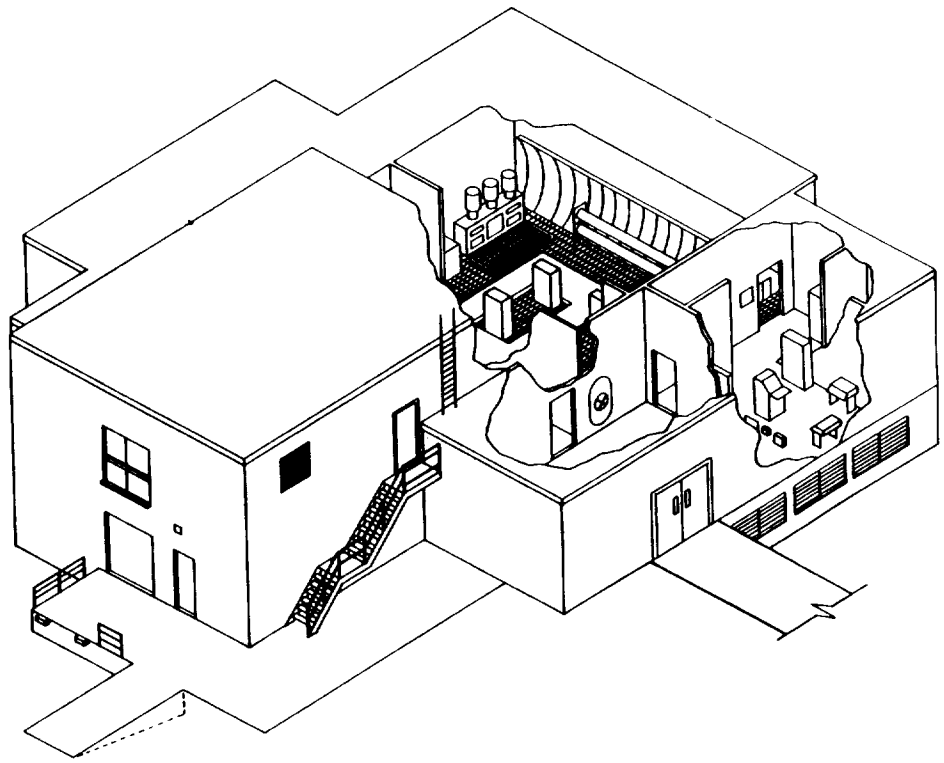

SUBMARINE FIRE FIGHTING TRAINER, DEVICE 21C12

TRAINING CATEGORY:

PROPULSION ENGINEERING (Fire Fighting)

ORIGINATING AGENCY:

CNET

SECURITY CLASSIFICATION:

Device 21C12 is unclassified.

PURPOSE OF DEVICE:

To provide training in the extinguishment of Class A, B, and C submarine fires.

INTENDED USE:

To train submarine fire fighting teams.

FUNCTIONAL DESCRIPTION:

Device 21C12 is an advanced electro/mechanical system that simulates Class A, B, and C submarine fires by using live, computer controlled, propane-fueled fires.

The device is integrated into a specially designed compartmentalized building that contains simulated equipment and other structures typically found on board Navy submarines. These structures (called fireplaces) are situated in areas where fires can be expected to occur.

The fireplaces contain all the equipment necessary to generate fires that respond realistically and safely to trainee efforts to extinguish fire scenarios.

The fire parameters of flame growth, spread, extinguishment and reflash can be controlled by an instructor from an Instructor Operator Station (IOS). The control room/equipment room contains the IOS from which primary control and monitoring of the trainer are exercised. The control room contains the primary control panel and the training scenario indication and control system. The equipment room contains the air quality and fire effluent monitoring system cabinet.

The training area consists of: (1) the training compartment; (2) a burner room; (3) two (2) trainee staging areas; and, (4) a bulk storage room. Smoke can be generated to simulate the obscure conditions caused by smoke producing combustibles.

Communication between the instructor station and the training compartments is provided by a two-way sound powered telephone circuit. A 1MC broadcast capability is also provided.

PHYSICAL INFORMATION:

Sizes	Dimenstions (Feet) HT" x WD" x DPTH"
1. TRNR Building	14 x 79 x 75
2. Control Room	10 x 14 x 11
3. Training Room	8 x 25 x 37
4. TRNG Compt	8 x 25 x 37
5. Burner Room L Shape (Long Leg of L)	10 x 10 x 37
(Short Leg of L)	10 x 8 x 13
6. Staging Area	10 x 20 x 25
7. Bulk Storage	10 x 23 x 37

EQUIPMENT REQUIRED (NOT SUPPLIED):

Ten (10) Oxygen Breathing Apparatus (OBA)

POWER REQUIREMENTS:

Input Characteristics: 120/208 VAC, , 60 Hz., 3-Phase

Maximum Peak Power: 30.8 KVA

Maximum Starting Power: 100 Amps, 3-Phase

PUBLICATIONS FURNISHED:

1. Technical Manual for Submarine Fire Fighting Trainers, Device 21C12, NTSC P-5691 (U).
2. Planned Maintenance System (PMS) for Submarine Fire Fighting Trainer, Device 21C12, NTSC P-5692 (U).
3. Technical Manual, Supplementary Data for Commercial Equipment, Device 21C12, NTSC P-5693 (U).
4. Instructor's Utilization Handbook for Submarine Trainer, Device 21C12, NTSC P-5694 (U).
5. On-The-Job Training Handbook for Submarine Trainer, Device 21C12, NTSC P-5695 (U).
6. Operator's Manual, Training Device for Submarine Fire Fighting Trainer, Device 21C12, NTSC P-5697 (U).

PERSONNEL:

Instructor: Two (2) E6 or E7 Boiler Technicians or Hull Technicians

Operator: One (1) E6 or E7 Boiler Technician or Hull Technician

Trainers: Ten (10) Seamen Recruit to Commander (E1-05)

Maintenance: One (1) mid-level to journeyman electro/mechanical technician assisted by an E6 or E7 instructor/operator.

CONTRACT IDENTIFICATION:

Manufactured by Austin Electronics, Inc., Fair Lawn, NJ under NAVTRASYSCEN Contract No. N61339-87-C-0097.

LOCAL STOCK NUMBER:

6930-LL-C00-6776