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MAP READING TRAINER

Training Category/Level Utilized:
Engineer/Level 3

Logistic Responsible Command, Service, or Agency:
ATCOM

Source and Method of Obtaining:
Available through local TSC.

Purpose of Trainer:
For use in the classroom to demonstrate principles of map reading and land navigation. The trainer is used to assist the instructor in teaching the basic principles of land navigation with emphasis on appreciation and evaluation, marginal information, topographic map symbols, methods of orientation and resection, and the military grid reference system, beginning at the elementary level. The device can be used in conjunction with FM 21-26 "Map Reading." The specific training requirements supported are shown following the descriptive data.

Functional Description:
The trainer is a classroom demonstration panel which displays map material pertinent to the study of map and compass reading.

The device provides a map panel with scales, legend, and grid materials; a protractor with coordinate scale, a grid zone designation panel, a declination diagram, and a contour interval panel. A magnetic, sectionalized, take-apart, three-dimensional hill model representing a topographic formation is an integral part of the map panel. It enables the instructor to illustrate how contour lines are determined by sectioning the terrain. A large-scale reproduction of the lensatic compass is attached to the map panel edge.

The map is a reproduction of part of Sheet 3859IV (Fort Knox, Kentucky), showing the town of West Point and surrounding area. This is the portion of the same map found in FM 21-26. A pointer is included for the instructor's use.

A dull matte screen is also provided, which can be pulled down over the map for movie or slide projection, or on which the instructor can write and erase explanations or diagrams. Crayons and wipe-off cloth are furnished.

The device visually demonstrates the instructor's lecture. It focuses student attention on important parts of the map without the distraction of unrelated parts, because map features are shown in a progressive, orderly sequence. Ideas, terms, and manipulations can be introduced simply and one at a time. Use of the device helps the instructor to prove the basic simplicity of map and compass reading, thus increasing student confidence.

Physical Information:
83" x 34" x 2"

Equipment Required, Not Supplied:
None

Special Installation Requirements:
None

Power Requirements:
None

Applicable Publications:
NAVEXOS P-2275, Instructor's Guide and Parts Catalog for Training Aid, Map Reading, Device 11H29

Reference Publications:
FM 21-26

Training Requirements Supported:
ARTEP Tasks

3-3	5-8	5-15	5-28
3-4	5-12	5-16	5-29
3-5	5-13	5-19	5-30
3-23	5-14	5-27	

MOSC All

SM 051-191 Tasks

1481	1486	2484	2489
1483	1490	2487	2491
1485	2482	2488	2492

MODEL SET TERRAIN: TRAINING AID W/CHEST

Training Category/Level Utilized:
Engineer/Level 3

Logistic Responsible Command, Service, or Agency:
ATCOM

Source and Method of Obtaining:
Available through local TSC.

Purpose of Trainer:
For use in the classroom to provide a representative model of terrain sections and strips. The trainer is intended to be used as an aid in the instruction of unit tactics, tactics of the individual soldier, selection of routes, application of map reading principles, reconnaissance techniques, terrain appreciation, and similar subjects. The specific training requirements supported are shown following the descriptive data.

Functional Description:
The Terrain Model Kit consists of the following:

a. Chest. The chest is made of two O.D. plywood tabletops, each about 63" by 32" with a 4" apron set flush with the outside edge. The chest is fitted with three disengaging hinges, two draw bolt locks, brackets, and handles. When fitted together to form a chest, a container is formed having a depth of about 7". This container holds the component parts of the kit. Each half of the chest is divided into two sections. The chest is designed to hold the four base sections and an O.D. covered wooden tray approximately 28" by 28" by 3", which is partitioned to provide storage space for the miniatures and accessories. Each of the two tabletops, or chest sections, is fitted with card-table type aluminum legs. A leg is attached to each of the four corners of each section. When these legs are extended and the sections are inverted, two separate tables are formed, which may be fastened end to end or side by side as desired.

b. Four Base and Eight Hilltop Sections. The four base sections are 30"by 30". The eight hilltop sections are of varying sizes and shapes. All of these sections are made of foam rubber with 1/8-inch shell of latex rubber skin, formed and spray-painted to represent mountains, valleys, and general terrain characteristics.

c. Miniatures. The components of the miniatures set consist of vehicles, equipment, personnel, structures, trees, and shrubbery. The miniatures may be arranged on the base and hilltop sections to simulate and illustrate many types of military problems.

d. Accessories. Other accessories may be used to supplement the miniatures in portraying a tactical situation. Users

of both miniatures and accessories should note that their scale varies and may not conform to the scale of the base and hilltop sections.

