



PRE-PROPOSAL CONFERENCE

12 September 2012



Product Manager, LTC Benny Shepard
Deputy Product Manager, Don Paskulovich
Assistant Product Manager, Keith Powell



Bridge Erection Boat

<http://contracting.tacom.army.mil/majorsys/beb/beb.htm>

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AGENDA



- Pre-Proposal Conference Comments
 - Administrative Guidelines
 - Welcome
 - Foreign Export Controls / ITARs
 - Break
 - Program Management
 - Acquisition Strategy and Approach
 - Contract Strategy / Proposal Submission Procedures
 - Lunch
 - Purchase Description and Technical Review
 - Technical Data Package
 - Scope of Work
 - Small Business Participation
 - Government Responses to Questions
- Mr. Roberts
- Ms. Huynh
- Mr. Powell
- Mr. Kuhn
- All
- LTC Shepard
- Mr. Ponting
- Mr. Victor
- All
- Mr. Peterson
- Ms. Ghannam
- Mr. Ponting
- Ms. Hirsch
- Ms. Huynh



PROJECT MANAGER FORCE PROJECTION



Steve Roberts
PM FP

Assistant Project Manager, Force Projection

<http://contracting.tacom.army.mil/majorsys/beb/beb.htm>
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CONFERENCE GUIDANCE AND ADMINISTRATION



Tuyen Huynh
Army Contracting Command
Contract Specialist



CONFERENCE GUIDANCE



- Purpose
 - To provide potential offerors program related information
 - To improve the development of a formal solicitation
 - To promote a Small Business subcontracting network
- Conference is for informational purposes only
 - Our intent is to clearly communicate our strategy
 - Respond to your questions regarding the solicitation
 - Briefing charts will be posted to BEB website
- Proposal shall be based on final RFP posted to TACOM website, including amendments



CONFERENCE ADMINISTRATION



- Questions are encouraged and expected
 - Submit all questions on 3X5 index cards provided
 - Government will answer as much as possible during the Q&A session today
 - All questions and answers will be posted to the website. They will serve as the official responses
- This is a non-smoking facility
- Turn off BB and cell phones
- Timeframe for lunch break will be determined at that time
- Foreign visitors will require an escort at all times
- FOUO presentation



WELCOME



Keith Powell
PdM Bridging
Assistant Product Manager, Tactical Bridging

TACTICAL BRIDGING



**Common Bridge Transporter
(CBT)**



BEB



**Palletized Loading System Trailer
(PLST)**



M1077 Flat Rack



**Bridge Adaptor Pallet
(BAP)**



**Improved Boat Cradle
(IBC)**



**Dry Support Bridge
(DSB)**



**Line of Communication Bridge
(LOCB) ONS**



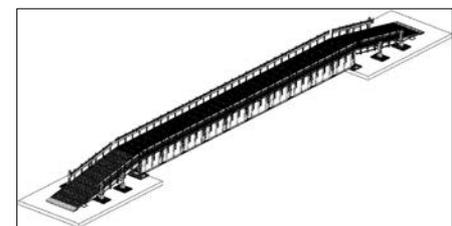
**Improved Ribbon Bridge
(IRB)**



**Medium Girder Bridge
(Legacy)**



**Bailey Bridge
(Legacy)**



**Line of Communication Bridge
(LOCB) POR**



FOREIGN EXPORT CONTROL



David Kuhn
TACOM Warren Legal Office
Chief, Intellectual Property Law Division

<http://contracting.tacom.army.mil/majorsys/beb/beb.htm>
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BACKGROUND

TWO MAIN AUTHORITIES



- **Arms Export Control Act**
 - Directorate of Defense Trade Controls
 - US Munitions List (USML)(State/DoD Generated)
 - International Traffic in Arms Regulations
- **Export Administration Act**
 - Bureau of Industry and Security
 - Commerce Control List (CCL)(Dept of Commerce)
 - Export Administration Regulations



DOD RESPONSIBILITIES



No Statutory Export Control Jurisdiction

- Other agencies have statutory jurisdiction
 - Dept of State
 - Dept of Commerce
 - Others (DoE, Treasury) w/ smaller roles
- Note: The Army (including the BEB Program) can not interpret the ITAR or give rulings on it
- The Deputy Assistant Secretary of the Army for Defense Export and Cooperation (DASA-DE&C) is the Army's highest authority on export control



DOD MUST FOLLOW EXPORT CONTROL LAWS



- DoD Instruction 2030.08 - Implementation of Trade Security Controls for Transfers of DoD U.S. Munitions List and Commerce Control List Personal Property
- All DoD USML and CCL personal property, whether located within or outside the United States, shall be transferred according to Section 2778 of 22 United States Code (U.S.C.), 22 Code of Federal Regulations (CFR) parts 120-130, Chapter 35 of 50 U.S.C., 15 CFR parts 730-799, and 31 CFR parts 500-598. DoD USML or CCL personal property will not be transferred to any person or entity that is ineligible to obtain an export license
- Enclosure E2.1.4. DoD Personal Property defined: DoD property, including technical data, but not including real property (buildings/lands)



INTERNATIONAL TRAFFIC IN ARMS REGULATIONS (ITAR)



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KEY ASPECTS OF “EXPORT” DEFINITION

– ITAR §120.17



- (1) Sending or taking a defense article out of the US in any manner except by mere travel outside the US by a person whose personal knowledge includes technical data
 - The exception is telling
 - What about a lap top computer?



Cont. “EXPORT” DEFINITION

- (2) Disclosing (including oral or visual disclosure) or transferring **tech data** in the US to an embassy, any agency or subdivision of a foreign government
- (3) Disclosing (including oral or visual disclosure) or transferring **tech data** to a foreign person, whether in the US or abroad
 - *Question: What about showing a new HMMWV engine at an SAE show?*
 - ***Note: Publication of tech data is deemed an export***



ANOTHER KEY DEFINITION



- Foreign person: a non US citizen without permanent resident status, a foreign government or a foreign corporation
- What about a US citizen representing a foreign corporation?



ITAR EFFECTS ON BEB PROGRAM



- Vessels designed for military purposes are in Category VI of the US Munitions List (USML)
 - The US Munitions List describes all defense articles that are export controlled under ITAR
 - Includes the articles listed, their components and related technical data
 - The BEB is an ITAR controlled item
- Note: Bridging vehicles are in Category VII of the USML



Cont. ITAR EFFECTS ON BEB PROGRAM



- Compliance with ITAR is MANDATORY
- US Exporter is responsible for compliance
- Foreign companies need to work through a US company
- For example, obtaining export licensing, or technical assistance agreements



CONSERVATISM IN EXPORT CONTROL



- Rules applied strictly
- Army policy is to be extremely careful, per DASA-DE&C
- Congress: willing to live with roadblocks in order to prevent harmful exports
- Department of State takes a conservative approach as well



BREAK





PROGRAM MANAGEMENT



LTC Benny Shepard
Product Manager
PdM Bridging



PdM BRIDGING PROGRAM



- Mission and Vision
- Strategic Portfolio Management Initiative
- Management Team
- Army Needs and Capabilities



PM BRIDGING



MISSION

To develop, acquire, field, and sustain gap crossing solutions that meet the Warfighter's requirements

VISION

Be the recognized world class leader in providing innovative gap crossing capability to the Warfighter

SYSTEMS

- Joint Assault Bridge (JAB)
- Assault Breacher Vehicle (ABV)
- Armored Vehicle Launched Bridge (AVLB)
- M9 Armored Combat Earthmover (ACE)
- Rapidly Emplaced Bridging System (REBS)
- Line of Communication Bridge (LOCB)
- Dry Support Bridge (DSB)
- Common Bridge Transporter (CBT)
- Bridge Erection Boat (BEB)
- Improved Boat Cradle (IBC)
- Improved Ribbon Bridge (IRB)
- Bridge Adapter Pallet (BAP)
- Medium Girder Bridge (MGB)



