Value Engineering Tools for Contractor Support

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Agenda

• Castings & Forgings

• Value Engineering Change Proposals (VECP’s)

• Replenishment Parts Purchase or Borrow (RPPOB)

• Sustaining Engineering (SE)
Castings and Forgings
Castings & Forgings

- Castings are complex metal shapes
  - Structural, mechanical, engineered applications
  - Formed from liquid metal, produced in a mold
  - Often are “hidden” components of an assembly
- Forgings can be complex or simple shapes
  - Forging is heated metal, but not molten
  - Formed by pounding or pressing it into the desired shape
  - Sometimes tooling is required,
  - Sometimes are “hidden” components of an assembly

**DLA’s Goal**
Procure high-quality, cost-effective cast or forged parts for weapon systems to meet readiness requirements
Procurement Issues

- Long lead times
- Defaulted contracts
- Identifying cast or forged parts/components at the assembly level
- Tooling availability
- Diminishing manufacturing sources
- Low quantity procurements
- Contracting to correct sources
How to Identify

• Look at the “notes” section on the drawing for a casting process or forging process

• Look at the detail listings or separate parts list where it calls out alloys and processes

• Check on-line specs and standards for reference
  • Defense Standards
    • http://assist2.daps.dla.mil/quicksearch
  • SAE Website for AMS standards
    • http://www.sae.org/technicalcommittees/index.htm
A Common Plan

• HQ DLA has implemented two programs
  • Shared cost between Government and Industry
  • Address key technical needs

• Castings for Improved Readiness (CIR)
  • Supported by American Metalcasting Consortium (AMC)
  • Managed by Advanced Technology Institute (ATI)

• PRO-FAST
  • Supported by Forging Defense Manufacturing Consortium (FDMC)
  • Managed by ATI

• Programs focus on three areas
  • Resolve casting/forging part problems
  • Training for Government personnel
  • Research & Development
Strategic Direction

- Ensure a viable casting or forging supply chain future
- Apply new technologies
- Reduce administrative and production lead times
- Utilize extensive casting and forging experience and knowledge to solve supply chain backorders
- Incorporate AMC/FDMC information into DLA’s procurement processes to improve readiness
Remember, When Using AMC or FDMC they…

- Do not change your contractual responsibility
- Are not part of your contract
- Won't charge you, or won't pay you
- Are available to consult and assist
- Are an industrial organization, not government
- Cannot approve any tech data changes
- Cannot change anything in the terms and conditions of the contract
DSCC’s X-IT Team

- Provides casting & forging assistance
- X-IT is comprised of Government and Industry representation
- X-IT is a resource available to the following:
  - DSCC Personnel: Product Specialists, Buyers, Planners
  - Engineering Support Activities (ESAs)
  - Contractors/Suppliers
    - With active DSCC contracts (w/Contracting Officers’ approval)
    - Bidding on open DSCC solicitations
How X-IT Provides Assistance

- **Process and Material** - Understand the required casting or forging process and material (may be buried in a OEM specification and not be apparent)
  - As-cast or forged tolerances
  - Surface finish requirements
- **Sourcing** – Identify capable sources when unable to manufacture due to unresponsive supply chain
- **Tooling** – Find source for tooling when unable to manufacture due to unavailable tooling
- **Technical Field Support** to foundry/forge, process, design, manufacture, or other problems
- **Update TDP** with current specifications, processes, etc and their interpretation
- **Assist Engineering Support Activity** in expediting required engineering analysis/response
Additional Casting Resources

- **Defense Tooling Locator**
  - http://www.defensetooling.net
- **Steel Founders Society of America**
  - http://www.sfsa.org
- **America Founders Society Inc.**
  - http://www.afsinc.org
- **North American Die Casting Association**
  - http://www.diecasting.org
- **Non-Ferrous Founders Society**
  - http://www.nffs.org
- **American Metalcasting Consortium**
  - http://www.amc.aticorp.org
Additional Casting Resources

• American Metalcasting Consortium
  • http://www.amc.aticorp.org

• Defense Casting Suppliers
  • http://www.defensecastingsuppliers.com

• Defense Tooling Locator
  • http://www.defensetooling.net

• Steel Founders’ Society of America
  • http://www.sfsa.org

• American Foundry Society
  • http://www.afsinc.org

• North American Die Casting Association
  • http://www.diecasting.org

• Non-Ferrous Founders’ Society
  • http://www.nffs.org
Additional Forging Resources

- The Forging Industry Association (FIA) website:
  - http://www.forging.org
- FIA website for Custom Forging Producers:
  - http://forging.org/bguide/index.cfm
- Forging Defense Manufacturing Consortium
  - http://www.fdmc.aticorp.org

Additional Forging Resources
Yoke: Universal Joint

NSN 2520-00-679-9246

- Used on M113 Armored Personnel Carrier
- Supplier had no forging source
- FORGE-IT Team
  - Located forging source
  - Located tooling
- Enabled on-time delivery
- Lead time savings over 100 days
- Tooling cost avoidance of $25,000
Turbine Blowers