Physical Information:
Square model dimensions: 60" x 60"
Strip model dimensions: 30" x 120"
Weight, including chest: 125 lb

Equipment Required, Not Supplied:
None

Special Installation Requirements:
None

Power Requirements:
None

Applicable Publications:
None

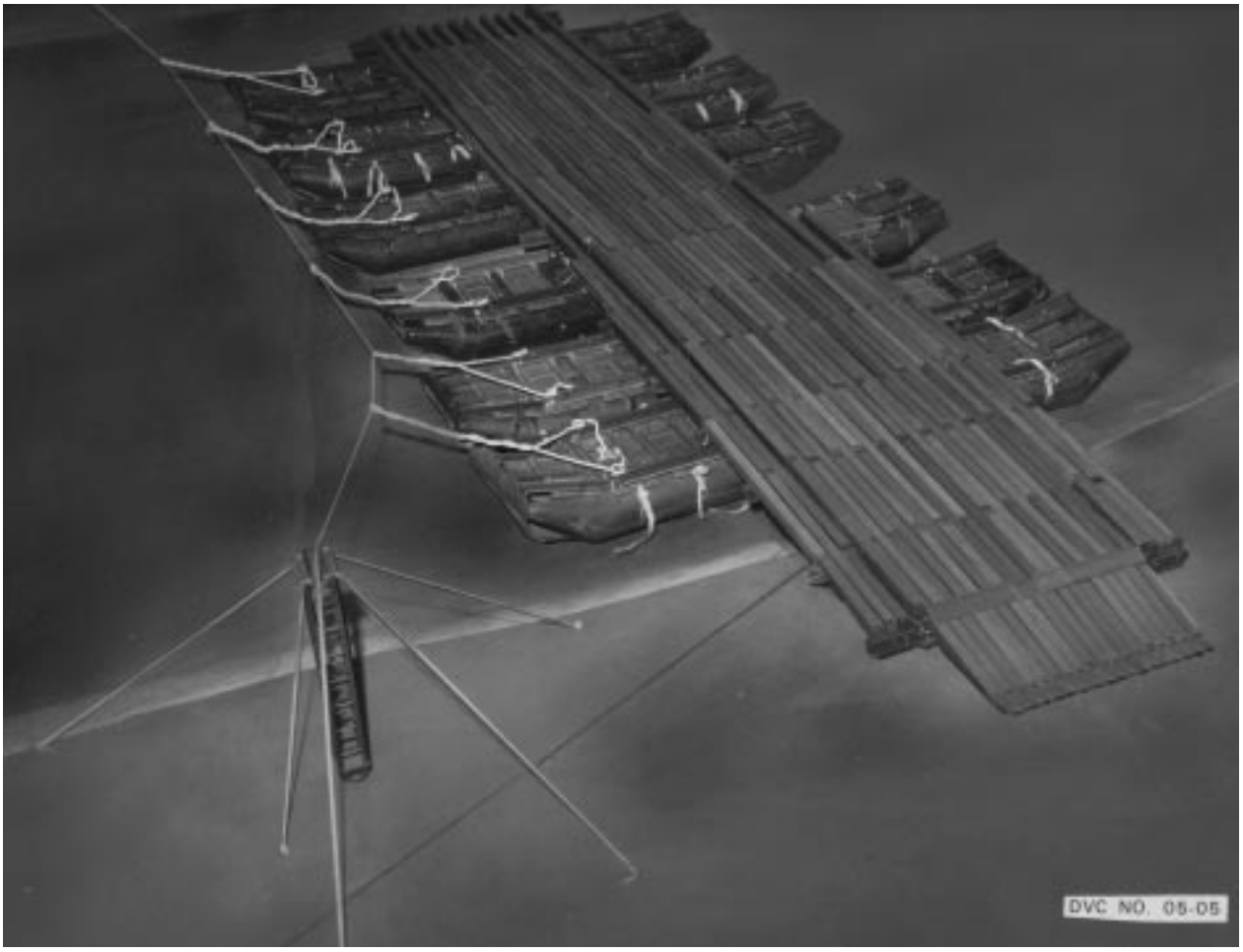
Reference Publications:
None

Training Requirements Supported:
ARTEP Tasks
3-3 3-4 3-5 3-23

MOSC All

SM 071-329 Tasks
1006

MODEL BRIDGE: ALUMINUM DECK BALK SUPERSTRUCTURE PNEUMATIC CLASS M4T6 TRAINING AID



Training Category/Level Utilized:
Engineer/Level 3

Logistic Responsible Command, Service, or Agency:
ATCOM

Source and Method of Obtaining:
Available through local TSC.

Purpose of Trainer:
To realistically demonstrate and instruct in the methods of assembling the actual bridge, and to conduct practical exercises in the floating bridge, raft, and deck balk, short-span, fixed-bridge construction. The trainer is to be used for instructing personnel in the construction of all phases of this type of bridge equipment, in the techniques of demolition of assembled and stockpiled floating bridges, and in demonstrating techniques involved in river crossing operations of this type of actual bridge. The specific training requirements supported are shown following the descriptive data.

Functional Description:
The trainer is a 1:12 scale model of the Pneumatic Float, Aluminum Deck Balk Superstructure Floating Bridge. The model parts correspond closely in general appearance, function, and arrangement to the actual floating bridge. However, the parts are manufactured from different metals; the floats have fewer compartments; and the conditions, especially the safety pins, are larger than scale. Other minor details have been simplified for ease of model fabrication and assembly.

