 Becks Procedures 080B500			
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 Becks Procedures 080B180			
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--6 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].

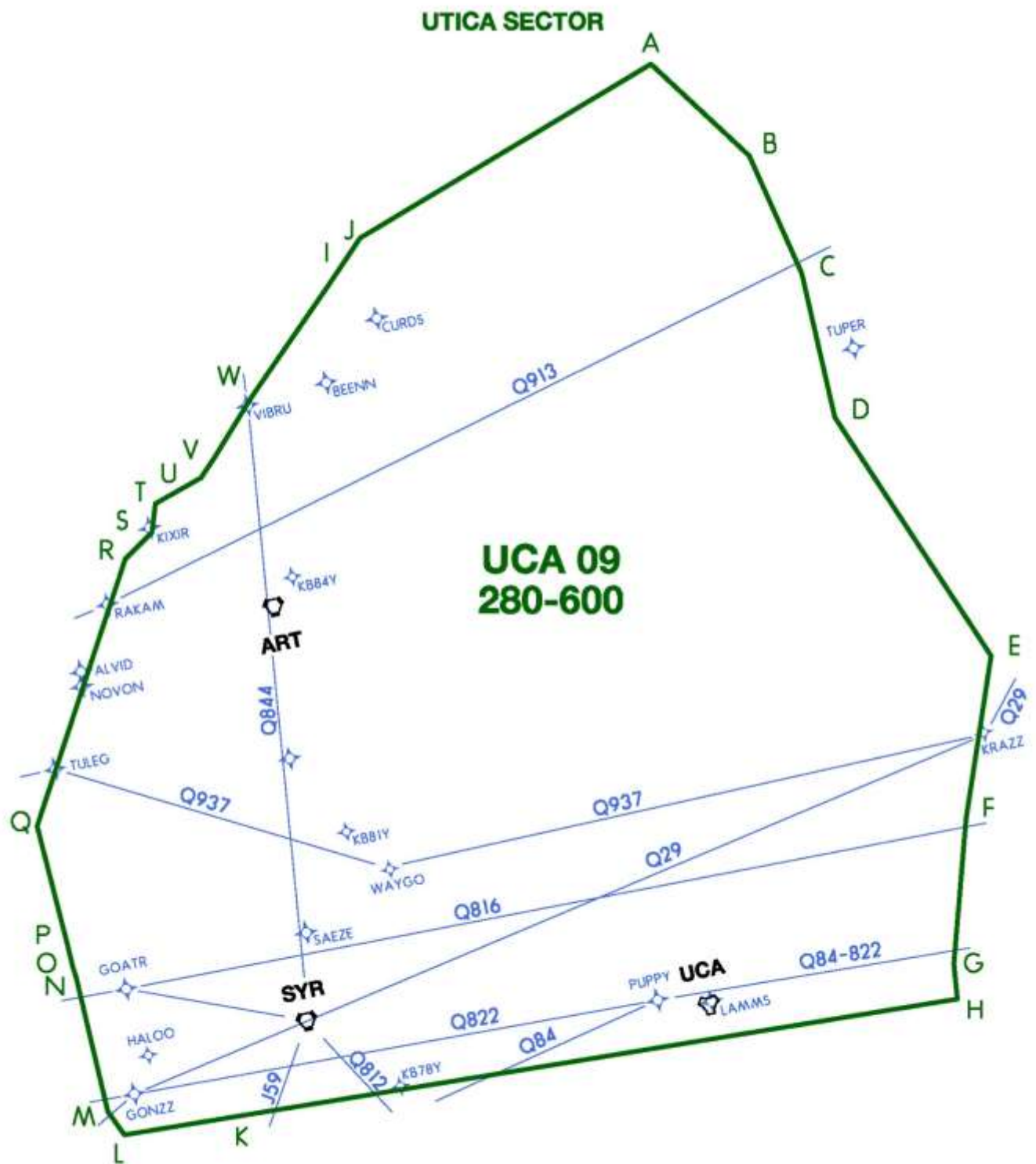
7. LIGHTNING ATCAAs – Used by the 158FW and accompanied mission essential units for tactical air-to-air training, air-to-ground training, and orbital close air support. MARSAs applies between all aircraft scheduled for the LIGHTNING areas and any concurrent use airspace (e.g. - VIPER). Control within 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



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.

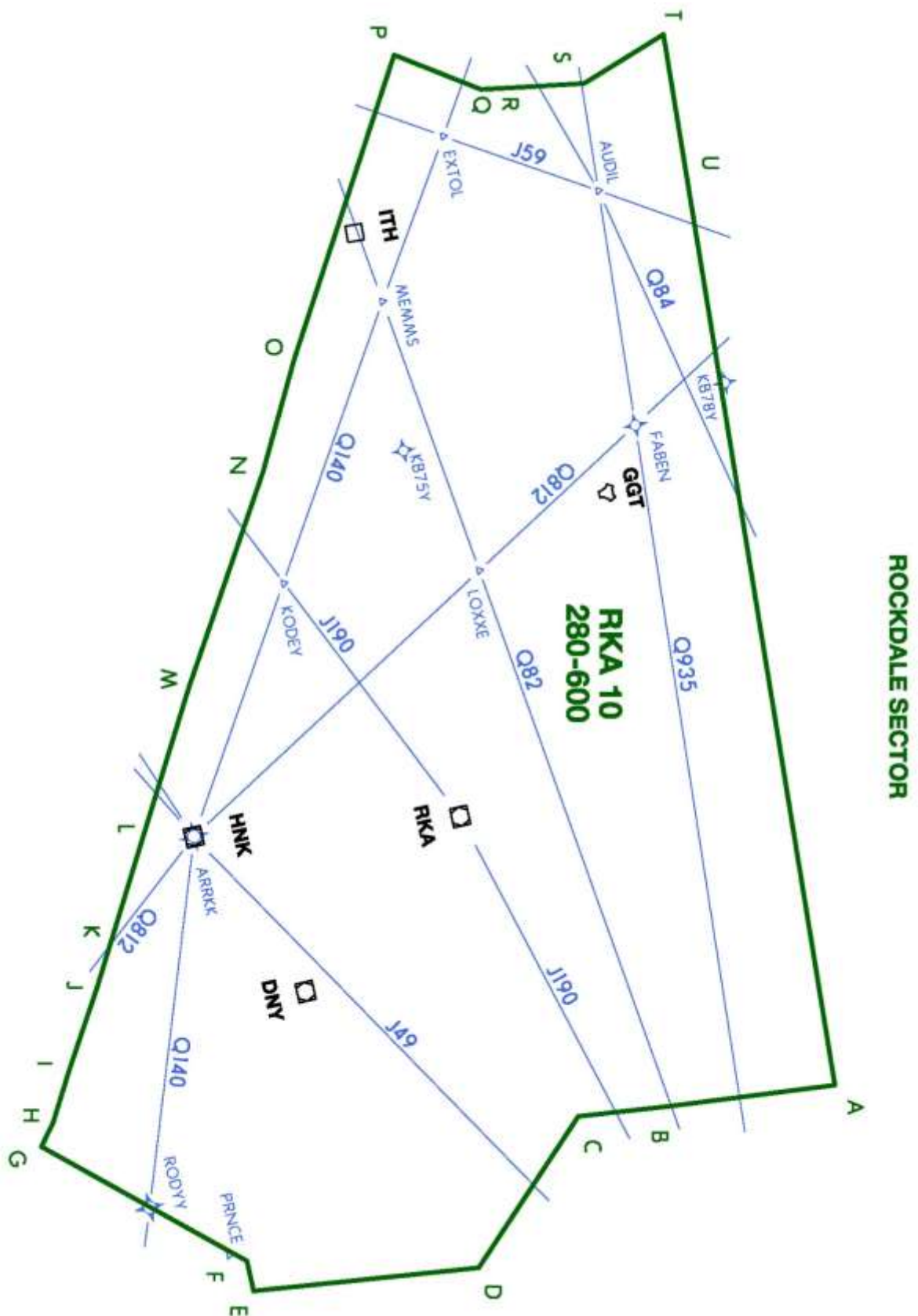
- (m) Sectors 08/09 have sequencing responsibility for westbound traffic entering ZOB west of but not including J59.

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		



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.

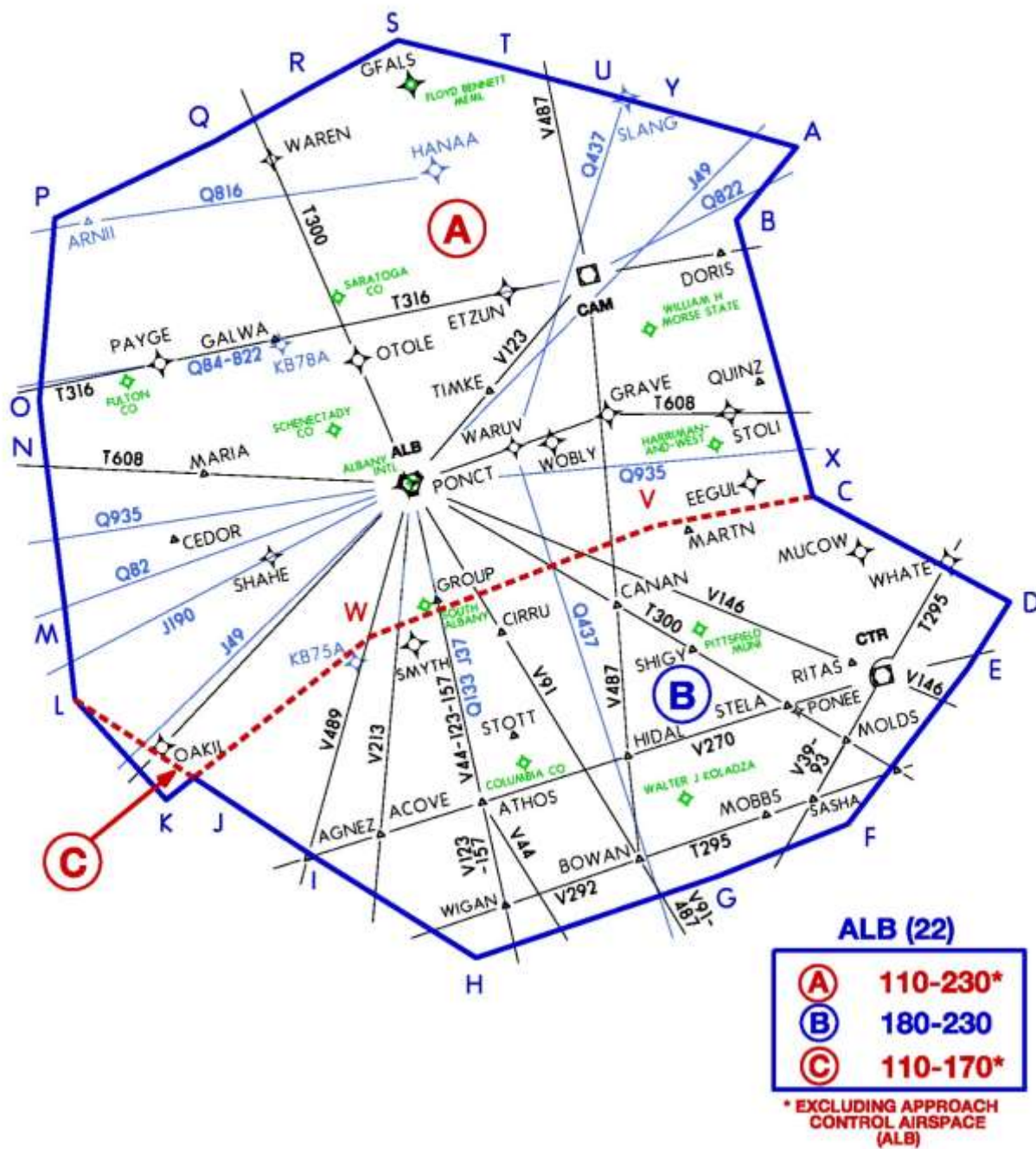
2. Exiting the Sector:

- (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, 2-1-10]
- 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.
- e. 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

f. 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. 2-1-10]
 - 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.

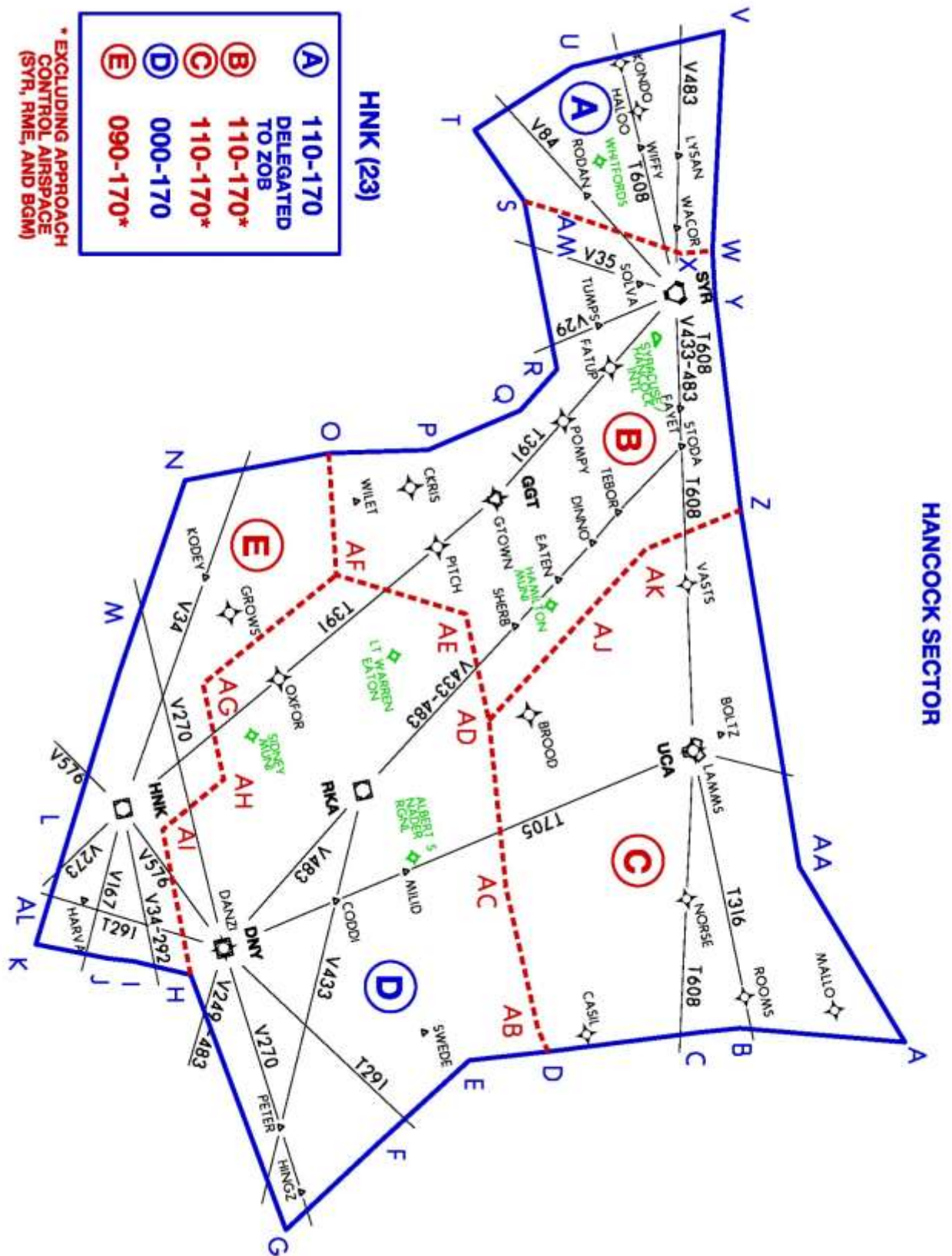
3. Coordinate with BGM ATCT for aircraft requesting:

- (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.

g. 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		



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 combining 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		

[illegible]

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 minutes 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		



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 2, 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.

b. AIT [ZBW 7110.33, Para 2-1-10]:

- 1. The following procedure is authorized between Areas B, C and D for PSM and SFM arrivals flight planned via BOS and WEEZE:
 - (a) Sector 47 must clear aircraft to cross BOS at or below 17,000 feet MSL descending to 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 47, after observing acceptance of radar handoff by Sector 16, must transfer communication of the aircraft to Sector 16.
- 2. The following procedures is authorized between Areas B and D for PWM Terminal Area departures flight planned to enter Sector 39:
 - (a) Sector 16 must enter an interim altitude of FL230 and climb the aircraft to FL230.
 - (b) Sector 16 must initiate a transfer of radar identification to Sector 37.
 - (c) Sector 37, after acceptance of radar handoff, must initiate a radar handoff to Sector 39.
 - (d) Sector 16, after observing acceptance of radar handoff by Sector 39, must transfer communication of the aircraft to Sector 39.
- 3. The following procedure is authorized between Areas B and D for BOS Terminal Area departures flight planned via MANCH or HYLND:
 - (a) Sector 37 must enter an interim altitude of FL190 and climb the aircraft to FL190.

- (b) Sector 16 after acceptance of the handoff must enter an available interim altitude up to FL230 or requested altitude whichever is lower; initiate a handoff to Sector 39 or Sector 37 as appropriate.
 - (c) Sector 37 must climb the aircraft to the altitude indicated in the data block.
 - (d) Sector 37 after observing acceptance of radar handoff by Sector 39, must transfer communication of the aircraft to Sector 39.
- 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		



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, 2-1-10]

- 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:

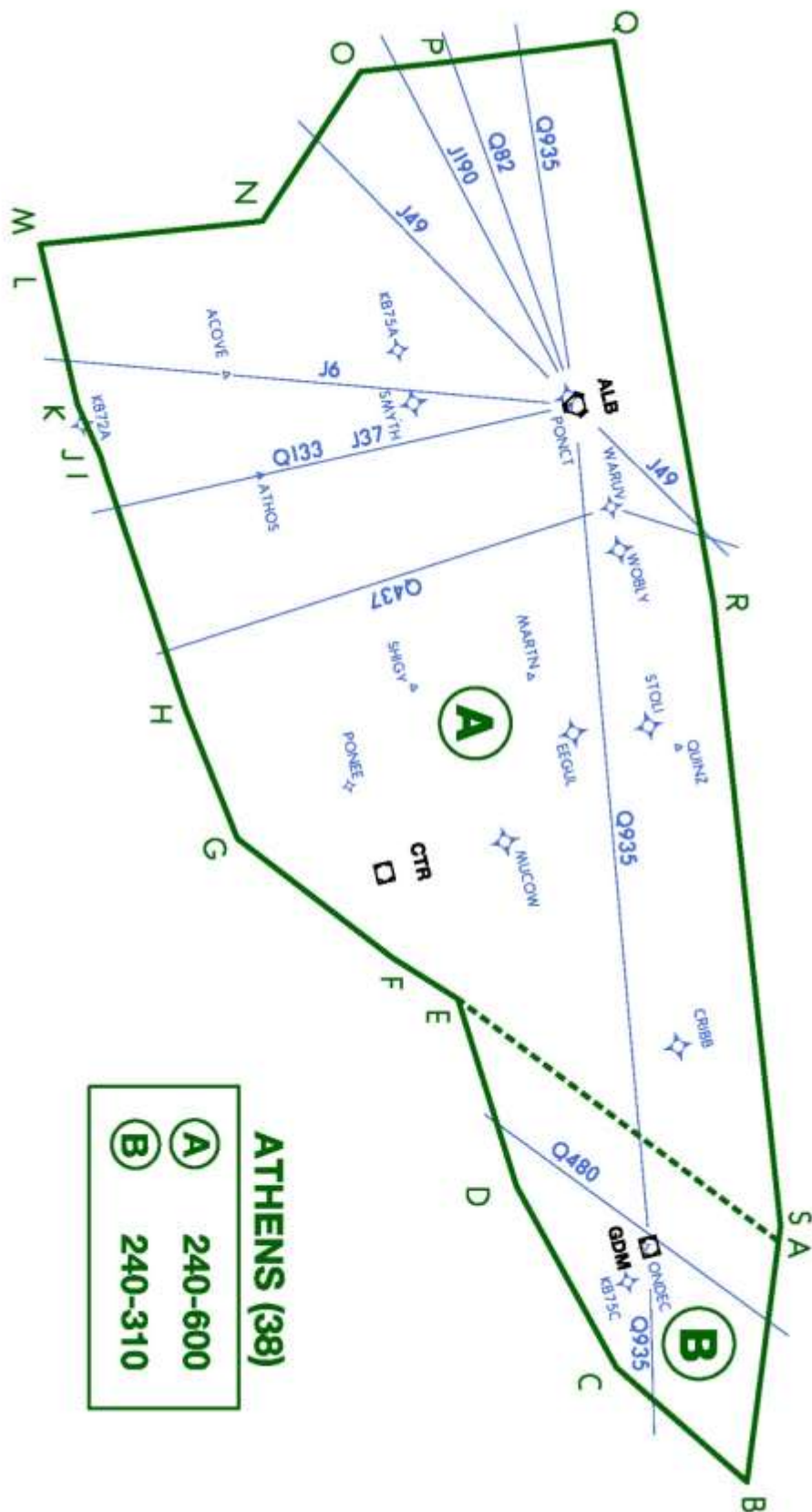
1. SEETS - Hold NW on 114 course inbound, right turns, 15 DME legs. Published on JFUND STAR.
2. ONDEC – Hold NW on 113 course inbound, left turns, 15 DME legs. Published on JFUND STAR.
3. GDM – Hold NW GDM 294R, left turns, 1 minute legs. Published on GDM STAR.

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.

b. AIT: [Ref. ZBW 7110.33, Para. 2-1-10]

- 1. The following procedure is authorized between Area B and D for southwest bound aircraft between Sector 02, Sector 15 and Sector 39 that will transition Sector 53 airspace southeast of a line between 43-52-00/71-49-40 (Node F5AQ) and 44-20-00/70-51-58 (Node G6AK).

- (a) Sector 02 or Sector 15 must initiate a handoff to Sector 53.
 - (b) Sector 53 must accept the handoff and initiate a handoff to Sector 39.
 - (c) Upon the acceptance of the handoff by Sector 39, Sector 02 or Sector 15 must initiate communications change to Sector 39.
 2. The following procedure is authorized between Area B and D for northeast bound aircraft between Sector 39, Sector 15 or Sector 02 which will transition Sector 53 airspace southeast of a line between 43-52-00/71-49-40 (Node F5AQ) and 44-20-00/70-51-58 (Node G6AK).
 - (a) Sector 39 must initiate a handoff to Sector 53.
 - (b) Sector 53 must accept the handoff and initiate a handoff to Sector 02 or Sector 15.
 - (c) Upon the acceptance of the handoff by Sector 02 or Sector 15, Sector 39 must initiate communications change to the appropriate sector.
 3. The following procedure is authorized between Area B and D for PWM Terminal Area departures flight planned to enter Sector 39.
 - (a) Sector 16 must assign an interim altitude of FL230 and initiate a transfer of radar identification to Sector 37.
 - (b) Sector 37, after acceptance of radar handoff, must initiate a radar handoff to Sector 39.
 - (c) Sector 16, after observing acceptance of radar handoff by Sector 39, must transfer communication of the aircraft to Sector 39.
 4. The following procedure is authorized between Area B and D for Sector 39 BOS arrivals via ENE that transition Sector 02.
 - (a) Sector 39 must initiate transfer of radar identification to Sector 02.
 - (b) Sector 02, after acceptance of radar handoff, must initiate a radar handoff to Sector 16.
 - (c) Sector 39, after observing acceptance of radar handoff by Sector 16, must transfer communication of the aircraft to Sector 16.
- c. 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.
- d. 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. 2-1-6 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 Becks Procedures 080B500			
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 Becks Procedures 080B500			
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 Becks Procedures 080B500			
CRANBERRY MOA	CRNB0	005B060	NA
POTSDAM ATCAA	PTSD0	180B500	

- (g) 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 2-1-6 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.

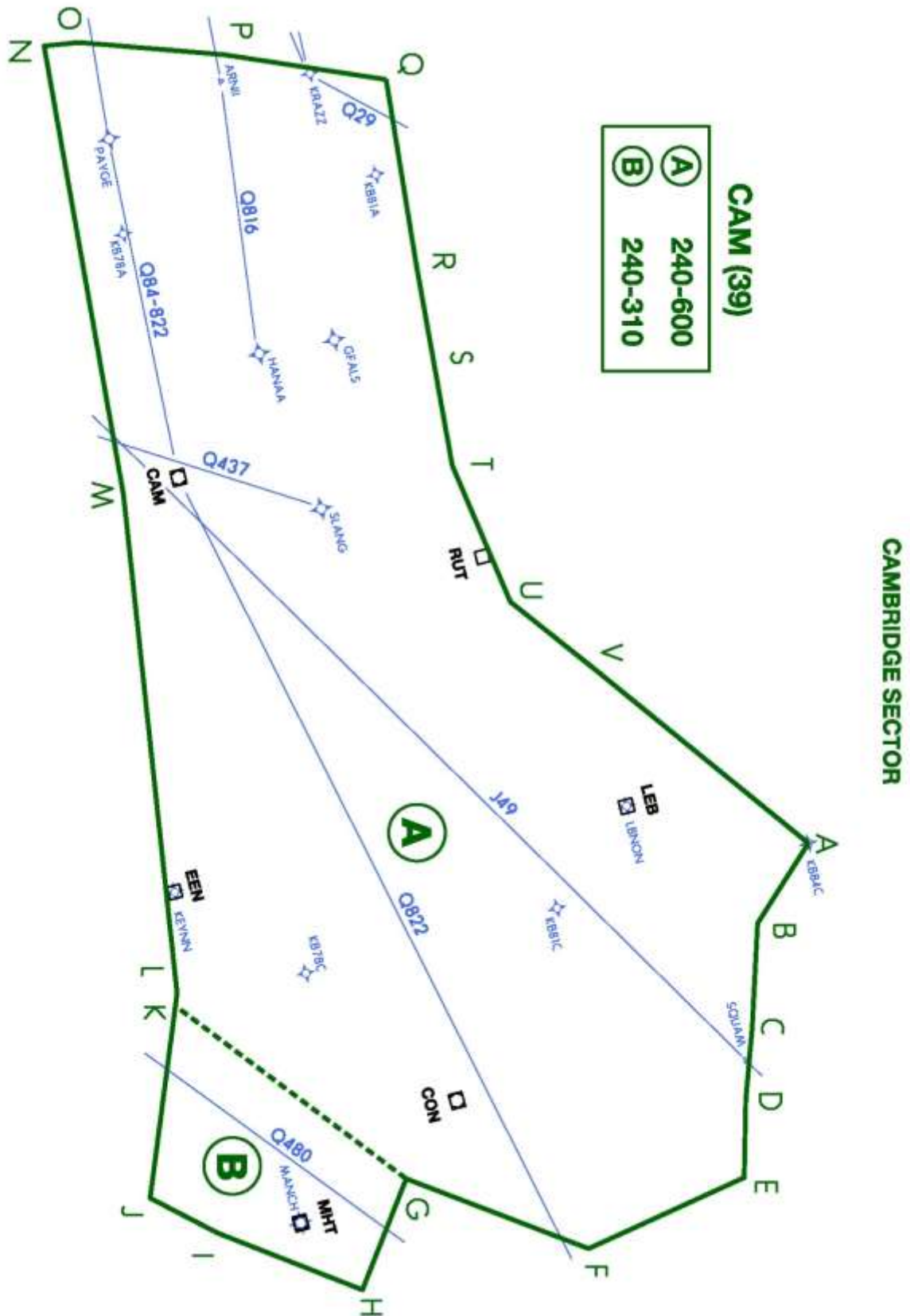
- (h) East entries into ADIRONDACK AIRSPACE COMPLEX/AKS – While activation of these areas are normally conducted by Sector 08. East entries from Sector 52 or 53 are conducted as follows:
- (i) MRU operations – Sector 52 or 53 must initiate a Transfer of Flight unless sector 08 is unable to release the 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

e. 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	C5A9	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		



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) AIT: The following AIT procedure is authorized for Portland arrivals from Sector 52 through Sector 16. Routings and altitudes must be in compliance with current Portland ATCT Letter of Agreement.
 - (1) Sector 52 will descend PWM arrivals to cross the PWM ATCT lateral boundary at or below 15,000 feet descend and maintain 11,000 feet, and handoff to Sector 16.
 - (2) Sector 16 will accept the handoff and initiate a handoff to Portland ATCT.
 - (3) Upon acceptance of the handoff by Portland ATCT, Sector 52 will initiate communication change to Portland ATCT.
 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 and M57 SIAPS with Sector 52, unless the aircraft will conduct a straight-in approach.
 - (b) Simultaneous holding at ELSEQ and SHINY 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. 2-1-6 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 Becks Procedures 080B500			
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 Becks Procedures 080B500			
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. MARSAs 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.