MANAGEMENT TEAM

- **All communication between Government and Industry shall be through the Contracting Officer and his representative:**
 - James G. Victor, email: james.g.victor2.civ@mail.mil (PCO)
 - Tuyen Huynh, email: tuyen.huynh.civ@mail.mil (Contract Specialist)
- Requirements – User Representative
 - Maneuver Support Center of Excellence (MSCoE)
- Materiel Developer – Program Acquisition Management
 - PEO CS-CSS
 - PM Force Projection
 - PdM Bridging
- Science and Technology
 - Tank-automotive and Armaments Research, Development, Engineering Center
 - NAVSEA NSWC Carderock Division - Naval Architect
- Test Community
 - Aberdeen Test Center & Operational Test Command
- Life Cycle Support and Sustainment
 - TACOM Integrated Logistics Support Center



PROGRAM MANAGEMENT



Donald Paskulovich
Deputy Product Manager
PdM Bridging



ARMY NEEDS AND CAPABILITY



Needs

- The two previous BEB variants, the XM20 then MK2 engines did not achieve reliability and maintainability (R&M) goals during test. The new engines shall meet all requirements using Jet Propellant (JP)-8 (Single Fuel Forward)
- The current fleet of legacy MK2 Sabre BEB and M2R Cummins BEB are an average of 28 years old
- **The MK2/M2R is the oldest bridging system in the combat engineer Multi Role Bridge Company (MRBC) and many components are out of production.**
- All previous contracts and relationships with the prime production contractor were closed on 30 Sep 08, and the engineering support supplied to our main legacy parts broker has ended. Operations on JP-8 fuel has been a challenge for the legacy fleet. Pure fleet with the BEB POR will reduce sustainment cost, increase OR rates and ensure reliability

BEB System

The legacy BEB is currently in use worldwide, including in the AOR and hurricane relief. The BEB provides rafting, propulsion, and maneuvering capability to assemble and propel ribbon bridge rafts between near and far shores. This capability is critical to the U.S. missions in support of current operations since existing bridges can become damaged or destroyed making them unable to carry civilian or military traffic. BEBs also provide support for US disaster & humanitarian relief efforts



LAUNCH AND RETRIEVE





Cont. LAUNCH AND RETRIEVE





Cont. LAUNCH AND RETRIEVE





Cont. LAUNCH AND RETRIEVE





Cont. LAUNCH AND RETRIEVE





ANCHORING





RAFTING





PATROL





BRIDGE BUILDING FORT LEONARD WOOD, MO





BRIDGE BUILDING IN IRAQ





BEB STRATEGY AND ACQUISITION APPROACH



Rand Ponting

System Acquisition Manager

BEB

<http://contracting.tacom.army.mil/majorsys/beb/beb.htm>

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ACQUISITION STRATEGY



Production and Deployment Phase

Intent: To Conduct Low Rate Initial Production (LRIP) Production Qualification Test / Logistics Demonstration / Operational Test; Configuration Lock after completion of PQT; Develop Integrated Logistics Support Products and Deliver Production BEBs

- Army Authorized Objective – 444 BEBs
- Program has to be flexible to POM and Supplemental budget line changes



BEB ACQUISITION OBJECTIVES



- Full and Open Competition (FOC)
- Open communication with contractors regarding test
- Schedule
 - Conduct Production Qualification Test, LD, and LUT with minimum disruptions
- Cost
 - Minimize changes to the contract
- Performance
 - Achieve requirements thresholds
 - Build in reliability and maintainability
- Supportability
 - Available long lead items during design and test is critical
- Risk identification, mitigation, assessments
- Exit criteria driving the configuration lock



PRODUCTION TASK LIST (NOTIONAL)

Ref: Executive Summary, Section A and not all inclusive



Program Management

- Master Schedule

- Configuration Management and Control

- Reports – Transportability, System Safety Assessment Report (SAR) and MANPRINT Report

Engineering

- Drawings to include Engineering Data for Provisioning

- Form, Fit, Function, Interface Data, Pro E or STEP Format, and PDF Format

- Design Reviews: Preliminary Design Review, Critical Design Review

- Failure Modes, Effects and Criticality Analysis to Determine Failure Rates (FMECA)

- Design to Accept Applique

- TDP

Producibility

Test and Trials

- Builder's Trials Reports

- Shakedown Trials Reports

- Final Inspection Records

- Production Qualification Testing (Support to Government Test)

- Corrosion Test

<http://contracting.tacom.army.mil/majorsys/beb/beb.htm>

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Cont. PRODUCTION TASK LIST (NOTIONAL)



Integrated Logistics Support Planning

Logistics Support Analysis

Maintenance Planning to Field and Sustainment Level Repairs

Level of Repair Analysis

Maintenance Allocation Chart

Provisioning (Engineering Data for Provisioning)

Dept of the Army Technical Manuals: Operators, Field Level Maintenance Manual, Sustainment Level Maintenance Manual, and National Maintenance Work Requirements Manuals to Department of the Army Specifications

Training

Program of Instruction, Instructor and Student Guidebooks, Self-Taught Training Class, for both

Operator Training and Field Level Maintainer Training

Contractor Technical Assistance to both Fielding and Training

Direct Vendor Delivery Spares Contract

Procurement of additional spares during production

Packaging Requirements Plan for Short and Long Term Storage

Disposal of Equipment Plan

<http://contracting.tacom.army.mil/majorsys/beb/beb.htm>

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PRODUCTION CHALLENGES



- Schedule
 - Simultaneous production of boat and ILS
 - Limited schedule for test events

- Cost
 - Minimize changes to the contract

- Performance
 - Open Communication between USG and Contractor is critical
 - Contractor Failure Analysis and Corrective Action during PQT is mandatory



U.S. Army Contracting Command



BRIDGE ERECTION BOAT PRE-PROPOSAL CONFERENCE



James G. Victor
Procuring Contracting Officer
TACOM Acquisition Center

<http://contracting.tacom.army.mil/majorsys/beb/beb.htm>

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CAUTIONARY NOTE

The content of today's briefing, although current, is subject to change. Nothing said or shown today is binding on the Government. The information in the Solicitation may be different from what is presented today and what is posted on the Bridge Erection Boat Website. The content of the RFP will take precedence over anything stated today



BEB WEBSITE

- Website <http://contracting.tacom.army.mil/majorsys/beb/beb.htm>
- Website will be continually updated with RFP information such as:
 - Draft Purchase Description (posted)
 - Draft sections of RFP (posted)
 - Q&A (when released)
 - Supplemental Technical Data (posted)
 - Email:
 - Tuyen Huynh, email: tuyen.huynh@mail.mil (Contract Specialist)
 - James G. Victor, email: james.g.victor2.civ@mail.mil (Contracting Officer)
- This will be managed by Contracting. This is the only permissible means of communication with the Government

It is the responsibility of Industry to check the website regularly!



THE FOLLOWING INFORMATION IS FOR PLANNING PURPOSES ONLY

- Draft RFP Scope of Work Released
- Estimated RFP Release: 13 Dec 12
- Estimated Proposals Due: 6 Feb 13
- Estimated Date of Award: 5 Aug 13



REQUEST FOR PROPOSAL

- A draft Request For Proposal (RFP) W56HZV-12-R-0445 will be issued for comment at a later date. No proposals are to be submitted in response to the draft RFP
- The Government will issue a final RFP at a later date for the submission of proposals
- The RFP will contain the requirements for the Bridge Erection Boat



CONTROLLED UNCLASSIFIED INFORMATION

- The RFP will contain an annex to the PD on the armor specification that will be For Official Use Only. Release will be restricted to US firms and citizens. Information on how to request the specification has been posted to the BEB website
- All production boats shall be built in the United States in accordance with 10 USC Sec. 7309



CLASSIFIED DATA

- Post award, the contractor will receive armor test results which will be classified Secret. The contractor will need to obtain a facility clearance and have personnel with a Secret clearance
- A Security Classification Specification, DD 254, will be part of the RFP



CONTRACT STRATEGY

- Full and Open Competition for the Request for Proposal
 - Proposals must be comprehensive, fully responsive and stand-alone or risk being rejected
 - Best Value Source Selection; Evaluation Criteria: TBD