The trainer is capable of representing any one of the following scale model bridge assemblies:

a. One end of a floating bridge consisting of a two-float reinforced end-span and three normal floating buoys.

b. A 5-float reinforced raft, complete with ramps at each end.

c. Deck balk, short span, fixed bridges with one trestle support, representing actual bridge lengths as listed below:

460" 1
360" 2
280" 1

The anchorage features of the actual bridge cannot be represented with the trainer, nor should the bridge model be used for capacity or other physical tests.

Physical Information:

The kit is packed in three chests which are approximately 84" x 19" x 29"; 300 lb

Equipment Required, Not Supplied:

None

Special Installation Requirements:

None

Power Requirements:

None

Applicable Publications:

TM 5-267K

Reference Publications:

TM 5-210

Training Requirements Supported:

ARTEP Tasks

8-13	10-15	10-18	10-21
10-13	10-16	10-20	

MOSC 12B30, 12B40, 12C30. and 12C40

SM 015-198 Tasks

3005	3012	3015	3018
3009	3013	3016	3019
3010	3014	3017	4054

TRAINING AID, MODEL BRIDGE: BAILEY

Training Category/Level Utilized:
Engineer/Level 3

Logistic Responsible Command, Service, or Agency:
ATCOM

Source and Method of Obtaining:
Available through local TSC.

Purpose of Trainer:
To realistically demonstrate the methods of assembling the actual bridge, and for conducting practical exercises in constructing M2 Bailey-Type Bridges. The trainer is intended to be used for instruction in all phases of construction of this type bridge equipment. It can also be used for teaching the techniques of demolition of panel-type bridges and for demonstrating techniques involved in river crossing operations. The specific training requirements supported are shown following the descriptive data.

