



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety

ANC18FA055

Regal Air N9878R DHC-2

Willow, Alaska

Regal Air Training Manual Excerpts

CATEGORIES OF TRAINING

Categories of training: A classification of training based on the previous qualification of the flightcrew member. Categories of training consist of one or more curricula. The categories of training are initial new-hire, initial equipment, transition, recurrent, requalification, and Instructor/Check Airman.

Initial New-Hire: This category is for personnel who have had no previous experience with the operator. However, it also applies to personnel employed by the operator who have not previously held a crewmember training duty position with that operator. Initial New Hire Training includes basic indoctrination and training for a specific duty position and aircraft type. Aircraft specific training is initially conducted in Single Engine Aircraft operated by REGAL AIR. The training for a specific duty position and aircraft type is equivalent to Initial Equipment Training and is a major component of Initial New Hire Training. Initial New Hire Training must be the most comprehensive training herein defined, as it is the first exposure to specific company methods.

Initial Equipment: This category of training is for personnel who have not previously trained and qualified in a specific aircraft type.

Transition Training: This category of training is for personnel who have been previously trained and qualified for a specific duty position by the operator and are being re-assigned to the same duty position on a different aircraft type.

Recurrent Training: This category of training is for personnel who have been trained and qualified by the operator and will continue to serve in the same duty position and aircraft type and must receive recurring training or checking within an appropriate eligibility period to maintain currency.

Requalification Training: This category of training is for personnel who have been trained and qualified by the operator, but have become unqualified to serve in a particular duty position and/or aircraft due to not receiving recurrent training and/or a required flight or competency check within the appropriate eligibility period, including the grace month.

Instructor/Check Airman: This category of training is for senior personnel who have shown the ability and experience to serve as a company Instructor/Check Airman.

AIRMAN SPECIFIC

A. COMPANY FLIGHT CONTROL

1. Flight locating system and procedures
2. Organizations, duties, and responsibilities
3. Weather and NOTAM information
4. Company communications

B. WEIGHT AND BALANCE

1. Definitions (such as zero fuel weight, moments, inches of datum, etc.)
2. General loading procedures and center of gravity computations
3. Effects of fuel burn and load shifts in flight

C. AIRCRAFT PERFORMANCE

1. Definitions
2. Effects of temperature and density altitude
3. Airport analysis system as appropriate to the type of operation and family or families of aircraft
4. Runway limitations for takeoff and landing including effects of contaminated runways
5. FAR 135 performance requirements (such as Over-The-Top operations)

D. METEOROLOGY

1. Basic weather definitions (such as forecasts, reports, and symbols)
2. Temperature, pressure and winds
3. Atmosphere, moisture, and clouds
4. Air masses and fronts
5. Thunderstorms, icing, and wind shear
6. Reduced visibility, including fog
7. Procedures for recognizing and avoiding severe weather
8. Computer procedures for extracting weather from DUAT or other computer systems.

E. NAVIGATION

1. Definitions (such as class I, class II navigation)
2. Basic navigation instruments
3. Dead reckoning and pilotage concepts and procedures
4. VHF and self contained systems
5. Navigational aids

CURRICULUM SEGMENT: AIRCRAFT GROUND – DHC – 2

OBJECTIVE: The objective of aircraft ground training is to provide flight crewmembers with the necessary knowledge for understanding the basic function and operation of aircraft systems, the integration of aircraft systems and operational procedures.

INSTRUCTIONAL DELIVERY METHODS: Classroom lecture

TRAINING AIDS: Classroom equipment

COURSEWARE: General Ops Manual, DHC – 2 AFH,
PTS, EDO 'How to fly floats', Static DHC – 2,
Maneuvers and Procedures Guide

TESTING/CHECKING: Written test, instructor certification

GENERAL OPERATIONAL SUBJECTS

A: FLIGHT LOCATING PROCEDURES (REFERENCE OPS MANUAL, FLIGHT PLANS)

B: WEIGHT AND BALANCE

1. Company procedures

C: OPERATIONS SPECIFICATIONS

D: COMPANY OPERATIONS MANUAL

E: ADVERSE WEATHER PRACTICES

1. Icing
2. Turbulence
3. Thunderstorms with associated wind shear and microburst phenomena
4. Low visibility
5. Contaminated runways

F: FLIGHT PLANNING

1. Weather
2. Fuel requirements
3. Runway requirements/conditions

G: COMMUNICATION AND NAVIGATION PROCEDURES

1. Company communication requirements
2. ATC clearance requirements
3. Area departure and arrival requirements
4. Enroute requirements
5. Approach and landing requirements

H: PERFORMANCE CHARACTERISTICS DURING ALL FLIGHT REGIMES

1. The use of charts, tables, tabulated data and other related manual information including the Airplane Flight Manual
2. Normal, abnormal, and emergency performance problems including fuel consumption and cruise control
3. Meteorological and weight-limiting performance factors (such as temperature, pressure, contaminated runways, precipitation, climb/runway limits)
4. Special operational conditions

DIFFERENCES TRAINING

1. N9877R
 - a. Instrumentation
 - i. Familiarization with layout
 - ii. Transponder
 - iii. GPS
 - iv. COMM
 - b. Edo 4580 floats
 - i. Water rudder retract position
 - ii. Weight & Balance differences
2. N9878R
 - a. Instrumentation
 - i. Familiarization with layout
 - ii. Transponder
 - iii. GPS
 - iv. COMM
 - v. FS Radio
 - b. Edo 4930 floats
 - i. Water rudder retract position
 - ii. Weight & Balance differences

CURRICULUM SEGMENT: FLIGHT TRAINING CURRICULUM SEGMENT

SINGLE ENGINE SEA

OBJECTIVE: To enable the crewmembers to become proficient in the execution of all required normal, abnormal, and emergency procedures.

