



### MH-53E HELICOPTER OPERATIONAL FLIGHT TRAINER , DEVICE 2F141

#### TRAINING CATEGORY:

AVIATION (Minesweeping Helicopter)

#### ORIGINATING AGENCY:

DCNO/AIR

#### SECURITY CLASSIFICATION:

Device 2F141 is unclassified.

#### PURPOSE:

To provide realistic operational flight proficiency training for pilots of the MH-53E aircraft.

#### INTENDED USE:

Training will be provided for both the pilot and copilot in cockpit preflight and starting procedures, aircraft maneuvers, normal and emergency procedures, navigational and instrument flight procedures, external load and AMCM device towing operations, functional checkflight procedures; and standard shipboard procedures for the MH-53E in day, dawn/dusk, and night visual and instrument conditions.

#### FUNCTIONAL DESCRIPTION:

Device 2F141 is a computer-controlled trainer that faithfully simulates the operation and response of the MH-53E aircraft flight controls, instruments, and systems, as well as visual, aural, environmental, and motion sensations. The day, dawn/dusk, night visual display shows the surrounding carrier/airfield terrain throughout take-off, maneuvers, and landing approach as a function of the attitude, altitude, and speed. Aural effects, such as engine turbines, transmission/rotor whine, accessories, precipitation and air flow also are simulated. A seat shaker provides buffet simulation. A six degree-of-freedom motion system provides motion cues. The trainer includes such automated instructional features as preprogrammed insertion of malfunctions, dynamic replay, and demonstration flights. The trainer also can provide hardcopy printouts of recorded flight parameters, and performance information for post mission evaluation of the trainee.

## DIRECTORY OF NAVAL TRAINING DEVICES

### PHYSICAL INFORMATION/INSTALLATION REQUIREMENTS:

**Number of Pieces:** 30, for the Trainee Instructor, Computer, and Utility Areas.

**Size and Weight:** The Trainee area requires a space of 38' x 42', the Computer area requires 19' x 29', the Hydraulics area requires 14' x 18', and the briefing area requires 21' 10" x 12'. The total weight of the equipment is 46,740 lbs.

### OPERATIONAL EQUIPMENT:

The following unmodified operational equipment is used in the trainer:

Qty	Nomenclature
2	Digital AFCS Computers
2	Aircraft Clocks
2	Groundspeed/Drift Angle Indicators
2	Tension/Skew Angle Indicators
1	Omega Navigation CDU
2	Cycle Grips
2	Collective Grips
1	HF Radio Control Panel

### EQUIPMENT REQUIRED (NOT SUPPLIED):

Except for special tools and test equipment for maintenance, all equipment required for operation of the Trainer is supplied.

### POWER REQUIREMENTS:

**Computer/Trainee Area:** 120/208 VAC, 60 Hz, 3-Ph, 150 Amps per phase, .85 power factor.

**Utility Area:** 277/480 VAC, 60 Hz, 3-Ph, 300 Amps per ph, .85 power factor.

### PUBLICATIONS FURNISHED:

1. Operations and Maintenance Instruction Manual
2. Commercial Computer Documentation Set
3. Planned Maintenance System
4. MH-53E Instructor Utilization Handbook
5. MH-53E Operator's Handbook, and Support Software User's Guide

### PERSONNEL:

Instructor Pilot: One (1)

Pilot Trainees: Two (2)

Observer: One (1), Operating Maintenance Personnel as required.

### CONTRACT IDENTIFICATION:

Manufactured by Honeywell, Inc., Herndon, VA under NAVTRASYSCEN Contract No. N61339-87-C-0029.

### LOCAL STOCK NUMBER:

6930-LL-C00-6792