Functional Description:
The trainer is a 1:8 scale model of the M2 Bailey-Type Bridge. The trainer provides enough equipment to construct 10 bays (equivalent to 100 feet) of triple-single construction with launching nose; 9 bays (90 feet) of double-double construction: 6 bays (60 feet) of triple-double construction; 8 bays (80 feet) of double-triple construction; and 6 bays (60 feet) of triple-triple construction. Enough additional equipment is supplied to construct 2 bays of ramp. Lengths of the model bridges are restricted by the amount of equipment provided. Assembled model bridges have an overall width of 30" without the footwalks, and 38" with them. They vary in length from 15" to 180", and in height from 9" to 7".

Each bridge model kit is packed in three compartmented chests. A loading plan is located on the inside cover of each chest.

Physical Information:
Chest dimensions: 29" x 27" x 12"; 114 lb

Equipment Required, Not Supplied:
None

Special Installation Requirements:
None

Power Requirements:
None

Applicable Publications:
TM 5-277K

Reference Publications:
TM 5-277

Training Requirements Supported:

ARTEP Tasks

8-8	8-9

MOSC 12B30. 12B40. 12C30. and 12C40

SM 051-197 Tasks

3006	3009	3011	3013
3007	3010	3012	4028
3008			

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MODEL BRIDGE: TIMBER-TRESTLE TRAINING AID

Logistic Responsible Command, Service, or Agency:
ATCOM

Source and Method of Obtaining:
Available through local TSC.

Purpose of Trainer:
To realistically demonstrate the methods of assembling the actual bridge, and to conduct practical exercises in constructing Class 50/80 Timber-Trestle Bridges. The trainer is intended to be used for instruction in all phases of the construction of this type bridge equipment. It can also be used for teaching the techniques of demolition of timber-trestle type bridges and for demonstrating techniques involved in river crossing operations. The specific training requirements supported are shown following the descriptive data.

Functional Description:
The trainer is a 1:12 scale model of the Class 50/80 (two-way class 50; one-way class 80) Timber-Trestle Bridge. When erected, its overall dimensions are 136" long, 34" wide, and 14" high. Completely assembled, it consists of nine spans.

The major assemblies are two abutments, eight intermediate trestle bents, and the superstructure.

To aid the instructor in his presentation, major components are color-coded. Three large-scale charts, correspondingly color-coded to show construction details of the three major assemblies, are also provided.

Each kit is packed in two compartment chests. A loading plan is located on the inside cover of each chest.

Physical Information:
Chest dimensions: 29" x 27" x 11"; 210 lb

Equipment Required, Not Supplied:
None

Special Installation Requirements:
None

Power Requirements:
None

Applicable Publications:
TM 5-260K

Reference Publications:
TM 5-312

Training Requirements Supported:
ARTEP Tasks
8-3 8-5
MOSC 12B30 and 12C30
SM 051-196 Tasks
3011 4013
MOSC 12B30
SM 051-197 Tasks
3014 3016 3017 3018
3015
MOSC 12B40
SM 051-196 Tasks
4012
SM 051-197 Tasks
4030

MAP PROJECTION DEMONSTRATOR TRAINING AID

Training Category/Level Utilized:
Engineer/Level 2

Logistic Responsible Command, Service, or Agency:
ATCOM

Source and Method of Obtaining:
Available through local TSC

Purpose of Trainer:
For classroom use to demonstrate the fundamental principles of map projection in the training of navigation students. The specific training requirements supported are shown following the descriptive data.

Functional Description:
This equipment demonstrates in three dimensions the fundamental principles on which Mercator, transverse Mercator, gnomonic, polar stereographic, conic, secant cone, and polygraphic projections are based.

The Earth is represented by a transparent plastic globe. Important land masses, lines of latitude and longitude, and other details are printed on the surface of the globe. A pinpoint light inside the globe projects the surface details of the globe on any of several opalescent plastic surfaces, one at a time. Thus, a cone, cylinder, and circular disk are used with the globe to demonstrate various projections. The electric light can be located either in the center of the globe or at the South Pole to demonstrate different projections.

Conic Projection is shown by placing the cone over the lighted globe. Placing the cylinder around the globe produces either a Mercator's or transverse Mercator's projection, depending on whether the cylinder is held vertically or horizontally. Gnomonic and polar stereographic projections are illustrated by using the circular disk. To relate the plastic surfaces of projection to the charts and maps represented, the images on plastic should be visualized as developed, or unrolled, and laid out flat in one plane.

