

# Improved Ribbon Bridge



# IRB



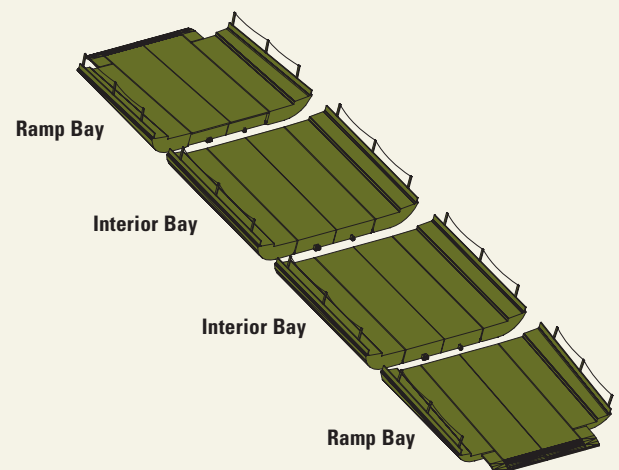
## IRB Improved Ribbon Bridge

The IRB provides wet-gap crossing capability for today's highly mobile combat forces. It is designed to carry heavy combat vehicles and trucks up to MLC 80(T) / 96(W) as a floating bridge or multi-bay ferry. Transportable in fixed or rotary wing aircrafts, on trucks and on railway cars the IRB is an essential part of modern combat engineer equipment. The IRB has already proven its superior performance and reliability in various climate conditions, exercises and combat operations.

### IRB Performance

- Construction of a 100 m (328 ft) bridge in approx. 30 - 45 minutes
- Maximum single load of MLC 80(T) / 96(W) for bridges and ferries
- Operable in water currents up to 3.05 mps (10 fps)
- Improved Ramp Bay reaching bank heights up to 2.0 m (6 ft 7")

Configuration of an IRB 4-Bay Ferry



# Combat Proven Bridge Equipment



IRB Ferry Operation



IRB Bridge Operation (523 m)



## IRB Main Features

- MLC 80(T) / 96(W) usable roadway width of 4.5 m (14 ft 9") for single lane traffic
- Usable roadway width of 6.75 m (22 ft 2") for two lane traffic for MLC 20(T) / 14(W) vehicles
- Crossing capability for loaded Heavy Equipment Transporter (HET/MLC 96)
- Fully interoperable with the U.S. Standard Ribbon Bridge (SRB) and the German Folding Float Bridge (FSB)

