

Report Date: 25 Apr 2012

Summary Report for Crew Drill Drill Task

Drill Number: 05-5-D0016

Drill Title: Secure a Bridge Erection Boat to a Ribbon Bridge Bay

Status: Approved

Status Date: 25 Apr 2012

Drill Data

Proponent: 05 - Engineers (Collective)

Drill Type: Crew Drill

Approved:

Obsolete:

Restricted Read: No

Route To CTD Reviewer: Yes

CTD Concurrence: Yes

CTD Comments: Concur

Safety Level: Low

Conditions:

The element is supporting a maneuver force river crossing operation. The maneuver force is providing security while the element prepares the launch site and the crossing site. The boat crew secures a ribbon bridge bay at the launch site to prepare for raft/bridge construction. Some iterations of this task should be performed in MOPP.

Standards:

The boat crew secures a Bridge Erection Boat (BEB) to a ribbon bridge bay and prepares the bay for connection to other bays in accordance with the appropriate technical manuals.

Drill Statements:

DANGER

Do not sit, lie, or stand in front of boat push knees at any time while riding on bays. Failure to comply may result in injury or death to personnel.

WARNING

All personnel must wear approved Personal Flotation Devices (PFD)s and unblouse pants from boots while on the bay. Failure to comply may result in injury or death to personnel.

CAUTION

Pushing a bay with the BEB before engaging transverse upper couplings, outer ponton locks, ponton swivel hooks and/or swivel plates may cause the bay to fold, and cause possible injury or death to personnel.

Safety: In a training environment, leaders must perform a risk assessment in accordance with FM 5-19, Composite Risk Management. Leaders will complete a DA Form 7566 COMPOSITE RISK MANAGEMENT WORKSHEET during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW FM 3-11.4, NBC Protection, FM 3-11.5, CBRN Decontamination.

1. Water safety procedures must be followed.

2. All personnel must wear PFDs.

3. Leaders must conduct a deliberate risk assessment prior to training this drill.

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT

Coaching Point: Soldiers must be familiar with the operation of the BEB and the bays.

TASK STEPS

1. The BEB operator—

- a. Maneuvers the BEB until the push knees of the BEB are against the downstream bow ponton of the bay and the BEB is centered on the bay.
- b. Keeps the push knees of the BEB in constant contact with the bay.
- c. Uses enough power to prevent the current from pushing the BEB downstream or into shallow water.

2. The assistant operator—

- a. Connects one bowline to each of the cleats on the downstream side of the bay's bow ponton.
- b. Pulls both bowlines tight and secures them to the bow bollards on each side of the BEB.

DANGER

The transverse upper couplings and outer ponton locks must be engaged prior to performing bridge or rafting operations; the weight of a vehicle crossing will cause the bay to fold up and may result in damage to the equipment or injury or death to personnel.

WARNING

Do not place fingers under transverse upper couplings when closing them, or serious injury to personnel may result.

c. Steps onto the bay and closes all transverse upper couplings by folding each lever so that it engages in the receptacle block of the adjacent inner ponton.

Note: Use the roadway tool and crowbar to close the gap between inner pontoons when transverse upper couplings cannot be fully closed in receptacle blocks.

d. (For a ramp bay) Using a T-wrench, engages the swivel hook and swivel plate on each inner ponton by turning shaft until indicator and slot in hexhead point at outer ponton. (For an interior bay) Using a T-wrench or round end of crowbar, engages two outer ponton locks at each end of both outer pontoons. Visually checks to see each lock/release lever is in the catch plate.

e. Using T-wrench, ensures that the lower-lock drive screws turn freely and the connecting pins are fully retracted.

3. The assistant operator remains on the bay to assist during a connection to another bay.

(Asterisks indicates a leader performance step.)

TASK MEASURES

1. The BEB operator—
 - a. Maneuvered the BEB until the push knees of the BEB were against the downstream bow ponton of the bay and the BEB was centered on the bay.
 - b. Kept the push knees of the BEB in constant contact with the bay.
 - c. Used enough power to prevent the current from pushing the BEB downstream or into shallow water.
 2. The assistant operator—
 - a. Connected one bowline to each of the cleats on the downstream side of the bay's bow ponton.
 - b. Pulled both bowlines tight and secured them to the bow bollards on each side of the BEB.
 - c. Stepped onto the bay and closed all transverse upper couplings by folding each lever so that it engaged into the receptacle block of the adjacent inner ponton.
 - d. (For a ramp bay) Using a T-wrench, engaged the swivel hook and swivel plate on each inner ponton by turning shaft until indicator and slot in hexhead pointed at outer ponton. (For an interior bay) Using a T-wrench or round end of a crowbar, engaged two outer ponton locks at each end of both outer pontoons. Visually checked to see each lock/release lever was in the catch plate.
 - e. Using a T-wrench, ensured that the lower-lock drive screws turned freely and the connecting pins were fully retracted.
 3. The assistant operator remained on the bay to assist during a connection to another bay.
-

Unit Instructions: a. Resources

- (1) Bridge Erection Boat (BEB)
- (2) Ramp Bay
- (3) Interior Bay

- b. Training Site. A water launch site that meets the minimum site requirements for launching a bridge bay and operating a BEB.
- c. OPFOR. None
- d. Unit instructions. Soldiers must be able to operate the BEB and the bays safely.