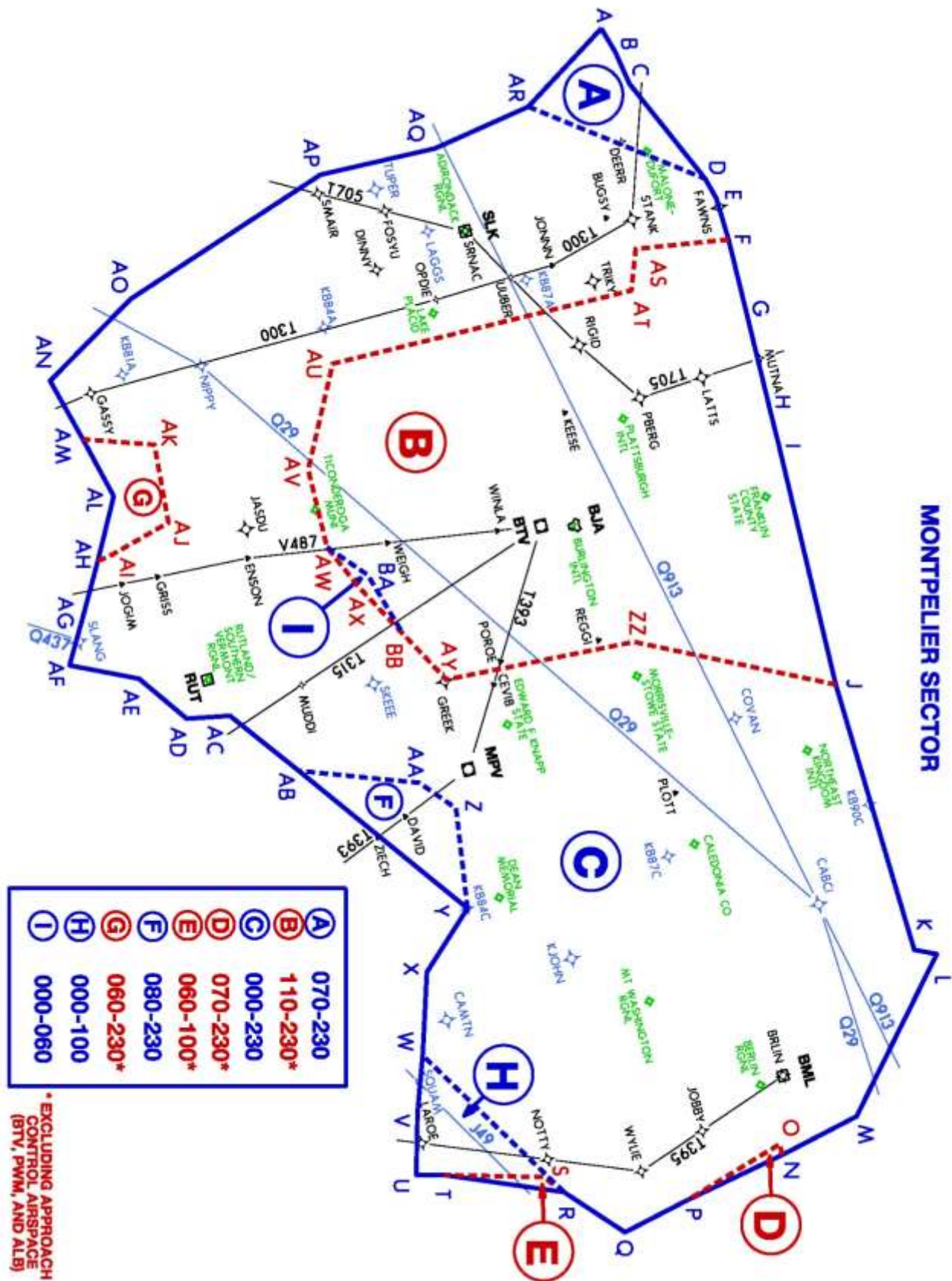
7. Aerial Refueling Route [Ref. DOD Flight Information Publication, AP/1B]:

- (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/1B For 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		



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 OOSHNN 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. AIT: [Ref: ZBW 7110.33, Para 2-1-10]

- 1. The following procedures are authorized between Areas B and D for BOS turbojet arrivals at or above FL240 flight planned via ENE.
 - (a) Sector 53 must descend the aircraft to FL240, pilot's discretion, and handoff to Sector 02.
 - (b) Sector 02 after accepting the handoff will initiate a handoff to Sector 16.
 - (c) Upon acceptance of the handoff by Sector 16, Sector 53 will initiate communication change to Sector 16.
- 2. The following procedure is authorized between Area B and D for aircraft northeast bound between Sector 39, Sector 15 and Sector 02 which will transition Sector 53's airspace southeast of a line between 43-52-00/71-49-40 (Node F5AQ) and 44-20-00/70-51-58 (Node G6AK).
 - (a) Sector 39 must initiate a handoff to Sector 53.
 - (b) Sector 53 must accept the handoff and initiate a handoff to Sector 02 or Sector 15.
 - (c) Upon the acceptance of the handoff by Sector 02 or Sector 15, Sector 39 must initiate communications change to the appropriate sector.
- 3. The following procedure is authorized between Area B and D for southwest bound aircraft between Sector 02, Sector 15 and Sector 39 which will transition Sector 53 airspace southeast of a line between 43-52-00/71-49-40 (Node F5AQ) and 44-20-00/70-51-58 (Node G6AK).
 - (a) Sector 02 or Sector 15 must initiate a handoff to Sector 53.
 - (b) Sector 53 must accept the handoff and initiate a handoff to Sector 39.

- (c) Upon the acceptance of the handoff by Sector 39, Sector 02 or Sector 15 must initiate communications change to Sector 39.

c. Holding:

1. KJOHN – Hold NE on 249 course inbound, left turns, 20 DME legs. Published on En Route High.
2. PBERG – Hold S on 015 course inbound, right turns, 10 DME legs. Published on En Route Low and CARTR STAR.
3. CAMTN – Hold N on 190 course inbound, right turns, 10 DME legs. Published on En Route High.
4. SKEEE – Hold NE on 217 course inbound, right turns, 10 DME legs. Published on En Route High/ FLOSI STAR.

d. 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. 2-1-6 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			

Becks Procedures 080B500			
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 Becks Procedures 080B500			
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*	CTHW1	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 Becks Procedures 080B500			
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 2-1-6 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, 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. 2-1-8 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. 2-1-8 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):

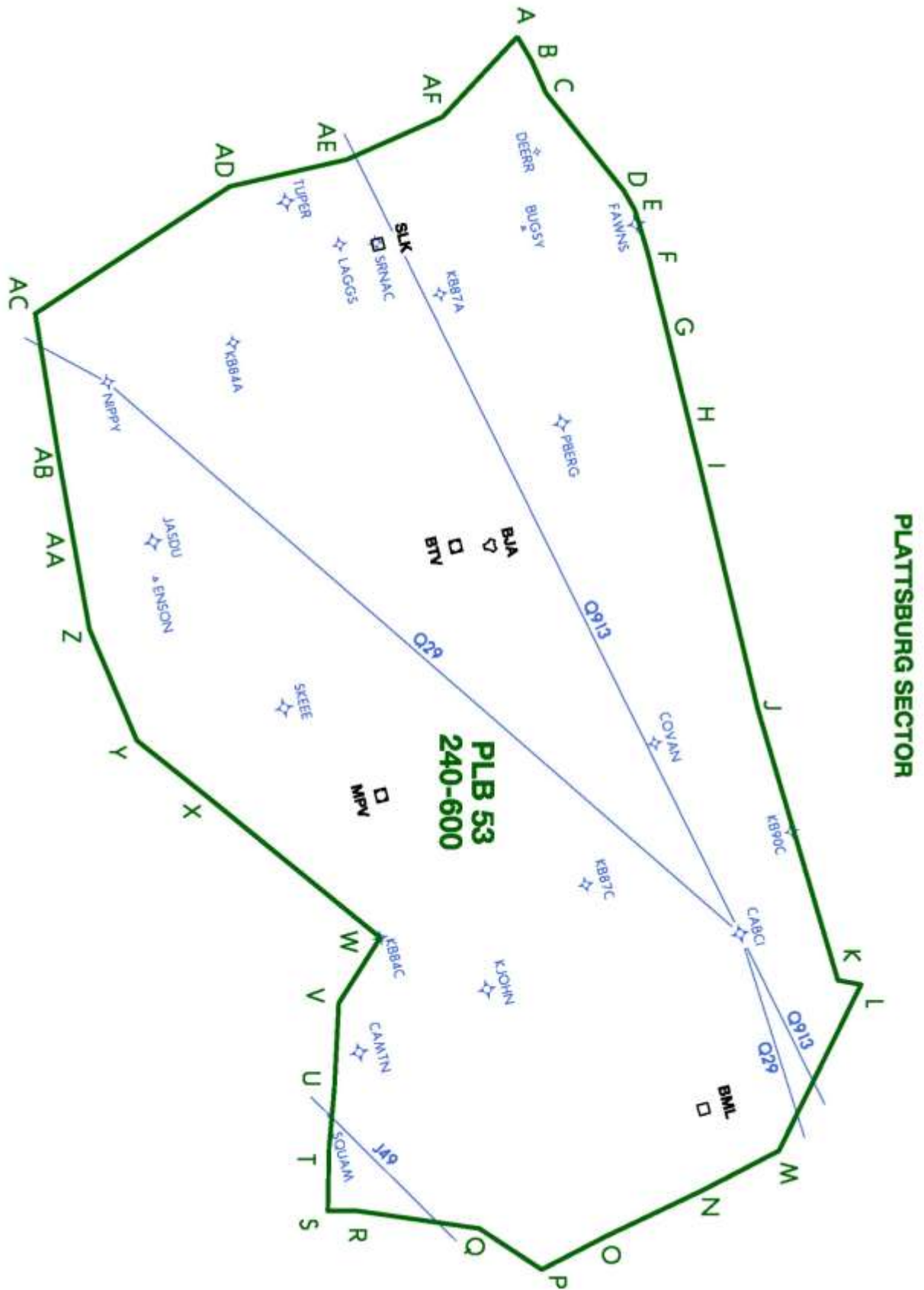
- (1) Entry/Anchor Point – SYR087075
- (2) ARIP – SYR045019
- (3) Exit Point – ALB356043
- (4) Altitudes: FL180-280

(d) AR631 (located within LASER SOUTH):

- (1) Entry/Anchor Point – ENE271046
- (2) ARIP – ALB051043
- (3) Exit Point – ENE261030
- (4) Altitudes: FL200/260

e. 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		



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 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, 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 flight planned via SEY HTO unless verbally coordinated.
- (d) Between 1800-0000L, when requested by Area C OS/CIC, Sector 18 must route PVD departures flight planned J121/J174 via HTO SHLEP/RIFLE.

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 FL380, 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 2-1-10]:

1. The following procedure is authorized between Areas C and D for aircraft entering Sector 32, climbing to or level at a requested altitude of FL200-FL240, flight planned via HTO in the vicinity of SEY.
 - (a) Sector 18 must initiate a handoff to Sector 32.

- (b) Sector 32 must accept the handoff and initiate a handoff to Sector 31.
 - (c) Upon acceptance of the handoff by Sector 31, Sector 18 must initiate communications change to Sector 31.
 - (d) If Sector 31 has not accepted the handoff from Sector 32 by the time the aircraft reaches the Sector 18/32 sector boundary, Sector 18 must initiate communications change to Sector 32.
- 2. 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. SARDI (Unpublished) -
 - (a) Hold NE on J121, right turns. Simultaneous holding at SARDI and EMJAY is not authorized.
 - (1) Coordination is required with Sector 32 when holding at FL240.
 - (2) Holding at FL300 and above conflicts with W-105.
 - (b) Hold NE on J121, left turns. Simultaneous holding at SARDI and EMJAY is not authorized.
 - (1) Coordination is required with Sector 32 when holding at FL240.
 - (2) Holding at FL200 and above conflicts with W-105.
 - 2. EMJAY (Unpublished) –
 - (a) Hold NE on J174, right turns. Simultaneous holding at SARDI and EMJAY is not authorized.
 - (b) Hold NE on J174, left turns. Simultaneous holding at SARDI and EMJAY is not authorized.
 - (1) FL240-FL310 – Conflicts with W-105.

1.FL240-FL300 Requires coordination with ZNY (Atlantic Sector).

d. Military – Warning Area W-105A:

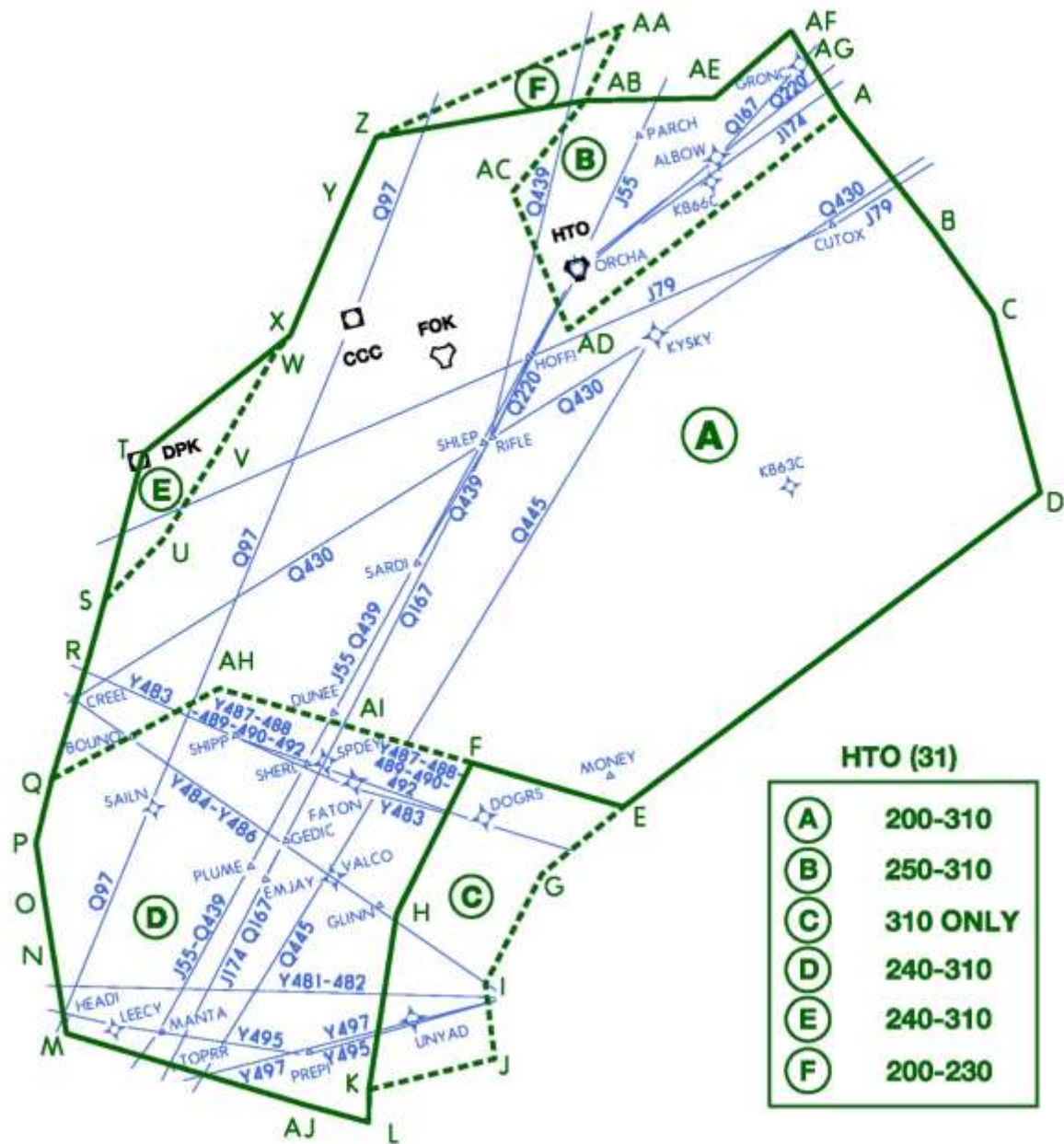
1. Altitudes – Surface to FL500.
2. Times of Use – Intermittent.
3. Controlling Agency – FAA, Boston ARTCC.
4. Using Agency – FACSFAC VACAPES.
5. Sector 31 must coordinate with the Area OS/CIC (to forward to the MC) whenever W-105 or W-107 is activated “Real Time”.
6. Sector 31 must coordinate with the 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



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 V139 and Cape and Islands arrival traffic. The primary areas for traffic conflicts 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 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.

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 without coordination with Sector 34.

NOTE: Sector 31 may route aircraft transitioning to Sector 32 DIRECT ORW 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. AIT: [ZBW 7110.33, Para 2-1-10]: The following procedure is authorized between Areas C and D for aircraft entering Sector 32, climbing to or level at a requested altitude of FL200-FL240, flight planned via HTO in the vicinity of SEY.
- 1. Sector 18 must initiate a handoff to Sector 32.
 - 2. Sector 32 must accept the handoff and initiate a handoff to Sector 31.
 - 3. Upon acceptance of the handoff by Sector 31, Sector 18 must initiate communications change to Sector 31.
 - 4. If Sector 31 has not accepted the handoff from Sector 32 by the time the aircraft reaches the Sector 18/32 boundary, Sector 18 must initiate communications change to Sector 32.
- c. 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.

d. 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 – FACSAC VACAPES.

5. Sector 32 must coordinate with either 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/FACSAC 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.

- e. 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.

- f. 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		



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 conflicts are in the vicinity of ORW, where numerous traffic flows converge, as well as over PVD VOR, 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 V229 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 2-1-10]:

- 1. The following procedure is authorized within Area C for Providence Terminal Area arrivals flight planned via ORW.
 - (a) Sector 47 must descend aircraft to 11,000 feet MSL with the appropriate Letter of Agreement restriction and initiate a radar handoff to Sector 34.
 - (b) Sector 34, after acceptance of the radar handoff, must initiate a radar handoff to Providence ATCT.
 - (c) Sector 47, after observing Providence ATCT accept the radar handoff, must then transfer

communications to Providence ATCT IAW the ZBW/Providence ATCT LOA.

2. The following procedure is authorized within Area C for ORH, A90 Bedford Sector arrivals, ASH and non-turbojet MHT arrivals flight planned via ORW.
 - (a) Sector 34 must clear aircraft to 11,000 feet MSL with the appropriate Letter of Agreement restriction and initiate a radar handoff to Sector 47.
 - (b) Sector 47, after acceptance of the radar handoff, must initiate a radar handoff to Y90.
 - (c) Sector 34, after observing Y90 acceptance of the radar handoff, must transfer communication of the aircraft to Y90.
3. 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.

4. The following procedure is authorized between Areas C and D for Providence Terminal Area departures flight planned into the Cape Sector.
 - (a) Sector 18, after accepting the radar handoff from Providence ATCT and must initiate a radar handoff to Sector 34.
 - (b) Sector 34, after accepting the radar handoff, may modify or remove the interim altitude, as appropriate, and must initiate a radar handoff to Sector 18.
 - (c) Sector 18, after accepting this handoff, may clear the aircraft to the altitude displayed in the data block.

NOTE: An interim altitude of 99 will be displayed in the data block of PVD Terminal Area departures flight planned via JUMPR.

5. The following procedure is authorized between Areas C and D for MVY arrivals flight planned via V374.
 - (a) Sector 34 must descend aircraft to 11,000 feet MSL with the appropriate Letter of Agreement restriction and initiate a transfer of radar identification to Sector 18.
 - (b) Sector 18, after accepting the transfer of radar identification, must initiate a transfer of radar identification to PVD ATCT.

- (c) After acceptance of the handoff by PVD ATCT, Sector 34 must transfer communications to PVD ATCT IAW the ZBW/Providence ATCT LOA.

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 track 055 inbound to PVD.
 - (a) FL190-FL230 requires coordination with Sector 18.
3. JOODY (Published ROBUC STAR) – Hold W, left turns, track 076 inbound to JOODY.
4. BANKI (Published ROBUC STAR) – Hold W, track 084 inbound to BANKI.
5. ORW (Published) – Hold SW on V16, left turns.

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.

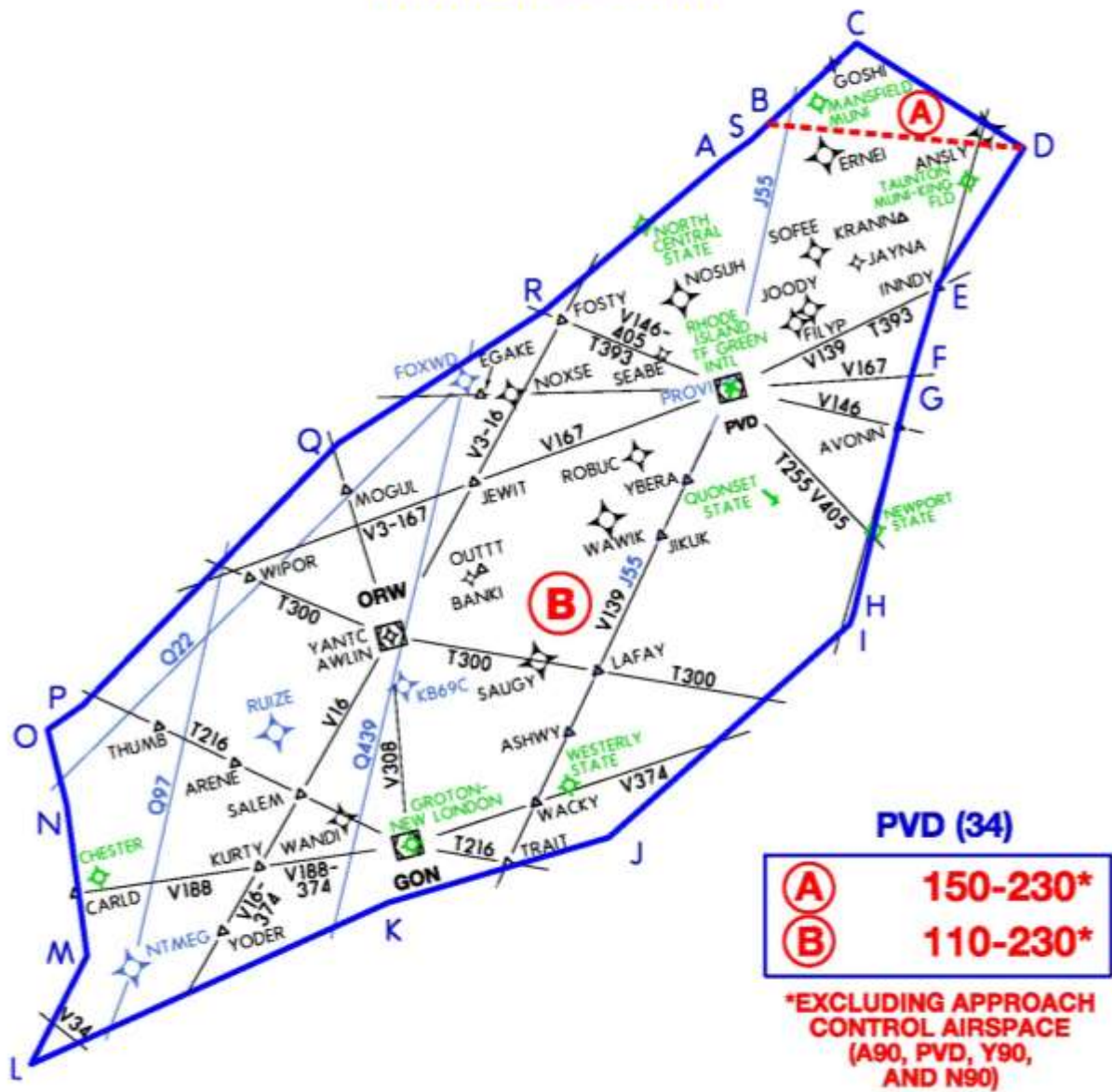
Providence Airspace Transfer:

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	F5AF	F	F3AL	J	F3MM	N	BN24	R	F3AF
C	BSD1	G	F4AV	K	BN49	O	E3AJ	S	F4AF
D	G3DC	H	F3MP	L	E3AS	P	E3AK		

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 conflicts 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 JFK arrivals once they have passed J79.
- (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/J75, DIRECT CMK without coordination.
- (c) May clear traffic entering Sector 20 at or above FL240 via Q routes and HYPER arrival to join Q routes and HPER arrival between BAF and BIGGO without coordination.
- (d) Sector 20 has control for turns DIRECT JEFF, 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/J75, Q406, Q448, Q480 or HYPER Arrival is FL240.
- (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 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 FL380, 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 2-1-10]:

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.
2. The following procedure is authorized between Areas C and Area E for N90 departures flight planned via MERIT HFD climbing to FL240 or above.
 - (a) Sector 19 must enter an interim altitude of FL230 in data block and initiate a handoff to Sector 47.
 - (b) Sector 47 must accept the transfer of radar identification and initiate a transfer of radar identification to Sector 46.
 - (c) After acceptance of the handoff by Sector 46, Sector 19 must transfer communication to Sector 46.
 - (d) Sector 46 must have control for climb from Sector 19, 15 NMs prior to the Sector 19/46/49 boundary.
 - (e) If the transfer of radar identification to Sector 46 has not been completed by the centerline of V34, Sector 19 must transfer communications of the aircraft to Sector 47.
 3. The following procedure is authorized between Areas C and D (See exception for AUG, LEW, BXM and RKD arrivals flight planned via BOS:
 - (a) Sector 46 will descend aircraft to FL240, pilot's discretion, and handoff to Sector 02.
 - (b) Sector 02, after accepting the handoff will initiate a handoff to Sector 16.

- (c) Upon acceptance of the handoff by Sector 16, Sector 46 will initiate communication change to Sector 16.

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.

4. The following procedure is authorized between Areas C and D for traffic that will exit ZBW airspace at or north of the ALLEX intersection and will transition Sector 17 airspace north of a line between 42-21-00/70-36-00 and 42-27-00/70-29-00 as depicted on the video maps:
 - (a) Sector 46 must initiate a handoff to Sector 17.
 - (b) Sector 17 accepts the handoff and initiates a handoff to Sector 02.
 - (c) Sector 46 must transfer communications to Sector 02 after Sector 02 accepts the handoff from Sector 17.
5. The following procedure is authorized between Areas C and D for MHT Terminal Area and PWM departures flight planned to, or routed directly into, Sector 46.
 - (a) Sector 16 must climb aircraft to FL230 and handoff to Sector 02.
 - (b) Sector 02 must accept the handoff and enter the requested altitude or the highest interim altitude, up to FL280, that can be approved and initiate a handoff to Sector 46.
 - (c) Sector 16 must climb aircraft to the altitude indicated in the data block after Sector 02 initiates the handoff to Sector 46. Sector 16 must be responsible to ensure a timely handoff is completed to Sector 46.
 - (d) Upon acceptance of the handoff by Sector 46, Sector 16 must initiate communication change to Sector 46.

c. Holding (Non-radar):

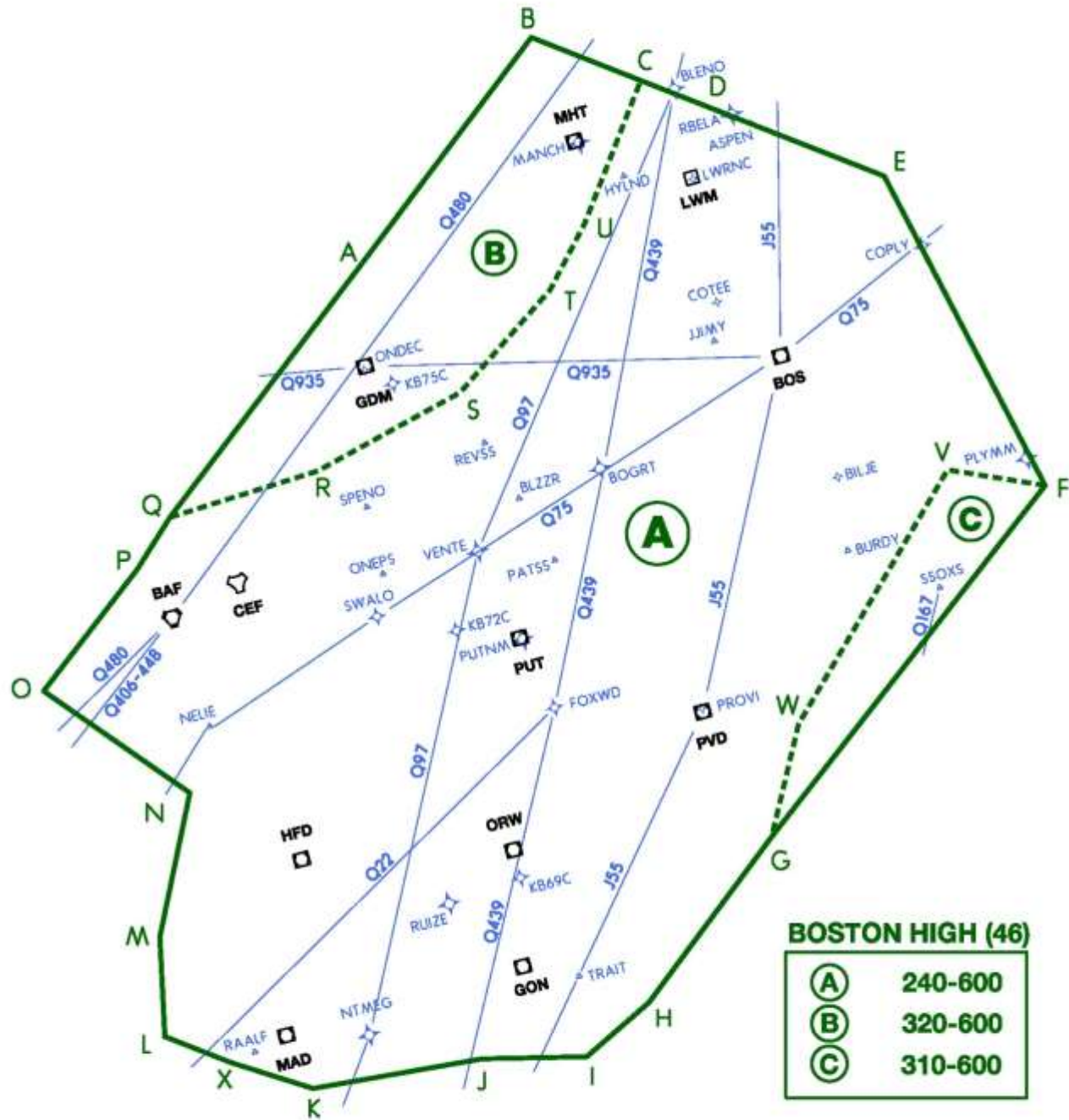
1. TRAIT (Published) – Hold NE on J55, right turns. Coordination required with ZBW31 and ZBW49.
2. PVD (Published) – Hold NE on the PVD 057R, right turns.

