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)
• Additional VM Programs Managed at DSCC
• Future Vision of DSCC’s VM
• Summary
• Value Engineering Program Points of Contact
Castings and Forgings

Metal FACT

Maritime & Land Forging And Casting Team
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
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 MetaLFACT Team

- Provides casting & forging assistance
- MetaLFACT is comprised of Government and Industry representation
- MetaLFACT 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 MetaLFACT 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
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  - 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
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
Compressor Rotor

- Used on LA Class Subs
- Sole source item sold through various levels of distributors
  - Price escalated
- DLA funded Navy Keyport to reverse engineer and develop a technical data package
  - AMC assisted with review
- New source awarded contract
  - Items passed First Article Testing
  - DSCC saved over $250K
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 competitor’s 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 FY07: $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
Additional Value
Management Programs
Managed at DSCC
Additional VM Programs

Price Challenge Program

- Responsive to customer suspicion of overpricing
- Determination of value using technical data, procurement history, and similar items
- Provide recommendation when overpricing is discovered
- Corrective action taken to improve pricing or recover funds

Should Cost Program

- Engineering Intrinsic Value Cost Estimate
  - Materials and labor
  - Testing
  - Packaging
  - Manufacturing Charges
  - Overhead and Profit
- Results assist Contracting Officers during procurement negotiations
Additional VM Programs

Reverse Engineering

- Performed using Government resources
- Items ordered from Government stock
- Engineer determines material, mechanical, electrical, physical and environmental properties
- Testing requirements are identified/determined
- Technical Data Package developed for use in full and open competitive acquisition

Organic Manufacturing

- Support hard-to-buy procurements by utilizing manufacturing capacity of government labs/arsenals when private industry cannot meet our needs
- Public (organic) and Private sources cannot compete against each other for awards!
  - Exceptions:
    - **Price**: quoted price is formally determined to be unacceptable
    - **Delivery**: quoted delivery time frame does not meet our requirements.
Future Vision of DSCC’s VM

• Transition to Supply Chain Management
  – Focus on Land and Maritime managed NSNs
  – Includes Detachments at DSCR and DSCP

• Expand Sustaining Engineering
  – Develop relationships with ESA’s/Program Offices
  – Collaborate on new projects for problem NSNs

• Increase Reverse Engineering Projects
  – Develop data packages on NSNs bought by code/part number
  – Increase capabilities with partnered labs

• Provide Added Support to L&M Contracting Functions
  – Increased capability for Price Challenge/Should Cost
  – Focus on problem NSNs by weapon system
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: #715 & #716 on DSCC row

Overall Goal: Support the Warfighter
## Points of Contact

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