- Only one contract will be awarded



EXCEPTIONS

- Any exceptions taken to the attachments, exhibits, enclosures, or other RFP terms, conditions, provisions or documents may be grounds for rejecting the proposal from further consideration at any time in the source selection process
- An offeror should submit questions ASAP on anything the offeror feels may be an exception. Taking exceptions in a proposal is generally not in an offerors best interests



PROPOSAL SUBMISSION

- Proposals to be submitted only after Final RFP release
 - Proposals due approximately 60 days
 - Electronic submission of proposals via Army Single Face to Industry (ASFI) Bid Response System
 - Section L of the Final RFP will provide the submission requirements
- Final RFP posting locations:
 - BEB webpage – <http://contracting.tacom.army.mil/majorsys/beb/beb.htm>
 - Army Single Face to Industry – <https://acquisition.army.mil/asfi/>
 - Federal Business Opportunities – <https://www.fbo.gov/>



SOURCE SELECTION PROCESS

- A formal source selection process is planned
 - Proposals will be received and evaluated by a Source Selection Evaluation Board
 - Selection will be made by a designated Source Selection Authority
- A two phase evaluation will be used
 - A Go/No Go Technical Information Questionnaire (TIQ) will be used. Before the rest of a proposal will be considered, it must pass the TIQ
 - Best value evaluation (i.e., there may be trade offs between total evaluated price and all other factors)
- Discussions will likely be needed
- At minimum, the best value evaluation will consider Technical, Price and Small Business Participation



CONTRACT STRUCTURE

- Contract Type: Firm Fixed Price
- Award one firm-fixed-price contract for testing and demonstration with four option periods for production units and new equipment testing
- Options may be incrementally exercised via contract modifications
- Base Year
 - Low Rate Initial Production
 - Support PQT
 - Refurbishment after testing
 - Develop Integrated Logistics Support Products
- Option Years
 - Full Rate Production
 - Provide Fielding Support



ASSERTION OF DATA RIGHTS

- The DFARS 252.227-7013 clause, Rights in Technical Data-- Noncommercial Items, will be in the RFP
- Paragraph (e) requires a contractor to submit an assertion of restrictions on the Government rights in technical data
 - Pertains to technical data to be delivered
 - Signed by an official authorized to contractually obligate the offeror
- The RFP will require an offeror to submit an assertion with its proposal
- The specific text and format to be used is contained in paragraph (e) of the clause



ASSERTION OF DATA RIGHTS

- Making a blanket statement such as “BEB design developed with private funds” is unacceptable
- Use the format provided in the clause and be specific



Identification and Assertion of Restrictions on the Government's Use, Release, or Disclosure of Technical Data.

The Contractor asserts for itself, or the persons identified below, that the Government's rights to use, release, or disclose the following technical data should be restricted—

Technical Data to be Furnished With Restrictions* (LIST)	Basis for Assertion** (LIST)	Asserted Rights Category*** (LIST)	Name of Person Asserting Restrictions**** (LIST)
-------------------------------------------------------------------	------------------------------------	------------------------------------------	-----------------------------------------------------------

- * If the assertion is applicable to items, components, or processes developed at private expense, identify both the data and each such item, component, or process.
- ** Generally, the development of an item, component, or process at private expense, either exclusively or partially, is the only basis for asserting restrictions on the Government's rights to use, release, or disclose technical data pertaining to such items, components, or processes. Indicate whether development was exclusively or partially at private expense. If development was not at private expense, enter the specific reason for asserting that the Government's rights should be restricted.
- *** Enter asserted rights category (e.g., government purpose license rights from a prior contract, rights in SBIR data generated under another contract, limited or government purpose rights under this or a prior contract, or specifically negotiated licenses).
- **** Corporation, individual, or other person, as appropriate.

Date

Printed Name and Title

Signature

(End of identification and assertion)



LUNCH





PURCHASE DESCRIPTION AND TECHNICAL REVIEW



Joshua Peterson

TARDEC

Lead Systems Engineer



GENERAL DESCRIPTION



- **The BEB shall**
 - Be Twin Engine
 - Be Water Jet propelled
 - Operate on JP-8 and ULSD
 - Interoperate with the MRBC
 - Require no more than a two Soldier crew
 - Provide force protection for crew

Requirements

- Thresholds (T) are required
- Objectives (O) are desired

BEB System: the BEB alone (if no pallet is required to interface with the CBT), or BEB with IBC if used, or BEB with BAP if used



PD DESIGN REQUIREMENTS

(Not All Inclusive)



Operating Environment (PD section 3.1.2)

- High particulate matter environments
 - Sand in air
 - Silt in water (high turbidity)

Operating Hours (PD section 3.1.3)

- 200 hours per year
- 25 launches/25 retrievals per year

Operating Duration (PD section 3.1.4)

- Design for 20-year life

Ambient Conditions (PD section 3.3.8)

Condition	Air Temp	Water Temp	Solar Load (Radiation)	Relative Humidity
Engine start Note 1	-25°F to 0°F	n/a	Negligible	Tending toward saturation
BEB Operation Includes engine starts	0°F to 120°F	20°F to 95°F	Up to 104 W/ft ² (1120 W/m ²)	95% or above
Storage	-50°F to 160°F	n/a	Up to 104 W/ft ²	95% or above

<http://contracting.tacom.army.mil/majorsys/beb/beb.htm>

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PD DESIGN REQUIREMENTS

(Not All Inclusive)



EU 94/25/EC Requirements (PD section 3.2.1)

- The BEB is considered
 - Twin engine
 - Over six meters in length
 - Planing Hull
 - Hydraulic steering
 - Non-habitable
 - Diesel fueled
 - Inboard engines
 - Motorcraft or Motorboat
 - Non-sailing boat
 - Welded aluminum construction
 - Design Category C – Inshore, riverine, estuary
 - Category B for Resistance to waves criteria
 - Flotation after flooding (objective requirement)
 - Craft without permanent cabin or other superstructure aft of the main cabin (ref: ISO 11591)
- Waiver will be considered for visibility from the helm requirement (ISO 11591)
 - Submit waiver with proposal package
- Sections NOT required
 - Craft Identification (2.1) (see PD 3.11.1)
 - Builder's Plate (2.2) (see PD 3.11.1)
 - Protection from Falling Overboard and Means of Reboarding (2.3) (see PD 3.4.1.15)
 - Owner's Manual (2.5) (see Statement of Work [SOW])
 - Liferaft stowage (3.7)
 - Fire Fighting Equipment (engine space only) (5.6.2) (see PD 3.4.2.4.6)
 - Discharge prevention and installations facilitating the delivery ashore of waste (5.8) (see PD 3.4.2.5.1)
 - Engine emissions (Annex I.B) (see PD 3.4.2.4.2)



PD DESIGN REQUIREMENTS

(Not All Inclusive)



ISO Structural Requirements (PD section 3.2.2):

- The structure shall be designed in accordance with ISO 12215-5. The following minimum design, or greater, applies:
 - Deck design pressure of 1.78 psi
 - Super structure design pressure of 1.0 psi
 - Vertical design acceleration of 3 g
- The BEB shall meet the requirements of Small Craft – Hull Construction and Scantlings, ISO 12215-6 for the conditions given above
- Recommendations and “Good Practice” or the given equivalents and alternatives of ISO 12215-6 are mandatory



PD DESIGN REQUIREMENTS

(Not All Inclusive)



MRBC Interface (PD section 3.2.5):

- Modifications to IBC, BAP, PLST, and/or CBT are allowed
 - Must be non-permanent (no welding)
 - Must be installed/removed with BEB Basic Issue Items (BII)
 - Contractor must provide kit and install at fieldings (1 modification per BEB), See SOW



PD DESIGN REQUIREMENTS

(Not All Inclusive)



Launch and Retrieve Performance (PD section 3.3.1):

- Launch and retrieve within 5 minutes (T), 3 minutes (O)
- 20% Longitudinal slope
- 8% side slope
- 48" deep water
- 5 fps current
- Water taken on must drain out – not into bilge
- No more than two personnel on BEB