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

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 conflicts 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/J75/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 MLS on LGA, EWR and HPN jet arrivals within 5 NMs of NELIE intersection.

b. AIT [ZBW 7110.33, Para 2-1-10]:

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.

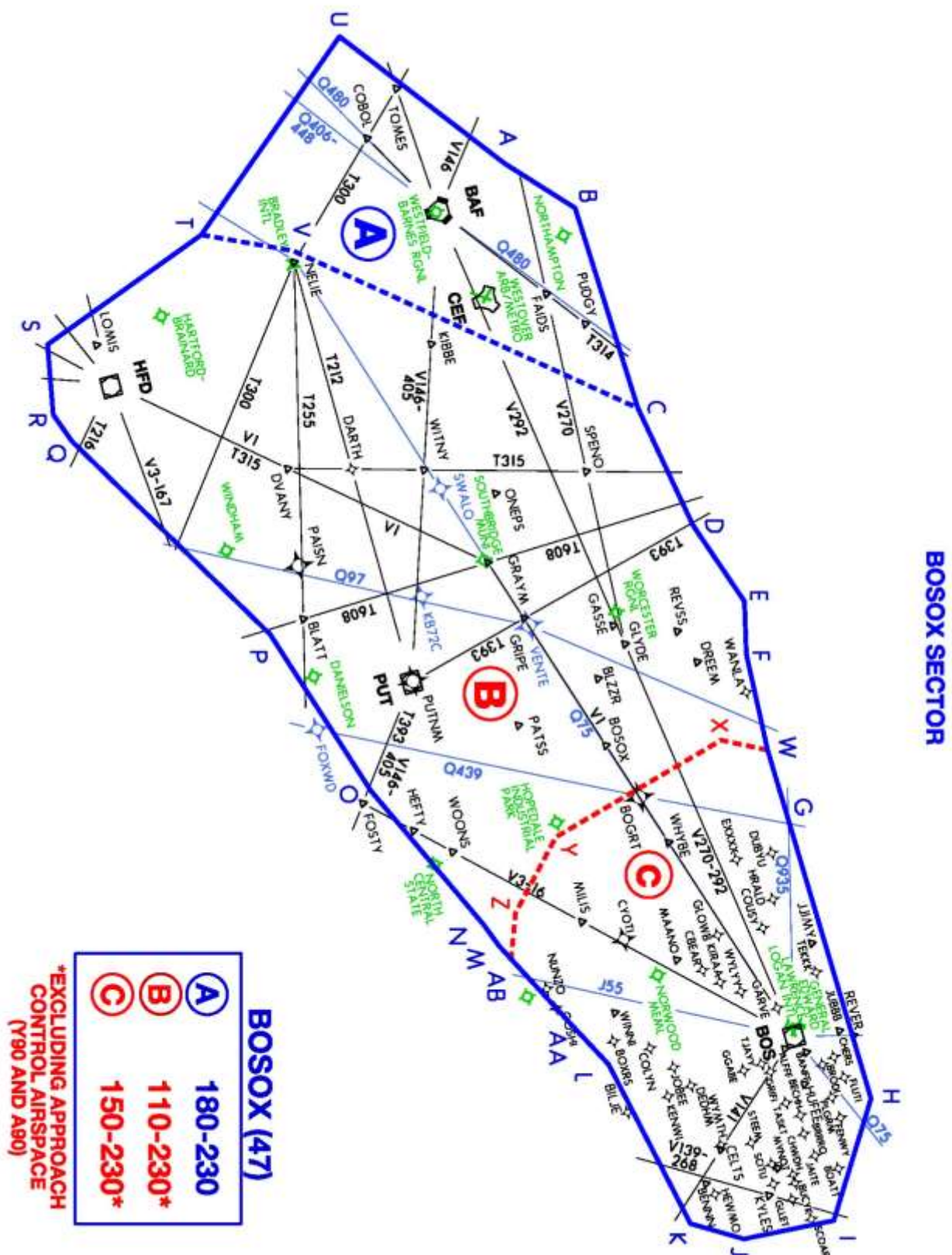
NOTE: For non-Mode C-equipped aircraft, a reported altitude must be inputted into the data block if that aircraft will operate at an altitude before proceeding to the assigned altitude. [Ref. FAA 7210.3, Paragraph 8-2-7].

- (d) After acceptance of the handoff, Sector 47 must transfer communication to Sector 38.
2. The following procedure is authorized between Area C and Area E for N90 departures flight planned via MERIT HFD requesting FL240 or above.
 - (a) Sector 19 must enter an interim altitude of FL230 in the data block and initiate a handoff to Sector 47.
 - (b) Sector 47 must accept the transfer of radar identification and initiate a transfer of radar identification to Sector 46.
 - (c) After acceptance of the handoff by Sector 46, Sector 19 must transfer communication to Sector 46.
 - (d) Sector 46 must have control for climb from Sector 19, 15 NMs prior to the Sector 19/46/49 boundary.
 - (e) If the transfer of radar identification to Sector 46 has not been completed by the centerline of V34, Sector 19 must transfer communication of the aircraft to Sector 47.
 3. The following procedure is authorized within Area C for Providence Terminal Area arrivals flight planned via ORW:

- (a) Sector 47 must descend aircraft to 11,000 feet MSL with the appropriate Letter of Agreement restriction and initiate a radar handoff to Sector 34.
 - (b) Sector 34, accepts the radar handoff, and then initiates a radar handoff to Providence ATCT.
 - (c) Sector 47, after Providence ATCT accepts the radar handoff, must transfer communication to Providence ATCT IAW the facility LOA.
- 4. The following procedure is authorized within Area C for ORH, A90 Bedford Sector arrivals, ASH and non-turbojet MHT arrivals flight planned via ORW.
 - (a) Sector 34 must clear aircraft to 11,000 feet MSL with the appropriate Letter of Agreement restriction and initiate a radar handoff to Sector 47.
 - (b) Sector 47, after acceptance of the radar handoff, must initiate a radar handoff to Y90.
 - (c) Sector 34, after observing Y90 accept the radar handoff, must transfer communication of the aircraft to Y90.
- 5. 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.
- 6. The following procedure is authorized between Areas B, C and D for PSM and SFM arrivals flight planned via BOS WEEZE:
 - (a) Sector 47 must clear aircraft to cross BOS at or below 17,000 feet MSL descending to 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 47, after observing acceptance of radar handoff by Sector 16, must transfer communication of the aircraft to Sector 16.
- 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	AB	F5AF
E	F4DI	K	BSD2	Q	E3AK	W	F4DH		
F	F4DZ	L	F4MM	R	E3AJ	X	F4DG		



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 J174. Additional flows include North Atlantic traffic from the west and southwest. The primary area for traffic conflicts is southwest of HTO.

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 flight planned via SEY HTO unless verbally coordinated.
 - (c) Between 1800-0000L, when requested by Area C OS/CIC, Sector 18 must route PVD departures flight planned via J121/J174 via HTO SHLEP/RIFLE.

NOTE: When 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 FL380, 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 no-turbojet MHT arrivals to FL320 and handoff to Sector 31. Sector 49 may route these arrivals DIRECT ORW without coordination.
- b. AIT [ZBW 7110.33, para 2-1-10] – 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, 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 J174, 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 J174, 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		

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

d. Backup Printer: Sector 02

e. 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:

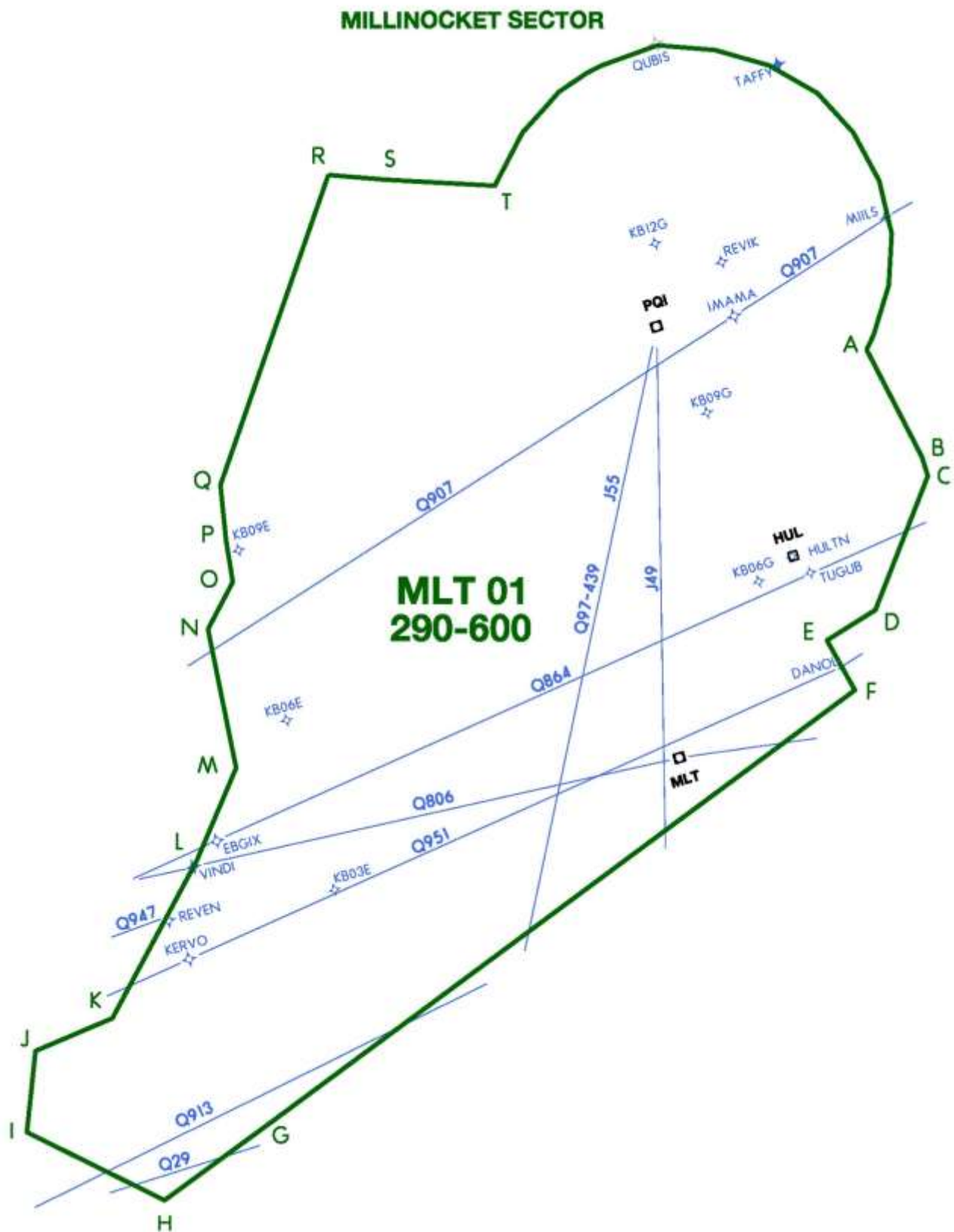
1. Entering the Sector – Reserved.
2. Exiting the Sector:
 - (a) All IAD traffic, during the hours of 1700Z until 2200Z, that are flight planned via ALB or BAF must be kept on the route.
 - (b) Sector 15 must force a data block for all EWR arrivals onto Sector 01 and/or Sector 02 displays (the appropriate 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



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 FL380, 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 Sector 39 must be cleared via ENE then OOSH N STAR to cross ENE at FL240.
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 BOS arrivals from north and east to FL290. 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 par 2-1-10]:
1. The following procedure is authorized between Areas B and D for BOS turbojet arrivals at or above FL240 flight planned via ENE.
 - (a) Sector 53 must descend the aircraft to FL240, pilot's discretion, and handoff to Sector 02.
 - (b) Sector 02 after accepting the handoff will initiate a handoff to Sector 16.
 - (c) Upon acceptance of the handoff by Sector 16, Sector 53 will initiate communication change to Sector 16.

2. The following procedure is authorized between Area B and D for Sector 02 BOS arrivals from Sector 39.
 - (a) Sector 39 must initiate transfer of radar identification to Sector 02.
 - (b) Sector 02, after acceptance of radar handoff, must initiate a radar handoff to Sector 16.
 - (c) Sector 39, after observing acceptance of radar handoff by Sector 16, must transfer communication of the aircraft to Sector 16.
 3. The following procedure is authorized between Areas C and D for AUG, LEW, BXM and RKD arrivals flight planned via BOS (see exception).
 - (a) Sector 46 will descend the aircraft to FL240, pilot's discretion, and handoff to Sector 02.
 - (b) Sector 02, after accepting the handoff will initiate a handoff to Sector 16.
 - (c) Upon acceptance of the handoff by Sector 16, Sector 46 will initiate communication change to Sector 16.
- 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.
4. The following procedure is authorized between Areas B and D for southwest bound aircraft flight planned FL240 and above between Sector 02, Sector 15 and Sector 39 which will transition Sector 53s airspace southeast of a line between 43-52-00/71-49-40 (Node F5AQ) and 44-20-00/70-51-58 (Node G6AK).
 - (a) Sector 02/15 must initiate a handoff to Sector 53.
 - (b) Sector 53 must accept the handoff and initiate a handoff to Sector 39.
 - (c) Upon the acceptance of the handoff by Sector 39, Sector 02/15 must initiate communications change to Sector 39.
 5. The following procedure is authorized between Area B and D for northeast bound aircraft flight planned FL240 and above between Sector 39, Sector 15 and Sector 02 which will transition Sector 53s airspace southeast of a line between 43-52-00/71-49-40 (Node F5AQ) and 44-20-00/70-51-58 (Node G6AK).
 - (a) Sector 39 must initiate a handoff to Sector 53.
 - (b) Sector 53 must accept the handoff and initiate a handoff to Sector 02 or Sector 15.
 - (c) Upon the acceptance of the handoff by Sector 02 or Sector 15, Sector 39 must initiate communications change to the appropriate sector.
 6. The following procedure is authorized between Area C and D for traffic that will exit ZBW airspace at or north of the ALLEX INT and will transition into Sector 17 airspace north of a line between 42-21-00/70-36-00 and 42-27-00/70-29-00 as depicted on the video maps.

- (a) Sector 46 must transfer radar identification to Sector 17.
 - (b) After accepting the transfer of radar identification, Sector 17 must initiate a transfer of radar identification to Sector 02.
 - (c) Sector 46 must transfer communications to Sector 02 after Sector 02 accepts the radar handoff from Sector 17.
7. The following procedure is authorized between Areas B, C and D for MHT Terminal Area and PWM departures flight planned to or routed directly into Sector 46.
- (a) Sector 16 must climb aircraft to FL230 and handoff to Sector 02.
 - (b) Sector 02 must accept the handoff and enter the requested altitude or the highest interim altitude, up to FL280, that can be approved and then initiate a handoff to Sector 46.
 - (c) Sector 16 must climb aircraft to altitude indicated in the data block after Sector 02 initiates the handoff to Sector 46. Sector 16 must be responsible to ensure a timely handoff is completed to Sector 46.
 - (d) Upon acceptance of the handoff by Sector 46, Sector 16 must initiate communication change to Sector 46.
- c. 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.
- d. 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.
- e. 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

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. Coordinate with Moncton Centre for EPM arrivals/departures [Ref. Moncton LOA].
2. Advise EPM arrivals to contact FSS on 122.5 (RCO at QYA) in the event of a missed approach.
3. 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.
4. 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.
5. Radar monitor EPM arrivals executing the NDB RWY 33 and NDB RWY 15 SIAPs until the aircraft is within 15 NMs of the EPM NDB.
6. Rangeley, ME (8B0/M57) and Berlin, NH (BML) arrivals:
 - (a) Sector 15 must coordinate 8B0 and M57 SIAPs with Sector 52 unless the aircraft will conduct a straight-in approach.

NOTE: Sectors 52 must coordinate BML instrument approaches with Sector 15.

(b) Simultaneous holding at ELSEQ and SHINY is not authorized.

7. Deblois Flight Strip (43B)

(a) Departures:

- (1) Must be coordinated with BGR ATCT
- (2) Can be given when DEEPWOODS MOA is active.

(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 advise 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.
- b. AIT [Ref: ZBW 7110.33, Para 2-1-10]
1. The following procedure is authorized between Area B and D for southwest bound aircraft flight planned FL240 and above between Sector 02, Sector 15 and Sector 39 which will transition Sector 53s airspace southeast of a line between 43-52-00/71-49-40 (Node F5AQ) and 44-20-00/70-51-58 (Node G6AK).
 - (a) Sector 02/15 must initiate a handoff to Sector 53.
 - (b) Sector 53 must accept the handoff and initiate a handoff to Sector 39.
 - (c) Upon the acceptance of the handoff by Sector 39, Sector 02/15 must initiate communications change to Sector 39.
- c. 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.
- d. 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.
- e. 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.
- f. 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:

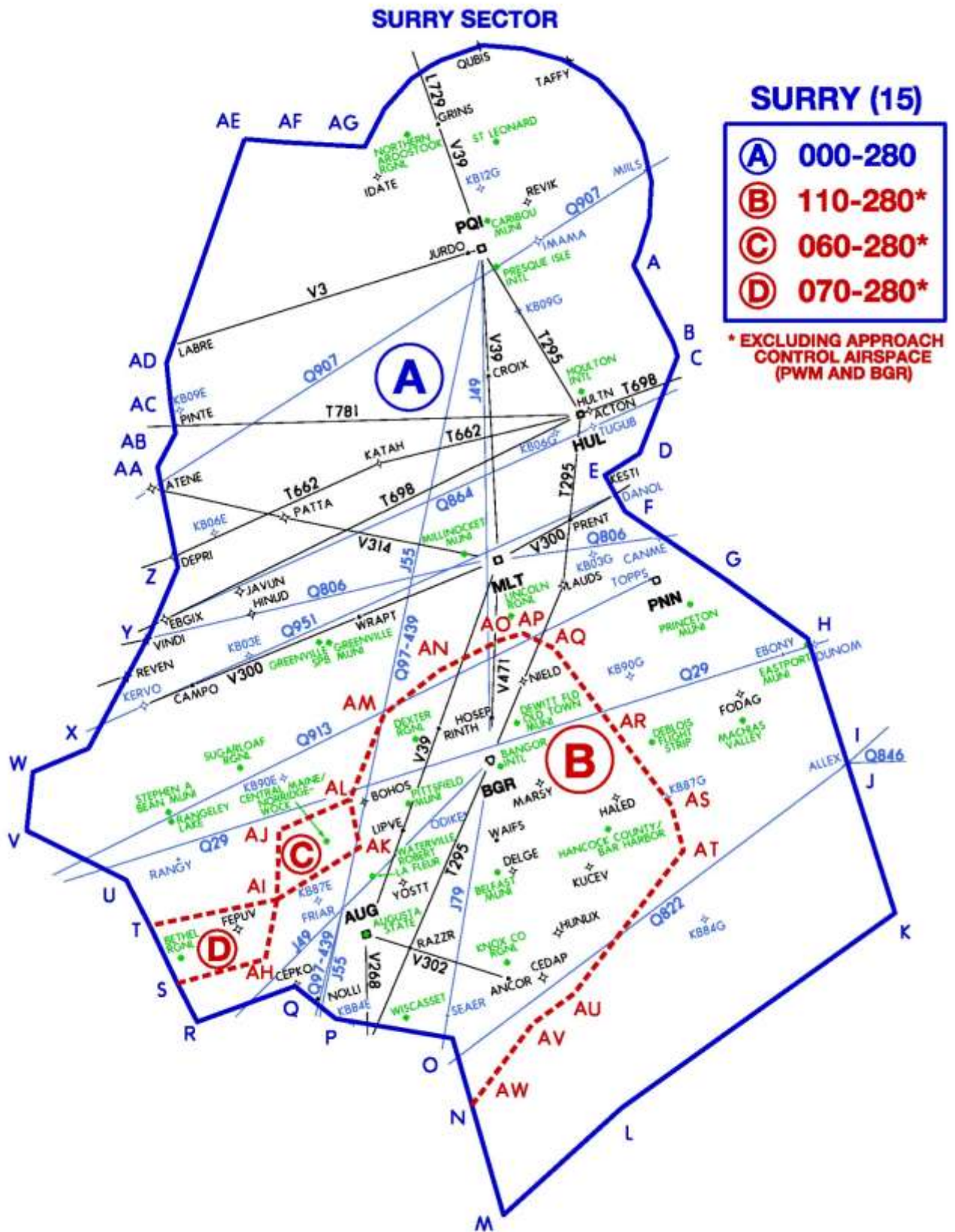
1. MLT 047R & 049R feeder cross 44 NMs N of MLT.
2. T295 South Bound – Cross 33 NMs south of the PQI VORTAC, clears all CAR and PQI operations (does not clear traffic on the MLT 049R/047R feeder routes).
3. V3 West Bound – Cross 19 NMs W of the PQI VORTAC, clears all PQI and CAR operations.
4. V39 North Bound – Cross 32 NM N of the PQI VORTAC, clears all PQI and CAR operations.

g. 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

h. 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		



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) BOS jet arrivals from:

- (1) Sector 39 must be cleared via ENE then OOSHN STAR to cross ENE at FL240.
- (2) Sector 02 from the north and east will be descending to FL290.
- (3) Sector 18 will descend to 17,000 feet MSL.
- (4) Sector 17 must be cleared to descend via the OOSHN STAR with the primary runway transition.
- (e) Upon initial contact after completion of a radar handoff, Sector 16 will have control for descent and speed assignments of KBOS jet arrivals within the confines of Sector 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.

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.

b. AIT: [Ref ZBW 7110.33, Para 2-1-10]:

1. The following procedure is authorized between Area B and D for Portland arrivals from Sector 52 flight planned through Sector 16, IAW Boston ARTCC/Portland ATCT Letter of Agreement.
 - (a) Sector 52 must descend PWM arrivals to cross the Portland ATCT lateral boundary at or below 15,000 feet MSL descending to 11,000 feet MSL and handoff to Sector 16.
 - (b) Sector 16 accepts the handoff and initiates a handoff to Portland ATCT.
 - (c) Upon acceptance of the handoff by Portland ATCT, Sector 52 initiates communications change to Portland ATCT.
2. The following procedure is authorized between Areas B, C and D for PSM and SFM arrivals flight planned via BOS WEEZE.
 - (a) Sector 47 must clear aircraft to cross BOS at or below 17,000 feet MSL descending to 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 47, after observing acceptance of radar handoff by Sector 16, must transfer communication of the aircraft to Sector 16.
3. The following procedure is authorized between Areas C and D for AUG, LEW, BXM and RKD arrivals flight planned via BOS (see exception).
 - (a) Sector 46 will descend aircraft to FL240, pilot's discretion, and handoff to Sector 02.
 - (b) Sector 02, after accepting the handoff will initiate a handoff to Sector 16.
 - (c) Upon acceptance of the handoff by Sector 16, Sector 46 will initiate communication change to Sector 16.

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.
4. The following procedure is authorized between Areas B and D for YUL-BOS turbojets arrivals at or above FL240 flight planned via ENE.
 - (a) Sector 53 must descend the aircraft to FL240, pilot's discretion, and handoff to Sector 02.
 - (b) Sector 02 after accepting the handoff will initiate a handoff to Sector 16.
 - (c) Upon acceptance of the handoff by Sector 16, Sector 53 will initiate communications change to Sector 16.
5. The following procedure is authorized between Areas B and D for Sector 02 BOS arrivals from Sector 39.
 - (a) Sector 39 must initiate transfer of radar identification to Sector 02.
 - (b) Sector 02, after acceptance of radar handoff, must initiate a radar handoff to Sector 16.

- (c) Sector 39, after observing acceptance of radar handoff by Sector 16, must transfer communication of the aircraft to Sector 16.
- 6. The following procedure is authorized between Areas B and D for PWM Terminal Area departures flight planned to enter Sector 39.
 - (a) Sector 16 must assign an interim altitude of FL230 and initiate a transfer of radar identification to Sector 37.
 - (b) Sector 37, after acceptance of radar handoff, must initiate a radar handoff to Sector 39.
 - (c) Sector 16, after observing acceptance of radar handoff by Sector 39, must transfer communication of the aircraft to Sector 39.
- 7. The following procedure is authorized between Areas C and D for MHT Terminal Area and PWM departures flight planned to or routed directly into, Sector 46.
 - (a) Sector 16 must climb aircraft to FL230 and handoff to Sector 02.
 - (b) Sector 02 must accept the handoff and enter the requested altitude or the highest interim altitude, up to FL280, that can be approved and then initiate a handoff to Sector 46.
 - (c) Sector 16 must climb aircraft to altitude indicated in the data block after Sector 02 initiates the handoff to Sector 46. Sector 16 must be responsible to ensure a timely handoff is completed to Sector 46.
 - (d) Upon acceptance of the handoff by Sector 46, Sector 16 must initiate communication change to Sector 46.
- 8. The following procedure is authorized between Sector's 16 and 18 for aircraft landing within A90 Cape Area flight planned via ENE, LFV or V167.
 - (a) Sector 16 must descend aircraft to 110, and initiate a handoff to Sector 18.
 - (b) Sector 18 must accept the handoff and initiate a handoff to A90 Cape Area.
 - (c) Upon acceptance of the handoff by A90 Cape Area, Sector 16 will initiate communications change to A90 Cape Area.
- 9. The following procedure is authorized between Areas B and D for BOS Terminal Area departure flights planned via MANCH or HYLND.
 - (a) Sector 37 must enter an interim altitude of FL190 and climb the aircraft to FL190.
 - (b) Sector 16 after acceptance of the handoff must enter an available interim altitude up to FL230 or requested altitude whichever is lower; initiate a handoff to Sector 39 or Sector 37 as appropriate.
 - (c) Sector 37, climb the aircraft to the altitude indicated in the data block.
 - (d) Sector 37 after observing acceptance of radar handoff by Sector 39, must transfer

communication of the aircraft to Sector 39

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 MSL, 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	K	F4T1	U	G6AC	AE	G4DR		
B	H5AB	L	F4DH	V	G6AE	AF	G4AD		
C	H5AC	M	F4ED	W	G6AD	AG	G4AI		
D	H4AH	N	F4T2	X	G5AL	AH	G4AH		
E	H4AI	O	F4T4	Y	G5NW	AI	G4AM		
F	G4AT	P	F4AD	Z	G5AV	AJ	G4AF		
G	G4AS	Q	F4T5	AA	G4DA	AK	H4AA		
H	F4MO	R	F4T6	AB	G4AA				
I	G4AB	S	F4T7	AC	G4AJ				
J	G4MR	T	F6AB	AD	G4DC				

PARSO (16)

(A)	110-230*
(B)	000-230
(C)	100-230*
(D)	150-230*
(E)	120-230*
(F)	110-230*
(G)	200-230

*EXCLUDING APPROACH CONTROL AIRSPACE (PWM AND A90)

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 – AREA D
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 FL 380, 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 once they have passed J79.
 - (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) KBOS arrivals via the OOSHN STAR:
 - (1) Will be issued the primary runway transition and cleared to descend via.
 - (2) Sector 17 will enter an assigned altitude 9,000 feet MSL on aircraft descending via the OOSHN STAR.
 - (3) Sector 16 will have control for descent and speed assignment upon initial contact after completion of a radar handoff, also including point outs from Sector 02.
- b. AIT [Ref ZBW 7110.33, par 2-1-10] – The following procedure is authorized between Area C and D for traffic that will exit ZBW airspace at or north of the ALLEX INT and will transition into Area D airspace north of a line between 42-21-00/70-36-00 and 42-27-00/70-29-00 as depicted on the video maps (Points N and O):
1. Sector 46 must transfer radar identification to Sector 17.
 2. After accepting the transfer of radar identification, Sector 17 must initiate a transfer of radar identification to Sector 02.
 3. Sector 46 must transfer communications to Sector 02 after Sector 02 accepts the radar handoff from Sector 17.

c. 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.

d. Military – The following SUA is located within Sector 17: W104 B/C, MOT A/B/C/D, W506, AR608, GH North.