Physical Information:
Size: 10" x 10" x 17"; weight approximately 12 lb

Equipment Required, Not Supplied:
None

Special Installation Requirements:
None

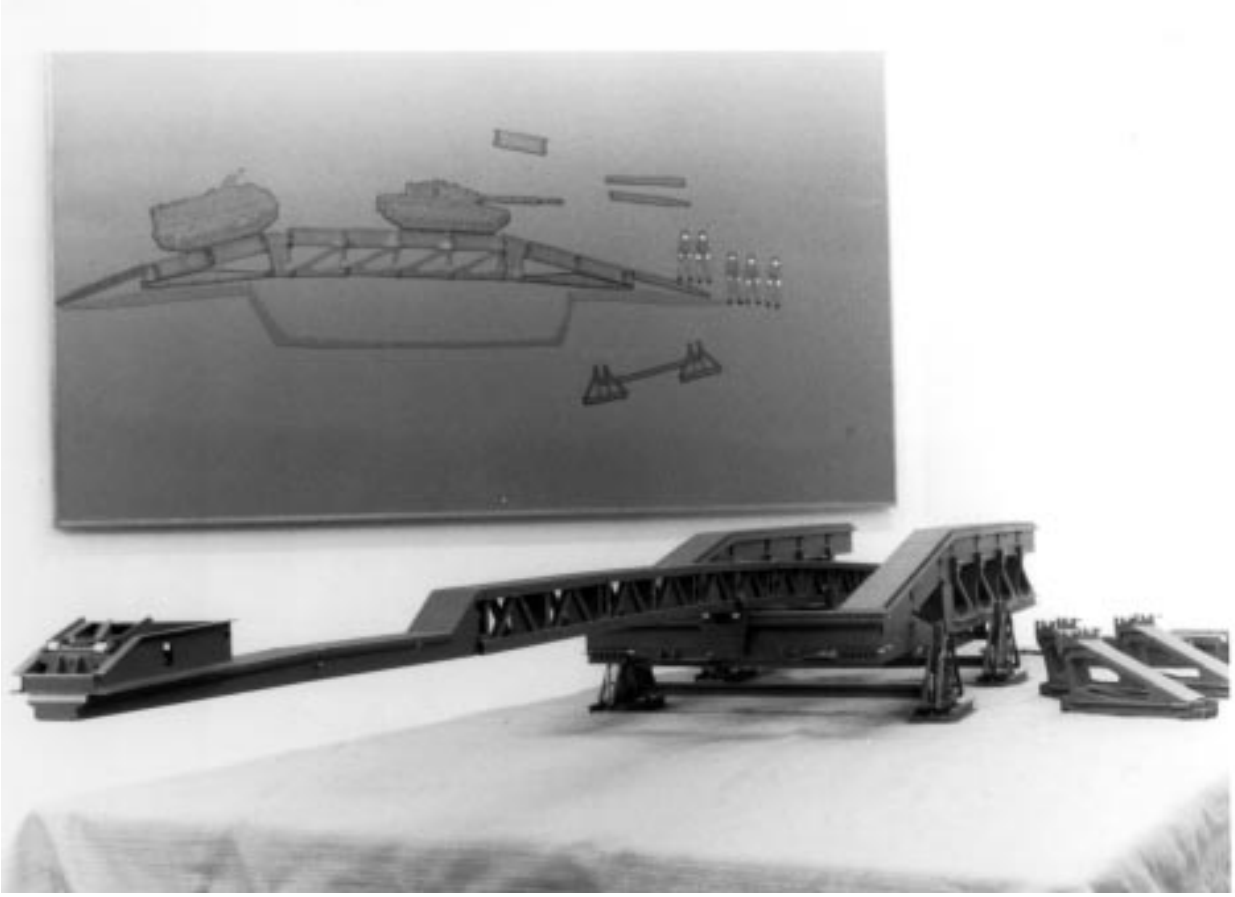
Power Requirements:
110 vac

Applicable Publications:
NAVEXOS P-1460, Operation and Maintenance Guide for Map Projection Demonstrator, Device 1W3

Reference Publications:
TM 5-244

Training Requirements Supported:
ARTEP Task
19-40
MOSC 81C10
SM 051-257 Tasks
1203 1204

TRAINING SET, MEDIUM GIRDER BRIDGE MODEL 1/12 SCALE



Training Category/Level Utilized:
Engineer/Level 3

Logistic Responsible Command, Service, or Agency:
STRICOM

Source and Method of Obtaining:
Available through local TSC.