PD DESIGN REQUIREMENTS

(Not All Inclusive)



Temporary Bridge Anchoring (PD section 3.3.3):

- Support ribbon bridge operations
- Sufficient thrust to hold bridge in 6 fps current (T), 8 fps current (O)
 - MLC 100 wheeled, MLC 85 tracked
 - One vehicle per 18 bays

Rafting (PD section 3.3.4):

- Provide thrust to push a 7 bay raft 6 fps (T), 8 fps (O)
 - Two MLC 70 tracked vehicles or equivalent
 - Conventional and longitudinal rafting



PD DESIGN REQUIREMENTS

(Not All Inclusive)



Out of Water Operation (PD section 3.3.7)

- The BEB must operate out of the water without external water hookup for 10 minutes without overheating

BEB Speed (PD section 3.3.9)

- Forward speed of 8 knots (T), 24 knots (O)
 - At full load, defined as light ship (ready for operation with fluids, armor, and 500 lb. reserve) plus 95% fuel and two personnel with gear (385 lbs. each)
 - In water greater than 23 feet deep
- Reverse speed of 4 knots



PD DESIGN REQUIREMENTS

(Not All Inclusive)



BEB Speed Prediction

- Typical Bridging boats have hull forms which are outside the applicability of many prediction methods
- As compared to typical planning craft, bridging boats often have:
 - Higher bottom loading
 - Additional appendages
 - Skegs, keels, transport equipment interfaces, etc.
 - Shortened bows to meet transportation requirements
 - Lower deadrise angles
 - Aeration issues
 - Forward LCGs
 - Bow wetting not accounted for in typical planning prediction methods



PD DESIGN REQUIREMENTS

(Not All Inclusive)



Reliability (PD section 3.3.11)

- 275 hours Mean Time Between Hardware System Abort (MTBHSA)
- 143 hours Mean Time Between Hardware Essential Function Failure (MTBHEFF)
 - FDSC will be updated and posted to the BEB website

Maintenance Ratio (PD section 3.3.12)

- The BEB shall operate continuously without maintenance for a minimum of 9 hours
- The Maintenance Man Hour per Operating Hour (MMH/OH) ratio shall not exceed 0.136
 - MMH/OH ratio of 0.10 for field-level maintenance
 - MMH/OH ratio of 0.036 for sustainment-level maintenance



PD DESIGN REQUIREMENTS

(Not All Inclusive)



Physical Characteristics (Summary of PD section 3.4.1)

- Hull integrity maintained when impacting mud bottom at 8 knots
- Doubler plates not allowed for structural applications (wear applications may be approved by the PCO)
- Must be stable when placed on ground (any equipment required must be integral to the BEB)
- Six tie offs required – must withstand three times the static bollard or three times the maximum service force, whichever is greater
- Minimum of one capstan; one capstan must be capable of manual operation – base must withstand three times the static bollard
- OBJECTIVE: Line take up device – capable of tensioning lines to support single-bay capture and maneuvering; operable from crew station



PD DESIGN REQUIREMENTS

(Not All Inclusive)



Physical Characteristics (Summary of PD section 3.4.1, con't)

- Crew Station: Designed to keep crew dry (windshield if required)
- Heater shall be directed at operator and shall have means for removing frost from windshield (if provided) and enclosure
- Top shall be provided, removable, and stowable for transport (if required)
- Two weapon brackets (TACOM Drawing 13229E8016 or similar) shall be provided



PD DESIGN REQUIREMENTS

(Not All Inclusive)



Engine Configuration and Performance (Summary of PD section 3.4.2.4.4)

- Meet all requirements operating on JP-8 and ULSD
- No emissions controls that are impacted by high sulfur levels (e.g. Exhaust Gas Recirculation (EGR), Oxides of Nitrogen (NOx) traps, catalytic converters)
- Emergency shutdown shall stop either air or fuel supply
- Automatic shutdown override required
- Each engine shall have independent closed-loop cooling system
- If raw water cooling is used
 - Flushable
 - Duplex or self-cleaning strainers
 - Self-draining



PD DESIGN REQUIREMENTS

(Not All Inclusive)



Water Jets (PD section 3.4.2.4.5)

- Linked steering
- Independent reversing
- Power assisted
- Capable of back-flushing or other means to clean the inlet without entering the water or removing the BEB from the water
- Protected from damage



PD DESIGN REQUIREMENTS

(Not All Inclusive)



Fuel System (PD section 3.4.2.5 and sub paragraphs)

- Independent fuel systems with the exception of a common tank
- Fuel tank shall be sized for 9 hours at 50% of maximum power absorbed by the waterjets



PD DESIGN REQUIREMENTS

(Not All Inclusive)



Instrument Panel (PD section 3.4.3.10 and sub paragraphs)

- Must be readable in full sun
- Analog-style gauges (digital display of analog gauges acceptable)
- Alarms must be mutable

Horn (PD section 3.4.3.11)

- Minimum sound pressure level of 112 dB



PD DESIGN REQUIREMENTS

(Not All Inclusive)



Transportation (PD section 3.5 and sub paragraphs)

- Reconfiguration shall take no more that 30 minutes total (disassembly and reassembly)
- Rail transport, dimensions meeting NATO envelope-M
- Marine transport
- Highway transport on the CBT (permits allowed for width)
- MRBC Transport System
 - BEB on CBT
 - Towing a PLST with any approved load
 - Use of the extended drawbar and light bar permitted
 - No restriction to turning diameter
- Transloading required – transferring from CBT to PLST
 - No permanent changes allowed
 - Modifications shall take no more than 5 minutes using BII (T), no modifications (O)
- BEB System Air Transport on C-5 and C-17 (T), C-130 (O)
- BEB only External Air Transport (helo sling) CH-47D and CH53E, 30 nautical mile radius at 60° F and sea level (T), CH-47D and CH53E, 30 nautical mile radius at 95° F and 4000 ft elevation (O)
- MIL-STD-209 provisions required throughout



PD DESIGN REQUIREMENTS

(Not All Inclusive)



Survivability (PD section 3.7 and sub paragraphs)

- All BEBs must have mounting provisions for armor
 - 100% coverage from deck to 48” high
 - Coverage to 12” behind the operator
- Material options detailed in PD Annex C (FOUO)
- Surrogate panels to come pre-installed on all BEBs
 - Same weight and CG as armor panels
 - Clearly marked as surrogate
- Armor panels to be purchased as a Crew Protection Kit (option)
 - Shall come containerized – see SOW



QUESTIONS



- Please submit questions on the index cards provided
- Reminder, NOW is the time to clarify requirements, NOT after proposals have been submitted



TECHNICAL DATA PACKAGE (TDP)



Suhair Ghannam

TARDEC

CAD & Model Based Engineering Team

<http://contracting.tacom.army.mil/majorsys/beb/beb.htm>

UNCLASSIFIED: Distribution A, Approved for Public Release



TECHNICAL DATA REQUIREMENTS STATEMENT OF WORK (SOW)



- Manage technical data that includes product data, product structure, associated lists, specifications, standards, approved ECPs, and other documents.
- Manage, store, release, validate, and track product data.
- Product data shall be fully defined.
- The Technical Data Package (TDP) delivered to the Government shall reflect the as-built or assembled and tested baseline configuration, incorporating all approved changes to date.



TECHNICAL DATA REQUIREMENTS INITIAL SUBMISSION



- Submit initial sample assembly of 10-20 parts and subassemblies for format and standard validation.
- 30 days from start of work meeting.
- Data package shall include 3D native CAD models, associated 2D drawings, cosmetic 3D models (optional), STEP neutral files, and 2D PDF drawings.