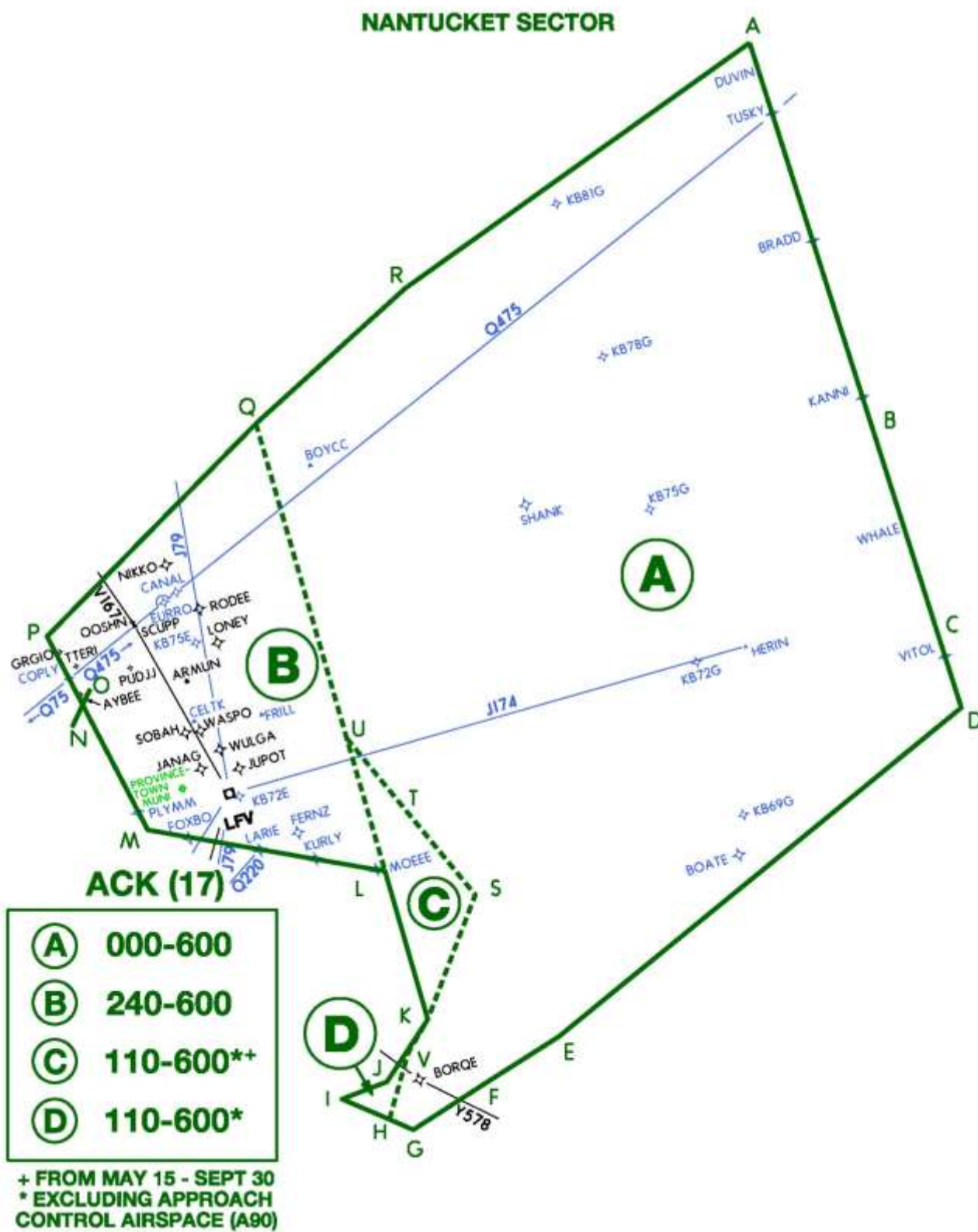
e. Altitude Exceptions - Nantucket Sector is authorized, while operating in ERAM, to set the altitude limits to a minimum of 043B999. The altitude limits must be amended to 000B999 when the sector is providing ATC services to any aircraft below 5500 feet MSL, or when AEGIS C or AEGIS D is active below 5500 feet MSL.

f. 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.

g. ACK Nodes:

MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	K5AA	F	BN94	K	H3AD	P	G4DB	U	H4AH
B	J4DA	G	H3DH	L	H3AG	Q	H5AC	V	H3AC
C	BN96	H	H3AA	M	H4AF	R	I5AA		
D	BN92	I	H3DG	N	LINE	S	H4AK		
E	BN93	J	H3DF	O	LINE	T	H4AJ		



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 with A90, 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 – AREA D
2. Alt. Map – ZBW MAP

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 FL 380, 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.

NOTE: Sectors 18 and 34 must comply with Para 6-3-3.b.5, AIT for MVY arrivals unless otherwise coordinated.

- (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 flight planned via SEY HTO unless verbally coordinated.
- (c) Between 1800-0000L and requested by Area C OS/CIC, Sector 18 must route PVD departures flight planned J121/174 via HTO SHLEP/RIFLE.
- (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 2-1-10]

1. The following procedure is authorized between Sector 16 and 18 for aircraft landing within A90 Cape Area flight planned via ENE/LFV or V167.
 - (a) Sector 16 must descend aircraft to 11,000 feet MSL, and initiate a handoff to Sector 18.
 - (b) Sector 18 must accept the handoff and initiate a handoff to A90 Cape Area.
 - (c) Upon acceptance of the handoff by A90 Cape Area, Sector 16 will initiate communications change to A90 Cape Area.
2. The following procedure is authorized between Areas C and D for aircraft entering Sector 32 climbing to or level at FL200 thru FL 240 flight planned over HTO in the vicinity of SEY.
 - (a) Sector 18 must initiate a handoff to Sector 32.
 - (b) Sector 32 must accept the handoff and initiate a handoff to Sector 31.
 - (c) Upon acceptance of the handoff by Sector 31, Sector 18 must initiate communications

change to Sector 31.

- (d) If Sector 31 has not accepted the handoff from Sector 32 by the time the aircraft reaches the Sector 18/32 boundary, Sector 18 must initiate communication change to Sector 32.
- 3. The following procedure is authorized between Areas C and D for Providence Terminal Area departures flight planned into the Cape Sector.
 - (a) Sector 18 receives the handoff from Providence ATCT, and then transfers radar identification to Sector 34.
 - (b) Sector 34, after accepting the handoff, may modify or remove the interim altitude (as appropriate), then transfer radar identification to Sector 18.
 - (c) Sector 18, after accepting this handoff, may clear the aircraft to the altitude displayed in the data block.

NOTE: An interim altitude of 99 will be displayed in the data block of PVD Terminal Area departures flight planned via JUMPR.

- 4. The following procedure is authorized between Areas C and D for MVY arrivals flight planned via V374.
 - (a) Sector 34 must clear aircraft to 11,000 feet MSL with the appropriate Letter of Agreement restriction and initiate a transfer of radar identification to Sector 18.
 - (b) Sector 18 must accept the transfer of radar identification and initiate a transfer of radar identification to PVD ATCT.
 - (c) After acceptance of the handoff by PVD ATCT, Sector 34 must transfer communications to PVD ATCT.
- 5. 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. Radar Vectoring – The ILS RWY 23/32 at FMH can be displayed using the ILS CRS button key.
- d. 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.

e. 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.

- f. 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.
- g. Parachute Jump Areas (refer to Airport/Facility Director) – Newport State, RI (See Boston ATCC/Sky Dive Newport LOA).

h. CAPE Nodes:

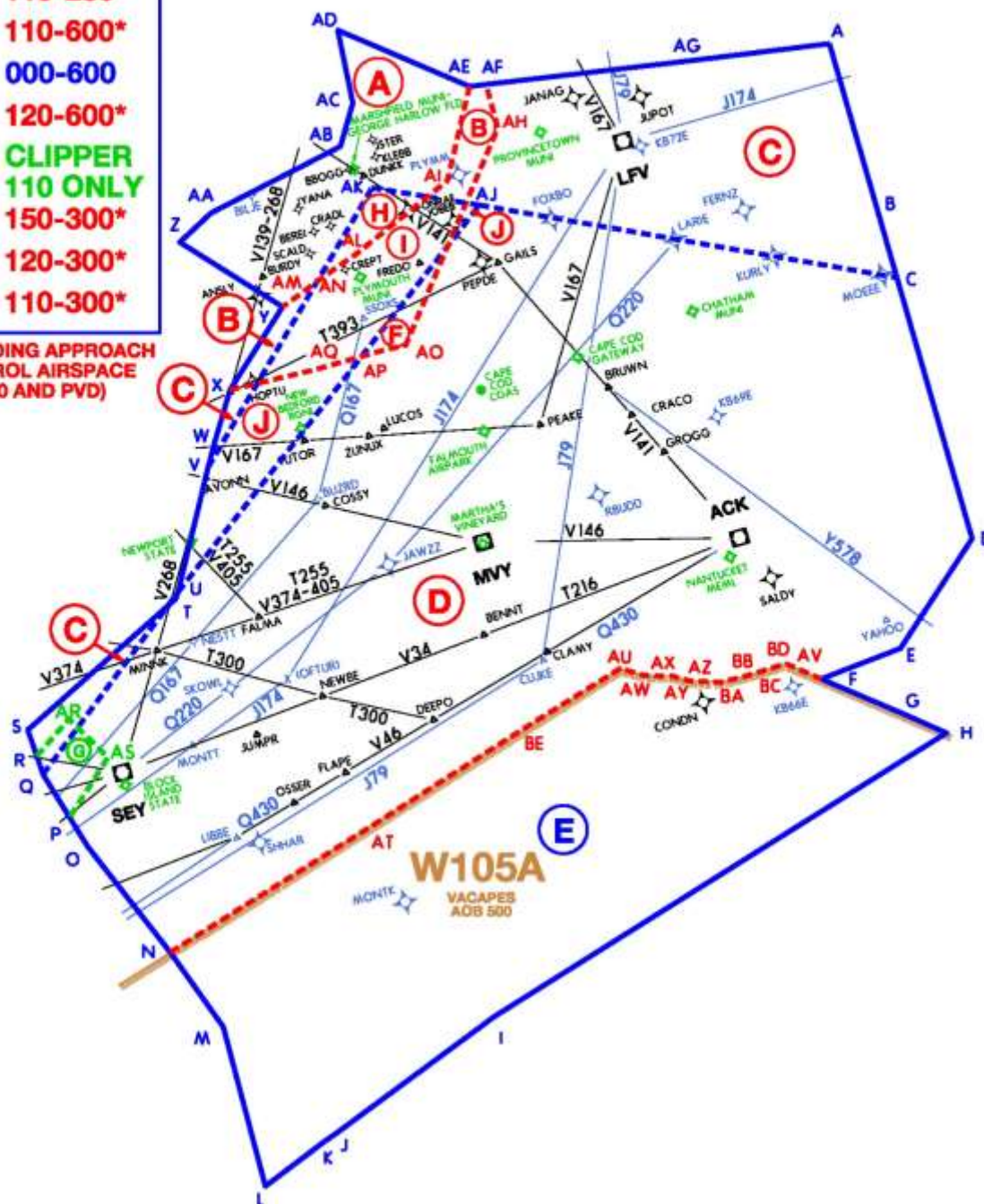
MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE	MAP POINT	NODE
A	H4AH	P	G3E4	AE	G4AS	AT	G3DG
B	H3AB	Q	F3ML	AF	G4AT	AU	G3BJ
C	H3AG	R	G3E1	AG	H4AI	AV	G3BA
D	H3AD	S	F3MM	AH	G4AE	AW	G3BI
E	H3DF	T	F3MK	AI	G4AO	AX	G3BH
F	H3DG	U	F3MP	AJ	H4AF	AY	G3BG
G	H3AA	V	F4AV	AK	F4AU	AZ	G3BF
H	H3DH	W	F3AL	AL	G3AD	BA	G3BE
I	BN90	X	F3AK	AM	G3AG	BB	G3BD
J	H3GK	Y	G3DC	AN	G3DB	BC	G3BC
K	H3VC	Z	BSD1	AO	G3AA	BD	G3BB
L	BN97	AA	F4MM	AP	G3AE	BE	G3DO
M	BN33	AB	BSD2	AQ	G3AF		
N	BN44	AC	F4MB	AR	G3E2		
O	BN29	AD	F4MO	AS	G3E3		

CAPE SECTOR

CAPE (18)

- (A) 150-230*
- (B) 120-230*
- (C) 110-230*
- (D) 110-600*
- (E) 000-600
- (F) 120-600*
- (G) CLIPPER
110 ONLY
- (H) 150-300*
- (I) 120-300*
- (J) 110-300*

***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:

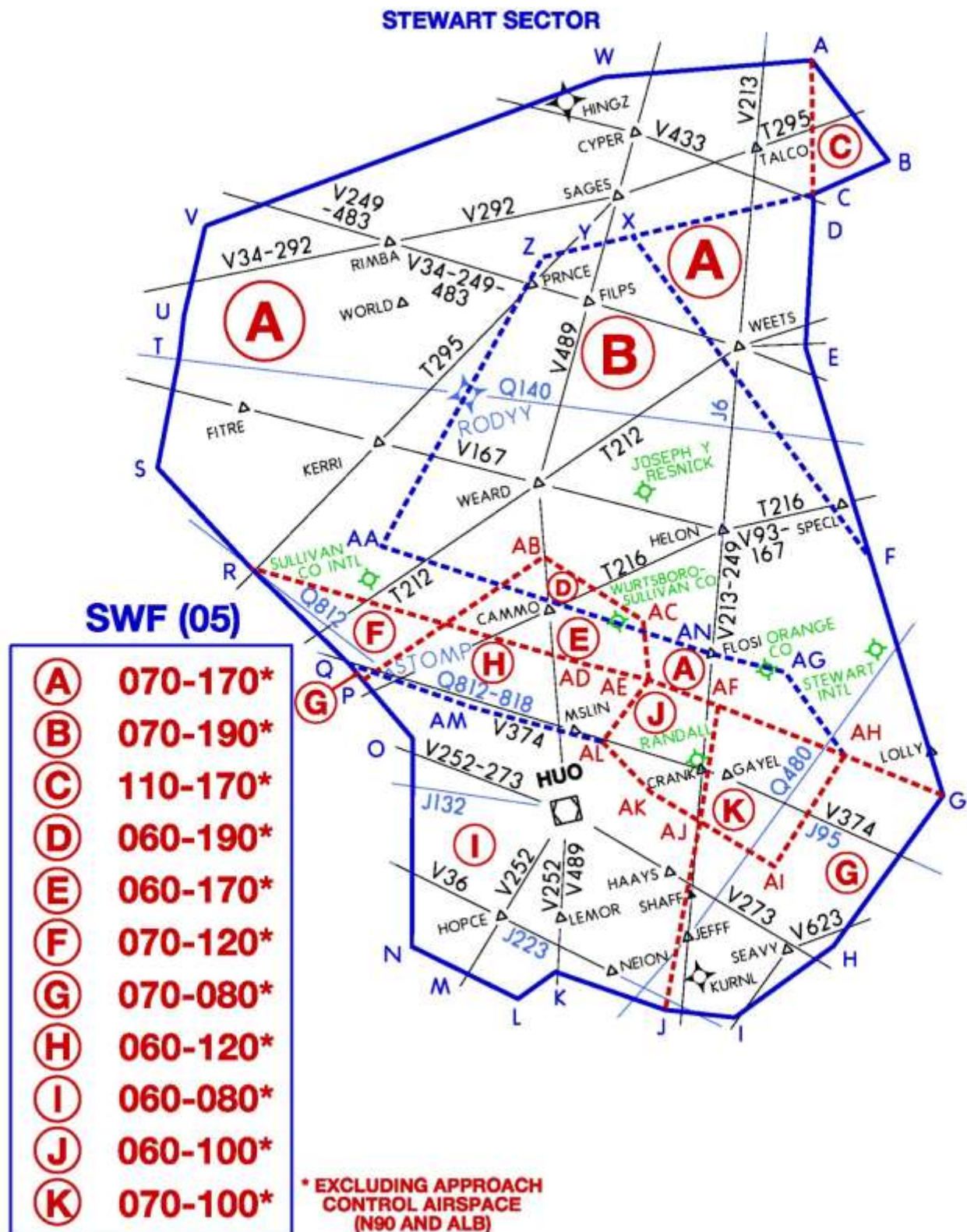
1. Entering the Sector:

- (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.
 - (p) 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.
 - (q) 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, 7,000 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



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 2-1-10]

- 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		

PWL (06)

(A)	060-100*
(B)	060-190*
(C)	180-190*
(D)	060-170*

* EXCLUDING APPROACH CONTROL AIRSPACE (N90 AND ALB)

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 2-1-10]

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.

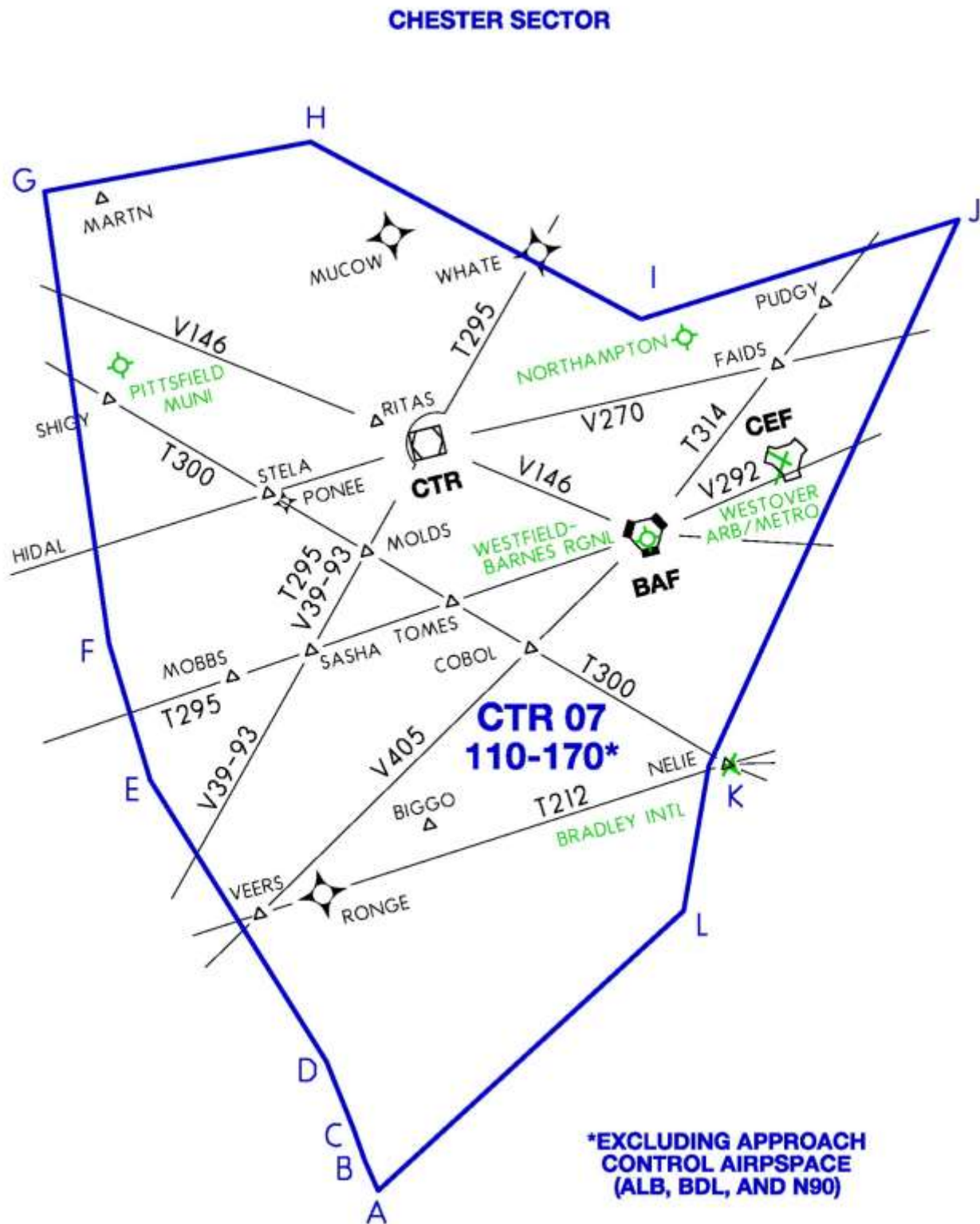
1. Sector 07 must enter an interim altitude of 17,000 feet MSL in the data block and initiate a transfer or radar identification to Sector 06.
2. Sector 06 must accept the transfer of radar identification, enter an interim altitude of FL 190 and initiate a transfer of radar identification to Sector 20.
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



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 – AREA E
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 V229 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.

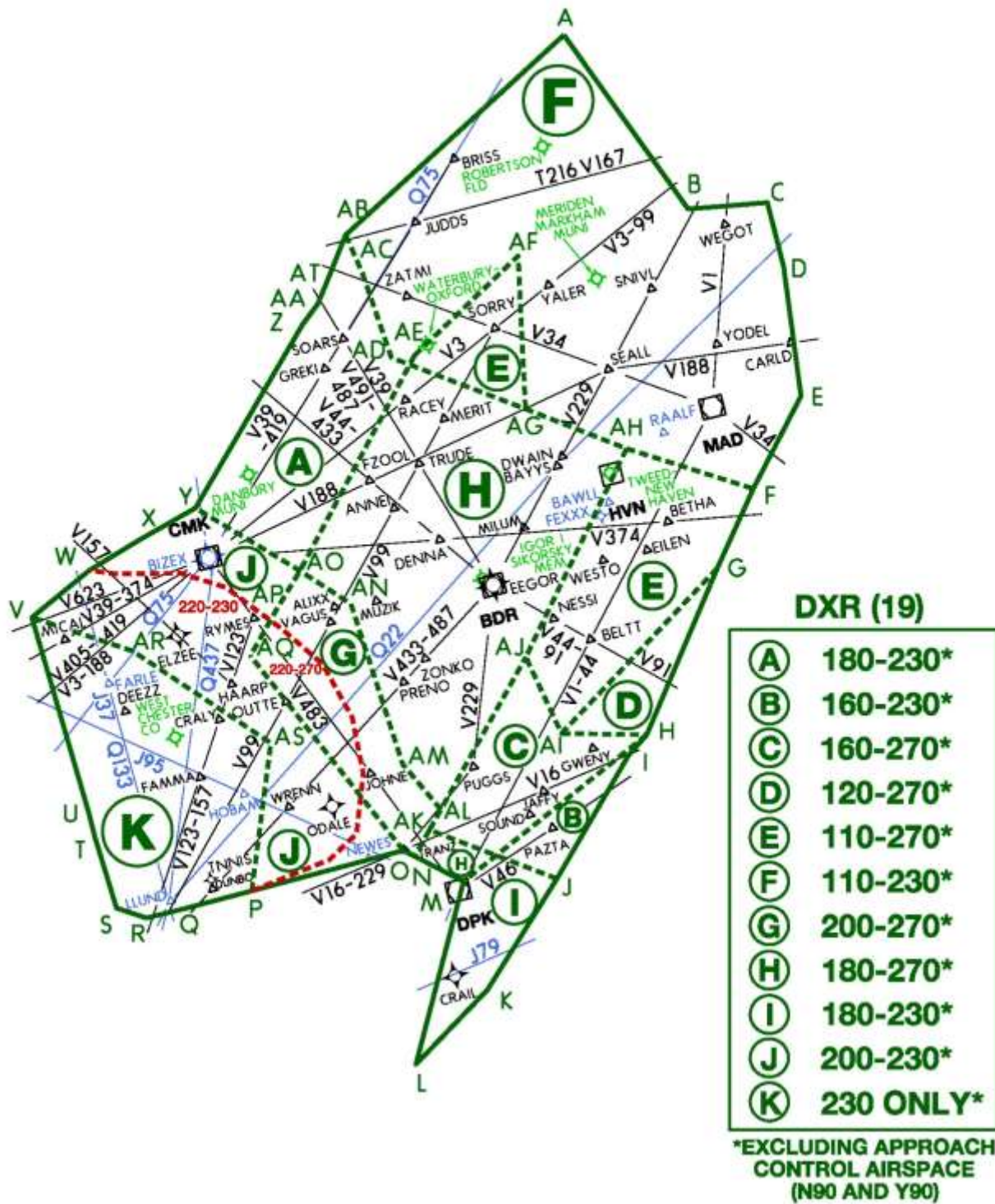
b. AIT – [Ref: ZBW 7110.33, Para 2-1-10]

The following procedure is authorized between Area C and Area E for N90 departures flight planned via MERIT HFD climbing to FL 240 or above.

1. Sector 19 must enter an interim altitude of FL 230 in the data block and initiate a transfer of radar identification to Sector 47.
2. Sector 47 must accept the transfer of radar identification and initiate a transfer of radar identification to Sector 46.
3. After acceptance of the handoff by Sector 46, Sector 19 must transfer communication to Sector 46.
4. Sector 46 must have control for climb from Sector 19, 15 NMs prior to the Sector 19/46/49 boundary.
5. If the transfer of radar identification to Sector 46 has not been completed by the centerline of V34, Sector 19 must transfer communications of the aircraft to Sector 47.

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

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 – AREA E
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 JEFF, 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 2-1-10]

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



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 2-1-10]

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		



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, Area 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

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.

- a. Altitude.
- b. Minutes-in-trail/Miles-in-trail.
- c. Fix balancing.
- d. Airborne holding.
- e. Sequencing programs:
 - 1. Departure Sequencing Program (DSP/CFR/IDAC/EDC).
 - 2. Arrival Sequencing Program (ASP/TBFM).
- f. Ground Delay Programs.
- g. 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.

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):
 - (a) 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 through the use of 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 ZBW's 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.
 - (a) 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 or not 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. In order 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 in order to keep informed of operating conditions within ZBW's 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 or 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 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, including receiving a weather briefing on the current and forecast weather conditions so as 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 ZBW's 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 outlined in SOP 9-1-6 (11) when delegated by the STMC/TMCIC, when weather is forecasted to impact ZBW's traffic flow which may 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 ZBW's 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 and 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 ZBW's 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 its potential to affect the safety of flight.
4. Maintain knowledge of AIRMETs, SIGMETs, CWAs, developing lines of thunderstorms, and any other available weather product and 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 PIREP requests and coordinate with 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 ZBW's area of jurisdiction in accordance with Chapter 12 of this Order.
 10. Request the FDU provide assistance 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 TMWC 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 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. Although AIRMETs, SIGMETs, CWAs, and PIREPs are received via automation at Terminal facilities, the TMWC is expected to use prudent judgement when determining whether or not additional verbal notification should be made for PIREPs that may impact safety of flight due to its location or type.
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. 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, or 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 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/MINUT 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		Fix Times Req 1326 CFR FCT 1343 Actual 1344	+17V Delay 310	BOS MHT SYR J63 EHMAN YXU J547 FNT PMM4 ORD	2004
		Act.	Dept 1319			(recall, OK late, etc.)	BO+BOT
		BOS P1245				Reason/Remarks	

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 ZBW Form 7610-14A, Assigned Airspace Log (Appendix 1).
 - (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 ZBW 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 ZBW 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 (AAC)	ZYZ , ZUL, BTV AFSS – (outside of 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 ZBW Form 7610-14A, Assigned Airspace Log (Appendix 1).
- (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 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 FACS FAC 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 433-1320/1321/1322.
 - 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 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) MOA's within the ADIRONDACK 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.
 - ii. Complete the MOT ATCAA NOTAM request worksheet that is located in the Military Position filing cabinet.
 - iii. Deliver completed worksheet to Flight data
- (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 and 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 plan 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 that is located in the military position filing cabinet.
- ii. Deliver the completed worksheet to Flight Data Unit

(h) AUTODIN (Automated Digital Network) Messages.

- (1) In order 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) OPEN SKIES Missions.

- (1) The ATCSCC must forward advance information on OPEN SKIES Treaty aircraft to the affected ARTCCs.
- (2) The following procedures must be utilized for OPEN SKIES Treaty aircraft.
 - i. Once an OPEN SKIES message is received the MC must interpret whether it will impact ZBW's airspace. If it does impact ZBW's airspace, notify the STMC/TMCIC and OMIC.

NOTE: In the body of the message there should be a column of three letter identifiers. If the three letter identifiers are not close to the Center's airspace, then the OPEN SKIES flight should not be a factor.

- ii. The ARTCC must inform all affected FAA facilities and any facility/agency (including military) it deems necessary within their area of responsibility of the flight path of the OPEN SKIES aircraft.

- iii. Determine if the flight is F-Observation, D-Demonstration, or T-Transit. Priority and special handling are provided to Observation/Demonstration flights, and the flight tracking duties are similar to those of Air Force One/Two. Notify the STMC/TMCIC and the OMIC of all OPEN SKIES Observation/Demonstration flights.

(j) 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.

(k) Air Combat Activities

- (1) FAR Exemption 2861A is granted to DOD aircraft engaged in high speed training maneuvers to use a single site altimeter setting. The local altimeter setting must be used in the following MOA/ATCAAs:

MOA	ALTIMETER
ADIRONDACK AIRSPACE COMPLEX	GTB
YANKEE/LASER	LEB
CONDOR/SCOTTY	AUG
MOT A/B/C	FMH

NOTE: The sector ATCS must ensure that real-time altitude adjustments are made to the blocked airspace, for low altimeters, as necessary.

(l) 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,” 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.

(m) 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.

(n) 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, request the schedule for the following day up until 0500Z also. If only the daily schedule is requested, one will only receive the schedule up until 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 proof read 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 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 9 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 requires 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 who maintain a meteorological watch pertaining to hazardous weather impacts 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 or 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 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) and 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

While CWSU meteorologists interact directly with other NWS forecasters, 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 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, visibilities below 5 statute miles and will 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; flight data processing and flight plan entry into the National Airspace System (NAS) utilizing the En Route Automation Modernization (ERAM) system, National Airspace Digital Interchange Network (NADIN) Service A and Service B message recognition, distribution and dissemination through the Aeronautical Information System Replacement (AISR), monitoring the En Route Information Display System (ERIDS), entering NOTAMs and Temporary Flight Restrictions (TFRs) into the NOTAM Entry System (NES), Special Interest Flight verification, and 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 1-866-466-1336. ***
- 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 1-866-954-4002.
- e. Report all Aeronautical Information Management Systems (AIMS) anomalies to the Flight Data Supervisor or the OMIC.

