

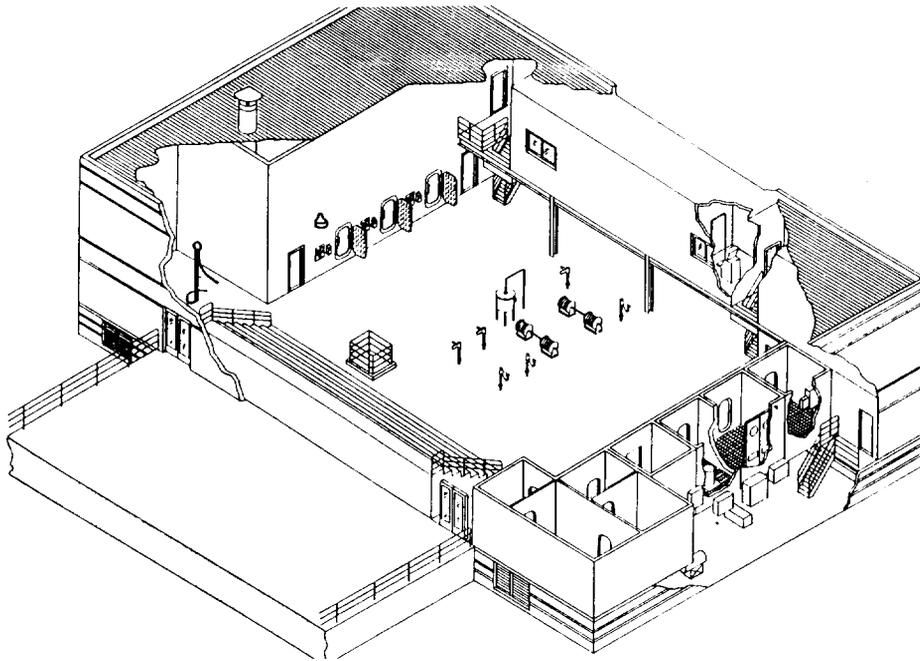
SUMMARY OF
RECRUIT FIRE FIGHTING TRAINER

July 1991

Device 19F5

NAVAL TRAINING SYSTEMS CENTER

ORLANDO, FLORIDA



TRAINING CATEGORY:

PROPULSION ENGINEERING
(Fire Fighting)

ORIGINATING AGENCY:

NAVSEA

SECURITY CLASSIFICATION OF DEVICE:

Device 19F5 is unclassified.

PURPOSE OF DEVICE:

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

INTENDED USE:

To train shipboard fire fighting teams.

FUNCTIONAL DESCRIPTION:

Device 19F5 (see figure 1) is an advanced electro-mechanical system that simulates Class A, B, and C shipboard fires, by using live computer-controlled, propane-fueled fires.

The trainer is housed in an independent building at the fire fighting school installation site. It consists of two functionally independent building halves, designated side 1 and side 2. Each side is controlled by an associated Instructor/Operator Station (IOS).

Fire emergencies are staged in compartments which contain structures called fireplaces. Fireplaces resemble the actual shipboard component that is the potential fire source. Three compartments are contained on each side. Side 2 contains an additional chamber called the Emergency Egress Chamber (EEC) which provides trainees exposure to heat and smoke obscuration in a completely darkened room.

Each compartment provides a sound powered telephone (SPT), fireplace hardware, remote I/O modules for controlling the fireplace, a compartment control panel for the instructor, and sensing devices for propane, air quality, fire effluents and temperature. All operation except for the SPT communications system, is under the control of a programmable controller (PC).

The trainer building shown in figure 1 includes a supervisory area and a training area. The supervisory area consists of an electrical equipment room and a control room from which primary control and monitoring of the trainer are exercised. The electrical equipment room contains a primary control panel and the power distribution panels. The electrical equipment room also contains a programmable controller (PC) system that controls the trainer operation, air quality/fire effluent monitoring system cabinets, air conditioning equipment (Government furnished) and a data termination cabinet.

Overall control of each training area (side 1 and side 2) is exercised primarily from the respective control room. The control system permits use of the fireplaces either individually or in any combination. An IOS is located in each control room to control and monitor all training exercises.

PHYSICAL INFORMATION:

Sizes	Dimensions (Feet)		
	HT	WD	Dpth
TRNR Building Dimensions	28	130	82

Total Equipment Weight: 1516 lbs.
(approx.)

Complete dimensional information for all Device 19F5 major assemblies is provided in the 19F5 Trainer Facilities Report, document no. 401-D007; Revision A.

EQUIPMENT REQUIRED (NOT SUPPLIED):

Oxygen Breathing Apparatus (OBA)

POWER REQUIREMENTS:

Input Characteristics:
120/208V, 60 Hz, 3 phases
Maximum Peak Power: 30.8 KVA
Maximum Starting Power:
100 Amps, 3 phase

PUBLICATIONS FURNISHED:

Technical Manual for Recruit Fire Fighting Trainer, Device 19F5; Operation and Maintenance, NTSC P-6244 (U).

Planned Maintenance System (PMS) for Recruit Fire Fighting Trainer, Device 19F5, NTSC P-6246 (U).

Technical Manual, Supplementary Data for Commercial Equipment, Device 19F5, NTSC P-6244-S (U).

Instructor's Utilization Handbook for Recruit Fire Fighting Trainer, Device 19F5, NTSC P-6247 (U).

On-The-Job Training Handbook for Recruit Fire Fighting Trainer, Device 19F5, NTSC P-6248 (U).

PERSONNEL:

Instructors/Operators: As required by operations

Trainees: Recommended class size - 160, Bleacher capacity - 250

Maintenance: PMS Maintenance Cycle - 1 year

CONTRACT IDENTIFICATION:

Manufactured by Symtron Systems inc., Fair Lawn, New Jersey, under NAVTRASYSCEM Contract No. N61339-89-C-0015.

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