

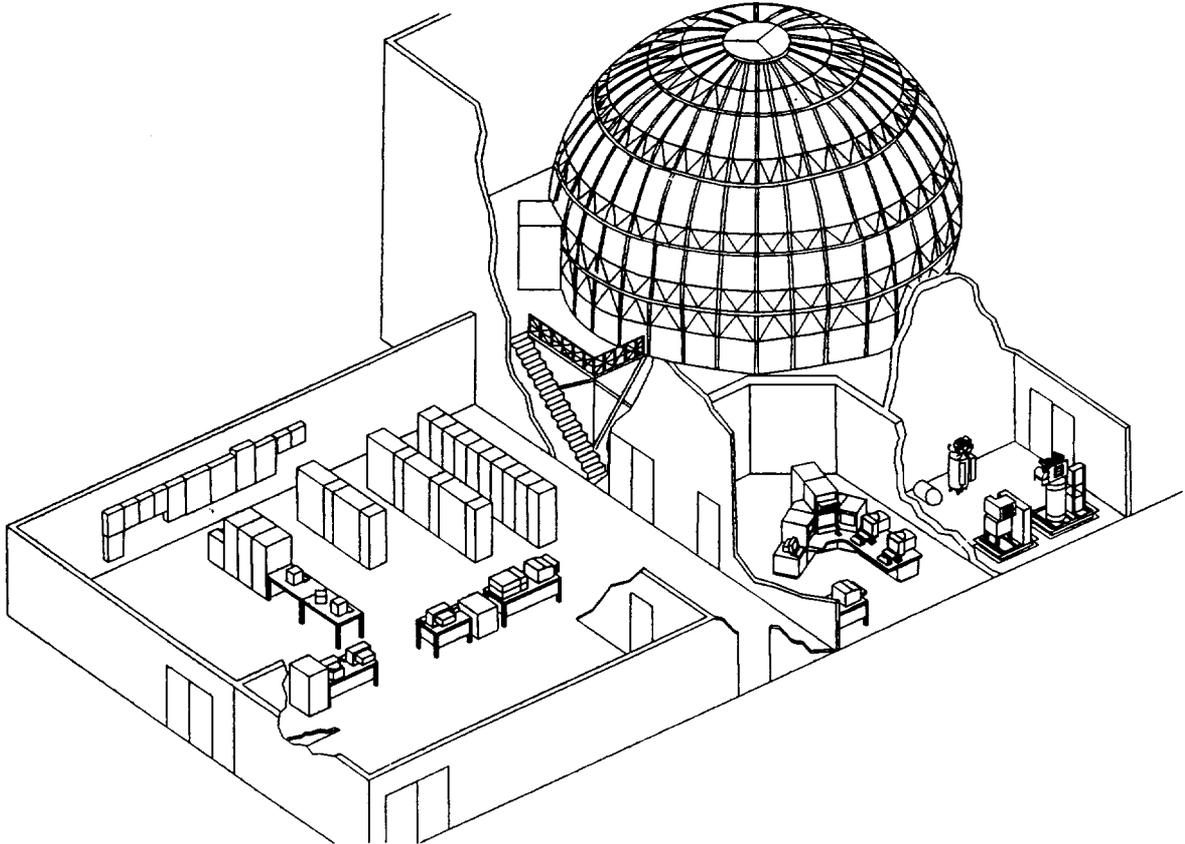
**SUMMARY OF
AV-8B RADAR NIGHT ATTACK WEAPONS SYSTEMS TRAINER (RNAWST)**

1 MAY 1994

Device 2F150A

**NAVAL AIR WARFARE CENTER
TRAINING SYSTEMS DIVISION**

ORLANDO, FLORIDA



TRAINING CATEGORY:

AVIATION

ORIGINATING AGENCY:

DCNO / AIR

**SECURITY CLASSIFICATION OF
DEVICE:**

Device 2F150A is secret.

PURPOSE OF DEVICE:

Develop pilot proficiency in AV-8B Harrier II Plus radar equipped aircraft operations in day and night environments.

INTENDED USE:

The RNAWST is used to train student pilots in AV-8B Harrier II Plus operational and tactical operations in day and night environments. Operational procedures include: VSTOL and conventional takeoff and landing, aircraft control and instrument flight procedures. Tactical procedures include: weapons delivery, low altitude tactics, offensive air combat maneuvering, defensive electronic countermeasures, and AN/APG-65 radar operation. The RNAWST is also used to reinforce training in normal/degraded/emergency operations of simulated aircraft systems.

FUNCTIONAL DESCRIPTION:

Device 2F150A is installed in a multiroom training facility with a high bay area. The RNAWST is grouped and located in adjacent rooms which include: Trainee station, instructor operator station, computer room, and utility room.

The trainee station includes a full size replica of the AV-8B Harrier II Plus crew station and a visual scene projection system. The crew station contains controls, indicators, and cockpit equipment required to perform the training mission. Crew station multi-purpose color displays provide simulated AN/APG-65 radar images. A flight control system simulates AV-8B Harrier II Plus flight control characteristics. A g-suit/seat, g-dimming, and buffet system simulates g-forces and motion cuing. An aural simulation system simulates the AV-8B crew station aural environment. A communications system simulates all COM/NAV capabilities.

Computer image generation (CIG) equipment develops imagery video for the trainer dynamic visual scenes. The dynamic visual scenes simulate a 400 by 400 nautical mile area and include special target areas and weapons effects. A separate image generation system develops simulated AN/APG-65 imagery.

The instructor operator station (IOS) is the trainer control center. The IOS provides the capability to select, initiate, and record the training mission and monitor and evaluate trainee performance. Basic operating modes include planning, training, demonstration, and replay. Demonstration, instant replay, and simulation freeze operations are provided to emphasize a particular situation during the training session.

PHYSICAL INFORMATION:

Trainee Station Room - 42 feet high x 50 feet wide x 56 feet long.

Computer Room - 10 feet high x 54 feet wide x 53 feet long.

Instructor Operator Station Room - 10 feet high x 20 feet wide x 16 feet long.

Utility Room - 42 feet high x 9 feet wide x 12 feet long.

Total Floor Area - 6090 square feet.

EQUIPMENT REQUIRED (Not Supplied)

None

POWER REQUIREMENTS:

120/208 vac, 60 Hz, three phase, 4 wire, 144 KVA maximum.

220 vac, 60Hz, single phase, 7 KVA maximum.

PUBLICATIONS FURNISHED:

Maintenance Instructions, AV-8B Device 2F150A, NTSC P-6996, (U).

Maintenance Requirement Cards, AV-8B Device 2F150A, NTSC P-6997, (U).

Instructor Handbook, AV-8B Device 2F150A, NTSC P-6999, (U).

PERSONNEL:

Instructor - One instructor pilot qualified in AV-8B Harrier II Plus weapons systems training procedures in day and night environments.

Operator - One contractor logistics support civilian to assist the instructor pilot.

Trainee - One student pilot.

Maintenance Personnel - Five contractor logistics support personnel.

CONTRACT IDENTIFICATION:

Manufactured by McDonnell Douglas Saint Louis, Missouri, under NAVTRASYSCEM Contract No. N61339-90-C-0064

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