



EXTERNAL VOICE COMMUNICATIONS SYSTEMS (EVCS), DEVICE 20F15A/11

TRAINING CATEGORY:

SURFACE OPERATIONS (SHIP)
 (CIC/Command Control - Ship)

ORIGINATING AGENCY:

NAVSEA

SECURITY CLASSIFICATION:

Device 20F15A/11 is unclassified

PURPOSE:

The External Voice Communications Systems (EVCS) replicates U.S. Navy tactical voice communications between multiple Combat Information Center (CIC) mockup teams and the Tactical Advanced Combat Direction and Electronic Warfare (TACDEW) Problem Control and Evaluation (PC&E) Center.

INTENDED USE:

The EVCS is installed as a part of the TAC-DEW complexes. It provides communications networks which enable students to experience

radiotelephone (R/T) and sound-powered (S/P) voice communications related to sub-team and team operation within a single or multi-ship battle problem.

FUNCTIONAL DESCRIPTION:

The EVCS utilizes digital switching technology to provide voice links between any of 3,744 individual channels. The specific links or interconnections made are determined by a communications plan entered by the EVCS operator via the EVCS Digital Computing System. The EVCS utilizes fiber optics as a transmission medium to alleviate crosstalk and noise problems and provides an on-line monitoring system to identify and isolate failures. The EVCS provides point-to-point as well as conference links between up to thirty (30) CIC Mockups, one (1) Multi-Unit Team Trainer, thirty (30) Problem Control Consoles, and sixty-four (64) Target Control Consoles. The EVCS provides the capability to conduct up to twenty-two (22) concurrent exercises with a total maximum of 1,056 simultaneous conference networks.

PHYSICAL INFORMATION:

Sizes: All dimensions given as H x W x D in inches

Each Mockup Interface is mounted in a 61" x 22" x 31" rack (optional wall-mounting arrangement available)

Radio Room and MUTTS Interfaces are each mounted in a 61" x 22" x 31" rack

Digital Computing Subsystem includes MicroVAX 11 computer and tape drive mounted in a 42" x 22" x 32" rack

Video Terminal (Table-Top Mounting) Hard-copy Console (34" x 28" x 24")

Line Printer (48" x 29" x 25")

Digital Cross-Connect Switch Subsystem is mounted in a maximum of nine (9) equipment racks, each with dimensions of 87" x 22" x 31"

PBX (45" X 17" X 15")

Channel Bank Interface Data Switch Subsystem is mounted in maximum of two (2) 70" x 22" x 31" racks

Fiber Optic Transceiver Bay is mounted in maximum of three (3) 87" x 22" x 31" racks

Channel Bank Bay is mounted in maximum of seven (7) 87" x 22" x 31" racks

Problem Control Console Communication Drawer (5-1/4" x 10-1/2" x 19")

Target Control Console Communication Drawer (5-1/4" x 10-1/2" x 19")

Total Equipment Weight (excluding cabling): approximately 18,000 lbs.

POWER REQUIREMENTS:

450 Amps (max) at 115-Volt, 60 Hz; 4-Amps (max) at 208-Volt, 60 Hz

PUBLICATIONS FURNISHED:

1. Operation and Maintenance Instructions Technical Manual, NTSC P-6296. (U)
2. Planned Maintenance System (PMS) Documentation, NTSC P-6298. (U)
3. Instructor's Utilization Handbook, NTSC P-6299. (U)
4. On-The-Job Training Handbook, NTSC P-6300 (U).
5. Computer Systems Operator's Manual, NTSC P-6297 (U).

PERSONNEL:

Instructors: Thirty (30) Operation Specialists (OS) (max) - one (1) per Mockup

Operators: Ninety-Seven (97) Operation Specialists (max) one (1) Digital Computing Subsystem Operator, Thirty-two (32) Problem Control Console Operators, Sixty-Four (64) Target Control Console Operators

Trainees: Variable, depending on operational Mockups.

Daily Oper. Readiness: One (1) Operation Specialist (OS) approximately 30 minutes per day

Preventive Maintenance: One (1) Electronic Technician (ET) and one (1) Interior Communication Electrician (IC) max. of 120 minutes per 40-hour utilization week

CONTRACT IDENTIFICATION:

Manufactured by SYNTEK Engineering and Computer Systems, Inc., Marietta, GA under sub-contract to International Analytic Corporation, Orlando, FL under NAVTRASYS-SCEN Contract No. N61339-88-C-0009.

LOCAL STOCK NUMBER:

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