Talk:

a.Orientation: This drill is designed to provide the crew with the basic skills to safely secure a BEB to a bridge bay (ramp or interior). This drill provides training primarily for the BEB operator and the assistant BEB operator.

- b.Safety:**
1. Ensure that all Soldiers are properly briefed on safety hazards.
 2. Ensure that all bays and bay latches are properly positioned.
 3. Ensure that all Soldiers performing duties over water wear required PFDs and unblouse their trousers.

c.Demonstration: (optional). If a nearby unit has successfully performed this drill, have that unit demonstrate it. During the demonstration, explain what is being done and why, using the performance measures as a guide. After the demonstration, summarize the actions performed by the demonstrating unit.

- d.Explanation:**
- (1) Refer to the performance measures and explain what each crew member is required to do upon hearing the initiating cue.
 - (2) Ensure that everyone knows his duties and responsibilities pertaining to each portion of the drill.
 - (3) Ask if there are any questions pertaining to the drill. If so, ensure that all questions are correctly answered before beginning to train the drill.

e.Unit Instructions: a. Resources

- (1) Bridge Erection Boat (BEB)
- (2) Ramp Bay
- (3) Interior Bay

b. Training Site. A water launch site that meets the minimum site requirements for launching a bridge bay and operating a BEB.

c. OPFOR. None

d. Unit instructions. Soldiers must be able to operate the BEB and the bays safely.

Walk:

1. The section leader ensures that all crew members can perform their assigned tasks by conducting a walk-through of all drill tasks. Time standards are disregarded for the walk-through instructions.
 2. Refer to the performance measures and have each crew member perform his part as the leader talks him through.
-

Run:

a.Run-Through Instructions: The crew should practice this drill until they can perform it according to standard without notes. The initial run-through exercise should be conducted slowly.

b.Coaching Point: Soldiers must be familiar with the operation of the BEB and the bays.

c.Performance Instructions: When the crew can perform this drill according to the standard, they should be evaluated by the unit leader.

Equipment (LIN)

Step ID	LIN	Nomenclature	Qty
	R10527	RAMP BAY BRIDGE FLOAT	1
	B25476	BOAT BRDG ERCT	1
	T91308	TRK PAL LO M1977A2	1
	C33925	CRDL IMP BT (IBC) M14	1
	P78313	PLT BRDG AD (BAP) M15	1
	K97376	BRIDGE FLOATING	1

Material Items (NSN)

Step ID	NSN	LIN	Title	Qty
No equipment specified				

TADSS

Step ID	TADSS ID	Title	Product Type	Qty
No materiel item specified				

Supporting Individual Tasks

Step ID	Task ID	Status	Task Title
	052-198-1202	Approved	Operate the Bridge Erection Boat
	052-198-1204	Approved	Launch Bridge Erection Boat M945
	052-198-1250	Approved	Control Launch Ribbon Bridge Bays (M945)
	052-198-1251	Approved	Free Launch Ribbon Bridge Bays (M945)
	052-198-1252	Approved	High-Bank Launch Ribbon Bridge Bays (M945)
	052-198-1321	Approved	Launch a Bridge Erection Boat (M1977)
	052-198-1323	Approved	Control Launch Ribbon Bridge Bays (M1977)
	052-198-1324	Approved	Free Launch Ribbon Bridge Bays (M1977)
	052-198-1325	Approved	High-Bank Launch Ribbon Bridge Bays (M1977)
	052-198-2100	Approved	Direct Launching of a Bridge Erection Boat
	052-198-2104	Approved	Direct Launching of Ribbon Bridge Bays