TECHNICAL DATA REQUIREMENTS FORMAT OPTIONS AND SELECTION



- Separate Contract Line Item Number (CLIN) for format options
 - Option 1: Product Data Contractor's Format
 - Option 2: Product Data Government's Format



TECHNICAL DATA REQUIREMENTS REQUIREMENTS FOR OPTIONS 1 & 2



- PTC Pro/Engineer is the preferred CAD Software.
- 3D CAD models and 2D CAD drawings are associative and parametric.
- Fully Defined product data with dimensions, tolerances, notes, attributes, features, mass properties, center of gravity and moment of inertia.
- Driving vs. driven dimensions. No cosmetic dimensions.
- Standards to follow in creating product data:
 - ASME Y 14.1 - Decimal Inch Drawing Sheet Size and Format
 - ASME Y14.24 - Types and Applications of Engineering Drawings
 - ASME Y14.34 - Associated Lists
 - ASME Y14.35M - Revision of Engineering Drawings and Associated List
 - ASME Y14.38 - Abbreviations
 - ASME Y14.5 - Dimensioning and Tolerancing
 - ASME Y14.100 - Engineering Drawing Practices



Cont. TECHNICAL DATA REQUIREMENTS REQUIREMENTS FOR OPTIONS 1 & 2



- Deliverable file formats: 3D CAD models and 2D associated drawings, cosmetic 3D models, STEP neutral files, and PDF 2D drawings.
 - All parts developed/updated under this contract shall be fully defined parametric models along with their associated drawings and their respective STEP files and 2D PDF drawings.
 - Military/industry standard parts, or interface parts and assemblies shall be in space claim representation and their respective STEP files.
- Solid models shall be checked for integrity.
- Utilize true manufacturer Part numbers.
- Distribution statement and export control shall be applied to models and drawings.
- The Contractor shall comply with DFARS data rights clauses.
- Prior to contract award, contractor shall identify all technical data that will be provided to the Government with other than unlimited rights.
- Appropriate Item Unique Identification marking information shall be incorporated.
- As a minimum, the attribute list provided in the Request for Proposal (RFP) shall be incorporated in models.



REQUIREMENTS FOR OPTIONS 1 & 2

PRODUCT DATA CHECKLIST – PAGE 1



The Government will be performing these checks:

- ❖ CADIQ Geometry Check (refer to CADIQ Checks chart)
 - Lack of Geometry integrity (gaps, interference, etc.)
 - Tooling issues
 - Invalid and Unrealistic geometry
- ❖ Check for associativity (part models, assembly models and drawings)
- ❖ Check the PDF drawing quality
 - Check static look of the PDF file
 - Print a PDF drawing to check for resolution
- ❖ Check for proper conversion to STEP
 - Accurate geometric conversion to STEP using CADIQ (no geometry loss or distortion)
 - STEP includes mass properties and center of gravity



Cont. REQUIREMENTS FOR OPTIONS 1 & 2 PRODUCT DATA CHECKLIST – PAGE 2



- ❖ Check for proper configuration
 - Accurate file naming convention; **CAGE_PartNumber**
 - Accurate use of part numbers; i.e. Spec Identified Items, Army Ordnance Part Numbers, Vendor Item Control, and Source Control Items
 - Accurate assemblies, parts structure, next higher assemblies, and used on

- ❖ Check for compatibility and accuracy of Product Manufacturing Information (PMI)
 - Accurate parameter fields and values
 - Accurate revision block and title block
 - Accurate Geometric Dimensioning and Tolerancing (GD&T)
 - Accurate notes with proper reference to standards, and format IAW
 - ASME Y14.100-2004
 - ASME Y14.5-2009
 - Accurate distribution statement, export warning, and data rights legends

- ❖ Successful upload on TARDEC's Windchill System



Cont. REQUIREMENTS FOR OPTIONS 1 & 2 MODEL VALIDATION CHECKS (CADIQ)



- **Integrity Defects**
- Free Edge
- Over-Used Edge
- Over-Used Face
- Empty Assembly
- Empty Model
- Empty Part
- Missing Component
- Feature Status
- Inconsistent Edge on Curve
- Inconsistent Edge in Loop
- Duplicate Assemblies
- Duplicate Parts
- Degenerate Edge
- Degenerate Face
- Degenerate Solid
- **Tooling Defects**
- Sharp Free Edge Angle
- Narrow Step
- Narrow Space
- Narrow Volume
- Narrow Solid Space
- Narrow Space Between Solids
- Thin Solid Volume
- Thick Solid Volume
- High-Curvature Surface
- Large Round Faces
- Non-Standard Hole Faces
- Tiny Hole Faces
- Tiny Round Faces
- Solid Void
- Tiny Solid
- Non-Tangent Faces
- **Design Reuse Defects**
- Embedded Faces
- Embedded Shells
- Embedded Solids
- Hidden Entity
- Non-Solid Entity
- **Exchange Defects**
- Sharp Face Angle
- High-Curvature Curve
- Untessellated Face
- Tiny Patch
- Large Patch Gap
- High-Degree Surface
- Large Edge Face Gap
- Large Face Gap
- Large Edge Gap
- Large Vertex Face Gap
- Large Vertex Edge Gap
- High-Degree Curve
- Non-Tangent Segments
- Large Segment Gap
- Tiny Segment
- **Simulation Defects**
- Over-Used Vertex
- Fragmented Surface
- Tiny Surface
- Tiny Face
- Closed Face
- Narrow Face
- Narrow Region
- Self-Intersecting Loop
- Intersecting Loops
- Sharp Edge Angle
- Non-Tangent Edges
- Closed Edge
- Tiny Edge
- Tiny Curve
- Fragmented Edge
- **Design Information**
- Assembly Name
- Feature Faces
- Feature Edges
- Multi-Solid Model
- Multi-Use Assembly
- Multi-Use Part
- Part Name
- Single-Use Assembly
- Single-Use Part



TECHNICAL DATA REQUIREMENTS OPTION 1 VS. OPTION 2



Option 1: Contractor's Format	Option 2: Government Format
Contractor Drawing Formats	Government Drawing formats
Company Standards Permitted	Company Standards not Permitted

Drawing format: The arrangement and organization of information or content within a drawing. This includes such features as the size and arrangement of blocks, notes, lists, revision information, and the use of optional or supplemental blocks (ASME Y14.1).

Company standard: A company document, which establishes engineering and technical limitations and applications for items, materials, processes, methods, designs and engineering practices unique to that company.



CONTRACTOR VS. GOVERNMENT DRAWING FORMAT



NOTES:
 △ WHEN ASSEMBLING, SEAL ALL THREADED CONNECTIONS WITH TELFON TAPE TO PREVENT LEAKS.

Sample Contractor Format

REV	DESCRIPTION	DATE	APPROVAL
1	CONTRACTOR DWG	5/22/2002	CK
A	CONTRACTOR DWG	5/22/2002	CK
B	CONTRACTOR DWG		

CASE NO.	GOVERNMENT DWS NO.	REV.
19207	1252XXXX	B

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES.	SCALE:	SIGNATURE:	DATE:
TOLERANCES: FRACTIONS: DECIMALS: ANGLES: DIMENSIONS: HOLE ALL DIMS. & CLEARANCES:	1/8" = 1"	XXXXXXXX	05/22/02
PROJECT ORDER NUMBER:	PROJECT:	TITLE:	COMPANY: ABC 85 S. LANE, ST. CITY, TX, XXXXX
FLS060000-1	A-ABC	MATERIAL:	XXXXXX ASSEMBLY
PLS060000-2	HC-ABC	SEE PARTS LIST	
NEXT ASSEMBLY:	USED IN:	FINISH:	CASE NO. SIZE: DWS NO. REV. NO.
APPLICATION:	FRESH	DO NOT SCALE DRAWING	CCXXX A 3390XXXX B
		SCALE:	NONE SHEET 1 OF 1

NOTES:
 △ WHEN ASSEMBLING, SEAL ALL THREADED CONNECTIONS WITH APPROPRIATE VITON AND TYPIC OF TEFELON TAPE. CONSIDER TO A-APPLY TO PREVENT LEAKS. THERMAL SEALING COMPOUND SHALL BE USED TO REPAIRS, NOT HANDED. CERTIFIED TOOLING FOR METALS AND PLASTICS. THE TOOLING SHALL HAVE A PROPER AND CLEAN TO AVOID THE WORK AND SHOULD BE IN GOOD AND A THERMAL TAPE TO TO TO THE WORK. IN ALL CASES, PLEASE SHOW THE NUMBER OF THE WORKING COMPONENTS.

