DATA ITEM DESCRIPTION

Form Approved
OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 110 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.

1. TITLE	2. IDENTIFICATION NUMBER
TRAINING EQUIPMENT SUMMARY	DI-MISC-81184

3. DESCRIPTION/PURPOSE

3.1 The Training Equipment Summary provides the only complete condensed description of an end item of training equipment. It is also made a part of the Directory of Naval Training Devices.

4. APPROVAL DATE (YYMMDD)	5. OFFICE OF PRIMARY RESPONSIBILITY (OPR)	6a. DTIC APPLICABLE	6b. GIDEP APPLICABLE
910423	N/NTSC/TD		

7. APPLICATION/INTERRELATIONSHIP

7.1 This Data Item Description (DID) contains the format and content preparation instructions for the data product generated by the specific and discrete task requirement as delineated in the contract.

7.2 This DID is applicable to all new training equipment procurements.

7.3 This DID supersedes UDI-E-25510.

APPROVAL LIMITATION	9a. APPLICABLE FORMS	9b. AMSC NUMBER
		N6104

10. PREPARATION INSTRUCTIONS

10.1 Reference documents. The applicable issue of the document cited herein, including its approval date and date of any applicable amendments, notices and revisions shall be as specified in the contract.

10.2 Format. The format for the summary shall be as shown in Figure 1 on pages 6 and 7.

10.2.1 Preparation instructions. Except as otherwise specified or indicated herein by example, the requirements of MIL-M-38784 are applicable as general requirements of this description. A reproducible copy of summary sheets will be prepared on one side only of white bond paper (12 or 10-point boldface No. 1 compensated spacing electric typewriter) and accompanied by a glossy 8 by 10 inch photograph (with 5 by 7 inch negative) or line illustration suitable for preparation of a photo-offset plate. Text shall be double-column, single spaced without justified right margins. Section, paragraph and table numbering are not required. Typing shall be free of smudge marks, erasures, or strikeovers. Errors shall be neatly corrected with Snopake correction fluid or its equivalent, or by mortising the correction in from the back of the page. Reproducible copy shall be prepared oversize, scaled for subsequent camera reduction.

(Continued on Page 2)

DISTRIBUTION STATEMENT

DISTRIBUTION STATEMENT A: Approved for public release; distribution is unlimited.

Block 10. Preparation Instructions (Continued)

Scaling shall be such as will produce, after camera reduction, approximately seven lines of type to the inch, and an overall image (including all text and illustrations) not to exceed 6-1/4 by 9-3/8 inches, on a page 8 by 10-1/2 inches. The summary shall be limited to two pages. Foldover or foldout pages shall not be used.

10.2.2 Illustrations. The photograph is intended for halftone reproduction. Line illustrations may be submitted in lieu of a photograph only in those instances where a photograph cannot be provided. A line illustration, when required, shall be submitted as continuous tone original art, reproducing all significant features, where possible, and shall be of isometric type views. Color illustrations and cartoons are not to be used. Illustrations shall be omitted, however, if it would cause an otherwise unclassified summary to become classified.

10.3 Content. The body of the Training Equipment Summary shall contain complete condensed factual data describing and identifying characteristics and particulars of the training equipment. The data required are informational rather than instructional, shall provide a general concept of the equipment and its purpose, capabilities, limitations and technical specifications. No classified information shall be contained in the summary.

10.3.1 Illustrations. An illustration consisting of a glossy photographic print (unscreened) of the complete item of equipment shall be submitted with the summary data sheets.

10.3.2 Text content. Text content shall be brief and cover the following topics, under the following subheads:

10.3.2.1 Training category. This shall be furnished by the procuring activity.

10.3.2.2 Originating agency. This shall be furnished by the procuring activity.

10.3.2.3 Security classification. This shall be a statement giving the security classification of the training equipment, amplified as necessary where only a certain console of the system is classified, or where accessories or software may be classified and the equipment itself unclassified. This information shall be provided with whatever breakdown is necessary.

10.3.2.4 Purpose of device. The training purpose of the device shall be summarized, so that the reader can determine if it has application to a training requirement or problem at his activity.

Block 10. Preparation Instructions (Continued)

10.3.2.5 Intended use. A brief paragraph shall state where the training equipment is intended to be used (e.g., in flight, classroom, target range), the rank or rate and any special prerequisites the trainee should have accomplished prior to the use of the equipment.

10.3.2.6 Functional description. The functional description shall briefly state the type of equipment, how it is used, what inherent training features are built into it and how it achieves its functional purpose (how it works). Without repeating information given elsewhere in the summary, the functional description shall answer applicable questions listed below:

a. What is the equipment? What does it look like? Of what does it consist (name of the consoles, panels, cabinets, mockups, etc.)?

b. How is the equipment used? Does it illustrate, visualize, demonstrate, synthesize, simulate, activate, modify or stimulate? What are the instructional uses? For what specific area of training? To teach what information or develop what skills? For specifically what operational equipment? What techniques? What tactical systems are simulated?

c. What inherent training features are built into the equipment, such as scoring and progress indicators, automatic or manual problem progress control, the ability to stop or freeze a problem, control the speed of presentation, or vary the sequence of events? What features of the equipment apply the laws of learning--Interest, Relationship of Things Taught, Competition, Practical Application, Reinforcement, Repetition, Early Success, Environment? For example:

(1) What is there about the equipment which in itself will attract interest of the trainee? Is the training objective of the equipment obvious from its appearance and, if so, how?

