DATA ITEM DESCRIPTION
Title: TRAINING EQUIPMENT SUMMARY

Number: DI-MISC-81184A
AMSC Number: N9641
DTIC Applicable:
Preparing Activity: AS
Applicable Forms:

Approval Date: 20160229
Limitation:
GIDEP Applicable:
Project Number: MISC-2016-010

Use/relationship: The Training Equipment Summary provides a complete condensed description of an end item of training equipment. It is made part of a training information electronic resource system (or equivalent) and is used for strategic planning, public relations, and foreign military sales.

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

This DID supersedes DI-MISC-81184.

Requirements:

1. Reference Documents. The applicable issue of the documents cited herein, including their approval dates and dates of any applicable amendments, notices, and revisions, shall be as specified in the contract.

2. Format. Contractor's format is acceptable. The summary shall be used for guidance shown in Figure 1.

3. Preparation Instructions. Except as otherwise specified or indicated herein by example, the requirements of MIL-STD-38784 are applicable as general requirements of this description. The summary sheets shall be prepared such that they may be printed on 8-1/2 x 11inch paper. The graphic shall be either a high definition photograph or line illustration of sufficient quality that printing will not result in a loss of detail. The graphic shall be in a common industry standard format (.jpeg, .gif, .png, etc.). Text shall be double-column, single spaced without justified right margins. Section, paragraph, and table numbering are not required. The summary shall be limited such that when printed it fits on to two printed pages.

3.1 Graphics. The photograph is intended for halftone reproduction when printed. 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.

4. 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 and shall provide a general concept of the equipment, its purpose, capabilities, limitations, and technical specifications. No classified information shall be contained in the summary.

4.1 Graphics. An illustration in a high definition industry common format of the complete item of equipment shall be included with the summary.

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

4.2.1 Training Category. This shall be furnished by the procuring activity.

4.2.2 Originating Agency. This shall be furnished by the procuring activity.

4.2.3 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 is unclassified. This information shall be provided with whatever breakdown is necessary.

4.2.4 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 their activity.

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

4.2.6 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 the 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 is it intended? What information is taught or what skills are developed? What operational equipment does it support? What techniques are taught? What tactical systems are simulated or taught?

c. What inherent training features are built into the equipment, such as scoring or 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 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 feature does 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?

(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? Are there any unique or unusual features, or are any problems solved?

4.2.7 Physical Information. Size, weight, type trainer (permanently installed or containerized), airborne or shipboard, and any accessories furnished (e.g. special tools, test equipment) shall be presented.

4.2.8 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/APN153(V)) and whether the operational equipment is modified or unmodified. If not applicable, the word "None" shall appear under this subhead.

4.2.9 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 under this subhead.

4.2.10 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.

4.2.11 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.

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

4.2.13 Reference Publications Required (but not supplied). This shall be furnished by the procuring activity. If none is needed, the word "None" shall appear under this subhead.

4.2.14 Personnel (estimated). Personnel requirements for the equipment, as applicable, shall be itemized under this subhead as follows:

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

Any other type of personnel required

4.2.15 Related Training Equipment. This information shall be as furnished by the procuring activity. If none is needed, the word "None" shall appear under this subhead.

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

4.2.17 Government's Rights in Data. Within a 1-point box, the following copy shall appear: DISTRIBUTION STATEMENT A. APPROVED FOR PUBLIC RELEASE.

End of DI-MISC-81184A

SUMMARY OF
REDUCED OXYGEN BREATHING DEVICE

FEBRUARY 2007 Device XXXXXX

TRAINING CATEGORY:

AVIATION/MEDICINE

ORIGINATING AGENCY:

Naval Aerospace Medical Research Laboratory (NAMRL)

SECURITY CLASSIFICATION OF DEVICE:

Device XXXXXX is unclassified.

PURPOSE OF DEVICE:

Develop aircrew proficiency in recognizing the signs and symptoms of hypoxia and in performing the appropriate emergency procedures to counter act hypoxia.

INTENDED USE:

The Reduced Oxygen Breathing Device (ROBD) is used to train aircrew to recognize the signs and symptoms of hypoxia and to perform the appropriate emergency procedures based on their platform.

Additionally, the ROBD is used by NAMRL to conduct hypoxia research.

FUNCTIONAL DESCRIPTION:

The ROBD is portable and is intended to be used in conjunction with existing flight trainers to provide a more immersive environment for aircrew training. The system is a computerized gas-blending instrument that safely presents precise normobaric hypoxia conditions. The system uses Thermal Mass Flow Controllers (MFC) to combine breathing air and nitrogen to produce the sea level equivalent atmospheric O2 contents for altitudes from 0 feet to 34,000 feet in 1 feet increments by providing 21% to

Figure 1. Sample format of a training equipment summary.

4.4% oxygen. The MFC's are calibrated on a primary flow standard traceable to the National Institute of Standards and Technology (NIST). The ROBD introduces pressure changes and gas expansion as a function of altitude.

Several safety features are built into the ROBD. The device prevents over pressurization of the subject's mask, prevents reduced oxygen contents below those being requested for a particular altitude, and provides an emergency dump switch that will supply 100% O2 to subjects.

The software is menu driven. The main operators menu consists of three selections (pulse oximeter, altitude, and program), simplifying the use of the system for the field operator. Pulse Oximeter allows the operator to monitor blood oxygen saturation. Altitude allows the operator to set the simulated altitude. Program allows the operator to call up the pre-programed functions such as self-test. Built-in self-tests verify all system component functionality before the operation of the system can begin. If any self-test fails the system will not operate.

The ROBD includes an integrated Pulse oximeter and an integrated oxygen analyzer. The system is transported in a wheeled shipping case with dual handles. The system is designed to work with bottled gases.

PHYSICAL INFORMATION:

Training Station – minimum 8 foot high x 6 foot wide x 6 foot long

OPERATIONAL EQUIPMENT:

Student's flight helmet with oxygen mask (MS22058-2 Connector)

EQUIPMENT REQUIRED (Not Supplied):

Breathable Oxygen – CGA 540 (Green)

Breathable Air – CGA 346 (Yellow)

Breathable Nitrogen – CGA 580 (Black)

Standard Table

Standard Chair

Flight Simulator

POWER REQUIREMENTS:

110/240 VAC, 50/60 Hz, single phase, 10 amperes minimum

INSTALLATION REQUIREMENTS:

Total Floor Area – 36 square feet

Floor Loading – 30lbs/ft. minimum

Environmental Conditions: 15° C to 35° C and no greater than 50% relative humidity

PUBLICATIONS FURNISHED:

Operation and Maintenance Instructions, ROBD Device XXXXXX, NAV

REFERENCE PUBLICATIONS REQUIRED (Not Supplied):

None

PERSONNEL:

One Trainee

One Operator

RELATED TRAINING EQUIPMENT:

Flight Simulator

CONTRACT IDENTIFCATION:

Manufactured by Environics, Tolland, Connecticut, under GSA Contract Number GS-07F-0755X

DISTRIBUTION STATEMENT A.
APPROVED FOR PUBLIC RELEASE.

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