

Report Date: 25 Apr 2012
Summary Report for Crew Drill Drill Task
Drill Number: 05-5-D0017
Drill Title: Connect Two Ribbon Bridge Bays
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 gap crossing operation. The maneuver force is providing security while the element prepares the launch site and the crossing site. The element connects a ribbon bridge bay to a stationary ribbon bridge bay upstream from the launching site. All required tools and equipment are on hand. The bays and boats are in the water.
Some iterations of this task should be performed in MOPP.

Standards:

The bays are connected in accordance with the appropriate technical manuals to support the gap crossing effort.

Drill Statements:

DANGER

Extreme caution should be taken when connecting bays. Bays come together with extreme force and injury or death to personnel may result.

WARNING

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

CAUTION

Do not place upper coupling levers in the open position (hanging over end of bay) before bays can be connected; levers should be left in receptacle blocks until the exact moment prior to closing. Failure to comply may result in damage to equipment.

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. All 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

Note: Bays must be secured by a Bridge Erection Boat (BEB), prior to bay-to-bay connection.

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

TASK STEPS

1. Approach bay from downstream.
2. Align bay longitudinally with the other bay so that the yoke and lower main coupling connecting eyes align, then pull the bays together using ropes.
3. When the bays are aligned, close two longitudinal upper couplings on one bay and two longitudinal upper couplings on other bay. (For ramp bay only) Using two coupling devices simultaneously, raise ramp bay up until its roadway surface is even with roadway surface of the interior bay to facilitate ease of closing of longitudinal upper couplings.

CAUTION

The top of lower lock-drive jackscrew will be 3/4 in. (1.9 cm) below top surface of roadway when lower lock-drive pin is fully engaged. Failure to comply may result in equipment damage.

4. Install T-wrench on jackscrew of lower lock-drive, and turn T-wrench clockwise until lower lock-drive pin is fully engaged, then back out jackscrew one full rotation.
5. Repeat step four (4) for opposite lower lock-drive.

WARNING

(For ramp bay only) Perform steps six (6) and seven (7) if either lower lock-drive pin cannot be fully engaged. Failure to comply may result in equipment damage.

6. (For ramp bay only). Open pump access covers, set pump control levers to UP position, and operate pumps while assistant turns T-wrench to engage lower lock-drive pins.
7. (For ramp bay only). Set pump control levers to TRANSPORT/CROSSING positions, and close pump access covers.

(Asterisks indicates a leader performance step.)

TASK MEASURES

1. Approached bay from downstream.
 2. Aligned bay longitudinally with the other bay so that the yoke and lower main coupling connecting eyes were aligned, then pulled the bays together using ropes.
 3. When the bays were aligned, closed two longitudinal upper couplings on one bay and two longitudinal upper couplings on other bay. (For ramp bay only) Using two coupling devices simultaneously, raised ramp bay up until its roadway surface was even with roadway surface of the interior bay to facilitate ease of closing of longitudinal upper couplings.
 4. Installed T-wrench on jackscrew of lower lock-drive, and turned T-wrench clockwise until lower lock-drive pin was fully engaged, then backed out jackscrew one full rotation.
 5. Repeated step four (4) for opposite lower lock-drive.
 6. (For ramp bay only). Opened pump access covers, set pump control levers to UP position, and operated pumps while assistant turned T-wrench to engage lower lock-drive pins.
 7. (For ramp bay only). Set pump control levers to TRANSPORT/CROSSING positions, and closed pump access covers.
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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 crews with the basic skills to safely connect two ribbon bridge bays (ramp or interior) together.

- 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: 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.
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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.
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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
	K97376	BRIDGE FLOATING	1
	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

Materiel 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
	052-198-1320	Approved	Connect Ribbon Bridge Bays

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
	05-4-D0016	Approved	Free-Launch a Ribbon Bridge Bay (M1977)
	05-4-D0017	Approved	Free-Launch a Ribbon Bridge Bay (M945)
	05-5-D0014	Approved	Launch a Bridge Erection Boat (BEB)

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	No	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

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

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
No glossary terms specified	

ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
PFD	personal-flotation device
STP	shielded twisted pair; Soldier Training Publication; spanning-tree protocol; Soldier training plan
TC	technical coordinator; training circular; track commander; tank commander; tactical commander; technical configuration