(2) Is the equipment designed so that it inherently provides a sequence which proceeds from the simple to the more complex and, if so, what features provide this sequence? Does the equipment display only a reasonable number of facts or principles which can readily be assimilated?

(3) Can the equipment be used to stimulate competition of trainees with their own records, with other trainees, or between two or more groups in the class and, if so, what features do this?

(4) Does the equipment provide for practical application and, if so, in what way; i.e., what does the trainee do?

(5) If the equipment is trainee operated, does it lend itself to repetition and, if so, what can be repeated?

Block 10. Preparation Instructions (Continued)

(6) Does the equipment provide scoring and, if so, is scoring provided immediately or fairly soon after the skill or knowledge has been demonstrated?

(7) Does the equipment have built into it such features as special lighting which makes controls easier to read, adequate ventilation or air conditioning, safety features, or any comfort features which eliminate conditions not conducive to learning? If so, mention these features.

d. How does the equipment achieve its functional purpose (i.e., how does it work)? What are the functional characteristics of the equipment? What simulation techniques are used? Is the state of the art advanced and, if so, how? What novel circuitry or mechanisms are used? Any other unique or unusual features or problems solved?

10.3.2.7 Physical information. Size, weight, type trainer (permanently installed or trailerized), airborne or shipboard, and any accessories furnished (e.g., special tools, test equipment, tapes) shall be presented.

10.3.2.8 Operational equipment. Any operational equipment used as part of the training equipment shall be listed (e.g., UHF Transmitter/Receiver AN/ARC51A, Doppler Radar AN/APN 153(V)) and whether the operational equipment is modified or unmodified. If not applicable, this subhead shall be omitted.

10.3.2.9 Equipment required (but not supplied). List any equipment or accessories needed or desired for optimum use of the training equipment. If none is needed, the word "none" shall appear.

10.3.2.10 Power requirements. External power requirements for the training equipment shall be listed as follows:

Input Characteristics, e.g., 120/208VAC 60HZ 3 phase 4 wire

Maximum Peak Power (KVA)

Maximum Starting Power (KVA & Amperes/Phase)

If no power is required for the equipment, the word "NONE" shall appear under this subhead.

10.3.2.11 Installation requirements. Minimum installation area shall be specified for large devices or where a number of major pieces of a system must be spaced a certain distance from each other. Floor loading, air conditioning (BTU/hr, tonnage) and equipment environmental characteristics (e.g., temperature and humidity, sensitivity to vibration and shock, radiation emission or shielding, or noise hazard) shall be stated.

lock 10. Preparation Instructions (Continued)

10.3.2.12 Publications furnished. The complete title, including the publication control number, and exact classification (U), (C), (S), (TS), of each publication furnished by the procuring activity to support the training equipment shall be listed.

10.3.2.13 Reference publications not supplied. This information shall be as furnished by the procuring activity. If not applicable, this subhead shall be omitted.

10.3.2.14 Personnel (estimated). Personnel requirements for the equipment, as applicable, shall be itemized under this heading, e.g.:

Instructor(s)	Number, type and qualifications
Operator(s)	Number, type and qualifications
Trainees	Number accommodated in or by equipment
Trainee observers	Number
Maintenance men	Number, type and man-hours per 40-hour utilization week.

Any other type of personnel required

10.3.2.15 Related training equipment. This information shall be as furnished by the procuring activity. If not applicable, this subhead shall be omitted.

10.3.2.16 Contract identification. The name and address of the manufacturer and the complete contract number under which the equipment was manufactured shall be stated.

