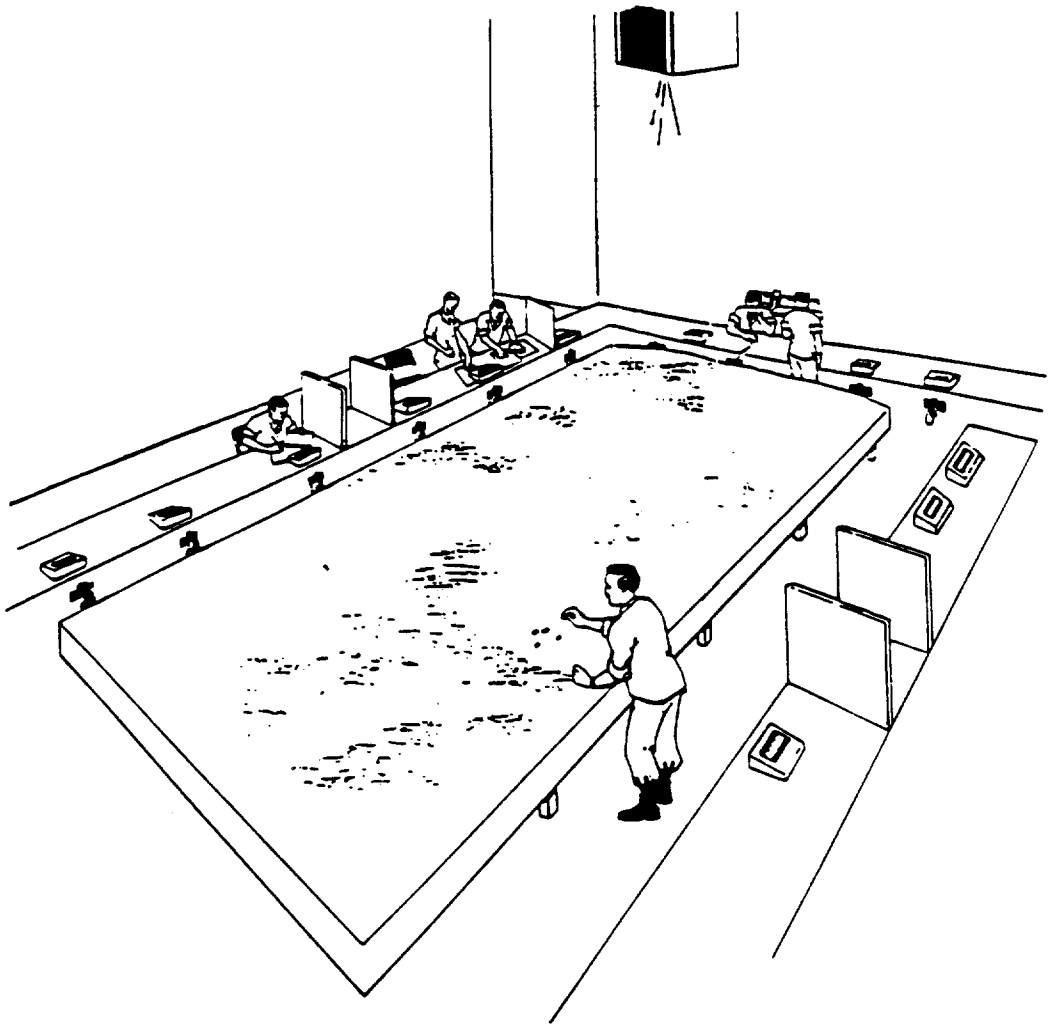
SUMMARY OF
COMBINED ARMS STAFF TRAINER (CAST)

March 1992 | Device 16N8D

NAVAL TRAINING SYSTEM CENTER | ORLANDO, FLORIDA



TRAINING CATEGORY:

Command and control of supporting arms.

ORIGINATING AGENCY:

CMC

SECURITY CLASSIFICATION OF DEVICE:

Device 16N8D is unclassified.