IRB 6-Bay Ferry



# IRB Operations and Training

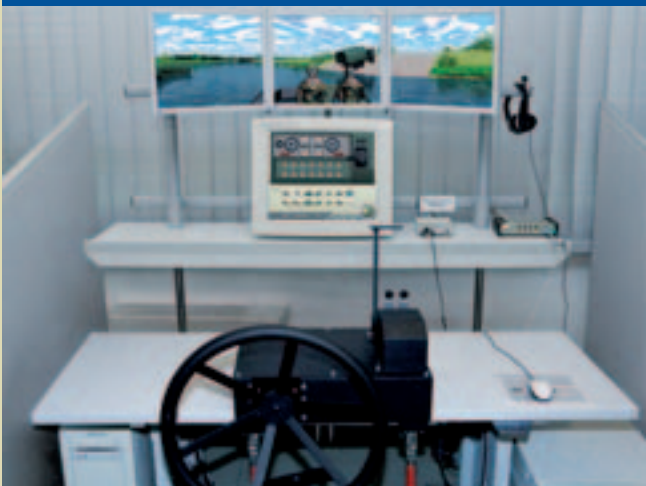
## Launching Process



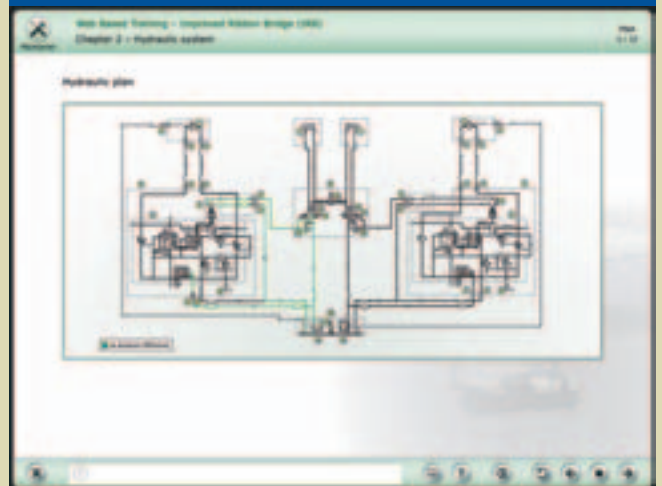
## Retrieving Process



## Computer-Based Training System

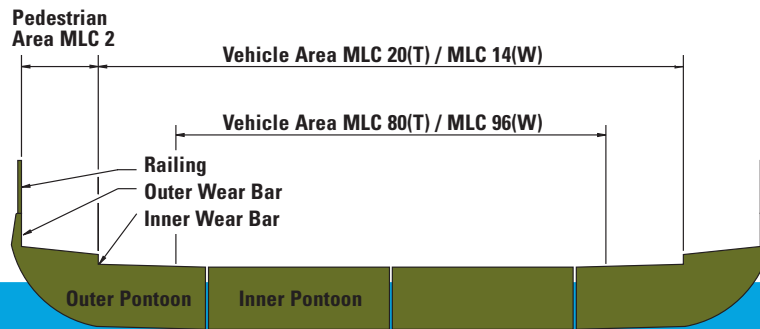


## Computer-Based Maintainer Training

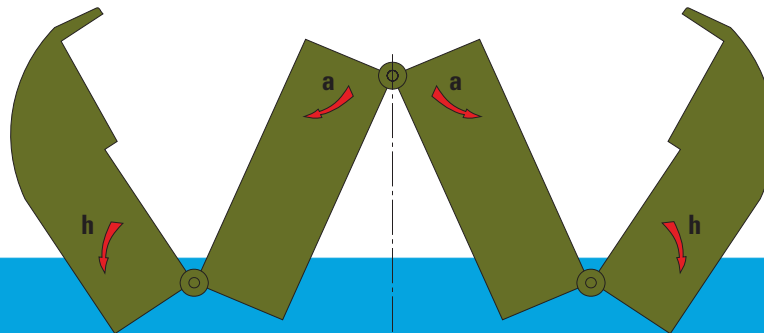


# IRB Main Features

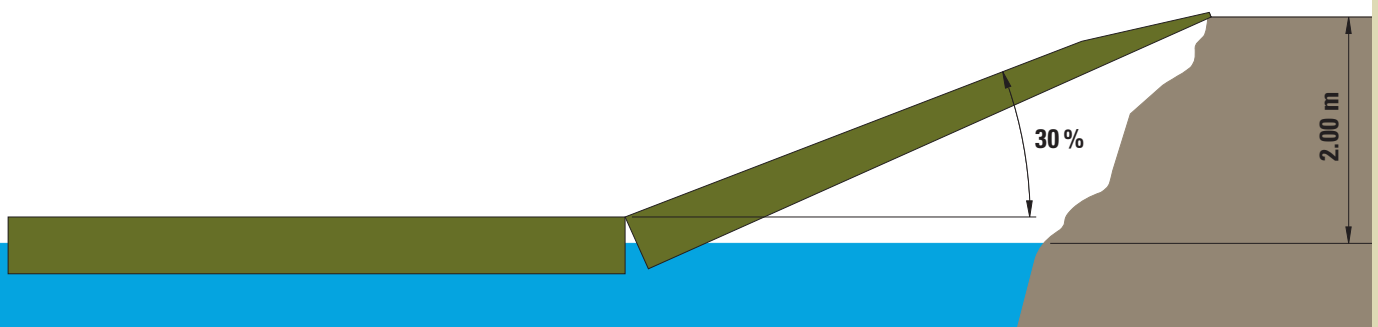
## Roadway Areas



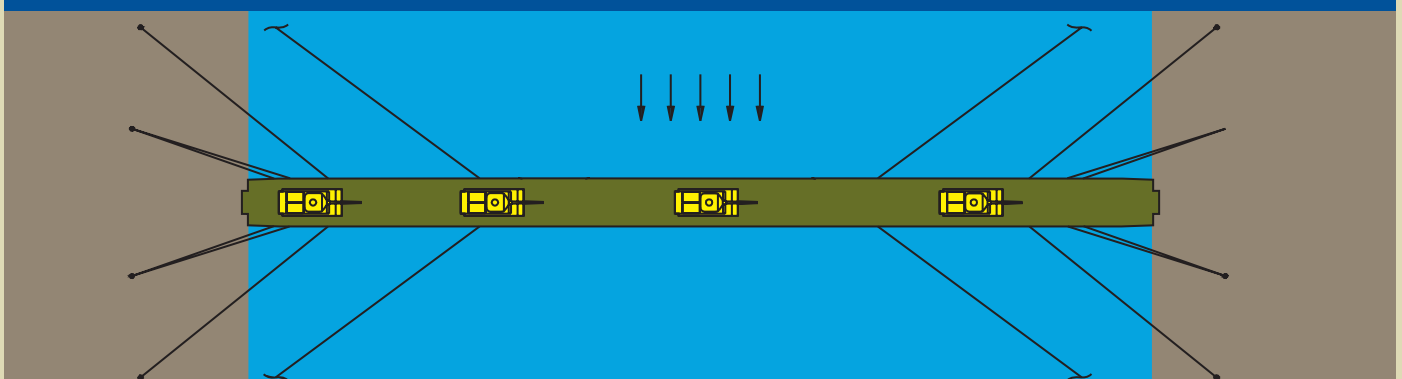
## Unfolding Process



## Ramp Inclination



## Land Anchoring System



# IRB Technical Data

## Interior Bay

Total length / Usable length	6.92 m / 6.71 m	22 ft 8" / 22 ft 0"
Width folded / Width unfolded	3.30 m / 8.63 m	10 ft 11" / 28 ft 4"
Height folded / Height unfolded	2.35 m / 1.30 m	7 ft 9" / 4 ft 3"
Total weight	6,350 kg	14,000 lbs

## Ramp Bay

Total length / Usable length	6.92 m / 6.70 m	22 ft 8" / 22 ft 0"
Width folded / Width unfolded	3.19 m / 8.63 m	10 ft 6" / 28 ft 4"
Height folded / Height unfolded	2.35 m / 1.30 m	7 ft 9" / 4 ft 3"
Total weight	6,350 kg	14,000 lbs

## Ferry Operation

Payload (maximum single load)	MLC 80(Tracked)	MLC 96(Wheeled)
Maximum permissible water current	3.05 mps	10 fps
Usable deck width:		
- MLC 80(T) / 96(W) single lane loading	4.50 m	14 ft 9"
- MLC 20(T) / 14(W) two lane loading	6.75 m	22 ft 2"