- Used on JFK Aircraft Carrier
  - Numerous NSNs involved
- Hardie-Tynes sole source supplier
  - Foundry source went out of business
- CAST-IT Team
  - Salvaged tooling for 78 parts
  - Identified new foundry source
- Supply chain was kept intact
Value Engineering Change Proposals

VECPs
Value Engineering Change Proposals

- Contractual method to share savings
  - Improve DoD supplies and/or equipment
  - Savings shared between Contractor and DoD
  - Described in FAR Clause 52.248.1

- Improvements include any price savings
  - Processes
  - Materials
  - Manufacturing techniques
  - Other
Rules and Tools

• VECP clause in all DSCC contracts>$25K

• Clause can be added by modification

• VECP can only be received on an instant contract

• Typical share ratio: 50/50

• Collateral lifecycle savings may be negotiated
Desiccant Canister

NSN 4440-01-004-8602

• VECP submitted by Drytech Inc. resulted in significant lifecycle savings and increased lifespan for the waveguides on F-15 Aircraft radar

• After a strenuous approval process, Drytech Inc. received $55,036 for the approved VECP
Replenishment Parts Purchase or Borrow Program

RPPOB
Why RPPOB

- Statutory Requirement
  - Defense Procurement Reform Act of 1984
    - Public Law 98-525, Section 1216(a)
    - Codified at Title 10 U.S.C. 2320(B)

- Promote full and open competition

- Develop new sources
  - Sole Source
  - Limited Competition Items
RPPOB Methods

- Direct Purchase
  - Contractor purchases at Standard Unit Price (SUP)
  - Item is not returned
- Bailment
  - Item loaned at SUP
  - SUP held in Trust by DFAS
  - SUP monies returned
    - If item is returned in “A” condition
- View of Part
  - Contractors may inspect part in a designated area
RPPOB – What it is Not

- Not intended to proof their manufacturing

- Not available on solicitations/contracts when:
  - In accordance with a drawing
  - In accordance with a specification

- Not to test a competitors part

**Purpose:** Develop New Sources
RPPOB Process

- Contractor request received
- Item reviewed as an RPPOB candidate
- Contact with ESA for approval to bail out
- Contractor provides monies and signs the agreement
- Item directly sent to Contractor
- Contractor provides alternate offer data package
- Data package sent to ESA for final approval
- System updated with approval
Benefits

• Break Sole Source

• Provide additional sources on limited source items

• Provide source for obsolete items

• Reduce cost through enhanced competition

• Potential for Unlimited Rights TDPs

Increased Competition = Lower Cost to Taxpayers
Sustaining Engineering Program

SE
Sustaining Engineering

- Improve/upgrade DLA-managed items
  - New technology
  - Quality/reliability improvements
  - Ease of maintenance improvements
  - Improve logistics footprint
- Save money!!
- DLA initiates SE Program
  - Aviation items
    - DSCR: Jan 03
  - Land and Maritime items
    - DSCC: Jan 04
Proposals solicited from all services
Proposals evaluated by DSCC team
  - Value Management Team lead
  - Weapon System Support Manager (WSSM)
  - Cognizant Maritime/Land Application Team
    - Engineer/technical
    - Product Assurance
    - Buyer
Selections funded/implemented in order of
  - Date of receipt
  - Weapon system support impact
  - Overall best value to customer
Accepted proposals funded by DSCC
  - Coordinated with ESA
  - Funds available FY06: $5M
Project Selection Criteria

- DLA/DSCC managed item
- Minimum ROI of 10:1
  - Lifecycle savings
- Make positive impact
  - Operational readiness
  - ALT/PLT
  - Item demand
  - Unit price
- Reduce field maintenance actions
- Improve competitive position
  - Availability of tech data
  - Increase sources of supply
Naval Transmitter Buoy

NSN 5820-01-500-7012

- Upgrade Transmitter Buoy to a single buoy to replace the current four-buoy system used by all US Navy submarines
- Benefits include:
  - Four NSNs cancelled
  - Four Allowance Parts Lists (APL’s) replaced with one
  - Shipboard storage space reduced
  - 50% reduction in acquisition cost
  - CONUS source

Investment: $409K
ROI: 24:1
Project Savings: $10M
M-134 Mini-Gun Wear Gage

NSN 1005-00-903-0933

- Rock Island Arsenal (RIA) developing barrel wear gage for M-134 Mini-gun
- Barrels currently replaced every 100,000 rounds fired
- Barrel wear gage will assess remaining barrel life
- RIA estimates a lifespan of over 200,000 rounds a barrel
- Extending barrel life will reduce support and operating cost

Investment: $115K
ROI: 31:1
Project Savings: $4.5M
Summary

- DSCC’s Value Management Office provides support
  - Government
  - Customers
  - Suppliers
- Our focus
  - Provide solutions on problem parts
  - Reduce acquisition and support costs
- For further information
  - Contact attached P.O.C.’s
  - Visit our booths: #711 & #712 on DSCC row

Overall Goal: Support the Warfighter
Points of Contact

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