Purpose of Trainer:
The Medium Girder Bridge Training Set (MGBTS) will be used as a training vehicle to initially train and then to maintain the functional proficiency of both Active and Reserve Components of the US Army to:

1. Identify the Medium Girder Bridge Components
2. Erect a single and double story girder bridge.
3. Load and unload Medium Girder Bridge components.
4. Layout bank markings for a single and a double story bridge.
5. Identify the necessary bridge building work parties
6. Disassemble and assemble single and double story Medium Girder Bridge.

Functional Description:
The MGB Model is a detailed accurate scale model of the US adaptation of the UK Medium Girder Bridge currently being built for delivery into the Army's inventory. The device will be able to be assembled/disassembled in the same manner as the actual bridge. Each model set will consist of a 1:12 scale replication of the single story 5- bay ramp, 4 feet 4 inches in length, or the 12-bay double story, 10 feet 10 inches in length with erection set (the same composition as the actual MGB) packaged in both a shipping and storage container.

All the bridge set components and most of the erection set components perform the same functions as their tactical counterparts. The exceptions are that some rollers and jacks may be in a fixed position, rather than being fully functional.

The storage container has doors on both sides for ease of access, and is equipped with handles to facilitate movement.

Spare parts for both the bridge set and the erection set will be packaged in a separate storage/shipping container(s).

Physical Information:
(Information not available)

Equipment Required, Not Supplied:
None

Special Installation Requirements:
None

Power Requirements:
None

Applicable Publications:
TM-5-5420-212-12

Reference Publications:
None

Training Requirements Supported:
ARTEP Tasks
8-21 8-22 8-23
Soldier Manual Task Supported (Individual)

Task No.	Task Title
051-197-1019	Identify erection components used to erect a Medium Girder Bridge (MGB).
051-197-1020	Identify Medium Girder Bridge components.

MODULAR PACK MINE SYSTEM (MOPMS) TRAINING DISPENSER

Training Category/Level Utilized:
Combat/Level 3

Logistic Responsible Command, Service, or Agency:
ACALA

Source and Method of Obtaining:
Available as directed by MOPMS distribution plan.

Purpose of Trainer:
The M136 MOPMS Training Dispenser is the trainer for the M131 MOPMS Ground Dispenser and Mine. It is used to demonstrate operation and maintenance procedures for the MOPMS .

Functional Description:
Constructed of high density polyethylene the trainer is a self-contained shipping, storage and deployment unit. It is equipped with two handling straps and four foldout carrying handles. It is similar to the M131 (tactical) dispenser, however it is completely inert and does not contain mines. The battery powered indicator control contains the electronics package which receives, interprets and acts upon the signal received from the M71, Remote Control Land Mine System. An externally mounted lamp indicates receipt of a deploy command.

Physical Information:
Length: 32" width: 23" Height: 14" Cube: 5.7 cu ft; Weight: 155 lb

Equipment Required, Not Supplied:
Control, Remote, Land Mine: M71

Special Installation Requirements:
None

Power Requirements:
Lithium Cell Battery: BA 5598/U

Applicable Publications:
TM 9-1345-209-10
TM 9-1290 208-23 & P
TM 9-1345-209-24 & P

Reference Publications:
TM 9-1345-209-10
TM 9-1290-208-23 & P
TM 9-1345-209-24 & P

Training Requirements Supported:
Operators of training device: 11B, 11C, 11H, 11M, 12B, 13B,13E, 16R, 19E, 19D, 19K66