



P-3C AIRCRAFT TACTICAL OPERATIONAL READINESS TRAINER, DEVICE 2F140

TRAINING CATEGORY:

AVIATION (OPERATIONAL)

ORIGINATING AGENCY:

DCNO/AIR

SECURITY CLASSIFICATION:

Trainer with Power Off is Unclassified.
 Trainer with Power On is Confidential.
 Trainer with Power On and Operational
 Software installed is Secret.

PURPOSE:

To provide a realistic environment for training tactical antisubmarine warfare crews in decision making, communication, navigation, search, localization, and attack missions.

INTENDED USE:

Device 2F140(T) is to be used to support tactical crew training in both the tactics independent and operational flight trainer coupled modes in the P-3C Non-Update, Update II.5, and Update III configured aircraft.

FUNCTIONAL DESCRIPTION:

The Device 2F140(T) is composed of three (3) separate complexes located in three (3) rooms: the tactics trainer room, the mission debrief facility, and the off-line computer complex.

The tactics trainer room consists of several equipment areas. A trainee enclosure within the tactics trainer provides a realistic aircraft environment for NAV/COMM, TACCO, and Sensor No. 1, 2, and 3 crew members to perform the training exercises. In addition, a Pseudo Pilot station, external to the trainee enclosure, allows interaction of the tactics crew with the pilot. The relevant (non-flight) pilot station functions may be performed by either a trainee or an instructor. Associated with the trainee stations are three (3) instructor consoles for the TAC/NAV, acoustic, and nonacoustics. The TAC/NAV instructor supervises the TACCO and the NAV/COMM stations. The acoustics instructor supervises Sensor Stations 1 and 2. The nonacoustics instructor supervises Sensor Station 3. The instructors have the capa-

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bility to freeze the progress of the exercise and to reset the exercise to clear malfunctions or dropped sonobuoys, or change target information. As training progresses, the instructors may increase the complexity of the exercises by increasing the number of targets, decreasing their signal strength, and introducing malfunctions. The computer complex consists of the simulation computers and peripherals. The on-board computer is used in the trainer for handling data transfer and control functions with other avionics equipment. Lastly, hardware cabinets provide computer interfaces, display generators, simulated acoustic target generators, and power distribution.

The mission debrief facility provides playback of the training exercise. The instructors provide an evaluation of the trainee's performance, and additional instruction. The facility contains the basic complement of instruction station apparatus to control and monitor the training mission.

The off-line computer complex provides a facility for off-line generation of mission files used for training exercises.

PHYSICAL INFORMATION (TYPICAL):

Tactics Trainer Room:

69'4" long x 33'4" wide (2,311 sq. ft.)

Mission Debrief Room:

33'4" long x 19' wide (638 sq. ft.)

Off-Line Computer Complex:

42' long x 33'10" wide (856.3 sq. ft.)

The rooms are 9'5" high from raised floor to ceiling. The floor is raised 14" or 18" to provide space for cables and the ground reference planes. Power emergency shutdown circuits are installed in the trainer rooms.

The air conditioning requirements for the trainer are:

| | |
|---------------|------------|
| Tactics Area | 27.71 tons |
| Debrief Area | 6.39 tons |
| Off-Line Area | 5.28 tons |

EQUIPMENT REQUIRED (NOT SUPPLIED):

To use Device 2F140 (T) in coupled (integrated) mode, it must be coupled electrically to the Operational Flight Trainer via the OFT Compound Coupling Unit.

POWER REQUIREMENTS (EXCLUDING AIR CONDITIONING):

120/208-volt, 60-Hz, 3-phase power:

Tactics Area 78.23 KVA

Debrief Area 12.01 KVA

Off-Line Area 20.09 KVA

480-volt, 60-Hz, 3-phase power:

Motor-Generator 18.75 KVA

PUBLICATIONS FURNISHED (UNIT 1 TYPICAL):

1. Maintenance Handbook with Parts List and Supplements, NTSC P-5156 (U).
2. Planned Maintenance System (PMS) Documentation, NTSC P-5157 (U).
3. Commercial Computer Documentation Set, NTSC P-5158 (U).
4. Instructor's Utilization Handbook, NTSC P-5159 (U).
5. Support Software User's Guide, NTSC P-5160 (U).

PERSONNEL:

Instructors:

Three (3) F/Ts, Instructor P-3C ACFT. Tactical Qualified.

Operators:

Computer - One (1) DS, one (1) TD

Tactical - Two (2) TD, one (1) FT, one (1) ET, E6 and above.

Maintenance:

One (1) DS for GFE Computer. Two (2) TD/FER for computer equipment. One (1) FT for tactical GFE. One (1) S/T for sonar GFE. Two (2) TD for tactical equipment.

Trainees:

Ten (10) P-3C ACFT Tactical Aviation (operational) personnel.

CONTRACT IDENTIFICATION:

Manufactured by the Link Tactical Simulation Division of CAE-Link Corp., Silver Spring, MD under Contract Nos. N61339-83-C-0001, N61339-84-C-0002, N61339-85-C-0007, and N61339-86-C-0085.

LOCAL STOCK NUMBER:

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