11-3. FDU Position Relief Briefings

- a. FDACS 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 FDACS 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-D 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 to be 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 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 MOT ATCAA and Sugarhouse Stationary ALTRV NOTAMs using the NES.
- b. FDU must transmit MOT ATCAA 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 and MOTs)
- D. Clearance Relay
- E. Weather
- F. PIREPs

(4) SPECIAL EVENTS

- A. MILITARY EXERCISES
- 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, and PIREPs 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 ZBW's 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 ZBW's 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) Write operating initials on the AIRMET strip once the AIRMET has been broadcast.

- 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.
- (b) Write operating initials on the SIGMET strip once the SIGMET has been broadcast.

- 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 ZBW's 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.
 - (b) Write operating initials on the Canadian SIGMET strip once the Canadian SIGMET has been broadcast.
- 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 ZBW's 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.
 - (b) Write operating initials on the Oceanic SIGMET strip once the Oceanic SIGMET has been broadcast.
- 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.
 - (b) Write operating initials on the CWA strip once the CWA has been broadcast.
- f. **URGENT PIREPs.** The FAA JO 7110.10 Chapter 9 defines Urgent PIREPs (/UUs). 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.
- (4) Write operating initials on the Urgent PIREP strip once the Urgent PIREP has been broadcast.

(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 ZBW's 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 ZBW's 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.
- (2) Write operating initials on the Urgent PIREP strip once the Urgent PIREP has been broadcast.

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 RESPONSIBILITY 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

OMIC Position Relief Briefing Checklist	
1. Review WX: a. WARP b. CIWS c. PIREPS d. AIRMETs e. SIGMETs f. CWAs	8. TMIs, TFRs, VIP
2. OMIC Clipboard: Review	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
3. Equipment Status: a. ERAM b. CPDLC c. ERIDS	
4. Active Items Binder: a. BSEs b. Currency c. Training d. Chart date changes e. Other Items	10. Next day Supervisor schedule
5. ZBW Log review: a. Equipment released/OTS/Carryovers b. Pre duty WX briefing c. Pre duty CEDAR 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	11. Tracks: Departure fixes reference WX and staffing
	12. Training: a. eLMS b. Training Initiatives c. Briefings d. Other
j. OS/CIC/CPC Coverage in each Area, Flight Data staffing	13. Leave requests/Phones
6. OMIC files for today and tomorrow	14. Initials

A2-1-2. MIDSIFT 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 Cncls (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	<i>Review Checklist of Positions combined to TMNC</i>

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. ○ Upon receipt TMML must enter airspace into SAMs. ○ Refer to Military Reference Binder for Specific Instructions. ○ Post schedules/SUA info as needed (Date File or Military Reference Binder). ○ Once email has been acted upon mark as complete with RED Completed Category. ○
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 ○ Receive the list of SIF that will traverse ZBW airspace from FDU. ○ Distribute to each affected area, OM, and TMU SIF clipboard. ○ Advise STMC/TMCIC of SIF flight list for TSD input. When FDU is not available (TMU has secondary responsibility for identification/verification) ○ Log into the Special Interest Flights SIF website https://aspm.faa.gov/sif ○ Review and identify all SIF flights that transition ZBW airspace. ○ Verify that filed routes of proposed non-Part 129 flights comply with approved FAA routes. ○ 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. ○ Make copies for each affected area, OMIC, Flight Data and TMU SIF clipboard. ○ 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. ○ Upon receipt, TMML must enter airspace into SAMs. ○ Post schedules as needed (Date File or Military Reference Binder). ○ Once email has been acted upon mark as complete with RED Completed Category. ○ 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 conflicts. Verify all scheduled airspace NOTAMS are in the NOTAM LOG PENDING section.
5	Complete Daily Airspace Logs (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.

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 EXERCISES 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 from 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 (1-202-267-8276).
 - (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** _____
*(Facility) (Date/Time) (Initials)***ATC** _____
*(Facility) (Date/Time) (Initials)***SUA** _____
*(ID) (Date/Time) (Initials)***Other** _____
*(ID) (Date/Time) (Initials)***ROC/OSG (404) 305-5180** _____**SOSC (202) 267-8276** _____**NOTAM Number** _____
*(Attach Copy)***Disseminated** _____
(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 procedures in ZBW N3120.394 and FAA 7210.3.
 - (1) During Administrative hours, contact ZBW-17 for distribution via CEDAR.
 - (2) During Non-Administrative hours or without adequate time to disseminate via CEDAR.
 - i. OMIC or designee will disseminate utilizing paper sing-off rosters. Notify ZBW-17 for CEDAR 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	SECTOR	ALTITUDE	DISSEMINATION
AREA A			AREA C		
WATERTOWN (8)	000-120 121-209	ALFD, GTFD, SYFD, 08, 22, 23, 52 08, 22, 23, 24, 52	HAMPTON (31)	200-270 271-319	18, 19, 31, 32, 34, 46 18, 31, 46, 49
UTICA (9)	210-279 280-300	08, 09, 10, 22, 23, 24, 38, 39, 52, 53 08, 09, 10, 24, 38, 39, 53	CLIPPER (32)	000-120 121-179	PVFD, BDFD, 18, 19, 32, 34 18, 19, 32, 34
ROCKDALE (10)	301-600 280-300	09, 10, 38, 39, 53 08, 09, 10, 20, 24, 38, 39	PROVIDENCE (34)	180-249 000-160	18, 19, 31, 32, 34, 46 CLFD, FMFD, PVFD, BDFD, 18, 19, 32, 34, 47
ALBANY (22)	301-600 101-120	09, 10, 20, 38, 39 ALFD, SYFD, BDFD, 07, 08, 21, 22, 23, 36, 37, 52	BOSTON (46)	161-239 240-260	18, 19, 31, 32, 34, 47, 46 02, 16, 17, 18, 19, 20, 22, 31, 32, 36, 37, 38, 39, 46
HANCOCK (23)	121-209 000-120	05, 07, 08, 20, 21, 22, 23, 24, 36, 37, 47, 52 08, 20, 22, 24, 36, 37, 38, 39, 46, 47, 52	BOSOX (47)	261-600 101-160	02, 17, 18, 19, 20, 31, 32, 38, 39, 46, 49 CLFD, PVFD, BDFD, 07, 16, 18, 19, 34, 36, 37, 47
DELANCEY (24)	121-179 180-249 250-279	ALFD, SYFD, 05, 08, 21, 22, 23 05, 08, 21, 22, 23, 24 05, 08, 20, 21, 22, 23, 24, 38, 39 08, 09, 10, 20, 24, 38, 39	SOUTHIE (49)	161-209 210-230 280-340 341-600	07, 16, 18, 19, 20, 22, 34, 36, 37, 38, 46, 47 18, 19, 20, 31, 46, 49 18, 20, 46, 49
AREA B			AREA D		
GARDNER (36)	000-160 161-209 210-239	CLFD, CMMD, ALFD, BDFD, 07, 16, 22, 36, 37, 47 07, 16, 22, 36, 37, 47 02, 16, 22, 36, 37, 38, 39, 46, 47	MILLINOCKET (1)	290-310 311-600	01, 02, 15, 53 01, 02, 53
CONCORD (37)	000-160 161-209 210-239	CLFD, CMMD, ALFD, LEFT, 16, 22, 36, 37, 47, 52 16, 22, 36, 37, 47, 52 02, 16, 22, 36, 37, 38, 39, 46, 47, 52, 53	AUGUSTA (2)	240-260 261-600	01, 02, 15, 16, 17, 37, 39, 46, 52, 53 01, 02, 15, 17, 39, 46, 53
ATHENS (38)	240-260 261-300 301-600	08, 09, 10, 20, 22, 24, 36, 37, 38, 39, 46, 47 08, 09, 10, 20, 24, 38, 39, 46 09, 10, 20, 38, 39, 46	SURRY (15)	000-120 121-209 210-289	BGFD, PWFD, 15, 16, 17, 52 15, 16, 17, 52 01, 02, 15, 16, 17, 52, 53
CAMBRIDGE (39)	240-260 261-300 301-600	02, 08, 09, 10, 16, 22, 24, 36, 37, 38, 39, 46, 52, 53 02, 08, 09, 10, 24, 38, 39, 46, 53 02, 09, 10, 38, 39, 46, 53	PARSO (16)	000-160 161-209 210-230	CLFD, CMMD, FMFD, PWFD, 15, 16, 17, 18, 37, 47, 52 15, 16, 17, 18, 37, 47, 52 02, 15, 16, 17, 18, 37, 39, 46, 47, 52, 53
MONTPELIER (52)	000-120 121-209 210-239	CMMD, ALFD, BTFD, PWFD, 08, 15, 16, 22, 37, 52 08, 22, 37, 15, 16, 52 02, 08, 09, 15, 16, 22, 37, 39, 52, 53	NANTUCKET (17)	000-120 121-209 210-309 310-600	FMFD, 15, 16, 17, 18 15, 16, 17, 18 02, 15, 16, 17, 18, 46 02, 17, 18, 46
PLATTSBURG (53)	240-260 261-310 311-600	02, 08, 09, 15, 16, 37, 39, 52, 53 01, 02, 08, 09, 15, 39, 53 01, 02, 09, 39, 53	CAPE (18)	000-160 161-209 210-309 310-600	CLFD, FMFD, PVFD, 16, 17, 18, 32, 34, 47 16, 17, 18, 31, 32, 34, 47 16, 17, 18, 31, 32, 46, 47, 49 17, 18, 31, 46, 49

b. ZBW Terminal Routine PIREP (/UA) Dissemination Chart

ZBW Routine PIREP (/UA) Dissemination Chart					
SECTOR	ALTITUDE	DISSEMINATION	SECTOR	ALTITUDE	DISSEMINATION
AREA E					
STEWART (5)	051-149	ALFD, 05, 06, 21, 23	DANBURY (19)	101-159	BDFD, 06, 07, 19, 31, 32, 34, 47
	150-199	05, 06, 20, 21, 22, 23, 24		160-209	06, 07, 19, 20, 31, 32, 34, 47
				210-279	06, 19, 20, 32, 34, 46, 47, 49
PAWLING (6)	051-120	ALFD, BDFD, 05, 06, 07, 19, 21, 23	KINGSTON (20)	180-209	05, 06, 07, 19, 20, 21, 22, 24, 47
	121-199	05, 06, 07, 19, 20, 21, 22, 23		210-300	05, 06, 10, 19, 20, 22, 24, 38, 46, 47, 49
				301-600	10, 20, 38, 46, 49
CHESTER (7)	101-120	ALFD, BDFD, 06, 07, 19, 21, 22, 36, 47	CANAN (21)	101-120	ALFD, BDFD, 05, 06, 07, 21, 22, 23
	121-179	06, 07, 19, 20, 21, 22, 36, 47		121-179	05, 06, 07, 20, 21, 22, 23, 24
ZBW Terminal Routine PIREP (/UA) Dissemination Chart					
FACILITY	ALTITUDE	DISSEMINATION	FACILITY	ALTITUDE	DISSEMINATION
A90 North of BOS	000-079	PWFD, 16, 36, 37, 52	GTB	000-100	08, SYFD
	080-140	PWFD, 16, 18, 36, 37, 47, 52			
A90 South of BOS	000-079	BDFD, PVFD, 16, 17, 18, 36	N90	000-079	ALFD, BDFD, PVFD, 05, 06, 23, 32
	080-140	BDFD, PVFD, 16, 17, 18, 34, 36, 37, 47		080-190	ALFD, BDFD, PVFD, 05, 06, 19, 20, 23, 32
ALB	000-079	SYFD, BDFD, 05, 06, 08, 23, 36, 37, 52	PVD	080-100	BDFD, CLFD, FMFD, 18, 19, 32, 34, 47
	080-100	SYFD, BDFD, 05, 06, 07, 08, 21, 22, 23, 36, 37, 52			
AVP	000-100	05, 23	PWM	000-079	CMMD, 15, 52
BGM	000-100	23	ROC	080-100	SYFD, 08
BGR	000-100	PWFD, 15	SYR	000-079	ALFD, GTFD, 08, 23
BTV	000-100	52	Y90	080-100	ALFD, GTFD, 08, 22, 23
				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

<u>Abbreviation</u>	<u>Meaning</u>
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 uplinking 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 uplinking 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
ZDC 3120.8R
Chg. 1**

**Effective Date
7/14/2022**

SUBJ: Washington ARTCC Air Traffic Technical Training

This order contains supplemental information for use by Washington Air Route Traffic Control Center (Washington ARTCC, Washington Center, or ZDC) employees and contractors during the planning, conducting, and administration of Air Traffic training. This order must be used in conjunction with FAA Order JO 3120.4, Air Traffic Technical Training. All concerned personnel must familiarize themselves with all the provisions of this order that pertain to their responsibilities.

 07/08/2022

Leslie M. Swann
Air Traffic Manager
Washington ARTCC

Explanation of Changes

- a. **2.1 Support Manager for Training (SMT)**
Removed: This change effects the 10 calendar day requirement for the SMT for all trainees in stage 2A.
- b. **2.6 Cedar Requirements**
This change adds the use of TEAM in the document recording process in anticipation for the deployment of the new platform.
- c. **5.6 TEAM Replacement of Cedar**
This change adds an all-encompassing statement about the utilization of TEAM in place of CEDAR
- d. **6.2 CEDAR Reference**
This change adds the reference for 5.6 TEAM Replacement.
- e. **6.4 Primary Radar Display Backup System Training**
Removed: This change reflects the change in training requirements due to the decommissioning of EBUS in August 14, 2021. Minor restructuring after removal.
- f. **7.3 Supervisor Traffic Manager Coordinator (STMC) Training**
This change reflect the requirement for all STMCs to be certified on all TMU positions (previously 2 operational positions).
- g. **7.4 Traffic Management Coordinator (TMC) Training Requirements and Evaluation Criteria.**
This change add the 180 TMC detail Training Plan requirements signed into effect on March 25, 2022.
- h. **Appendix B**
Added: This Change reflects new sector requirements, Carolina Beach (Sector 30) in the Area 3. Added Caveat to reduce minimum hours needed if certified on 9 / 50.
- i. **Appendix D**
Added: Sector configuration for Area 3 to include 34 / 50 / 30.
- j. **Appendix R**
 - 1. This change reflects the addition of the Military Liaison position in TMU. The Military Liaison position will be identified in CRU-ART as TMML. Monitor Alert Specialist position will now be identified as TMAC1 in CRU-ART to accommodate the new Military Liaison position in TMU. New TMML OJT change also specified.
 - 2. An additional change was made to the minimum OJF/OJT hours required for certification of an STMC.
- k. **Appendix S**
 - 1. Addition of Promotion Form

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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 the Washington Air Route Traffic Control Center (ZDC). This order is supplemental to FAA Order JO 3120.4, Air Traffic Technical Training.

1.2 Audience. All ZDC air traffic personnel.

1.3 Where Can I Find This Order? This order is available at:

- FAA Directives Repository <https://loa.faa.gov>
- ZDC shared drive P:Drive/Training/ZDC Local Training Order
- ZDC shared drive P:ZDC Directives/Orders

1.4 Cancellation. ZDC Order 3120.8P Washington ARTCC Training, dated 10/1/2017 is cancelled.

1.5 Explanation of Changes. In addition to editorial and format changes and clarifications, this order also reflects local changes to align with the FAA Order JO 3120.4R (effective 10/30/20).

1.6 Definitions

- a. Trainee** - An employee receiving assigned training for attaining certification (CPC-IT, OS, TMC-IT, or STMC-IT and/or previously referred to as developmental).
- b. Seasoning** - For the purpose of this order, “Seasoning” refers to a period-of-time allotted to an individual in training to work positions he/she has recently certified on before commencing OJT on additional positions.
- c. Scenario** - Simulation conducted in a laboratory environment (Instructional, Skill Enhancement, Additional, Pre-Evaluation, or Evaluation).
- d. Performance Assessment (PA)** - Used to evaluate an individual’s training progress on an operational position.
- e. Certification Skill Check (CSC)** - An evaluation to determine if a trainee demonstrates the knowledge and skill level necessary to certify on a position.
- f. Initial OJT Checklist** – Checklists that cover basic functions not able to be simulated in the TTL Lab during Stage 2D or Stage 3R.
- g. Position Specific OJT Checklist** – Checklist provided to the trainee prior to beginning OJT on each specific position. Includes knowledge/skills germane to every position which requires a certification.
- h. 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. SIT may be assigned or self-identified.
- i. 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.
- j. Training Team OJTI** - Any OJTI assigned to a particular Training Team (minimum of two).

k. Pause of OJT - An action taken by the OS/STMC to stop OJT temporarily for either extenuating circumstances or when Skill Development Training (SDT) is assigned. The training review process is not required.

l. Stage 2A - Assistant Controller Training (A-Side).

m. Stage 2D - Radar Associate Controller Training (RA).

n. Stage 3R - Radar Controller Training (R).

o. Supplemental OJT Time - Supplemental OJT time may be assigned to a trainee after the exhaustion of OJT Target Time. It must be based on the original Training Plan and will be assigned in hours.

Chapter 2 - Roles and Responsibilities

2.1 Support Manager for Training (SMT), in addition to requirements of FAA directives and FAA Order JO 3120.4, must:

- a. Serve as the Training Administrator (TA).
- b. Serve as the Technical Officer's Representative (TOR) for the training contract.
- c. Conduct the facility's qualification training program in accordance with national and local directives, including FAA Order JO 3120.4.
- d. Ensure individuals entering qualification training receive facility orientation and briefings on the following:
 - Instructional Program Guide (IPG)
 - ZDC Order 3120.8
 - Employment Policy EMP-1.14
 - Other associated directives prior to entering training
- e. Determine the class size for each Stage 2D and Stage 3 class, taking into account readiness, available FAA and/or contract resources, and operational needs.
- f. Determine the classroom and simulation (lab) schedules for qualification training (Appendix K).
- g. At least 10 calendar days prior to the end of each 2D, and Stage 3R class, advise the appropriate Operations Manager (OM) to establish a transition schedule and Training Plan for each trainee reporting to their area.
- h. Ensure individuals who conduct classroom training or develop lesson plans attend FAA approved instructor training as soon as possible.
- i. Implement and maintain computer-based training (e.g., CBI, eLMS, CEDAR).
- j. Maintain a current roster of qualified OJTIs and CICs.
- k. Ensure required refresher training (Appendix I) is accomplished annually.
- l. Initiate and maintain FAA Form 3120-1 Training and Proficiency Record.
- m. Coordinate Training Review Boards (TRBs).

2.2 Operations Managers (OM) and Traffic Management Officer (TMO) in addition to requirements of FAA directives and FAA Order JO 3120.4, must:

- a. Review established OJF and area target hours (Appendix B) collaboratively with NATCA at least annually and if adjustments are required, coordinate with the SMT.
- b. Ensure all personnel within their area(s) complete briefing items, refresher training, and other assigned training prior to the required completion dates.
- c. In conjunction with the OS, establish a transition schedule and Training Plan for each trainee reporting to their area upon completion of classroom/simulation training.
- d. Recommend OSs for the position of OS Out-of-Area (OSOA). Certification of the OS in accordance with (Appendix M).

2.3 Operations Manager-in-Charge (OMIC) or WMIC must review FAA Form 3120-25. After reviewing for accuracy, place the completed form in the training lock box located at the watch desk.

2.4 All Operations Supervisors (OSs)/Supervisor Traffic Management Coordinators (STMCs) in addition to requirements of FAA directives and FAA Order JO 3120.4, must:

a. Ensure the OJT training process and documentation requirements are timely and in compliance with national and local training orders. This includes all PAs and CSCs, Training Plans, training team meetings, training on correct sector configurations (Appendix D), Skill Enhancement Training (SIT/SDT) (Appendix H), etc.

b. Review all FAA 3120-25 forms daily. Initial Box 10 indicating that the forms are accurate, and forward the signed original to the OMIC.

c. Forward other “original” signed documentation (e.g. Training Plans, training team meetings, skill enhancement, etc.) to the Training Department.

d. Operations Supervisors (OSs), **when functioning as a Training Team Lead**, in addition to requirements of FAA directives and FAA Order JO 3120.4, must:

(1) In conjunction with the area OM and area representative, establish a transition schedule and Training Plan for each trainee reporting to their area upon completion of classroom/simulation training.

(2) Ensure any changes to the Training Plan (including, but not limited to: OJTI changes or Supplemental OJT Time) are documented as an addendum to the established Training Plan. Instructions for CEDAR documentation:

- Select Trainee Snapshot→
- Select Edit Training Plan→
- Select Training Objectives→
- Forward a copy (signed by all training team members) to the Training Department.

(3) Send an email to the ZDC CEDAR administrator to update the facility databases when a change in supervisor of record occurs and cc the SMT.

(4) When recommending Supplemental OJT Time, request approval from the Area OM. ZDC Form 3120-8 (Appendix C) must be used.

(5) Coordinate with the SMT and Area OM prior to suspending OJT.

(6) Retain copies of the fully signed original documents for the following:

- All PAs, CSCs, and certifications must be printed from CEDAR.
- All Training Plans and training team meetings must be printed from CEDAR.
- Skill Enhancement Training (Appendix H, ZDC Form 3120-2A and -2B).
- Supplemental OJT Time (Appendix C, ZDC Form 3120-8).
- Appendix F, ZDC Form 3120.8-13, Radar Associate (RA) Initial OJT Checklist
- Appendix G, ZDC Form 3120.8-14, Radar (R) Initial OJT Checklist

2.5 Training Team OJTIs, in addition to requirements of FAA directives and FAA Order JO 3120.4, must:

Make a written recommendation via FAA Form 3120-25 to the trainee's OS, regarding the trainee's readiness for certification.

2.6 All OJTIs, in addition to requirements of FAA directives and FAA Order JO 3120.4, must:

a. Document all types of training (OJF, OJT, Familiarization, and/or Simulation, etc.) utilizing the appropriate training form. (In CEDAR/TEAM if using FAA Form 3120-25. See Section 5.6).

b. If the OJTI is unable to complete FAA Form 3120-25 in CEDAR, handwrite the training report, retain a copy of the handwritten form, and then enter the information in CEDAR as soon as CEDAR is available.

2.7 Trainees, in addition to requirements of FAA directives and FAA Order JO 3120.4, must:

a. Actively participate in training to achieve certification and perform operational assignments in order to maintain currency. If certified on a position (other than the Radar Assistant "A-side" position), ensure monthly operational currency requirements are met in accordance with FAA Order JO 7210.3.

b. Maintain thorough knowledge of FAA JO 7110.65, FAA JO 7610.4 (Special Military Operations), Facility Letters of Agreement (LOAs), facility Standard Operating Procedures (SOPs), MBIs, and facility/area/sector/adjacent airspace.

c. Understand and comply with all applicable orders and directives that pertain to their training. This includes, but is not limited to:

- (1) FAA JO 3120.4 Air Traffic Technical Training
- (2) FAA JO 7210.3 Facility Operation and Administration
- (3) ZDC Order 3120.8 Washington Center Air Traffic Technical Training

Chapter 3 - Technical Training

3.1 Call for Training.

- a.** The annual “Call for Training” is an agency tool used to identify a facility’s “training needs” regarding training courses offered by the FAA. The call for training is a "true need" of air traffic technical training for available slots in various FAA courses. “True need” is defined as training required for the organization to meet its mission.
- b.** Each fiscal year, Headquarters or the Eastern Service Area contacts ZDC-520 requesting the facility’s “Call for Training” in the upcoming fiscal year. When a “Call for Training” is received by ZDC-520, the SMT will solicit from facility second level management a listing of their personnel who have requested or require specific agency offered training courses.
- c.** Managers should consider both current and planned personnel assignments when identifying their personnel training requirements.

Chapter 4 - ZDC Training Requirements for Air Traffic Control Specialists

4.1 Field Qualification Training. All trainees from the FAA Academy who have successfully completed Stage 1 training will enter the ZDC Training Program. In accordance with FAA Order JO 3120.4 and as directed by the ZDC SMT, this training program includes completion of Stage 2A, Stage 2D and Stage 3R qualification training.

4.2 Assignment to Training. In addition to requirements of FAA directives and FAA Order JO 3120.4:

- a. Trainees are assigned to the Training Department during classroom and simulation portions of their training.
- b. The SMT will serve as the supervisor-of-record, to include PMS oversight for trainees through the classroom portion of Stage 2A. The SMT will serve as the supervisor-of-record for Stage 2D and Stage 3R trainees while attending class; however, the trainee's OS retains responsibility to complete the PMS requirements.
- c. After consultation with the SMT, when an in-house CPC transfers to a new area, the new OS will prepare and provide a Training Plan for the in-house CPC's training in the new area.

4.3 Classroom and Simulation Portions of Qualification Training – General. A passing score of 70 or greater is required on all map and Area Knowledge/Rating Tests. All written examinations, CBI tests and map tests administered during Stage 2A, Stage 2D and Stage 3R classroom training are pass/fail. One retake will be allowed if a passing score is not attained on a written examination.

4.4 Readiness to Begin Classroom/Simulation Training.

- a. The SMT will schedule the trainee for Stage 2D and Stage 3R training; the trainee will be notified of the class date, in writing.
- b. After a trainee achieves certification on all of their Stage 2D (RA Positions), a seasoning time of at least 30 calendar days must be completed. After completion of Stage 2D certifications, the trainee's OS must notify the SMT via email of the training team's intent regarding the amount of seasoning time required. Seasoning time is optional for En Route CPC-ITs (must be determined by the Training Team).

4.5 Stage 2A Assistant Controller (A-side) Training, in addition to requirements of FAA directives and FAA Order JO 3120.4.

- a. Due to the lack of automated flight data equipment (A-Side positions) at ZDC, instructor-led training on the current communication system and Flight Data Position (Automated), as specified in FAA Order JO 3120.4, will be administered as part of Stage 2D OJT at ZDC.
- b. Upon completion of Stage 2A training, the trainee must certify on the A-Side (Appendix E).

4.6 Stage 2D Radar Associate Controller (RA) Training, in addition to requirements of FAA directives and FAA Order JO 3120.4:

a. The ZDC 520 Training Department has developed a Stage 2D syllabus for the trainee that includes lesson plans for requisite items in FAA Order JO 3120.4, Appendix E.

b. Due to extensive radar coverage in all areas of specialization at ZDC, only the occasional use of non-radar control procedures is required. Therefore, the SMT has determined that non-radar lesson plans, strip marking and non-radar instructional simulation scenarios will not be taught/administered.

4.7 Stage 3R Radar Controller (R) Training, in addition to requirements of FAA directives and FAA Order JO 3120.4:

The ZDC Training Department has developed a Stage 3R syllabus for the trainee that includes lesson plans for requisite items in FAA Order JO 3120.4, Appendix E.

4.8 Proficiency Training. Conduct as required by FAA directives and FAA Order JO 3120.4.

a. Recurrent Training. In addition to requirements of FAA directives and FAA Order JO 3120.4.

(1) ZDC ATM and NATCA Facility Representative will collaborate and determine the number and names of facilitators selected to deliver the Recurrent Training workshop prior to each round of training.

(2) One management facilitator and one NATCA facilitator will instruct each recurrent training workshop.

b. Refresher Training. In addition to requirements of FAA directives and FAA Order JO 3120.4.

(1) ZDC 520 will maintain an annual (calendar year) refresher Training Plan for air traffic controllers that will include a minimum of 2 hours of simulation training in the TTL.

(2) ZDC Support Offices (utilizing ZDC Quality Control data; e.g., QC Monitoring, Service Reviews, Compliance Verification, Partnership for Safety Portal, etc.) are requested to provide any emphasis topics identified for inclusion in the Annual Refresher Training.

(3) OSs and CICs must receive Annual Refresher Training. Additional refresher training for OSs and CIC personnel will include a minimum of 1 hour of training that includes the handling of accidents, incidents, unusual situations, upward reporting, DEN notification and emergency events. Record all Refresher Training in the Employee's 3120-1.

(4) OS WMICs will receive annual training on the weather coordinator position.

(5) TMCs and STMCs may receive the annual refresher training as directed by the Traffic Management Officer.

c. Skill Enhancement Training (SET). There are two types of SET, Skill Improvement Training (SIT) and Skill Development Training (SDT), both must be administered at ZDC in accordance with FAA directives including FAA Order JO 3120.4 along with the following:

- (1) Coordinate with ZDC-520 training when selecting the various methods of SET. This coordination is to ensure all available forms of SET are taken into account.
- (2) The Training Team should decide if OJT continues during **SIT**. Pause all OJT while conducting **SDT**.
- (3) Schedule a meeting with a member of the training team and the SMT or designee to develop a clear understanding of the intent of the requested training for any SET conducted in the TTL. Items to be discussed include but are not limited to:
 - (a) Number of requested SET 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, hear back/read back, arrivals and safety alerts).
 - (c) If a suitable scenario does not exist, the requesting OS may be asked to send a member of the training team to assist in developing the requested scenarios and subsequent review of the completed scenarios.
 - (d) An email will follow with the date and time of SET scenarios scheduled in TTL.
- (4) The training team should be prepared to meet with the SMT or designee prior to the first SET to discuss lab techniques, completion of the 3120-25, and desired outcomes.
- (5) Complete in CEDAR FAA Form 3120-25, print, sign by all participants and submit to the Training Department for each SET scenario.
- (6) Forward all original SET documentation to the Training Department after ZDC Form 3120-2A SIT or 2B SDT is completed and fully signed/initialed.

d. Supplemental Training. All operational personnel must complete supplemental training prior to the use of new/revised procedures, regulations, or equipment. The SMT must review all supplemental training and update local training materials as appropriate.

e. Recertification Requirements. Conduct recertification in accordance with FAA directives and FAA Order JO 3120.4. Conduct recertification at ZDC for loss of currency and from a performance related decertification. Recertification in a particular month does not constitute currency for that month, unless the required number of currency hours are attained in the month recertified.

f. Resumption of OJT. When OJT is paused for 30 days or more, develop and/or amend a Training Plan in CEDAR to include Article 67 Time prior to resumption of OJT. Conduct an initial Training Team meeting to discuss all requirements to be included in the Training Plan. During Article 67 time, a “mandatory” team training meeting must be completed at least weekly to assess the trainee’s progress of returning to their previous level of competency.