10.3.2.17 Government's rights in data. Within a 1-point box, the following copy shall appear:

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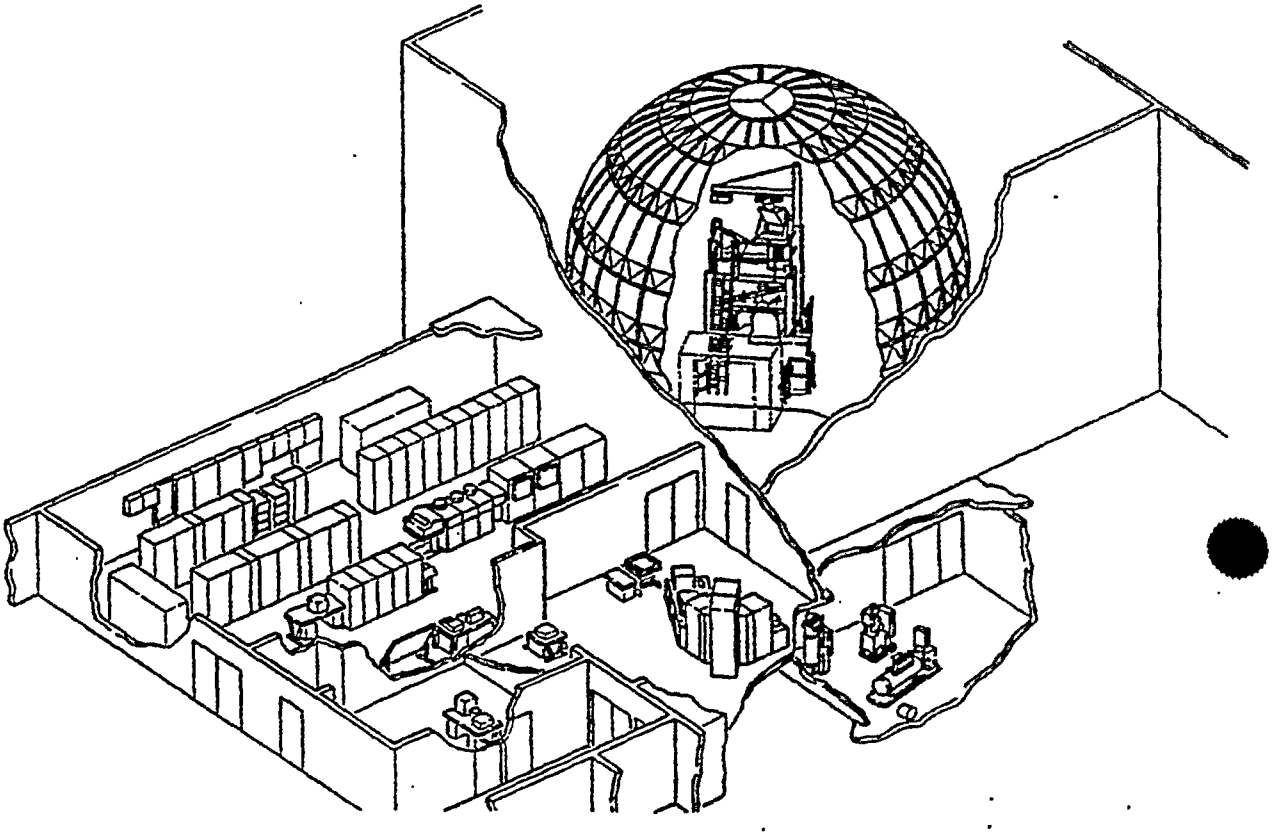
Block 10, Preparation Instructions (Continued)

SUMMARY OF
AV-8B NIGHT ATTACK WEAPONS SYSTEM TRAINER (NAWST)

JUNE 1990 **Device 2F150**

NAVAL TRAINING SYSTEMS CENTER **ORLANDO, FLORIDA**



TRAINING CATEGORY:

AVIATION

ORIGINATING AGENCY:

DCNO / AIR

SECURITY CLASSIFICATION OF DEVICE:

Device 2F150 is secret.

PURPOSE OF DEVICE:

Develop pilot proficiency in AV-8B aircraft operations in day and night environments.

INTENDED USE:

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

FIGURE 1. Sample format of a training equipment summary.

Block 10, Preparation Instructions (Continued)

FUNCTIONAL DESCRIPTION:

Device 2F150 is installed in a multiroom training facility with a high bay area. The NAWST is grouped and located in adjacent rooms which include: Trainee station, instructor operator station, computer room, debrief room, and utility room.

The trainee station includes a full size replica of the AV-8B crew station and a visual scene projection system. The crew station contains controls, indicators, and cockpit equipment required to perform the training mission. A flight control system simulates AV-8B 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.

The instructor operator station (IOS) is the trainer control center. The IOS provides the capability to select, initiate, and record the training mission and to 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 - 40 feet high x 51 feet wide x 54 feet long.

Computer Room - 10 feet high x 30 feet wide x 54 feet long.

Instructor Operator Station Room - 10 feet high x 22 feet wide x 32 feet long.

Utility Room - 10 feet high x 17 feet wide x 29 feet long.

Debrief Room - 10 feet high x 11 feet wide x 13 feet long.

Total Floor Area - 5,714 square feet

EQUIPMENT REQUIRED (Not Supplied):

None

POWER REQUIREMENTS:

120 / 208 vac, 5 wire, 60 Hz, three phase, 700 amperes per phase maximum.

PUBLICATIONS FURNISHED:

Maintenance Instructions, AV-8B NAWST Device 2F150, NAVTRADEV P-5701, (U).

Maintenance Requirement Cards, AV-8B NAWST Device 2F150, NAVTRADEV P-5702, (U).

Instructor Handbook, AV-8B NAWST Device 2F150, NAVTRADEV P-5705, (U).

PERSONNEL:

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

Operator - One MARCOR civilian to assist the instructor pilot.

Trainee - One student pilot.

Maintenance Personnel - Six MARCOR civilian personnel.

CONTRACT IDENTIFICATION:

Manufactured by McDonnell Aircraft Company, Saint Louis, Missouri, under NAVTRASYSCEN Contract No. N61339-82-C-0022.

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FIGURE 1. Sample format of a training equipment summary. (Continued)