Ferry combination (e.g. 5-bay ferry)	3 x Interior Bays and 2 x Ramp Bays	
Tug-boats required for ferry operations	1 tug-boat per 2-3 bays	
e.g. construction time for 5-bay ferry	approx. 15 min.	

## Bridge Operation

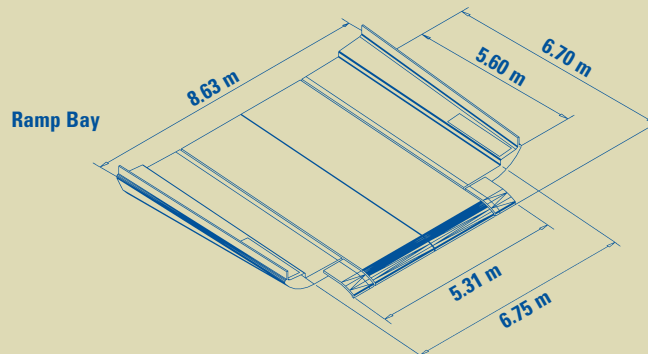
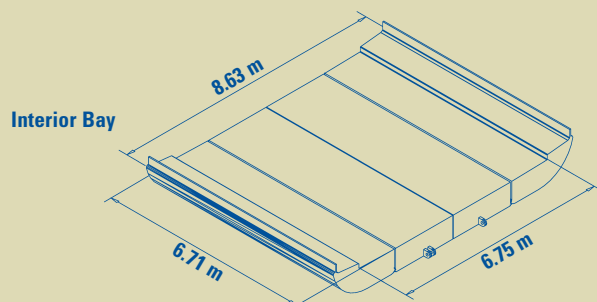
Payload (maximum single load)	MLC 80(Tracked)	MLC 96(Wheeled)
Maximum permissible water current	3.05 mps	10 fps
Usable deck width:		
- MLC 80(T) / 96(W) single lane traffic	4.50 m	14 ft 9"
- MLC 20(T) / 14(W) two lane traffic	6.75 m	22 ft 2"
Bridge bays required for 100 m bridge	13 x Interior Bays and 2 x Ramp Bays	
e.g. construction time for 100 m bridge	approx. 30 - 45 min.	

## Transport

Land	a) 10 tons PLS-Truck b) min. 3 axle truck with customized transport frame (min. 6.5 tons payload)	
Air	- complete Interior Bay or complete Ramp Bay - half Interior Bay or half Ramp Bay - complete Interior Bay or complete Ramp Bay as underslung load	C-17, C-5, A 400M C-130, C-141, C-160, C-17, C-5, A 400M CH-47

Subject to technical alterations. Specific requests by the customer will be implemented if possible!

The IRB is fully interoperable with the SRB and FSB in terms of coupling, means of transport, bridge erection boats and operational requirements.



## GENERAL DYNAMICS

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