Chapter 5 - Training and Proficiency Records and Reports

5.1 FAA Form 3120-1. An FAA Form 3120-1 (Pumpkin folder), or its electronic equivalent, will be maintained by ZDC-520 for ATCS individuals in accordance with FAA Directives, FAA Order JO 3120.4 and the Privacy Act of 1974.

5.2 Training and Proficiency Records. ZDC 520 will document and distribute ATCS training and proficiency records (TRAX sheets) for the ATCS review on a quarterly basis. Submit records signed by the trainee and a manager or support specialist, back to ZDC-520 for retention in FAA Form 3120-1.

5.3 Completing FAA Form 3120-25. The OJTI and trainee will complete FAA Form 3120-25 in its entirety. OSs should review the document for completeness, add their initials in box 10 and deliver the document to the OMIC, who will then place it in the training lockbox.

5.4 Adding Job Tasks to FAA Form 3120-25. Any Job Subtasks added to Block 12, Section G Other, will be subject to SMT approval. Any office or area at ZDC may request additional Job Subtasks be added from evidence-based “locally or nationally” identified issues. The SMT will review FAA Form 3120-25 on an annual basis to ensure Other Job Subtasks added to Section G are valid and apply to the current operation.

5.5 Disposition of Records and Reports.

a. Training documents (e.g., Training Plans, FAA Forms 3120-25) may be disposed of 1 year after reaching CPC status. Offer the CPC the training documents prior to the documents being disposed.

b. FAA Forms 3120-25 utilized for CPC/TMC recertification may be disposed of after the recertification has been documented with all appropriate signatures on the Training and Proficiency Record, FAA Form 3120-1, section III or TRAX.

5.6 Replacement of CEDAR

a. In the event CEDAR is replaced by another application management system that provides the same or similar functionality, the responsibilities within apply.

Chapter 6 - Air Traffic Control Specialist OJT and Position Certification

6.1 General. This chapter establishes requirements and procedures for standardization of instruction and evaluation of the OJT and position certification process. Conduct and record OJT at ZDC in accordance with FAA Directives and FAA Order JO 3120.4, unless specifically described in this chapter.

6.2 Documentation.

a. Document all OJF, OJT, SIT, SDT, PAs and CSCs using FAA Form 3120-25 in CEDAR. If CEDAR is unavailable, handwrite the training report. The OJTI completing the form will retain a copy and enter the information in CEDAR as soon as practical. Print operating initials alongside the signatures at the bottom of Box 12 of the form. See Section 5.6 for TEAM application.

b. The signed training form must be initialed in Box 10 by the OS, CIC, or OMIC and forwarded to the Training Department as soon as practical.

6.3 OJTI Selection, Certification, and Annual OTS Evaluation.

a. A facility OJTI panel will include a minimum of the area OM and the area NATCA representative, or their designees. When nominating the OJTI, the candidate is not required to demonstrate all of the abilities and attributes listed on ZDC Form 3120-148 (Appendix O). Before recommending the OJTI candidate, attributes needing further attention may require additional training.

b. Initial OJTI certifications and subsequent annual evaluations must be documented on ZDC OJTI Certification FAA Form 3120-151 (Appendix O) and forwarded to the Training Department.

c. All OJTIs must receive a skills check annually in the month of May. The initial certification and annual evaluations must be a minimum of 30 minutes.

d. The Training Department will place a file on the ZDC shared drive containing the status of OJTIs.

6.4 OJF/OJT

a. Training Plan.

(1) Record a Training Plan in CEDAR prior to OJF/OJT. Instructions for CEDAR recording:

- Select Trainee Snapshot→
- Select Create/Edit Training Plan→
- Select Training Objectives→
- Complete the Training Plan in its entirety

(2) Print and Signed by all training team members.

(3) Forward a copy (signed by all training team members) to the Training Department.

(4) Document in CEDAR any subsequent revisions to the Training Plan.

(5) Sign and forward revision to the Training Department.

(6) Increase maximum target hours by 20 hours for each of a trainee's first two radar positions.

(7) OJF is required for the first two radar associate and radar positions prior to starting OJT at each position. OJF hours for each operational position are listed in Appendix B. The training team may assign OJF for additional positions as written in the trainee's training plan. Document OJF in CEDAR on Form 3120-25 and forward to the Training Department.

- (a) The training team must determine what other tools will be used to assess the trainee's readiness for OJT, as listed on the Training Plan.
- (b) After assessing the trainee's readiness for training via the methods identified above, document in CEDAR the results of each assessment method via a training team meeting. Forward any supporting documentation (e.g. labeled maps, written quizzes) to the Training Department.

b. OJT Checklists.

(1) The intent of the "Initial" OJT Checklist is to cover areas not addressed in the TTL Lab. The Radar Associate "Initial" OJT Checklist (ZDC Form 3120-13, Appendix F) and Radar "Initial" OJT Checklist (ZDC Form 3120-14, Appendix G) must be provided to the trainee by the OS during the initial training team meeting. The Training Team OJTIs must complete the checklists with the trainee prior to beginning OJT for each stage of training (Stage 2D and Stage 3R). Once each line item is completed, the item must be initialed by the trainee and OJTI. Once the checklists are fully complete, they must be signed by both the trainee and the OS and recorded in the Training Plan. Only one "Initial" OJT Checklist is required for each stage of training (Stage 2D and Stage 3R).

(2) The intent of the "Position Specific" OJT Checklists are to cover the nuances of each individual position. Prior to beginning OJT on each specific position(s), the OS must provide the trainee with the RA "Position Specific" OJT Checklist (ZDC Form 3120-13RA) and/or Radar "Position Specific" OJT Checklist (ZDC Form 3120-14R) during the training team meeting. The "Position Specific" OJT Checklist is required for all RA and Radar positions.

- The Training Team OJTIs are responsible for completing the RA and Radar Position Specific OJT Checklists.
- Prior to conducting the first CSC on a position, the position specific checklists must be completed and returned to the trainee's OS. In the case where a CSC does not result in certification, only one checklist is required per position regardless of the number of CSCs conducted on that position.
- When a Knowledge/Skills line contains a single item/topic, once discussed and reviewed to the OJTI's satisfaction, the OJTI and trainee must initial and date that line.
- When a Knowledge/Skills line contains multiple items for review (e.g., ZTL LOA, ROA LOA and RDU LOA) and the item is satisfactorily reviewed, the OJTI will place a "checkmark" over the specific item. Each individual line item does not have to be completed at the same time. Once all items on a particular line have been satisfactorily reviewed, the OJTI and trainee must initial and date that line.
- The trainee's OS must attach the Position Specific OJT Checklist to the CSC (FAA Form 3120-25).

c. Training Team Meetings. Conduct and document a training team meeting when completing initial and/or revised Training Plans. Conduct a Training Team meeting after every PA and/or CSC. Training team meetings are highly beneficial; they should be conducted whenever necessary.

d. Radar Coordinator (RC) Training.

- (1) Stage 3R trainees must receive a minimum of 1 hour and a maximum of 14 hours of OJT on the RC position prior to certification on their first radar position.
- (2) Assigned RC hours must be included on the Training Plan.
- (3) RC OJT hours must be documented on FAA Form 3120-25.
 - (a) Box 3 must show the proper “sector name-L.”
 - (b) RC OJT hours do not count towards assigned target hours for any radar position.

e. Traffic Management Unit Orientation.

- (1) All trainees must complete 4 hours of orientation in the Traffic Management Unit (TMU) prior to certifying on their first radar position.
- (2) TMU orientation training should take place during a shift with significant convective or winter weather to allow observation of the planning and execution phases of various traffic management initiatives, especially the Severe Weather Avoidance Plan (SWAP).
- (3) TMU orientation training must be included on the Training Plan.
- (4) Document TMU orientation time on FAA Form 3120-25.
 - (a) Box 9 must indicate “OJF”.
 - (b) Box 12 must indicate “TMU FAM”.

f. Performance Assessments (PA)

- (1) All PAs must be a minimum of 30 minutes. The trainee’s OS or their designee must directly observe the performance and communication by plugging into the position.
 - (a) To the extent possible, PAs should be no more than 45 days apart.
 - (b) After consideration of previous performance during OJT, performance demonstrated during the PA session, recommendations resulting from the PA session and input from other training team members, the OS/STMC will take one of the following actions: continuation of OJT, SET, suspension of OJT, or recommend a CSC.

g. Certification Skill Check (CSC). A CSC is an evaluation to determine if a trainee demonstrates the knowledge and skill level necessary to certify on a position.

h. Special Requirements Following Certifications.

(1) Following certification on each sector, the training team should meet to determine if the trainee will season for the recommended 30 days.

(2) Assign a CPC to the RA position for 30 calendar days following the certification of a trainee or terminal CPC-IT on each of their first two radar positions. That CPC may conduct training on the RA position.

(3) Radar trainees who transfer to a different area of specialization must have a CPC assigned to the radar associate position (that CPC may conduct training on the RA position) for 30 calendar days after certifying on their first two radar positions in the new area. This requirement exists even if the trainee had already achieved certification on two or more radar positions in their previous area.

i. Combined Positions.

(1) PAs and CSCs must not be performed on combined positions unless training occurred on these combined positions, as listed in Appendix D.

(2) The consolidated positions must be identified in Block 3 of FAA Form 3120-25.

(3) En route CPC-ITs and OS-ITs, that have worked radar control positions within one year, may train in a RA/R combined configuration as long as it has been identified in the Training Plan.

(a) PAs and CSCs may be conducted in a combined RA/R configuration.

(b) Certification must first occur on the RA after the RA minimum target hours have been reached, or a combined CSC is permissible as long as the minimum target hours for the RA and R have both been accrued.

(c) CPC-ITs and OS-ITs (from approach control or tower options) and en route CPC-ITs and OS-ITs (who have not worked a radar control position for more than 1 year) are not permitted to train in a combined RA/R configuration.

j. Supplemental OJT Time is administered in accordance with FAA directives and FAA Order JO 3120.4.**k. Termination of Training.** A trainee whose training is terminated must be assigned to non-control duties pending disposition.

Chapter 7 – Training: Management, Traffic Management Unit and CIC.

7.1 Operations Manager (OM) Training. OMs must receive a tailored OJF/OJT program. After consideration of the prospective OMs background, a Training Plan will be determined by the ATM. OMs must complete the Certification Checklist (Appendix P) as part of their training.

7.2 Operations Supervisor (OS) Training. OSs must receive a tailored OJF/OJT program. The OM will develop a Training Plan after consideration of the prospective OSs background.

- a. Operations Supervisor (OS): Qualification Training.** The following must be completed prior to performing OS duties:
 - (1) OSs must certify on a minimum of two operational positions (1 R and/or 1 RA position). At least one operational position must be a radar position.
 - (2) OSs must complete the OS Certification Checklist, ZDC Form 3120-6 (Appendix L).
- b. Operations Supervisor (OS): Watch-Manager-In-Charge (WMIC) Training.**
 - (1) Complete ZDC Form 3120-7 prior to working the watch desk (Appendix Q).
 - (2) Complete ZDC Form 3120-17 prior to working the watch desk during the midnight operation (Appendix Q).
 - (3) OSs must be certified in their area for a minimum of 90 days and train during two midnight shifts with another OS to receive *training on watch desk midnight shift duties*.
- c. Operations Supervisor (OS): OS Out-of-Area (OSOA) Training.**
 - (1) OSs must be certified in their area for a minimum of 90 Days before becoming eligible to be nominated for OSOA duties, ZDC Form 3120-4 (Appendix M).
 - (2) ZDC Form 3120-12, OSOA Training Plan (Appendix L) and ZDC Form 3120-6, OS Checklist (completed for the new area, Appendix M) must be completed prior to being assigned to an alternate area.

7.3 Supervisor Traffic Manager Coordinator (STMC) Training. STMCs must receive a tailored OJF/OJT program. The TMO, after consideration of the prospective STMC's background, will develop the OJF/OJT Training Plan.

- a.** STMCs should complete FAA Course 50115 (Enhanced Traffic Flow Management) and FAA Course 53330001 (Time Based Flow Management) as soon as practical.
- b.** STMCs must complete eLMS 60004746 Special Use Airspace Management System (SAMS) Training.
- c.** STMCs must certify on all operational positions in TMU.

7.4 Traffic Management Coordinator (TMC) Training Requirements and Evaluation Criteria. Accomplish all TMC training in accordance with FAA Order JO 3120.4, Traffic Management Instructional Program Guide (Appendix G).

a. Stage 1: FAA Course 50115: Newly selected TMCs should complete FAA Course 50115 (Traffic Management Coordinator) as soon as practical.

b. Stage 2: FAA Course 55116: Facility Traffic Management Qualification and Certification, it is comprised of two parts, A and B. See Appendix R in this order for additional information.

(1) Prior to training on any TMU position, all employees are required to certify on two operational control positions at ZDC (radar and/or radar associate positions).

(2) Part A supplements and reinforces Course 50115 and prepares the TMC-IT for OJT.

(a) Allow up to 120 hours for this portion of training. Utilize FAA Form 3120-32, Traffic Management Coordinator OJT Instruction/Evaluation Report (Appendix R), to record all TMC training.

(b) Table 1 in Appendix R depicts a recommended 22-day schedule for Part A.

(3) Part B is successfully completed only after OJT and certification of the TMC.

(a) OJT is subject to the hours listed in Appendix R, Table 2.

(b) OJT is subject to position combinations listed in Appendix R, Table 3.

(c) The trainee's STMC must carefully monitor the progress of each trainee. Pass/Fail criteria apply to this stage of qualification training. Process a training suspension in accordance with agency directives.

(d) Performance Assessments (PAs): Accomplish a PA each calendar month for every position at which training is being conducted. It will be documented on FAA Form 3120-32, and include an appropriate recommendation in accordance with FAA Order JO 3120.4.

(e) Certification Skill Checks (CSCs): Accomplish a CSC in accordance with FAA Order JO 3120.4. It will be documented on FAA Form 3120-32, and include an appropriate recommendation in accordance with the provisions of that directive.

(4) 180 Day Detail- the training of those on a 180 detail will be modified to accommodate the length of the detail: the differences in training will be as follows:

(a) 180 details when train on ESP and Departure Coordinator, workload and staffing permitting additional positions can be added.

(b) They will not be required to attend the FAA Academy, Enhanced Traffic Management Coordinator Course.

(c) They still need to draw the ZDC Map and become familiar with the facility as a whole. They will have at least two familiarization days to visit one of the DC Metro Area Towers (BWI/DCA/IAD) and PCT/ATCSCC on the second day. However, they do not have to complete Appendix R of this order.

7.5 Controller-in-Charge (CIC) Training.

a. Newly selected CICs must complete ZDC's CIC course, prior to performing CIC duties. ZDC Form 3120-16 CIC Checklist must be completed and signed prior to recommending certification. Submit the completed checklist to the Training Department.

b. Upon completion of all required training, the OS recommending certification must forward a completed FAA Form 3120-36, with all job tasks checked satisfactory and/or reviewed, as appropriate, to ZDC-520. ZDC-520 will obtain the signature from the certifying official (ATM) or his/her designee and notify the OM/OS that the new CIC is certified.

- c.** CPC-ITs who were previously CIC certified must complete the current ZDC local CIC course, receive OJT, and a certification. OSs/STMCs who were not CIC certified, returning to the bargaining unit must complete the CIC course; receive OJT, and a certification. ZDC CICs that transfer between Areas/TMU are required to receive 8 hours of OJT and a certification in their new area.
- d.** All CICs must complete annual CIC refresher training.

Related Publications.

- FAA Order JO 3120.4, Air Traffic Technical Training (National Training Order)
- FAA Order JO 7210.3, Facility Operations and Administration
- Employment Policy for Air Traffic Control Specialists in Training, EMP-1.14a (or current version)
- Agreement between the National Air Traffic Controllers Association (NATCA) and the Federal Aviation Administration (FAA)

Forms and Reports.

- ZDC Form 3120-1T Training Plan TMU
- ZDC Form 3120-2A Skill Improvement Training (SIT)
- ZDC Form 3120-2B Skill Development Training (SDT)
- ZDC Form 3120-4 OSOA Nomination Form
- ZDC Form 3120-6 OS OJT and Certification Checklist
- ZDC Form 3120-7 WMIC Checklist and Certification
- ZDC Form 3120-8 Supplemental OJT Time
- ZDC Form 3120-9 Assistant Controller (A-Side) Training Plan, OJT, and Certification
- ZDC Form 3120-12 OSOA Training Plan
- ZDC Form 3120-13 Radar Associate Initial OJT Checklist
- ZDC Form 3120-13RA Radar Associate Position Specific OJT Checklist
- ZDC Form 3120-14 Radar Initial OJT Checklist
- ZDC Form 3120-14R Radar Position Specific OJT Checklist
- ZDC Form 3120-15 OMIC OJT and Certification Checklist
- ZDC Form 3120-16 CIC OJT Checklist
- ZDC Form 3120-17 WMIC Weather Coordinator Checklist
- ZDC Form 3120-32 Traffic Management Coordinator OJT/Instruction Evaluation Report
- FAA Form 3120-36 CIC OJT Instruction/Evaluation Report
- ZDC Form 3120-148 OJTI Candidate Abilities and Attributes Form
- FAA Form 3120-151 OJTI Certification and Evaluation Form

Appendix A. Map Requirements

Grading Criteria for all map tests: *Minimum Passing Grade is 70.* We start at 100 points and deduct the following for each missing item:

- | | |
|--|---|
| a. NAVAIDs: | 5 points |
| b. Airways/Routes: | ¼ point per segment |
| | 2 points maximum for each airway route. |
| c. Sector or Approach Name/Number/Altitudes: | 1 point each |
| d. All other items: | ¼ point |

Center Chart - Stage 2 Trainees and all Transferees (including terminal)

Stage 2A - Center Chart:

The purpose of the Center Chart is to give the trainee a broad overview of the facility's geographical airspace, primarily in and around their area of specialization.

Given a Center Chart depicting the location of NAVAIDS, sector boundaries both intrafacility and interfacility, adjacent center boundaries, and SAA as applicable, you must label:

Without References:

- a. All NAVAIDS (inside and outside ZDC), as depicted on the center chart. (Exclude NDB's, except those that are part of a Jet Route structure).
- b. Sector names, numbers, and altitudes in and adjacent to your area of specialization.

(Note 1: Stage 2A instructors will advise each student of the applicable sectors within adjacent centers, specific to each area of specialization).

- c. Adjacent center boundary lines.
- d. J/Q routes. Intersections/waypoints are not required.

With References:

- e. Names and/or Identifiers of SAA (Ex: R-6604, Farmville MOA, W-122) in and adjacent to your area.

(Note 2: Exclude SAA within an approach control when the altitude limits are solely within the approach control. Stage 2A instructors will advise each student of the applicable SAA for their area of specialization).

Stage 2A - Area Chart:

Given an area chart area depicting NAVAIDS, sector boundaries, Victor Airways, J/Q routes, SIDs, STARs, adjacent center boundaries, and SAA, you must label:

- a. NAVAIDS (Excluding NDB's, except those that are part of an airway structure) in and adjacent to your area.
- b. Names and/or Identifiers of SAA (Ex: R-6604, Farmville MOA, W-122) in and adjacent to your area.

(Note 3: Exclude SAA within an approach control when the altitude limits are solely within the approach control. Stage 2A instructors will advise each student of the applicable SAA for their area of specialization).

- c. Sector names, numbers, and altitudes, both intrafacility and interfacility, in and adjacent to your area of specialization.

(Note 4: Stage 2A instructors will advise each student of the applicable sectors within adjacent centers, specific to each area of specialization).

- d. SIDs and STARs.

(Note 5: Stage 2A/D instructors will advise trainees of applicable SIDs/STARs, specific to each area of specialization and/or training sector. SID/STAR knowledge checks may instead be conducted during Stage 2D via map or other testing method).

- e. Adjacent approach control airspace, including altitudes.

(Note 6: Due to the volume and complexity of approach control airspace within ZDC, Stage 2A instructors will provide instructions to each student, specific to each area of specialization).

- f. All Victor Airways, Jet, AR, Q & T –Routes.
 - a. To first fix and NAVAID outside your area, unless the first fix is not depicted on your map.
 - b. If entering an approach control with upper limits AOA 17,000ft, label to first fix in approach control's airspace.
 - c. Off airway fixes, waypoints, and intersections contained in your **OFF AIRWAY FIX** Supplement.
- g. Fixes, waypoints, and intersections on victor airways, J/Q Routes, ARs, as directed by the Stage 2A instructors.
- h. Label all airports (with alphanumeric ID) contained in and adjacent to your area. (Adjacent is defined as anything within approximately 15 miles of your sector/approach boundary).

Stage 2D - Approach Chart:

Given an approach chart for an airport within the trainee's area of specialization, you must label portions of the approach chart, as directed by your Stage 2D instructors.

(Note 7: Area 1 and Area 4 trainees are exempt from this requirement, as there are no airports within their airspace in which ATC provides approach control service).

Stage 2D: Radar Display Maps:

Given an unlabeled radar display map for your training sector depicting specific map items from the list below, you must label:

- a. NAVAIDs
- b. Adjacent inter/intrafacility sectors in and around your area of specialization, including altitudes
- c. Adjacent approach control airspace, including altitudes
- d. Airways/Routes
- e. Intersections/Waypoints

(Note 8: Due to the complexity of ZDC airspace and the vast majority of published minimum altitudes with approach controls, instructors will provide instructions to each student, specific to each area of specialization. Testing may be written or verbal).

- f. SAA names and altitudes

Appendix B. Area Target Hours

Note: ATCSs and OSs from terminal or combined facilities may require target hour adjustments based on Trainee/CPC status at their previous facility, and type of facility experience.

Area 1 (Big Apple)													
RADAR ASSOCIATE							RADAR						
SEC	OJF	TRN1	OJF	APCH	OJF	CPC	SEC	OJF	TRN1	OJF	APCH	OJF	CPC
A	0	02/20	0	02/15	0	02/10							
11	2	20/100	2	10/100	2	10/80	11	2	30/130	2	10/120	2	10/100
17	2	20/100	2	10/100	2	10/80	17	2	40/160	2	10/140	2	10/120
18	2	10/100	2	10/100	2	10/80	18	2	30/130	2	10/120	2	10/100
19	2	10/100	2	10/100	2	10/80	19	2	30/130	2	10/120	2	10/100
4	2	04/100	2	04/100	2	04/80	4	2	30/130	2	10/120	2	10/100
10	2	04/100	2	04/100	2	04/80	10	2	30/130	2	10/120	2	10/100
12	2	04/100	2	04/100	2	04/80	12	2	30/130	2	10/120	2	10/100
TRN1 = CTI, MARC,VRA, FAA ACADEMY, Terminal CPC Transferees ATC-9 or less, Terminal trainees ATC-10+													
APCH = Terminal CPC Transferees from an ATC-10 or greater							CPC = En Route CPC Transferees						
Area 2 (DC Metro South)													
RADAR ASSOCIATE							RADAR						
SEC	OJF	TRN1	OJF	APCH	OJF	CPC	SEC	OJF	TRN1	OJF	APCH	OJF	CPC
A	0	02/20	0	2/15	0	2/10							
14	2	10/80	2	8/70	2	5/70	14	2	20/140	2	15/120	2	10/100
16	2	10/80	2	8/70	2	5/70	16	2	20/140	2	15/120	2	10/100
20	2	10/80	2	8/70	2	5/70	20	2	20/140	2	15/120	2	10/100
21	2	10/80	2	8/70	2	5/70	21	2	20/140	2	15/120	2	10/100
27	2	10/80	2	8/70	2	5/70	27	2	20/140	2	15/120	2	10/100
33	2	10/80	2	8/70	2	5/70	33	2	20/140	2	15/120	2	10/100
36	2	10/80	2	8/70	2	5/70	36	2	20/140	2	15/120	2	10/100
38	2	10/80	2	8/70	2	5/70	38	2	20/140	2	15/120	2	10/100
TRN1 = CTI, MARC,VRA, FAA ACADEMY, Terminal CPC Transferees ATC-9 or less, Terminal trainees ATC-10+													
APCH = Terminal CPC Transferees from an ATC-10 or greater							CPC = En Route CPC Transferees						

Appendix B. Area Target Hours

Note: ATCSs and OSs from terminal or combined facilities may require target hour adjustments based on Trainee/CPC status at their previous facility, and type of facility experience.

Area 3 (Snowbird)													
RADAR ASSOCIATE							RADAR						
SEC	OJF	TRN1	OJF	APCH	OJF	CPC	SEC	OJF	TRN1	OJF	APCH	OJF	CPC
A	0	02/20	0	2/15	0	2/10							
9	2	20/100	2	2/100	2	2/80	9	2	20/140	2	20/140	2	10/140
25	2	20/120	2	20/120	2	2/80	25	2	20/180	2	20/180	2	20/180
26	2	10/80	2	2/80	2	2/50	26	2	20/80	2	20/80	2	10/80
30	2	02/20	2	02/20	2	02/20	30*	2	02/20	2	02/20	2	02/20
34	2	20/100	2	2/100	2	2/80	34	2	20/140	2	20/140	2	10/140
35	2	20100	2	2/100	2	2/80	35	2	20/140	2	20/140	2	10/140
50	2	20/100	2	2/100	2	2/80	50	2	20/140	2	20/140	2	10/140
TRN1 = CTI, MARC,VRA, FAA ACADEMY, Terminal CPC Transferees ATC-9 or less, Terminal trainees ATC-10+													
APCH = Terminal CPC Transferees from an ATC-10or greater							CPC = En Route CPC Transferees						
* OBX (ZDC30): Radar trainees with 09/50 certification will have reduced minimums to: TRN1 - 2/70, APCH - 2/70, CPC - 2/70													

Area 4 (Philly)													
RADAR ASSOCIATE							RADAR						
SEC	OJF	TRN1	OJF	APCH	OJF	CPC	SEC	OJF	TRN1	OJF	APCH	OJF	CPC
A	0	02/20	0	2/15	0	2/10							
23	2	20/80	2	10/80	2	8/60	23	2	25/120	2	20/100	2	10/60
39	2	20/80	2	10/80	2	8/60	39	2	25/120	2	20/100	2	10/60
51	2	20/80	2	10/80	2	8/60	51	2	25/120	2	20/100	2	10/60
53	2	20/80	2	10/80	2	8/60	53	2	25/120	2	20/120	2	10/60
54	2	20/80	2	10/80	2	8/60	54	2	25/120	2	20/120	2	10/60
58	2	20/80	2	10/80	2	8/60	58	2	25/120	2	20/120	2	10/60
59	2	20/80	2	10/80	2	8/60	59	2	25/120	2	20/120	2	10/60
TRN1 = CTI, MARC,VRA, FAA ACADEMY, Terminal CPC Transferees ATC-9 or less, Terminal trainees ATC-10+													
APCH = Terminal CPC Transferees from an ATC-10or greater							CPC = En Route CPC Transferees						

Appendix B. Area Target Hours

Note: ATCSs and OSs from terminal or combined facilities may require target hour adjustments based on Trainee/CPC status at their previous facility, and type of facility experience.

Area 5 (CLT / ATL)													
RADAR ASSOCIATE							RADAR						
SEC	OJF	TRN1	OJF	APCH	OJF	CPC	SEC	OJF	TRN1	OJF	APCH	OJF	CPC
A	0	02/15	0	2/15	0	2/10							
7	2	30/120	2	10/90	2	10/40	7	2	30/140	2	20/100	2	10/80
22	2	30/120	2	10/90	2	10/40	22	2	30/140	2	20/100	2	10/80
31	2	20/100	2	10/80	2	5/40	31	2	30/120	2	20/100	2	10/80
32	2	30/120	2	10/90	2	10/40	32	2	30/180	2	20/140	2	10/80
52	2	30/120	2	10/90	2	10/40	52	2	30/140	2	20/100	2	10/80
60	2	30/120	2	10/90	2	10/40	60	2	30/180	2	20/100	2	10/80
72	2	30/120	2	10/90	2	10/40	72	2	30/140	2	20/100	2	10/80
TRN1 = CTI, MARC,VRA, FAA ACADEMY, Terminal CPC Transferees ATC-9 or less, Terminal trainees ATC-10+													
APCH = Terminal CPC Transferees from an ATC-10 or greater							CPC = En Route CPC Transferees						
Area 6 (DC Metro West)													
RADAR ASSOCIATE							RADAR						
SEC	OJF	TRN1	OJF	APCH	OJF	CPC	SEC	OJF	TRN1	OJF	APCH	OJF	CPC
A	0	02/20	0	2/15	0	2/10							
1	2	10/60	2	10/60	2	10/60	1	2	10/60	2	10/60	2	10/60
2	2	10/100	2	10/90	2	10/40	2	2	10/100	2	10/90	2	10/80
3	2	10/100	2	10/100	2	10/80	3	2	10/120	2	10/120	2	10/100
5	2	10/100	2	10/90	2	10/40	5	2	10/100	2	10/90	2	10/80
6	2	10/100	2	10/100	2	10/80	6	2	10/120	2	10/120	2	10/100
15	2	10/100	2	10/100	2	10/80	15	2	10/120	2	10/120	2	10/100
29	2	10/100	2	10/80	2	10/40	29	2	10/100	2	10/90	2	10/80
37	2	10/100	2	10/100	2	10/40	37	2	10/120	2	10/120	2	10/100
42	2	10/100	2	10/90	2	10/40	42	2	10/120	2	10/100	2	10/80
16 hours if certified at D03 2 hours if certified at D03							14 hours if certified at R03						
TRN1 = CTI, MARC,VRA, FAA ACADEMY, Terminal CPC Transferees ATC-9 or less, Terminal trainees ATC-10+													
APCH = Terminal CPC Transferees from an ATC-10 or greater							CPC = En Route CPC Transferees						

Appendix C. Supplemental OJT Time

Supplemental OJT Time <i>(Cannot exceed 20% of Target Hours for the position)</i>				
Trainee / CPC-IT:			Date:	
Stage of Training :			Position:	
a) Current Maximum Target Hours:			Current OJT Hours Used:	
b) Supplemental Hours Requested <i>(cannot exceed 20% of box "a")</i> :				
c) New Proposed Target Hours Total <i>(a + b)</i> :				
<u>Training Team Comments:</u>				
Employee's OS/STMC				
(Name)			(Signature)	
OS: Forward form, with your signature only, to the area OM.				
Operations Manager	Approved: ☐	Disapproved: ☐	(Name)	(Signature)
OM: Review training documentation prior to approving/disapproving request. Advise the OS if the request for supplemental OJT time is "approved or disapproved." Return the form to the OS.				
OS: Advise the training team of the area OM's decision. If the request for supplemental OJT time was approved, then obtain signatures:				
Training Team OJTI				
Training Team OJTI				
Trainee / CPC-IT				
(Name)			(Signature)	
OS: Forward the original fully signed form to ZDC-520, with a copy retained in the OS's records.				