△ USE TIGHTEN UP OPERATION BY PRESSING DOWN ON THE BUSHING TO TIGHTEN THE TUBING ON THE OVERLAP CORRECTLY.

Government Format

REV	DESCRIPTION	DATE	APPROVAL
1	CONTRACTOR DWG	5/22/2002	CK
A	CONTRACTOR DWG	5/22/2002	CK
B	CONTRACTOR DWG		

CASE NO.	GOVERNMENT DWS NO.	REV.
19207	1252XXXX	B

UNLESS OTHERWISE SPECIFIED, ALL DIMENSIONS ARE IN INCHES.	SCALE:	SIGNATURE:	DATE:
TOLERANCES: FRACTIONS: DECIMALS: ANGLES: DIMENSIONS: HOLE ALL DIMS. & CLEARANCES:	1/8" = 1"	XXXXXXXX	05/22/02
PROJECT ORDER NUMBER:	PROJECT:	TITLE:	COMPANY: ABC 85 S. LANE, ST. CITY, TX, XXXXX
FLS060000-1	A-ABC	MATERIAL:	XXXXXX ASSEMBLY
PLS060000-2	HC-ABC	SEE PARTS LIST	
NEXT ASSEMBLY:	USED IN:	FINISH:	CASE NO. SIZE: DWS NO. REV. NO.
APPLICATION:	FRESH	DO NOT SCALE DRAWING	CCXXX A 3390XXXX B
		SCALE:	NONE SHEET 1 OF 1

ITEM NO.	QTY	PART NUMBER	NAME OF DESCRIPTION	REF. MARK	QTY	MATERIAL
1	1 EACH	1252XXX1	METER, FLOW, PORTABLE, 0.3-3.0 GPM, 1" FNPT, GPI Model A108GMN025NA1			NYLON (119007)
2	2 EACH	1252XXX2	BUSHING, 1" MNPT x 1/2" FNPT			NYLON (119007)
3	2 EACH	1252XXX3	ADAPTER, 1/2" HOSE x 1/2" MPT			NYLON (119007)
4	2 EACH	1252XXX4	TUBING, 1/2" CLEAR, 40" TUBE, 1/2" ID			NYLON (119007)
5	3 EACH	1252XXX5	CLAMP, HOSE, 7/16"-20/32"			NYLON (119007)
6	1 EACH	A-A-XXXX/6-1-NYLON	COUPLER x HOSE SHANK, 1/2" CAM AND GROOVE (C), NYLON			NYLON

DATE:	SCALE:	PROJECT:	REV. NO.:
05/22/02	1/8" = 1"	XXXXXX ASSEMBLY	B

Parts List
3390XXXX
 Flowmeter Assembly

Item	Qty	Part Number	Type	Title	Reference
GOVT DWS#					
MR Name					
1	1	1252XXXX1	-	Meter, flow, portable, 0.3-3.0 gpm, 1" FNPT, GPI Model A108GMN025NA1	
2	2	1252XXXX2	-	Bushing, 1" MNPT x 1/2" FNPT	
3	2	1252XXXX3	-	Adapter, 1/2" hose x 1/2" MPT	
4	2	1252XXXX4	B	TUBE, 1/2" CLEAR, 40" tube, 1/2" ID	
5	3	1252XXXX5	-	Clamp, Hose, 7/16"-20/32"	
6	1	A-A-XXXX/6-1-NYLON	-	Coupler x hose shank, 1/2" Cam and Groove (C), Nylon	

PT Coupling 1/2C



TITLE BLOCKS

Contractor Sample

CAGE	GOVERNMENT DWG NO:	REV
19207	1252XXXX	B

		UNLESS OTHERWISE SPECIFIED: ALL DIMENSIONS ARE IN INCHES.	SIGNATURE	DATE	COMPANY ABC 20 S. LANE ST. - CITY, YY. XXXXX			
		TOLERANCES: FRACTIONS ± DECIMALS .X ± DECIMALS .XX ±.25 DECIMALS .XXX ± ANGLES ±	DRAWN BY: G. LASTNAME	10/01/02	TITLE: XXXXXX ASSEMBLY			
		REMOVE ALL BURRS & SHARP EDGES	CHECKED BY:					
			DESIGN ENGINEER:					
PL3390XXXX-1	A-ABC	MATERIAL:	PROJECT ENGINEER/PROGRAM MGR:					
PL3390XXXX-2	MC-ABC	SEE PARTS LIST	APPROVED BY:		CAGE NO:	SIZE	DWG NO:	REV
NEXT ASSEMBLY	USED ON	FINISH:	APPROVED BY:		CCXXX	A	3390XXXX	B
APPLICATION		NONE	DO NOT SCALE DRAWING		SCALE: NONE		SHEET 1 OF 1	

Government

PART NO. 1252XXXX

PMIC			UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES	CONTRACT NUMBER W56HZV-XX-C-XXXX	US ARMY TANK AUTOMOTIVE & ARMAMENTS COMMAND WARREN, MICHIGAN 48397-5000			
		TOLERANCES ON	CONTRACTOR	COMPANY ABC 20 S. LANE ST. - CITY, YY. XXXXX				
		2-PLACE 3-PLACE ANGLES	DRAWN BY	DATE (YR-MO-DA)	XXXXXX ASSEMBLY			
		± .25 ± ±	R. KHALIL	10-08-17				
		THIRD ANGLE PROJECTION	CHECKER	ENGINEER				
			M. SILBERNAGEL	M. SILBERNAGEL	SIZE	CAGE CODE	DWG NO.	
1252XXXX	A/MC-XXX		DRAWING APPROVAL		D	19207	1252XXXX	
NEXT ASSY	USED ON	MATL ENGR	DESIGN APPROVAL		SCALE	UNIT WT	SHEET 1 OF 1	
APPLICATION		M. SILBERNAGEL	M. SILBERNAGEL		NONE			



GOVERNMENT DRAWING



NOTES:

APPLICABLE STANDARDS/SPECIFICATIONS:

- A. ASME Y14.100-2000
- B. ASME Y14.5-2009

1. WHEN ASSEMBLING, SEAL ALL THREADED CONNECTIONS WITH APPROPRIATE WIDTH AND TYPE OF TEFLON TAPE CONFORMING TO A-A-58092 TO PREVENT LEAKS. THREAD SEALING COMPOUND SHALL BE SOFT SET, NON-PTFE, NSF 14/61 CERTIFIED, SUITABLE FOR METALS AND PLASTICS. THE SEALANT SHALL HAVE A PRESSURE RATING UP TO 6000 PSI ON LIQUIDS AND 3000 PSI ON GASES, AND A TEMPERATURE RANGE OF -50 TO 400 DEGREES F. GASDILA (CAGE 3CKH7) NT, NON-PTFE THREAD SEALANT IS A SUGGESTED COMPOUND.