PURPOSE OF DEVICE:

To provide realistic training and practice in infantry regiment and battalion ground combat.

INTENDED USE:

In training system support of the First Marine Division's ground combat elements, specifically the infantry regiments and battalions.

FUNCTIONAL DESCRIPTION:

CAST Device 16N8D consists of exercise force cells, a portable terrain board model with miniature models of various military equipment to support it, a central processing system, a communications network system with EW capability, and a computer controlled laser target designation system. It is used to exercise and evaluate participating units in the command, control, and coordination of supporting arms. It will provide participants training and guidance in fire support planning and coordination. The CAST will be used to emphasize the detailed planning and coordination required to develop, execute, and validate a particular scheme of maneuver and its plan of fire support. The process utilized in the CAST requires each echelon in the fire support command to communicate and properly execute their respective function roles before the requested support materializes. The trainer is used for a two to five day exercise period to allow the user units to prepare, test, and refine operation orders, including supporting arms requirements, in response to both friendly and opposing forces scenarios. The CAST will accommodate various levels of Marine Corps staff sections and consists of exercise force command and staff cells, a video recording system, portable terrain board models of the designated exercise areas, a communications system with electronic warfare capability, own and opposing force models, a remotely controlled weapons impact designation system, and a computer system.

PHYSICAL INFORMATION:

Sizes:
- Video Subsystem
  - Camera - 2.2"(W)x1.89"(H)x4.53"(D)
  - Video Dist Amp - 1.75"(H)x4.9"(W)x9"(D)
  - Audio Dist Amp - 1.75"(H)x4.2"(W)x9"(D)
  - Mixer - 2.97"(H)x12.16"(W)x9"(D)
  - Pan/Tilt Controls - 8.1"(H)x8.0"(W)x5.3"(D)
  - Zoom Controls - 3.47"(H)x19.0"(W)x10"(D)
  - Video Recorder-7.6"(H)x16.7"(W)x19.4"(D)
  - Video Monitors (4) - 22.9"(H)x26.25"(W)x18.5"(D)
- Fire Marking System
  - FMS, Projector (2)-10"(H)x30"(W)x48"(D)
  - Laser Computer (2)-5.5"(H)x21"(W)x16.5"(D)
- Terrain Board System
  - Terrain Boards (36) - 4'(H)x8'(W)
- Public Address System
  - PA Speakers (31)-9.8"(H)x12.3"(W)x4.4"(D)
  - PA Amplifier - 3.5"(H)x16.5"(W)x11"(D)
  - PA Receiver - 1.75"(H)x7.5"(W)x8.0"(D)
- Communication System
  - Line Controllers (409) - 7.5"(H)x10.38"(W)x4.5"(D)
  - Communication Patch Panels (30) - 29.92"(H)x23.62(W)"x8.27"(D)
- Computer System:
  - Computer (25) - 5.5"(H)x21"(W)x16.5(D)

Weight:
- Video Subsystem - 375.1 pounds
- Fire Marking System
  - FMS, Projector Assembly (2) - 81 pounds
- Terrain Board System
  - Terrain Boards (36) - Less than 100 pounds
- Public Address System - 27.2 pounds
- Communication System
  - Line Controllers (409) - 5 pounds

EQUIPMENT REQUIRED (NOT SUPPLIED):

None

POWER REQUIREMENTS: 120-volt, 60 Hz, Trainer power requirements less than 20KVA.

PUBLICATIONS FURNISHED:

Operation/Maintenance Manual, P-6876 (U)
Planned Maintenance System, P-6877 (U)
Computer COTS Supplements, P-6878 (U)
Instructor Utilization Handbook, P-6879 (U)
On-The-Job Training Handbook, P-6880 (U)
Instructor Guide, P-6881 (U)

PERSONNEL:

Instructor/Operator: 3
Trainees: 1-50
Maintenance Men: 2

CONTRACT IDENTIFICATION:

Manufactured by Southwest Research Institute San Antonio, Texas, under NAVTRASYSCEN Contract No. N61339-89-C-0080.

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