Appendix D. Combined Positions for OJT and Certification**OJT ALLOWED ON COMBINED POSITIONS**

Area 1:	Any sector combination with a maximum of two sectors receiving
	OJT or 10/11/12 or 17/18/19 when not alerted in the NAS monitor.
Area 2:	Any sectors, in any combination
Area 3:	25 (EWN) / 26 (SAM)
	34 (ORF) / 50 (YKT) / 30 (OBX)
	35 (ILM) / 09 (DIW)
Area 4:	23 (CCV) / 54 (SBY)
	51 (CAS) / 53 (ENO)
	58 (CYN) / 59 (SIE)
Area 5:	Any sectors, in any combination
Area 6:	Any sectors, in any combination
<i>Note 1 : If training at combined positions, each position in the combination must be in the training plan.</i>	

Appendix D. Combined Positions for OJT and Certification**CERTIFICATION SKILL CHECKS
ALLOWED ON COMBINED POSITIONS**

Area 1:	10 (BAY) / 12 (BRV)
	18 (DQO) / 19 (OOD)
Area 2:	27 (LIB) / 36 (RDU)
	36 (RDU) / 38 (TYI)
	20 (BKT) / 14 (IRS)
	21 (DOM) / 33 (FKN)
	21 (DOM) / 20 (BKT)
	20 (BKT) / 21 (DOM) / 33 (FKN)
	16 (HPW) / 20 (BKT)
	21 (DOM) / 27 (LIB) / 33 (FKN)
Area 3:	All low sectors (24,25,26,28) in any combination
	34 (ORF) / 50 (YKT) / 30 (OBX)
	35 (ILM) / 09 (DIW)
Area 4:	23 (CCV) / 54 (SBY)
	51 (CAS) / 53 (ENO)
Area 5:	31 (AZA) / 60 (MOL)
	07 (WAH) / 72 (SHD)
	32 (GVE) / 52 (TEC)
	31 (AZA) / 60 (MOL) / 22 (SBV)
	52 (TEC) / 72 (SHD)
	32 (GVE) / 07 (WAH)
Area 6:	01 (EKN) / 15 (BLR)
	02 (CSN) / 05 (LDN)
	01 (EKN) / 29 (HSP)
	15 (BLR) / 06 (HGR)
	03 (MOR) / 42 (BRY)

Appendix E. Assistant Controller (A-Side) Training Plan / OJT / Certification

ASSISTANT CONTROLLER (A-SIDE) TRAINING PLAN / OJT / CERTIFICATION					
Training Plan/Hours	1. Employee Name	2. Date	3. Area	4. OMIC Initials	
	5. Target Hours	6. Session Hours			
	Min / Max	OJT This Session	Total OJT	Certification ("X" if yes)	Recert ("X" if yes)
	/				
	7. OJT	Initials	Date		
OJT	8. Applicable Job Subtasks				Discussed
	A.	Strip Posting is complete/correct.			
	(1)	Strip Posting URET: Non radar flights, arrival/depts where provide approach services, etc.			
	(2)	Strip Posting Non-URET: Identifying sector number on strips; where to post.			
	(3)	GI Message distribution: SIGMET, AIRMET, CWA, Outages, TMU restrictions.			
	(4)	Strip Posting is complete/correct.			
	B.	Equipment capabilities are utilized/understood.			
	(1)	Printer operation. Online, Offline, Alarm.			
	(2)	Loading paper into printer.			
	C.	Relief briefings are complete and accurate (includes A-Side position relief checklist).			
	<i>Note 1: Due to the nature of the job subtasks, A-Side Certifications, although conducted in the initially assigned area, are applicable to all areas.</i>				
	<i>Note 2: Employees assigned A-Side duties are limited to the job subtasks identified above. Flight plan amendments and coordination cannot be accomplished in absence of physical A-side positions and associated equipment at ZDC.</i>				
	9. Comments				
	OJT/OS Signature (print/sign):			Date:	
	10. Employee Signature:			Date:	
	Certification	11. Certification			
I certify that this employee meets qualification requirements and is capable of working under general supervision.					
	Employee's OS (print/sign):			Date:	

Appendix F. Radar Associate Initial OJT Checklist

Area:	Trainee:	Position(s):		
JOB TASK		OJTI	TRAINEE	DATE COMPLETE
EQUIPMENT				
VSCS				
TX/RX functions				
STBY/BUFC functions				
Cross-Coupling				
Guard (site/use)				
Combined positions/mid-shift configuration				
Interphone				
Shout lines/dial codes/PTT/override functions				
Manual dial (INIT 3**/6**)				
Monitor (*2xx)				
Supervisor (*5xx)				
Tools and views – SCRA ALT				
Air-to-Ground (A/G1) (A/G2)				
Auto voice route				
Ground-to-Ground (G/G1) (G/G2)				
Holler ON/OFF (CALL FWD)				
Utility (UTIL)				
*/ * RTN				
SPLIT MODE				
Key Click				
DEGAUSS				
S/W MAINT				
System Tones				
OVR Tone				
Side Tone				
Panel Brightness				
Opening and closing positions				
Forward/unforward calls				
Required coordinations				
Equipment checks				
Equipment failure				
VSCS – VTABS				
Limited resources				
EDST and Sector Operations				
Set-up				
Equipment checks/outage reporting				
ACL not populating/clock not updating				
Not probing/no updates received				

Appendix F. Radar Associate Initial OJT Checklist

Area:	Trainee:	Position(s):		
JOB TASK		OJT	TRAINEE	DATE COMPLETE
Tool available for team				
WIND CRD-UA CRD-MCA STATUS				
WIND – center map/range/ altitude				
Automated Pointouts				
NON-RADAR				
Initial separation of successive departing aircraft				
Initial separation of departing and arriving aircraft				
Longitudinal separation				
Lateral separation				
Vertical separation				
TMU				
Metering				
VISUAL				
Non-approach control towers				
I acknowledge that all items in this checklist have been completed.				
Operations Supervisor:				
NAME		SIGNATURE		DATE
Trainee/CPC-IT:				
NAME		SIGNATURE		DATE
*Mandatory completion on first Radar Associate sector(s). Forward to ZDC-520 when checklist is completed and signed.				

Appendix G. Radar Initial OJT Checklist

Area:	Trainee:	Position(s):		
KNOWLEDGE/SKILLS		OJTI	TRAINEE	DATE COMP
SECTOR SATURATION				
Strategic steps to avoid overload				
Initiate/implement MIT requirements				
Initiate/implement route requirements				
Initiate/implement altitude restrictions				
Stop traffic departures/holding				
Monitor Alert Parameters (MAP #s)				
Use of Radar Coordinator Position				
Split mode (which jack is appropriate)				
Keyboard Entries				
Communication between radar/radar coordinator				
RADAR				
Identification status				
Duplicate flight plans				
Radar sites				
Site coverage				
Outage impact				
Single site				
NON-RADAR				
Initial separation of successive departing aircraft				
Initial separation of departing and arriving aircraft				
Longitudinal separation				
Lateral separation				
Vertical separation				
VISUAL				
Visual separation				
Visual approaches				
Contact approach				
Special VFR				
UNUSUAL SITUATIONS, SPECIAL FLIGHTS AND EMRGs				
Stuck mic				
TRAFFIC MANAGEMENT				
Metering				
I acknowledge that all items in this checklist have been completed.				
Operations Supervisor:				
NAME		SIGNATURE		DATE
Trainee/CPC-IT:				
NAME		SIGNATURE		DATE
*Mandatory completion on first RA sector(s). Forward to ZDC-520 when checklist is completed and signed.				

Appendix H. Skill Improvement Training

SKILL IMPROVEMENT TRAINING (SIT)					
Name:			Date:		
Requested by Employee (Name): <u>or</u> by Training Team (if yes, put "X" here):			For Position Certified/Receiving OJT:		
For Job Tasks/Subtasks on 3120-25:			Date Started	Date Completed	Employee Initials
1.					
2.					
3.					
4.					
5.					
<i>Initial/Date above <u>AFTER</u> completing SIT</i>					
a. OSs/STMCs are required to coordinate with the SMT to identify the specific SIT. b. In this Box, list the specific training for each Job Task/Subtask above, as developed and/or approved by the SMT, as appropriate. Include goals, duration, and methods of training. c. If the SIT was requested by the Training Team, the OS/STMC must provide the trainee a memorandum of the skills on Form 3120-25 to be enhanced.					
<i>If simulation is requested, what Mon-Fri Dayshifts are the Training Team available to complete the SIT?</i> <i>If receiving OJT at the position, CONTINUE or PAUSE OJT during SIT? (Continue or Pause):</i> <i>OSs/STMCs: At the conclusion of SIT for a trainee, conduct a training team meeting to assess the effectiveness of the SIT.</i>					
Employee					
		(Name)		(Signature)	
Employee Comments:					
Training Team OJTI					
Training Team OJTI					
OS/STMC					
SMT					
		(Name)		(Signature)	

Appendix H. Skill Development Training

SKILL DEVELOPMENT TRAINING (SDT)					
Employee Name:			Date:		
For Position Certified or Receiving OJT:			<i>Note: Pause OJT when SDT is needed</i>		
For Job Tasks/Subtasks on 3120-25:			Date Started	Date Completed	Employee Initials
1.					
2.					
3.					
4.					
5.					
<i>Initial/Date above <u>AFTER</u> completing SDT</i>					
a. OSs/STMCs are required to coordinate with the SMT to identify the specific SDT <u>prior</u> to completing this form. b. List the specific performance deficiency(s) and training methods for each job task(s) above. c. State the desired outcome.					
<i>If simulation is requested, what Mon-Fri Dayshifts are the Training Team available to complete the SDT? _____</i> <i>Did SDT meet objectives? _____ If NO, additional SDT may be required per FAA Order 3120.4.</i> <i>See the SMT for further guidance.</i>					
Employee					
(Print Name)		(Signature)			
Employee Comments:					
Training Team OJTI					
Training Team OJTI					
OS/STMC					
SMT					
(Print Name)		(Signature)			

Appendix I. Annual Refresher Training Program

1. Facility Developed Curriculum. In addition to nationally assigned courses, the following non-technical training will be assigned each year as required:

- a. Fire Extinguisher Training.
- b. NATCA/FAA CBA Article 75, Sec 2, Annual Briefing on Reporting Certain Injuries.
- c. AT Facility Continuity Contingency Plan.
- d. Facility Security and Emergency Supplement.
- e. Managers/CICs: Facility developed refresher for handling accidents, incidents, unusual situations, upward reporting, DEN notifications and emergency events, along with any other locally developed training as determined by the SMT.
- f. Managers working midnight operations: 1-hour refresher on the weather coordinator position.

2. Washington Center Comprehensive Refresher Course.

- a. Safety Alerts and Traffic Advisories
- b. MSAW
- c. TCAS Resolutions
- d. Aviation Security Procedures: Targets of Interest & Interceptors
- e. Aviation Security Procedures: SFRA Procedures
- f. Emergencies
- g. Minimum Fuel
- h. Lost or Overdue Aircraft
- i. Capital SCRAM Procedures
- j. Loss of Two-Way Communication
- k. Visual Separation
- l. Contact Approaches
- m. VTABS
- n. RVSM Requirements
- o. Handling Weather Deviations into Special Use Airspace
- p. Other briefings or courses as determined by the SMT.

3. Additional Refresher Items for TMU.

- a. Playbooks:
 - (1) Structured routes into ZDC

- (2) Structured routes to get out of ZDC
 - (3) Common cap/tunnel plays
- b. Pathfinders
 - (1) Use of pathfinders
 - (2) Benefits
 - (3) Requirements
 - (4) Best practices
- c. AFPs
 - (1) Common FEAs
 - (2) How to create FEAs
 - (3) Best practices

4. Simulation Training. Simulation Training must be conducted annually in the Test and Training Lab (TTL). All air traffic personnel maintaining currency must attend the training. Simulation training shall be at least two hours and include, at a minimum, the following topics (unless designated by the SMT for training as not applicable):

- a. Unusual Situations
- b. Emergencies
- c. Lost Aircraft Orientation
- d. Hijacks/Airspace Intruders/Cockpit Threats
- e. Airspace Intruder
 - (1) Tracked and untracked targets
 - (2) Violators who “have and have not” established 2-way communications
 - (3) Mode C and non-Mode C equipped targets
- f. DEN notification requirements
- g. Seldom-Used Procedures: Topics as determined by the SMT in the Refresher Course
- h. Military Operations
 - (1) Military Operations: Special Use Airspace
 - (2) Special Use Airspace / MTRs
- i. Primary Backup
 - (1) Transitioning to/from normal operations to backup operations
 - (2) Unique radar/FD processing used while in backup
 - (3) Control and Communication associated with using the backup.

Appendix J. Scenario Development

This appendix establishes the Washington ARTCC traffic count guidelines for scenario development. Evaluation numbers were determined by taking the busiest 1-hour period on the 70th busiest day at a facility in a given calendar year. The volume in this 1-hour period will be the 100 percent scenarios volume level in the instructional, pre-evaluation, and evaluation scenarios.

Area	Sector	70% Aircraft in Problem per hour. Max data blocks on scope at any time (70%)	80% Aircraft in Problem per hour. Max data blocks on scope at any time (80%)	90% Aircraft in Problem per Hour. Max data blocks on scope at any time (90%)
1	11	19/11	21/13	23/14
2	21/33	19/11	21/12	23/13
*3	35	19/12	22/14	24/16
4	51	16/10	20/11	24/12
5	22	17/10	20/12	22/14
6	01/15	25/11	30/13	34/14

**Note – In order to accomplish all required low altitude training, Sector 25 will be used for up to 4 additional scenarios.*

Stage 2D Stage 3R Simulation

K.1 Stage 2D, D-Side Simulation (all scenarios with EDST).

Volume	Type	Number of Scenarios
n/a	Radar Associate Part-Tasking	Variable
50%	Instructional	2
60%	Instructional	2
70%	Instructional	10
70%	Pre-Evaluation	1
70%	Evaluation	1
80%	Instructional	12
80%	Evaluation	1
90%	Instructional	14
90%	Evaluation	1

K.2 Stage 3R, Radar Simulation.

Volume	Type	Number of Scenarios
n/a	Radar Part-Tasking	Variable
50%	Instructional	2
60%	Instructional	2
70%	Instructional	10
70%	Pre-Evaluation	1
70%	Evaluation	1
80%	Instructional	12
80%	Evaluation	1
90%	Instructional	14
90%	Evaluation	1

K.3 These tables represent the minimum number of required scenarios. More scenarios may be added in the schedule to ensure continuity of training (e.g., if an evaluation scenario would occur following a holiday weekend, the SMT may determine extra scenarios will be administered so as to move the evaluation to the following workday).

Note: In order to cover all required content in Stage 2D/Stage 3R, when a high altitude sector is the primary training sector, up to four additional scenarios may be completed on the area's low altitude sectors.

A panel determines the training sector. This panel is comprised of the Area rep, Area OM, NATCA Training Rep, and the SMT or their designee. The final decision is the responsibility of the SMT.

K.4 At the direction of the SMT, additional Stage 2D/3R scenario(s) may be added upon satisfactory completion of the evaluation, based on time, class structure, schedules, and available resources. These scenarios may include additional scenarios at a higher complexity and/or high-altitude scenarios. Any additional scenario(s) may involve the radar associate trainee being given the opportunity to work the radar position. When conducted, these scenarios provide an interactive trainee/instructor session, for the student to gain an understanding of the radar-team concept.

K.5 Stage 2D/3R evaluation scenarios may involve the following situations:

- a. Applying separation rules (radar and non-radar):
 - (1) Crossing, converging, recovery, and opposite direction traffic.
 - (2) Overtakes.
 - (3) Separation from adjacent airspace, obstructions, and special use airspace.
 - (4) Successive arrivals and departures.
 - (5) Simultaneous arrivals and departures.
 - (6) Arrivals with altitudes inverted.
 - (7) Domestic reduced vertical separation minima (DRVSM).
- b. Communication and coordination:
 - (1) Hear-back/read-back errors.
 - (2) Transfer of control and communications, handoffs, point-outs.
 - (3) Communication with aircraft through other than direct pilot-controller communication.
 - (4) Inter/intra facility coordination.
 - (5) Coordinate restrictions.
 - (6) Verify information.
- c. Clearances and control information:
 - (1) IFR clearances.
 - (2) Clearance to alternate airport.
 - (3) VFR-on-top (VFR/OTP).
 - (4) VFR traffic encountering IFR.
 - (5) Route change in flight.
 - (6) Arrivals and departures.
 - (7) Approaches, including high-altitude IFR approaches.
 - (8) Holding.
 - (9) Transfer of control and communications.
 - (10) Air-files and VFR popups.
 - (11) Request for altitude change at assigned altitude.

d. Procedures:

- (1) Interphone procedures.
- (2) Approach control saturation.
- (3) Special flight operations.
- (4) Military procedures (e.g., SUA, MARSA. aerial refueling, changes in destination).
- (5) Areas of marginal radar coverage.
- (6) Position Relief Briefing.

e. Emergencies and equipment outages:

- (1) Loss of communication.
- (2) Inflight equipment malfunctions.
- (3) Overdue aircraft.
- (4) Loss of Mode C or transponder failure.
- (5) ALNOT requirements.

f. Weather.

- (1) Reporting and disseminating weather information.
- (2) Changes to routes due to weather (i.e. departures, arrivals, en route).

g. EDST operations:

- (1) Respond to color coding in aircraft list (alerts, IAFDOF, UTM, AERT, etc.).
- (2) Utilize and maintain EDST flight data management tools (free textarea, speed/heading, bookkeeping box, highlighting, holding etc.).
- (3) Amend flight plan data.
- (4) Investigate and prioritize alerts.
- (5) Effectively use trial planning to examine and resolve conflicts.
- (6) Identify and resolve conflicts when conflict probe is deactivated.
- (7) Ensure preferential routings have been issued and entered.
- (8) Apply stop probe.
- (9) Identify status of EDST software (flight planning, probe, trial planning, and weather).

h. Stage 3R evaluation scenarios may include:

- (1) All radar identification methods and radar termination.
- (2) Vectoring and Speed Control (i.e. to a geographical point, to final approach course, for separation, departures, off route, around weather, no-gyro, flight breakup, and sequencing).
- (3) Departures and arrivals simultaneously in sector.
- (4) Separation and recovery (for example, overtaking situations; crossing, converging, and opposite direction traffic, visual; from adjacent airspace, obstructions, and special use airspace; primary to primary, beacon to beacon, and beacon to primary; radar and non- radar).

- (5) Request for VFR/OTP clearance.
- (6) Request control from adjacent controller.
- (7) Release control to adjacent controller.
- (8) Service to VFR aircraft (e.g. encountering IFR, providing advisories).
- (9) Cancellation of IFR.
- (10) Special flight operations.
- (11) Aircraft equipment failures (i.e. communications, navigation equipment, Mode C, and/or transponder failure).
- (12) Request for altitude change.
- (13) Successive arrivals and departures.
- (14) Approach control saturation.
- (15) Arrivals with altitudes inverted.
- (16) Military procedures (e.g. change in destination, aerial refueling, ALTRVs, formation flights, MARSAs, high-altitude penetration, IFR military training routes and VFR military training routes etc.).
- (17) Weather (e.g. route change in flight, change in departure/arrival route, deviations, below minimums requiring missed approach and holding, etc.).
- (18) Communicating with aircraft through other than direct pilot-controller communication.
- (19) Marginal radar coverage.
- (20) Handoffs and point outs (e.g. sector-to-sector, facility-to-facility, in relation to preceding flights, etc.).
- (21) Refusal, noncompliance, and/or non-receipt of clearance, unexpected aircraft performances, erroneous read-backs.
- (22) Holding (e.g. implementing and recovering from holding procedures; loss of communications; alternate airport; minimum fuel; re-identifying aircraft).
- (23) Clearances (e.g. IFR, approaches, to alternate airport, etc.).
- (24) Obtaining and disseminating weather information.
- (25) Application of approach control procedures and/or services (i.e. arrival and departure, simultaneous and successive).
- (26) Air-files and popups.
- (27) Overdue aircraft.
- (28) NOTAMs.
- (29) ALNOT requirements.

Appendix L. OS OJT and CERTIFICATION CHECKLIST

OS OJT and CERTIFICATION CHECKLIST			
OS Name:		Area:	
Entries in the DATE COMPLETED and INSTRUCTOR SIGNATURE shall be made when the OS-IT has satisfactorily demonstrated the ability to perform those items indicated in the PERFORMANCE AREAS.			
	Performance Area	Date Completed	Instructor Signature
1	Demonstrate knowledge of all items that are included in the pre-duty familiarization and position relief briefing checklists.		
2	Demonstrate knowledge of and ability to operate the VSCS (Perform a “Temp-Mod”) (Monitor VTABS).		
3	Demonstrate knowledge and operation of AT Workstation (Perform an aircraft “search” and FP readout).		
4	Demonstrate knowledge of and ability to operate the CruArt terminal (Enter and delete leave, view shift history, edit Dash 10 logs, enter/delete time outside shift TOS).		
5	Demonstrate knowledge of and ability to log on to and review a Falcon (A specified sector at a specified time).		
6	Demonstrate knowledge of and ability to operate the ETMS Program (Open a TSD and Alert/MAP Monitor).		
7	Demonstrate knowledge of and ability to operate the CEDAR Program (Make an entry in the daily log [7230-4], Enter an OJT/Certification 3120-25, Training Plan, Supervisor-initiated training, acknowledge CBI and Briefing Items, track employee completions).		
8	Demonstrate knowledge of and ability to operate ERIDS (Configure the system to your area, check, validate, and disseminate NOTAMS).		
9	Demonstrate knowledge of and ability to operate the CIWS and WARP Weather displays.		
10	Demonstrate knowledge of and ability to use the ESIS program (Transfer a TMU restriction to the Status Information Area [SIA] display, edit a restriction, show new restrictions or data).		
11	Demonstrate knowledge of and ability to operate the “Nice-Log” digital voice recording system. (play back a specific sector at a specific time).		

Appendix L. OS OJT and CERTIFICATION CHECKLIST

12	Demonstrate the knowledge of and ability to combine/de-combine sectors and sector configurations (Perform a CS message and RC message for sectors in the area).		
13	Locate and understand briefing/info binders or clipboards (if any), and know which other binders (by title/subject) are available in the area.		
14	Locate the Crew Resource Binder [CRM] and explain the purpose for the binder.		
15	Explain the types of events/issues that must be reported to the OMIC for submission to the Domestic Events Network [DEN]. (lost communications, unauthorized deviations, emergencies, loss of transponder, primary targets, VFR aircraft heading towards P40, etc.)		
16	Explain the reporting and handling of losses of separation, including the ATSAP program.		
17	Explain the reporting and handling procedures for a pilot deviation, warning/restricted area “spill-out.”		
18	Explain the reporting and handling procedures of aircraft accident and other miscellaneous/incidents as it relates to an OS (e.g. TCAS event, NMAC, and requirements for issuing an ALNOT).		
19	Demonstrate understanding of FAA Form 7230-4 and its purpose (What is the minimum required information per shift).		
20	Explain the coordination/notification requirements for unscheduled equipment outages.		
21	Demonstrate the ability to administer the facility leave policy during the day-to-day operations.		
22	Describe the training process/requirements for position qualifications, skill checks, benchmarks, and certifications.		
23	Explain and demonstrate procedures for handling ELT report / requests from the facility MOS position.		
24	Explain and simulate OS duties and responsibilities during an emergency or flight assist.		
25	Explain the OS traffic management duties and responsibilities, including the WC position, IAW FAAO 7110.65 and FAAO 7210.3 (Explain SWAP procedures as it applies to the area).		
26	Explain the process for handling informal grievances handed to you (and what to do if presented a formal grievance).		
27	Review and Discuss the NATCA/FAA Collective Bargaining Agreement [CBA] Contract articles affecting daily OS duties.		

Appendix L. OS OJT and CERTIFICATION CHECKLIST

28	Explain the procedures used for filing and processing forms CA-1, CA-2, CA-16, and CA-17.		
29	Demonstrate knowledge of how special use airspace (warning/restricted/MOA's and prohibited areas) is activated, released and notification procedures.		
30	Explain the handling and notification procedures for ALTRV, NOPAR, AFIO, and Photo missions.		
31	Explain the process for monitoring Presidential Aircraft Movements.		
32	Explain the process for setting ERAM preference settings.		
33	Explain staffing levels for each shift, alternate staffing resources, and the overtime call in procedures.		
34	Miscellaneous area specific (LIST):		
35	Miscellaneous area specific (LIST):		
Certification of OS			
I certify that the above named individual has satisfactorily demonstrated the ability to perform the full range of duties as an OS.			
OM Name	Signature	Date	
OS Name	Signature	Date	
** AFTER CERTIFICATION, FORWARD THIS FORM TO ZDC-520 FOR TRAX ENTRY **			

Appendix L. WMIC Weather Coordinator Checklist

WMIC Weather Coordinator (WC) Checklist		
WMIC Name:		
Entries in the Date Completed column shall be made by the OS when they have completed the task. When this form has been completed, return to ZDC-520 for TRAX entry.		
	Performance Area	Date Completed
1.	Review the power point briefing: <u>ZDC Weather Coordinator for OS</u> located at P:\TRAINING\TMU\Weather Coordinator.	
2.	Spend up to 45 minutes with the Center Weather Service Unit discussing their role in the dissemination of weather. Review the following: • AIRMETS. • SIGMETS/CONVECTIVE SIGMETS. • METEOROLOGICAL IMPACT STATEMENTS (MIS). • Center Weather Advisories (CWA).	
3.	Spend up to 15 minutes with Flight Data discussing their role in the dissemination PIREPS.	
4.	Spend up to 60 minutes with the Weather Coordinator in TMU discussing their role in the dissemination of weather. Review the following: • Weather Coordinator's responsibilities per 7210.3, 17-26-4. • AIRMETS. • SIGMETS/CONVECTIVE SIGMETS. • METEOROLOGICAL IMPACT STATEMENTS (MIS). • Center Weather Advisories (CWA). • PIREPS dissemination, and when to classify as URGENT or ROUTINE.	

Appendix M. OS Out-of-Area (OSOA) Training

M.1 OSOA Criteria.

- a. Ninety days of ZDC OS experience.
- b. OM recommendation for OSOA (ZDC Form 3120-4).
- c. OSOA Area of Responsibilities; i.e., In addition to their assigned area, OSs will only oversee their alternate area as designated below, unless otherwise specified by the Air Traffic Manager (ATM).
 - Area 1 and Area 2, mutually
 - Area 3 and Area 4, mutually
 - Area 5 and Area 6, mutually
 - STMC: As specified by the ATM

M.2 OSOA Classroom Training Requirements. ZDC OSs who are recommended for OSOA training should be given up to 8 hours (self-study) for “secondary area” review. The classroom training shall be documented on ZDC Form 3120-12 (OSOA Training Plan/Certification). The review shall include the following:

- a. Airspace
 - (1) Secondary area sectors.
 - (2) Approach Controls underlying or abutting the secondary area.
- b. Map. Label a map of the secondary area to include sectors, airways, SUAs, and approach controls. (Non-pass/fail).
- c. Equipment; i.e., SIA, midnight configurations, VSCS, ERIDs, etc.
- d. Letters of Agreement (LOAs) pertaining to the secondary area.
- e. ZDC Order 7230.110 SOP covering the secondary area.

M.3 OSOA OJT Requirements: Administer OSOA OJT in the secondary operational area. Provide OJT by a certified OS from the “secondary area.” Utilize ZDC Form 3120-12 to complete and document the OJT process and include the following:

- a. Operations.
 - (1) Traffic Flow/TMU Analysis.
 - (2) SWAPs.
 - (3) Playbooks.
- b. Contingency Plans.
- c. Reference Guides.
 - (1) Best Practices.
 - (2) Airspace Configurations.
 - (3) Automation Adaptations.
 - (4) Special Use Airspace.
 - (5) Military Operations.