2. TEST METER FOR OPERATION BY PRESSING DISPLAY BUTTON TO INSURE IT TURNS ON AND DISPLAYS CORRECTLY.

PART LIST

ITEM NO.	QTY UNIT	PART NUMBER	NAME OR DESCRIPTION	MFR. NAME (CAGE)	SPEC	MATERIAL
1	1 EACH	1252XXX1	METER, FLOW, PORTABLE, 0.3-3.0 GPM 1" FPT, NYLON. POWERED BY TWO 3 VOLT LITHIUM BATTERIES	TACOM (19207)		
2	2 EACH	1252XXX2	BUSHING, 1" MNPT X 1/2" FNPT 150#	TACOM (19207)		
3	2 EACH	1252XXX3	ADAPTER, NYLON 1/2" HOSE X 1/2" MPT	TACOM (19207)		
4	80 INCHES	1252XXX4	TUBING, 1/2" ID BY 11/16" OD, CLEAR UNREINFORCED, ETHER BASED POLYURETHANE, CUT TUBING TO 40" LONG	TACOM (19207)		
5	3 EACH	1252XXX5	CLAMP, HOSE, 7/16"-29/32" 316 STAINLESS STEEL	TACOM (19207)		
6	1 EACH	A-A-XXXX/6-1-NYLON	COUPLER X HOSE SHANK, 1/2" CAM AND GROOVE (C), NYLON	FED SPEC (58536)	A-A-59326	NYLON

REVISIONS

ZONE	LTR	DESCRIPTION	DATE (YR-MO-DA)	APPROVED
	-	PRODUCT BASELINE ERR TACVXXXX	12-12-27	MS



OPTION 1: CONTRACTOR'S FORMAT COMPANY STANDARDS



If Option 1 is selected, these requirements shall be met:

- a) The rights-in-data are consistent with the contract stipulations.
- b) It is furnished at a cost equal to or less than creating new data.
- c) It is identified by a CAGE Code, document number, title, and applicable contract number(s).
- d) Any nonstandard symbols, drawing or documentation practices used are explained in the document or in a referenced document.
- e) It contains a revision scheme which is compatible with the TDP element of which it will be submitted or can be modified to a compatible revision scheme.
- f) If the company standard defines a vendor item, the standard shall provide the same information as a vendor item control drawing (or specification control drawing) for the identification and procurement of an interchangeable item.
- g) All documents referenced in the standard shall also be supplied and shall meet the same requirements as a company standard.



SCOPE OF WORK



Rand Ponting
System Acquisition Manager
BEB



PRODUCTION SCOPE OVERVIEW



- New production effort to meet requirements
- Hardware requirements are fully described in the purchase description
- All sections of the contract are relational documents requiring cross-referencing
- Military documents and industry standards are referenced but not provided



SCOPE OF WORK

- C.1 GENERAL
- C.2 HARDWARE AND DELIVERABLES
- C.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)
- C.4 PROGRAM MANAGEMENT
- C.5 ENVIRONMENTAL, SAFETY ENGINEERING AND HEALTH HAZARDS
- C.6 TECHNICAL DATA PACKAGE
- C.7 RELIABILITY, AVAILABILITY, MAINTAINABILITY (RAM) PROGRAM
- C.8 MANPOWER AND PERSONNEL INTEGRATION (MANPRINT)
- C.9 TRANSPORTABILITY REPORT
- C.10 BEB SYSTEMS HAND-OFF
- C.11 INTERGRATED LOGISTICS SUPPORT
- C.12 PROVISIONING SPECIFICATIONS
- C.13 TECHNICAL PUBLICATIONS
- C.14 TRAINING
- C.15 PACKAGING DATA DEVELOPMENT
- C.16 QUALITY ASSURANCE MANAGEMENT
- C.17 ITEM UNIQUE IDENTIFICATION (IUID)
- C.18 GOVERNMENT TEST OVERVIEW
- C.19 VERIFICATION EQUIPMENT
- C.20 BEB INSPECTION OVERVIEW
- C.21 CERTIFICATIONS TO ATPD 2392 PERFORMANCE REQUIREMENTS
- C.22 CARE AND STORAGE PRIOR TO SHIPMENT



GENERAL SCOPE – PRODUCTION

(Not all inclusive)



- **C.1 GENERAL SCOPE**

- Contractor is responsible for the overall component selection, integration, design, development, fabrication, of the production boats as necessary to meet the requirements of Army Technical Purchase Description (ATPD) 2393
- Provide test support for Government conducted production verification, logistics demonstration, technical manual validation/verification and operational tests
- All testing must be successfully completed prior to full rate production approval by the Government
- Deliver data in accordance with Data Item Descriptions (DID) and Contract Data Requirements List (CDRL)



HARDWARE AND DELIVERABLES

(Not all inclusive)



- **C.2 HARDWARE AND DELIVERABLES**

- The contractor shall manufacture and deliver a BEB system in accordance with the requirements of the ATPD 2393
- The contractor shall provide BII for each BEB. The contractor shall identify and provide a BII list in accordance with ATPD 2393 for each BEB
- The contractor shall provide Components of End Items (COEI) with each BEB
- The contractor shall provide an Initial Support Package (ISP) for each BEB



GOVERNMENT FURNISHED EQUIPMENT

(Not All Inclusive)



- **C.3 GOVERNMENT FURNISHED EQUIPMENT (GFE)**

- The Government will provide the following no later than 60 days after contract:
 - Bridge Adapter Pallet (BAP)
 - Common Bridge Transporter (CBT)
 - Improved Boat Cradle (IBC), if required
 - Improved Ribbon Bridge (IRB) Interior and Ramp Bays
 - Palletized Loading System Trailer (PLST)
- The contractor shall return this equipment per the Government's instructions at the completion of Production Qualification Tests (PQT)



PROGRAM MANAGEMENT

(Not all inclusive)



- **C.4 PROGRAM MANAGEMENT**

- The Government will host a start of work meeting at U.S. Army TACOM LCMC in Warren, MI, within 30 days after contract award
- The contractor shall deliver an Integrated Master Schedule (IMS) for BEB production
- The contractor shall participate in the meetings, conferences and reviews required in this scope of work with Government attendance
- The contractor shall conduct quarterly Program Management Reviews (PMR) with Government Integrated Product Team (IPT)
- The contractor shall conduct a Critical Design Review (CDR) with Government attendance no later than 60 days after contract award



ENVIRONMENTAL, SAFETY ENGINEERING AND HEALTH HAZARDS



(Not all inclusive)

- **C.5 Environmental, Safety Engineering and Health Hazards.**
 - The contractor shall ensure that all aspects of contract execution, including all BEB hardware, are in compliance with United States Federal, State, and Local environmental regulations
 - The contractor shall identify health hazards associated with the system and incorporate as part of the SAR
 - Hazards or unacceptable conditions that cannot be eliminated or controlled through design selection shall be controlled to an acceptable level of risk through the use of fixed, automatic or other protective safety design features or devices



DEVELOPMENTAL DRAWINGS

(Not all inclusive)



- **C.6.1 Developmental Drawings**
 - The Contractor shall provide the following drawings:
 - Interface Drawings
 - Hull lines Drawings
 - Arrangement Drawing
 - Machinery Arrangement Drawing
 - Primary Structural Drawing
 - Towing Fitting Details
 - Electrical Schematic
 - Fuel System Schematic
 - Engine Cooling Schematic
 - Steering and Reversing Schematic
 - Console Arrangement
 - Appliqué Arrangement
 - Fire Extinguishing System Layout Drawing
 - CPK Test Structure Drawing



RELIABILITY, AVAILABILITY, MAINTAINABILITY (RAM) PROGRAM

(Not all inclusive)



- **C.7 RAM PROGRAM**

- The contractor shall complete a Reliability Scorecard Self-Assessment
- A R&M management program shall be established and maintained throughout the contract. The program shall require analysis and predictions that assess and improve the BEB design's ability to achieve the R&M requirements of ATPD 2393
- The contractor shall perform R&M predictions and compare results with R&M requirements in ATPD 2393
- The contractor shall provide the Government with a system-level Design Failure Mode and Effect Analysis for the complete BEB system and all interfaces with the BEB



MANPOWER AND PERSONNEL INTEGRATION

(Not all inclusive)



- **C.8 Manpower and Personnel Integration (MANPRINT)**
 - The contractor shall develop, maintain and execute a MANPRINT program to ensure the integration of the seven (7) MANPRINT domains: manpower, personnel, training, human factors engineering, system safety, health hazards, and Soldier survivability in the design and design modification process



TRANSPORTABILITY REPORT

(Not all inclusive)



- **C.9 Transportability Report**
 - The contractor shall conduct a transportability analysis
 - The contractor shall document the results of the analysis in a Transportability Report



BEB SYSTEMS HAND OFF

(Not all inclusive)