INSTRUCTIONAL DELIVERY METHOD: Demonstration, practice, critique

TRAINING AIDS: Aircraft, flight manual, PTS, Man & Proc Sect H

COURSEWARE: Aircraft

PREREQUISITES: Completed basic company indoctrination and applicable aircraft ground training.

TESTING/CHECKING: Practical test, instructor certification

A. PREPARATION

1. Weight and balance
2. Performance limitations
3. Visual inspection

B. SURFACE OPERATION

1. Securing cargo
2. Cockpit management
3. Use of checklist
4. Starting
5. Taxi
6. Engine run-up
7. Step Taxi
8. Sailing

C. TAKEOFF

1. Pre-takeoff checklist
2. Normal
3. Crosswind
4. Short/rough water
5. Glassy
6. Rejected

D. CLIMB

1. Normal
2. Obstacle clearance
3. Area departure

E. EN ROUTE

1. Steep turns
2. Approaches to stalls:
(takeoff configuration, en route configuration, landing configuration)
3. Slow speed handling characteristics

F. DESCENT

1. Use of checklist
2. Normal
3. Maximum rate
4. Area Arrival
5. Descent/approach checklist

G. APPROACHES

1. VFR procedures
 - a. Normal
 - b. Accuracy
 - c. Short field
 - d. Glassy water
2. IFR Procedures
 - a. Emergency letdown procedures (ILS if equipped, or GPS)

H. LANDINGS

1. Normal
2. Spot
3. Simulated powerplant failure
4. Glassy Water
5. Crosswind
6. Short/rough water
7. With pitch not trimmed
8. Rejected landing (go-around)
9. Use of landing checklist

I. AFTER LANDING

1. Beaching and Docking
3. Emergency evacuation
4. Shutdown checklist

J. OTHER FLIGHT PROCEDURES DURING ANY AIRBORNE PHASE

1. Ice accumulation on airframe
2. Air hazard avoidance
3. Wind shear/microburst

K. SYSTEMS PROCEDURES DURING ANY AIRBORNE PHASE (Normal, abnormal, alternate)

1. Fuel and oil
2. Electrical
3. Hydraulic
4. Flight controls
5. Stall warning devices/stall avoidance devices
6. Flight instrument system malfunction
7. Communications equipment
8. Navigation equipment
9. Use of checklists
10. Use of AFF equipment

L. SYSTEMS PROCEDURES TRAINING DURING ANY AIRBORNE PHASE (Emergency)

1. Aircraft fires
2. Smoke control
3. Powerplant malfunctions
4. Electrical, hydraulic, pneumatic systems
5. Flight control systems malfunction
6. Flap systems malfunction
7. Emergency descent
8. Engine out (forced landing)
9. Use of emergency checklists
10. Use of AFF equipment

- a. Flaps as desired
- b. Right aileron up
- c. Left door open as desired
- 3. Back and Left
 - a. Flaps as desired
 - b. Left aileron up
 - c. Right door open as desired

C. Engine may be restarted as needed to taxi and reposition. In strong wind, the engine may be left idling instead of shut down.

J. Step Taxi / Step Turns (Seaplanes Only)

The purpose of this maneuver is to display proper step taxi knowledge and abilities to cross large amounts of water more quickly or to gain more speed for takeoff in tight water conditions.

Turns will be accomplished both right and left.

A. Simulate normal takeoff procedure until airplane is "on the step". Reduce power to approximately 20" MP or whatever is necessary to maintain the step without gaining flying speed or without falling into porpoising action.

B. Maintain approximately 45 MPH and use rudder too slowly and smoothly turn. Additional power may be required in the turn.

C. Apply slight amount of aileron to the inside of the turn to counteract the tendency of the outside float to sink.

D. To cease the step taxi, stop the turn and smoothly reduce power and add back pressure on the yoke.

TAKEOFFS

G. Normal

The purpose of this maneuver is to show proper knowledge and technique for normal takeoffs.

- A. Flaps to Takeoff setting, flap selector in down position except when raising flaps
- B. Apply power smoothly in 2-3 seconds. Use extreme caution not to over-boost engine past 36.5" MP, for a normal takeoff us 35" MP. Allow acceleration with approximately neutral elevator. As the rudder becomes effective, add slight forward pressure on the yoke to raise the tail.
- C. Approximately 65 MPH apply smooth back pressure to raise the nose and lift off at approximately 70 MPH.
- D. Normal climb out will be 95 MPH with medium load and 100 MPH at gross weight.