Appendix M. OS Out-of-Area (OSOA) Training

M.4 OS OJT Target Hours. All areas have a minimum of 2 OJT hours and a maximum of 16 OJT hours.

M.5 OSOA Certification Process. After completion of the classroom requirement and ZDC Form 3120-6 (OS Checklist and Certification), the OM from the “secondary area” shall sign ZDC Form 3120-12 (OSOA Training Plan/Certification) as the certifying official.

M.6 OSOA Familiarization Requirements. In order to maintain familiarization, OSs must record 1 hour of OS time in their alternate area per month.

M.7 OS authorization to watch two areas simultaneously. ZDC is authorized to conduct simultaneous OSOA watch supervision for two areas under the following conditions.

a. The OS providing simultaneous area watch supervision shall be “certified” for watch supervision in both areas.

b. The OS providing simultaneous area watch supervision shall have direct line-of-sight to both areas.

(Note: In the current ZDC area configuration, Areas 5 and 6 are “not authorized” for simultaneous area watch supervision.)

c. Simultaneous area watch supervision can only be assigned during the following criteria:

- (1) Periods of low activity where upon each area is configured to 3 sectors or less, with a combination of not to exceed a total of 4 sectors.
- (2) No red alerted MAP values are displayed in either area for any sector without evaluation by the OS and OS has logged an entry in the Facility Log 7230-4.

M.8 Watch Manager in Charge (WMIC) during mid-shift operations. During mid-shift operations, the WMIC is authorized to provide watch supervision to all operational areas simultaneously.

M.9 Director Approval for the use of OSOAs. Prior to utilizing the OSOA position, the Air Traffic Manager must request approval from the Service Area, Director of Operations. Director approval is valid for 1 year.

Appendix M. Operations Supervisor Out-of-Area (OSOA) Nomination Form

Operations Supervisor Out-of-Area (OSOA) Nomination Form		
DATE:		
AREA OM:		
OSOA CANDIDATE'S NAME:		
ATTRIBUTE	DEMONSTRATES YES/NO	COMMENTS
Ability to Maintain Operational Integrity		
Effective Communication Skills		
Flexibility		
Knowledge and Application of Available Resources		
Organizational skills		
Ability to Manage Resources Effectively		
Ability to Maintain Operational Integrity		
Patience		
Professionalism		
Utilization and Knowledge of Available TMU Initiatives		
Ability to Problem Solve Daily Operational Issues		
Comments:		
	Date	Signatures
Area Operations Manager		
OSOA Candidate		
Support Manager Training, ZDC-520		
Air Traffic Manager, ZDC-1		
After signed by ZDC-1, forward this form to ZDC-520, who will notify the Area OM of the nomination status		

Appendix M. OS Out-of-Area Training Plan

OS Out-of-Area (OSOA) Training Plan		
DATE:	NAME:	AREA:
	Date Complete	Initials
Classroom Training - Up to 24 hours Covering the Following:		
Airspace		
Secondary area sectors.		
Approach Controls underlying or abutting the secondary area.		
Map		
Label a map of the secondary area with:		
Sectors		
Airways and NAVAIDS		
SUAs		
Approach Controls		
Equipment		
SIAs		
Mid-shift configurations		
VSCS		
ERIDs		
Review		
Letters of Agreement (LOAs) pertaining to the secondary area.		
ZDC Order 7230.110 SOP covering the secondary area.		

Appendix N. CIC OJT Checklist and Instruction/Evaluation Report

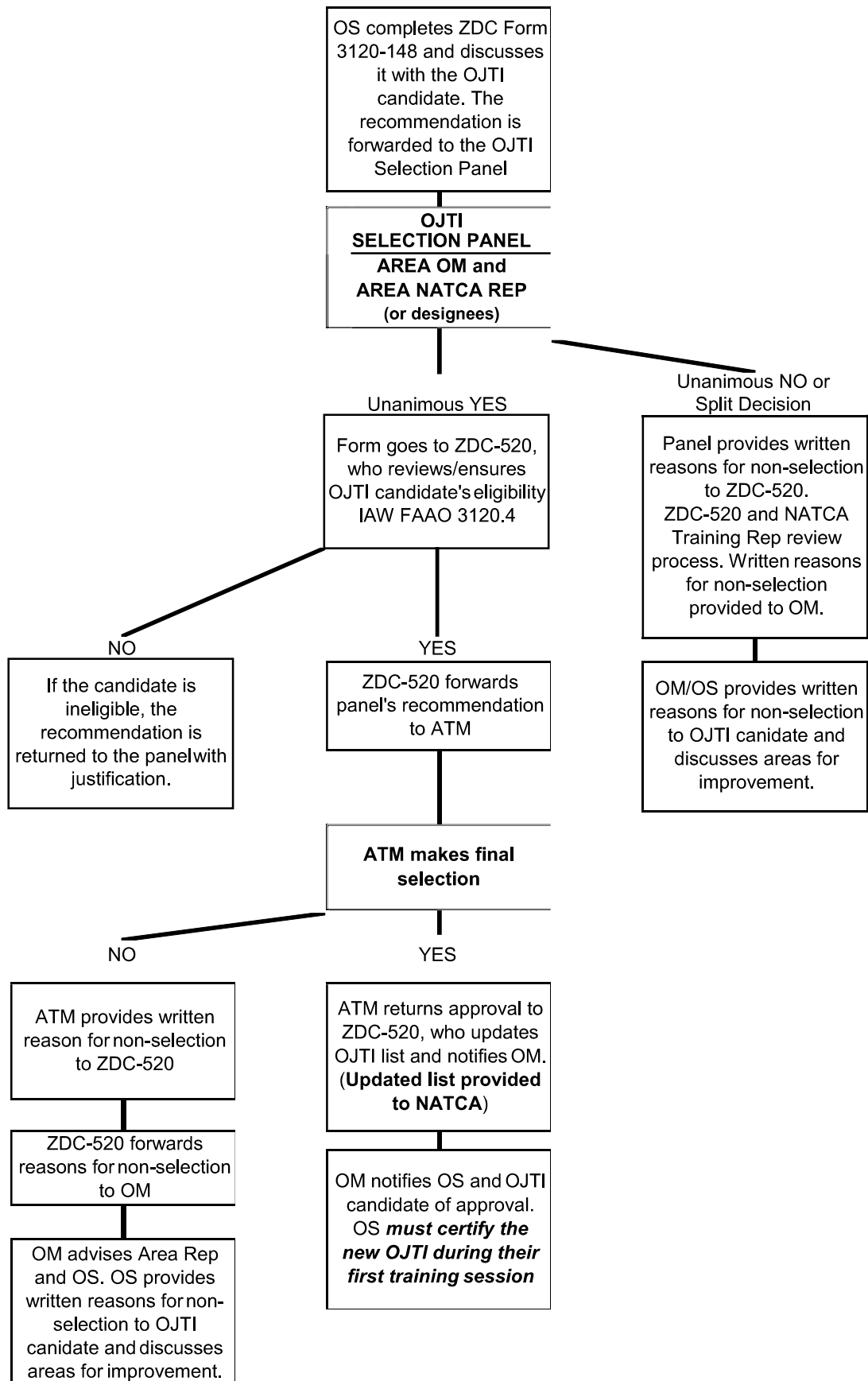
CONTROLLER-IN-CHARGE (CIC) OJT Checklist			
CIC-IT NAME:			
Entries in the date completed and OS signature shall be made when the CIC-IT has satisfactorily demonstrated or explained the item. This checklist must be completed prior to the OS recommending certification.			
	Performance Area	Date Completed	OS Initials
1	Demonstrate ability to switch between the PC systems via the Keyboard, Video, Mouse (KVM) switch.		
2	Demonstrate knowledge of and ability to operate VSCS. (Perform a "Temp-Mod", VSCS Map reconfiguration)		
3	Demonstrate knowledge of and ability to operate the ETMS Program (Open a TSD and Alert/MAP Monitor).		
4	Demonstrate knowledge of and ability to operate ERIDS (Configure the system to your area)		
5	Demonstrate knowledge of and ability to operate the CIWS and WARP Weather displays.		
6	Demonstrate knowledge of and ability to use the ESIS program (Transfer a TMU restriction to the Status Information Area [SIA] display, edit a restriction, show new restrictions or data).		
7	Demonstrate knowledge of how special use airspace (warning/restricted/MOAs and prohibited areas) are activated, released and notification procedures.		
8	Demonstrate knowledge and operation of AT Workstation (Perform an aircraft "search" and FP readout).		
9	Demonstrate the knowledge of and ability to combine/de-combine sectors and sector configurations (Perform a CS message and RC message for sectors in the area).		
10	Demonstrate knowledge of and ability to operate the CruArt terminal (Enter and delete leave, enter/delete time outside shift TOS).		
11	Demonstrate knowledge of and ability to operate the CEDAR Program (Make an entry in the daily log [7230-4], acknowledge CBI and Briefing Items).		
12	Explain the types of events/issues that must be reported to the OMIC for submission to the Domestic Events Network [DEN]. (Lost communications, unauthorized deviations, and emergencies).		
13	Explain procedures for handling ELT report / requests from the facility MOS position.		
14	Demonstrate opening an area.		
15	Demonstrate closing an area.		
16	Explain the procedures related to the Restricted Area Status sheet and Outage sheet.		
17	Explain the procedures to request flow control restrictions.		
18	Demonstrate making position assignments (D-side, assigning OJT, splitting sectors).		
19	Explain the processes for ensuring sufficient resources are available for the shift (Requesting OT from OM, modifying the break rotation).		
20	Explain the procedures for handling requests in WMT.		
OS SIGNATURE DATE			

Appendix N. CIC OJT Instruction/Evaluation Report

CONTROLLER-IN-CHARGE OJT INSTRUCTION/EVALUATION REPORT										
1. Name			2. Date			3. Position(s)				
4. Weather ☐ VFR ☐ MVFR ☐ IFR			5. Workload ☐ Light ☐ Moderate ☐ Heavy		6. Complexity ☐ Routine (Not Difficult) ☐ Occasionally Difficult ☐ Mostly Difficult ☐ Very Difficult		7. Hours this session 8. Hours (%) this position			
9. Purpose ☐ OJT ☐ Certification ☐ Other ☐ Performance Assessment ☐ Recertification ☐ Skill Enhancement						10. Routing				
11. Performance	C/E	Job Task	Job Subtask			Observed	Comment	Satisfactory	Needs Improvement	Unsatisfactory
	Operations Management	A. Monitors the Operation	1. Maintains awareness.							
			2. Applies good judgment.							
			3. Is aware of controller and system user requirements.							
			4. Handles unusual situations.							
		B. Methods and Procedures	5. Monitors system.							
			6. Correctly implements programs/initiatives.							
			7. Maintains efficient traffic flow.							
			8. Takes prompt action to correct errors.							
			9. Handles data correctly.							
		C. Equipment	10. Fully uses equipment capabilities.							
			11. Recognizes equipment malfunctions.							
			12. Makes complete/correct computer entries.							
	D. Resource Management	13. Staffs appropriately.								
		14. Provides relief periods.								
	Communications	E. Training	15. Accomplishes training.							
			16. Documents training.							
		F. Human Relations and Communication	17. Communicates shift requirements effectively.							
			18. Communicates effectively to the public.							
			19. Maintains an effective work environment							
			20. Communicates effectively with management.							
			21. Provides complete and accurate relief briefings.							
	Special Ops	G. Quality Assurance	22. Prepares complete and accurate accident and incident reports.							
23. Reports miscellaneous events accurately.										
H. Other										

12. Comments 	12A. References
Signature: _____ Date: _____	
13. Recommendation: ☐ Certification Skill Check ☐ Certification ☐ Continuation of OJT ☐ Skill Enhancement Training ☐ Suspension of OJT	
14. Employee's Comments: This report has been discussed with me. Signature: _____ Date: _____	
15. Certification/Recertification I certify that this employee meets qualification requirements and is capable of working under general supervision. Signature of Certifier: _____ Date: _____	

Appendix O. OJTI Selection Flowchart



Appendix O. OJTI Candidate Abilities and Attributes Report

OJTI CANDIDATE ABILITIES AND ATTRIBUTES REPORT		
OJTI CANDIDATE'S NAME:		
DATE:	OS/Supervisor:	
	Demonstrates Yes/No	Comments
Ability to Maintain Operational Integrity		
Self-awareness/operates within personal limits (i.e., asks for help or mitigates services as appropriate)		
Situational awareness		
Effective Communication Skills		
Interpersonal – communication with peers/management		
Technical – communicates effectively when on position		
Effective listener		
Flexibility		
Problem solving skills include utilizing multiple techniques		
Open-minded/receptive to different solutions for situations		
Knowledge and Application of Available Resources		
Correctly applies all applicable orders and directives (i.e. 3120-4, 7110.65, LOAs, SOP, MOUs, LTA)		
Organizational skills		
Attention to detail		
Consistent work habits		
Patience		
Demonstrates respect for colleagues		
Demonstrates patience with internal and external users		
Professionalism		
Effective team member		
Pride of work/sense of ownership		
Responds to the needs of users		
Displays positive work habits (i.e. on time, willingness to provide assistance without solicitation)		
Receives constructive feedback well and seeks to improve when recommendations are received		
Demonstrates accountability in own work		

Appendix O. OJTI Candidate Abilities and Attributes Report

Comments:			
		Signature	Date
OS/Supervisor	I Do _____ / Do Not _____ recommend candidate to be an OJTI		
OJTI Candidate			
OJTI Panel (OM and Area Rep)	Concur_____ Do Not Concur_____ Concur _____	OM:	
		Rep:	
ZDC-520	Concur_____ Do Not Concur_____ Concur _____		
ZDC-1	Concur_____ Do Not Concur_____ Concur _____		
After signed by ZDC-1, forward this form to ZDC-520, who will notify the Area OM of the nomination status.			

7/14/22

JO 3120.4R
Appendix I

**Appendix O: On-the-Job Training Instructor
(OJTI) Evaluation/Certification**

FAA Form 3120-151: On-the-Job Instructor Evaluation/Certification Form

OJT INSTRUCTOR:		OS/STMC:	
DATE:	POSITION:	STAGE (if applicable):	
PURPOSE:		☐ EVALUATION ☐ CERTIFICATION	

Job Function	Satisfactory	Unsatisfactory
1. Provides OJT in OJT in accordance with IPG; National, Regional, and Local Directives.		
2. Uses appropriate methods (lectures, discussions, demonstrations) in providing OJT.		
3. Provides feedback on performance; identifies strengths; suggests methods for improvement.		
4. Properly completes FAA Form 3120-25/-26/-32/-36.		
5. Maintains communications with OS/STMC regarding developmental status.		

Comments	
OS/STMC SIGNATURE	DATE
EMPLOYEE'S SIGNATURE	DATE
I certify that this employee meets the qualification requirements to conduct OJT on all positions in _____ - unless noted below.	
SIGNATURE OF CERTIFIER	DATE:

FAA Form 3120-151 (10/20)

Appendix P. OMIC OJT and Certification Checklist

OMIC OJT and Certification Checklist			
OMIC-IN-TRAINING NAME:			
TRAINING CHECKLIST		DATE	OJTI INITIALS
1	Telephone Usage: Desk, Handheld, Military Ops, DEN, Satellite, Secret, Scramble Phones, FAX		
2	FALCON and DALR Usage, DSR Display Setup, ERIDS, and VSCS Usage		
3	Locked Command		
4	SIA Board and Maps		
5	TSD Setup and Usage		
6	DEN Procedures; NORAC, Destination Change		
7	EMRG, Misc, Capitol Watch, Password Location		
8	Desk Reference, Military Ops, Desk Familiarization; SUA/Military Ops Book, Worksheets		
9	SPRT		
10	SAMS Database, SUA in URET		
11	Schedule Binders; OS, OM Leave		
12	MID Reference Binder, Training, Leave		
13	Time Stamp Machine		
14	Headset Cabinet		
15	Mailboxes at the Watchdesk		
16	CEDAR Usage; OSAs, Facility Log, MBIs, etc		
17	CruArt, CruSupport, and ATO Portal		
18	Standup Briefings		
19	Visitors		
20	ARAMPs		
21	Drug Testing		
22	Clipboards: Active, Today, General		
23	Lock Box and Green Paperwork Bins		
24	Laser Events (202) 267-3333		
25	Contingency Plan, ATC Alert, ATC Zero		
26	Presidential Movement (DO NOT USE CALLSIGN)		
27	Guard Dog Activation, Notify SOC, C/S from NCRCC		
28	EA-ROC, RCC, NOM-ATCSCC, NCRCC, NOC		

ZDC Form 3120-15 (4/21) Supersedes Previous Edition

Appendix P. OMIC OJT and Certification Checklist

OMIC OJT and Certification Checklist			
OMIC-IN-TRAINING NAME:			
TRAINING CHECKLIST		DATE	OJTI INITIALS
29	Overtime and Leave Programs		
30	ELT Reports		
31	DALR Certification Nightly		
32	ATCSCC Website		
33	Article 19, 33, and 45		
34	Employees.faa.gov, HRPM's, NATCA Contract		
35	FMLA Procedures		
36	O:/ Drive Familiarization		
37	Incident Binder		
38	Processing OE, OD, PD's		
39	Area Specific TMU Initiatives		
40	ALTRVs Processing		
41	Special Interest Flights		
42	SAR: VFR/IFR		
43	TMU Interface		
44	ALNOTs		
45	TFRs		
46	OTHER: (List)		
47	OTHER: (List)		
ZDC-1 (Signature) DATE *Shall be forwarded to Training Department for entry into TRAX			

ZDC Form 3120-15 (4/21) Supersedes Previous Edition

Appendix Q. Watch Manager-in-Charge (WMIC) OJT and Certification Checklist

WATCH MANAGER-IN-CHARGE (WMIC) OJT and CERTIFICATION CHECKLIST <i>(For certifying OSs on Watch Desk duties)</i>			
OS TRAINING ON WMIC POSITION _____			
Entries in the DATE COMPLETED and INSTRUCTOR SIGNATURE shall be made when the WMIC-IT has satisfactorily demonstrated the ability to perform those items indicated in the PERFORMANCE AREAS.			
	Performance Area	Date Completed	Instructor Signature
1.	Demonstrate knowledge of all items that are included in the Pre-duty familiarization and position relief briefing checklists.		
2.	Operate the following communications equipment and explain the usage: VSCS, DEN, Systems Command Center Phone, and Satellite Communications.		
3.	Demonstrate knowledge and ability to operate AT Workstation.		
4.	Demonstrate knowledge of and ability to operate ERIDS (Configure the system to the facility, check, acknowledge, and disseminate NOTAMS).		
5.	IAW FAAO 7110.65 and FAAO 7210.3, explain the OS traffic management duties and WC responsibilities. (Explain SWAP procedures that apply to the facility).		
6.	Demonstrate knowledge of and ability to operate the CEDAR Program (Make an entry in the daily log [7230-4], enter a MOR and save for review).		
7.	Explain the procedures followed in the event of an extended RADAR or equipment outage as the pertain to: a) Intra-facility operations, b) Inter-facility per LOAs/SOP, c) EBUS (if applicable)		
8.	Explain the following leave policies: a) Annual b) sick c) holiday d) administrative e) Traumatic Injury f) blood g) court h) fatigue		
9.	Describe the procedures for handling classified materials delivered to the WMIC after normal administrative hours.		
10.	Describe the responsibilities of the WMIC for the care and removal of classified documents during an emergency.		
11.	Describe and explain FAA Form 7230-4 and how it is to be completed and processed.		
12.	Demonstrate the ability to request FALCON and voice recordings.		
13.	Describe and simulate the handling of an operational error and operational deviation, if applicable (Read and review a sample ESAT).		
14.	Explain the procedures to be followed in the event of: a) "Spill-out" b) Military Facility deviation c) Near Mid-Air Collision (NMAC) d) FDC NOTAM e) Facility and Aircraft bomb threats f) Hijack		
15.	Describe the actions required under established Facility Emergency / Contingency Plans.		
16.	Explain the in-flight information required to be broadcast on the Domestic Events Network [DEN].		

Appendix Q. Watch Manager-in-Charge (WMIC) OJT and Certification Checklist

17.	Explain and demonstrate procedures for handling ELT reports.		
18.	Explain the FAA Site Coordinator's (Drug Testing Program) responsibilities.		
19.	Explain staffing levels for each shift, alternate staffing resources and the overtime call in procedures.		
20.	Explain the reporting and handling procedures of an aircraft accident as it relates to the WMIC.		
21.	Explain the coordination / notification requirements for scheduled and unscheduled equipment outages.		
22.	Explain the responsibilities of the WMIC for the Midnight Close of Business (COB) duties.		
23.	Explain the duties of the WMIC DURING a Defense Readiness exercise, ESCAT implementation.		
24.	Explain and simulate WMIC duties and responsibilities during an emergency or flight assist.		
25.	Demonstrate the procedure for setting up a Temporary Flight Restriction (TFR) area.		
26.	Explain the reporting and handling procedures for a pilot deviation, warning / restricted area "spill-out".		
27.	Explain the procedures for handling a sonic boom requests and reports.		
28.	Explain the procedures used for filing and processing forms CA-1, CA2, CA16, and CA17.		
29.	Demonstrate a knowledge of how special use airspace (warning/restricted/MOAs and prohibited areas) is activated, released and notification procedures.		
30.	Explain the handling and notification procedures for ALTRV, NOPAR, AFIO, Photo missions.		
31.	Explain the procedures for handling a Suspected Illegal Use of Aircraft report (Suspect flight).		
32.	Explain the procedures for GENOT handling.		
33.	<u>Other:</u>		

CERTIFICATION OF WATCH MANAGER-IN-CHARGE

I certify that the above named individual has satisfactorily demonstrated the knowledge and ability to perform full range of duties of the Watch Manager-in Charge.

Operations Manager:_____ **Operating Initials:**_____ **Date:**_____

**** AFTER CERTIFICATION, FORWARD THIS FORM TO ZDC-520 FOR TRAINING RECORD ENTRY ****

Appendix R. TMU Training

Day 1 ZDC TMU ORIENTATION FAA Order 7210.3 Introduction to TM Overview of TM TM Functions Modules 1, 2 & 3	Day 2 Map Study begins and continues throughout training ZDC TMU SOP Traffic Management Tools TMIs & Severe WX Modules 4, 5 & 6	Day 3 – Map Study EWR, JFK, LGA, TEB Flows TFMS Intro	Day 4 - Map Study ATL & CLT Flows TFMS - continued
Day 5 DCA Metro Arrival & Departure Flows ZDC15 / ZDC14 / ZDC02 / ZDC/05	Day 6 Area 1 & 6 Fam Time DCA Metro Departure and Flows SWANN /PALEO/OTTTO / RAMAY	Day 7 Area 3 & 4 Fam CAMRN Arrivals Area 3 & 4 ZDC Overflights BOS, BDL, International Routes ZDC 09 Volume	Day 8 Area 2 & 5 Fam DCA Metro Departure Flows PHL arrivals MOL/ GVE ZDC15 / ZDC14 / ZDC02 / ZDC05
Day 9 East Coast Ops Sector 58 59 54 50 34 39 DSP FAM WHITE / WAVEY / OOD / J121- 174 / COLIN	Day 10 Area Fam Caribbean Routes North Atlantic Tracks Military / Special Use Airspace Miscellaneous Items	Day 11 Ops Fam Air Traffic Control System Command Center	Day 12 Ops Fam Tower Visit TRACON Visit

Appendix R. TMU Training

Day 13 Enroute Coordinator Orientation (TMEC1 & TMEC2) TBFM Refresher	Day 14 NAS Coordinator Orientation (TMNC) NTML / Delay Reporting / Flight Analysis / Deicing	Day 15 Monitor Alert Specialist Orientation (TMML)	Day 16 Departure Coordinator Orientation (TMDC)
Day 17 Weather Coordinator Orientation (TMWC) ZDC SWAP Procedures	Day 18 STMC / STMC-CIC Orientation TFR's / NASCAR SKI Routes / PGA Masters Other special events	Day 19 TBFM	Day 20 TBFM
Day 21 TBFM	Day 22 TBFM		

Appendix R. TMU Training

TMU OJT TARGET HOURS			
TMU Operational Position Certification Hours	OJF Hours	Minimum Hours	Maximum Hours
STMC	4	24	60
NAS Coordinator (TMNC)	8	24	60
Weather Coordinator (TMWC)	8	24	40
Departure Coordinator (TMDC)	4	12	16
En Route Coordinator 1 (TMEC1)	6	32	64
En Route Coordinator 2 (TMEC2)	2	20	52
Monitor Alert Specialist (TMAC1)	4	18	40
Military Liaisons (TMML)	2	4	20
*STMC Certification Minimum hours for each position TMNC/TMWC/TMDC/TMEC1/TMEC2/TMAC1/TMML are OJF:1 OJT:4			

OJT AT COMBINED POSITIONS	
**OJT is authorized at the following routinely combined positions. Certification Skill Checks are authorized at these combined positions.	
TMU:	TMNC / TMWC / TMAC1 / TMDC / TMML / STMC
	TMEC1 / TMEC2 / STMC

Note: When training on combined positions, FAA Form 3120-32 must reflect all positions and time allotted for each.

Appendix R. TMU Training Plan

TMU TRAINING PLAN TMU Positions					
Name:			Date:		
☐ Initial Plan			☐ Revised Plan		
	Position	OJF Hours	Target Hours Min / Max		
1	En Route Coordinator 1 (TMEC1)	6	32	/	64
2	En Route Coordinator 2 (TMEC2)	4	20	/	52
3	NAS Coordinator (TMNC)	8	24	/	60
4	Weather Coordinator (TMWC)	8	24	/	40
5	Departure Coordinator (TMDC)	4	12	/	16
6	Monitor Alert Specialist (TMAC1)	4	18	/	40
7	Military Liaison Specialist (TMML)	2	4	/	20
8	STMC	4	24	/	60
A performance skill check must be accomplished each calendar month for each position at which training was conducted. It will be documented on FAA Form 3120-32 and include an appropriate documentation in accordance with FAA Order JO 3120.4					
<i>Note : One form for each position. If positions are combined, then FAA Form 3120-32 must reflect all positions and time allotted to each. Forward the original form and any supporting documentation (e.g. other written tests, labeled video maps, etc.), to the training department.</i>					
Frontline Manager					
Primary OJT I					
Primary OJT I					
Employee					
(Name)			(Signature)		

Appendix R. TMU Training

TRAFFIC MANAGEMENT COORDINATOR OJT INSTRUCTION/EVALUATION REPORT									
1. Name			2. Date		3. Position(s)				
4. Weather ☐ VFR ☐ MVFR ☐ IFR			5. Workload ☐ Light ☐ Moderate ☐ Heavy		6. Complexity ☐ Routine Not Difficult ☐ Occasionally Difficult ☐ Mostly Difficult ☐ Very Difficult			7. Hours This Session	
								8. Hours (%) This Position	
9. Purpose ☐ OJT ☐ Certification ☐ Other ☐ Performance Assessment ☐ Recertification ☐ SIT/SDT								10. Routing	
11	CJE	Job Function Category	Job Function	Observed	Comment	Satisfactory	Needs Improvement	Unsatisfactory	
	Operating Methods and Procedures	A. Effective Judgment	1. Awareness is maintained						
			2. Good judgment is applied.						
			3. Aware of controller and system user requirements.						
			4. Handles unusual situations.						
		B. Methods and Procedures	5. Monitors systems.						
			6. Programs/initiatives are implemented correctly.						
			7. Efficient traffic flow is maintained.						
			8. Takes prompt action to correct deficiencies.						
		C. Equipment	10. Equipment capabilities are fully used.						
			11. Equipment malfunctions recognized.						
			12. Computer entries are complete/correct.						
	Communication	D. Communication/Coordination	13. Required coordination is performed.						
			14. Coordination is thorough, clear, and concise.						
			15. Cooperative, professional manner is maintained.						
			16. Relief briefings are complete and accurate.						
		E. Other							

12. Comments

13. Employee's Comments

This report has been discussed with me.

Signature: _____

Date: _____

14. Certification:

I certify that this employee meets qualification requirements for position and is capable of working under general supervision.

Signature of Certifier: _____

Date: _____

Appendix S. Promotion Submission Form**SECTION 1 - TO BE FILLED OUT BY FRONT LINE MANAGER**

ATCS Name: _____

Fill in date that certification was accomplished in the applicable box for this promotion:

☐ Developmental 1 – Certification on first 2 “D” side positions☐ Developmental 2 - Certification on all required “D” side positions☐ Developmental 3 – Certification on first 2 “R” side positions******Prior to Certification on first 2 “R” sides, the following 4 items must be completed (log date):**☐ OJF ☐ 8 Hours TMU ☐ EBUS ☐ Radar Coordinator☐ CPC – Certification on all required positions
☐ Notify OM to Change in WMT & Update OT Hours

FLM Signature: _____ Date: _____

FLM Name: _____

Print and forward this form, via interoffice mail, to the ZDC-520 Training

SECTION 2 - TO BE FILLED OUT BY THE TRAINING DEPARTMENT

Training Manager Signature: _____ Date: ____ / ____ / ____

Forward this form, via interoffice mail, to the Support Manager for Administration

SECTION 3 - TO BE FILLED OUT BY PERSONNEL

A FPPS action has been submitted to Human Resources Division with an effective promotion date

of ____ / ____ / ____

☐ ZDC Employee database updated☐ Staffing Workbook updated

MPA Name and Signature: _____ Date: ____ / ____ / ____

☐ Salary in CRU-Support updated☐ FLM notified via email

MSS Name and Signature: _____ Date: ____ / ____ / ____