- **C.10 BEB System Handoff**

- The contractor is responsible to hand-off all equipment deliverable under the contract to each gaining unit
- The contractor shall re-assemble the BEB to a fully operational configuration if it is shipped with any components removed
- The contractor shall deliver all the BEBs ready to operate prior to New Equipment Training
- If modifications to the IBC or BAP are required to accommodate the BEB, the modification kit shall be installed by the contractor at the ratio of one IBC/BAP modification per BEB fielded



INTEGRATED LOGISTICS SUPPORT

(Not all inclusive)



- **C.11 Integrated Logistics Support (ILS)**
 - The contractor shall plan and manage an ILS program
 - The contractor shall provide an ILS schedule at the start of work meeting
 - The contractor shall conduct Supportability Analyses to develop logistics products
 - The contractor shall conduct Maintenance Planning
 - The contractor shall deliver a list of Support Equipment Tools and Test Equipment for the BEB
 - The contractor shall develop new equipment technical manuals (TMs)



PROVISIONING SPECIFICATIONS

(Not all inclusive)



- **C.12 Provisioning Specifications**

- The contractor shall develop a provisioning program for the BEB System using GEIA-STD-0007-A
- The contractor shall identify all parts and components of the BEB System and input the data into the Provisioning Bill of Material (PBOM)
- The contractor will host a provisioning conference (unless otherwise directed by the Government) not to exceed 5 working days for each conference



TECHNICAL PUBLICATIONS

(Not all inclusive)



- **C.13 Technical Publications**
 - The contractor shall develop new equipment TMs
 - The operator manual shall be prepared and delivered
 - The maintenance manual shall be prepared and delivered
 - Based on the maintenance analysis, if any items are sustainment level and above a National Maintenance Work Requirement shall be prepared and delivered



TRAINING

(Not all inclusive)



- **C.14 Training**

- The contractor shall provide technically qualified/certified instructors to support all required training events and instructional materials
- The Government will provide equipment, general tools, common tests sets, fully equipped classroom(s), training areas, range requirements and clearance to support LUT training event



PACKAGING DATA DEVELOPMENT

(Not all inclusive)



- **C.15 Packaging Data Development**

- The contractor shall develop and provide packaging data for all items identified during the provisioning process with a Source, Maintenance & Recoverability (SMR) code beginning with “P” excluding PR and PZ
- Packaging shall be developed and all items shall be classified as a selective group item or special group item



QUALITY ASSURANCE MANAGEMENT

(Not all inclusive)



- **C.16 Quality Assurance Management**

- The contractor shall develop a quality program acceptable to the Government for all supplies and services to be provided under the contract
- " The contractor shall implement and maintain a quality system in accordance with ISO/TS 16949:2009 (untailored) or comparable quality system"



ITEM UNIQUE IDENTIFICATION (IUID)

(Not all inclusive)



- **C.17 IUID**
 - Contractor shall determine the best method in which to mark the BEB



GOVERNMENT TEST OVERVIEW

(Not all inclusive)



- **C.18 Government Test Overview**

- The Government will be conducting First Article Test (FAT) of the BEB, which encompasses Production Qualification Test (PQT) and Limited User Testing (LUT). For the purpose of this contract, PQT and LUT will be used throughout the scope of work
- During PQT, the Government will conduct testing using JP-8 to include reliability testing, conventional and longitudinal rafting, environmental testing, interoperability and simulation operations. See Section 4 of the Purchase Description for additional details on PQT
- The objective of the LUT will be to collect performance, Reliability, Availability and Maintainability (RAM) data as well as manpower and personnel integration (MANPRINT) data on the capability of the BEB to temporarily anchor a floating bridge in fast water while traffic crosses



VERIFICATION EQUIPMENT

(Not all inclusive)



- **C.19 Verification Equipment**

- Except as otherwise expressly provided for under the contract, the contractor is responsible for the supply and maintenance of all inspection and test equipment necessary
- The contractor shall make inspection equipment available to the Government Inspector during Government in-process or end item inspection



BEB INSPECTION OVERVIEW

(Not all inclusive)



- **C.20 BEB Inspection Overview**

- Prior to delivery to the Government, the contractor shall conduct inspections and tests for all BEBs
- During fabrication of the BEBs, the Government shall have access to the Contractors or subcontractors facility to perform in-process inspections



CERTIFICATIONS TO ATPD 2392 PERFORMANCE REQUIREMENTS

(Not all inclusive)



- **C.21 Certifications to ATPD 2392 Performance Requirements**
 - The contractor shall provide all certifications required by ATPD 2393
 - The certifications and testing required shall be resubmitted if changes are made to the hardware and systems subsequent to the original certification



CARE AND STORAGE PRIOR TO SHIPMENT



(Not all inclusive)

- **C.22 Care and Storage Prior to Shipment**

- The Government may require the contractor to store and maintain BEBs
- The contractor shall maintain the BEBs in accordance with its standard commercial procedures
- The Government may perform re-examination of the stored BEBs prior to shipment



APPLIQUÉ PANEL SUPPORT STRUCTURE



- Permanent mounting provisions to accept panels
- Panels match configuration of operator's station, provide 100% coverage from the deck up to 48-inches for the front and sides
- Panels on the sides shall extend a minimum of 12-inches from the rear of the operator
- Provided removal/installation of panels using an overhead hoist
- Any special tools or fittings required for removal/installation of panels shall be included in the BII

NOTE: Final requirements TBD



SMALL BUSINESS PARTICIPATION



Colleen M. Hirsch
TACOM LCMC

Office of Small Business Programs

<http://contracting.tacom.army.mil/majorsys/beb/beb.htm>
UNCLASSIFIED: Distribution A, Approved for Public Release



SMALL BUSINESS PARTICIPATION



SMALL BUSINESS ACT

“It is the declared policy of the Congress that the Government should aid, counsel, assist, and protect, insofar as is possible, the interests of small business concerns in order to preserve free competitive enterprise [and] to maintain and strengthen the overall economy of the Nation.”

“It is the policy of the United States that small business concerns [of every socioeconomic category] shall have the maximum practicable opportunity to participate in the performance of contracts let by any Federal agency, including contracts and subcontracts for subsystems, assemblies, components, and related services for major systems.”



SMALL BUSINESS PARTICIPATION



TACOM LCMC Subcontracting Goals for FY 2012

Small Businesses	31.7% of total subcontract dollars
Small Disadvantaged Businesses	5% of total subcontract dollars
Woman-Owned Small Businesses	5% of total subcontract dollars
HUBZone Small Businesses	3% of total subcontract dollars
Service Disabled Veteran-Owned SBs	3% of total subcontract dollars

Proposal Evaluation Considerations (Section M)

- Extent that the offeror's proposed subcontracting participation goals correspond to the Government's evaluation standards as stated in Section M
- Assessment of the probability that the offeror will achieve the levels of Small Business participation identified in its proposal based on evaluations of:
 - The offeror's list of anticipated SB subcontractors, including clear-cut descriptions of what they would do and what they would likely earn under the prime contract
 - The offeror's prior performance against its Government subcontracting goals



SMALL BUSINESS REFERENCES



- Confirm each anticipated SB subcontractor's socioeconomic status by checking its official representations and certifications at System for Award Management (SAM) <https://sam.gov/portal/public/SAM>
- Locate prospective small business sources by way of:
 - Available Subcontractor List at the TACOM LCMC Small Business Website
 - <http://contracting.tacom.army.mil/sbo/sbo.htm>
 - SBA's Dynamic Small Business Search (DSBS) Website
 - http://dsbs.sba.gov/dsbs/search/dsp_dsbs.cfm
 - National Network of Procurement Technical Assistance Centers (PTACs)
 - www.aptac-us.org
 - Federal Business Opportunities (FedBizOpps) Website - for SB award recipients, SB events
 - www.fbo.gov



CONFERENCE GUIDANCE AND ADMINISTRATION



Tuyen Huynh
Army Contracting Command
Contract Specialist



QUESTION AND ANSWER REVIEW



- RESPONSES TO PRE-PROPOSAL CONFERENCE Q&A
 - Again, Government will answer as much of Q&A as possible today
 - All questions and answers will be posted to the website. They will serve as the official responses