Prerequisite Individual Tasks

Step ID	Task ID	Status	Task Title
	052-198-1202	Approved	Operate the Bridge Erection Boat
	052-198-1204	Approved	Launch Bridge Erection Boat M945
	052-198-1250	Approved	Control Launch Ribbon Bridge Bays (M945)
	052-198-1251	Approved	Free Launch Ribbon Bridge Bays (M945)
	052-198-1260	Approved	Drive a Bridge Transporter (M945)
	052-198-1303	Approved	Maintain Float Bridges
	052-198-1310	Approved	Load a Bridge Adapter Pallet (BAP)
	052-198-1321	Approved	Launch a Bridge Erection Boat (M1977)
	052-198-1324	Approved	Free Launch Ribbon Bridge Bays (M1977)
	052-198-1326	Approved	Drive a Bridge Transporter (M1977)
	052-198-1331	Approved	Perform Operator Preventive-Maintenance Checks and Services (PMCS) on Bridging Equipment
	052-198-2100	Approved	Direct Launching of a Bridge Erection Boat
	052-198-2104	Approved	Direct Launching of Ribbon Bridge Bays
	052-198-2162	Approved	Direct Preventive-Maintenance Checks and Services (PMCS) of Bridging Equipment
	052-198-3090	Approved	Supervise Float Bridge Maintenance
	052-198-3105	Approved	Supervise Preventive-Maintenance Checks and Services (PMCS) of Bridging Equipment

Supporting Collective Tasks

Step ID	Task ID	Status	Title
	07-2-5081	Approved	Conduct Troop-leading Procedures (Platoon-Company)

Prerequisite Collective Tasks

Step ID	Task ID	Status	Title
	05-2-1013	Approved	Conduct a Water Crossing Site Reconnaissance

Supporting Drill Tasks

Step ID	Drill ID	Status	Drill Title
No supporting drill tasks specified			

OPFOR

Task Number	Title	Status
No supporting OPFOR tasks specified		

REFERENCES

Step Number	Reference ID	Reference Name	Required	Primary
	ATTP 3-90.4	Combined Arms Mobility Operations	Yes	No
	FM 5-34	ENGINEER FIELD DATA	Yes	No
	SB 5-11	RIBBON BRIDGE INTERIOR BAY AND RAMP BAY ROADWAY TO BOW PONTOON LATCHES	No	No
	TC 5-210	Military Float Bridging Equipment.	Yes	No
	TM 5-1940-277-10	Operator's Manual for Boat, Bridge Erection, Twin Jet, Aluminum Hull, Models USCSBMK-1 (NSN 1940-01-105-5728) and USCSBMK-2 (1940-01-218-9165). TM 1940-10/1.	Yes	No
	TM 5-2090-202-12&P	OPERATORS AND UNIT MAINTENANCE MANUAL (INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST) FOR CRADLE, BRIDGE ERECTION BOAT, TWIN JET, ALUMINUM HULL (NSN 2090-01-106-9789) {TM-2090-12&P/1A} (REPRINTED W/BASIC	Yes	No
	TM 5-5420-209-12	OPERATORS AND UNIT MAINTENANCE MANUAL FOR IMPROVED FLOAT BRIDGE (RIBBON BRIDGE) CONSISTING OF: TRANSPORTER CONDEC MODEL 2280 (NSN 5420-00-071-5321) CONDEC MODEL 2305 (5420-01-173-2020) PACAR MODEL 9999	Yes	No
	TM 5-5420-278-10	OPERATOR;S MANUAL FOR IMPROVED RIBBON BRIDGE (IRB), RAMP BAY M16 (NSN 5420-01-470-5825), P/N 12478918 (EIC: XMT), INTERIOR BAY M17 (NSN 5420-01-470-5824) P/N 12478919 (EIC: XMS)DON	Yes	Yes

Training Setup

A water launch site that meets the minimum site requirements for launching a bridge bay and operating a BEB.

Training Facilities

Facility ID	Facility Name	Facility Type
17976	Floating Bridge Site	F17900-Miscellaneous Training Facilities
85730	Training Area Bridge	F85730-Bridges, Training Area

DODIC

DODIC	Name	Qty
No DODIC		

Associated Documents

Media ID	Media Type	Title	SubTitle
No Associated Documents			

GLOSSARY TERMS

Glossary Term	Definition
ARTEP	Army Training and Evaluation Program
FM	field manual; frequency modulated modulation; flare multiunit; force module
MTP	mission training plan; military occupational specialty (MOS) training plan; mission tasking packet
NA	not applicable; nation assistance; national archives; not available; North American; not authorized
PFD	personal-flotation device
SM	Soldier's manual; service member
STP	shielded twisted pair; Soldier Training Publication; spanning-tree protocol; Soldier training plan
T&EO	training and evaluation outline
TC	technical coordinator; training circular; track commander; tank commander; tactical commander; technical configuration
TG	trainer's guide; training guidance

ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
FM	field manual; frequency modulated modulation; flare multiunit; force module
NA	not applicable; nation assistance; national archives; not available; North American; not authorized
PFD	personal-flotation device
SM	Soldier's manual; service member
STP	shielded twisted pair; Soldier Training Publication; spanning-tree protocol; Soldier training plan
T&EO	training and evaluation outline
TC	technical coordinator; training circular; track commander; tank commander; tactical commander; technical configuration
TG	trainer's guide; training guidance