



**DLA**  
DEFENSE LOGISTICS AGENCY  
*Established 1961*



The Nation's Combat Logistics Support Agency

# Casting and Forging

Dwayne Porter



**WARFIGHTER ALWAYS**

Distribution Statement A, Approved for public release. Distribution Unlimited



# Program Background

- Casting Program
  - ManTech R&D program
  - Support DLA and foundry industry
  
- Forging Program
  - ManTech R&D program
  - Support DLA and forge industry





# Castings & Forgings Process & Method



## Why Castings?

For complex geometry parts. Process done at a foundry, where metal is melted to a molten state and poured into a mold for near net shape. Usually require some post processing for finished part.



## Why Forgings?

For structural parts. Process done at a forge shop, where metal is heated to a temp to soften and then pounded or pressed into near net shape. Usually require some post processing for finished part.

Castings and forgings are only 3% of all NSNs, but are a disproportionate share of backorders. Castings and forgings are 20% of the 100 oldest DLA backorders.



# Program Engagement

To engage resource email: [DSCC.cast.forge@dla.mil](mailto:DSCC.cast.forge@dla.mil)

- Provides assistance to DLA managed NSNs
- MetaLFACT comprised of government/industry representation
- MetaLFACT is a resource available to:
  - DLA personnel
  - Engineering Support Activities
  - Contractors/Suppliers
    - With active DLA L&M contracts
      - With Contracting Officer's approval
      - Bidding on open DSCC solicitations
      - Support SAR (Source Approval Request)





## Assistance Provided

Following is a listing includes but is not limited to the types of areas we are able to engage.

- Existing tooling (when known, tooling dbs)
- Potential Sources – foundry and forge shops that perform required work. (material and process)
- Technical analysis –
  - Tech Data issues or questions
  - Process analysis – specifically c/f processes
  - Material issues
  - Inspection issues – coordinate with contractor and ESA and/or test lab



## Support Tools – DLA Only

- DECAF – DLA Enterprise Cast and Forge Database  
Open for contractor use
- ICON – intent to replace 3 existing databases
  - Cast tooling database
  - Supplier database
  - Toolkit database

<https://icon.nffs.org>
- NFTD – National Forging Tooling Database
- FIA RFQ – Forging Industry Assoc. Request for Quote (posting) <https://www.forging.org/designers-buyers/request-for-quotation>



# Program Implementation

- Standard Text Object (STO) inputted in Purchase Order Text (POT) Section B of Solicitation: See below ex.:

## SECTION B

A forging process was identified as a means to manufacture this item. Tooling is required to produce a forging. For sourcing, tooling, materials or other information, please contact the appropriate assistance team: (Aviation, C&E Supply Chains) DSCR.AFCAT@dla.mil; (Land & Maritime Supply Chains) [DSCC.cast.forge@dla.mil](mailto:DSCC.cast.forge@dla.mil)

A metal casting process was identified as a means to manufacture this item. Tooling is required to produce a casting. For sourcing, tooling, materials or other information, please contact the appropriate assistance team: (Aviation, C&E Supply Chains) DSCR.AFCAT@dla.mil; (Land & Maritime Supply Chains) [DSCC.cast.forge@dla.mil](mailto:DSCC.cast.forge@dla.mil)

Casting/forging may be required to manufacture this NSN. If a casting/forging is required, tooling is typically involved. The government may not have this special tooling. For sourcing, tooling, materials or other information, please contact the appropriate assistance team: (Aviation, C&E Supply Chains) DSCR.AFCAT@dla.mil; (Land & Maritime Supply Chains) DSCC.cast.forge@dla.mil



# Project: FPS-1001

## Maritime Supply Chain - 339 Support

- Background: Lockheed Martin Specification FPS-1001 states that only Class 1 and 2 castings require the manufacturing foundry to be LM Aero-qualified. Clarification was needed to verify that Class 3 and 4 (previously 2A and 2B) did not need to meet this qualification.
- Action: Assisted with the verbiage for an initial 339. Identified 334 additional NSNs that may be affected by this. Will assist with a group 339 for affected NSNs.
- Results: Increase the supply chain







# Project: Navy Forging Sketch Review

Problem: Metal FACT received a request from Naval Sea Logistics Center SUBSAFE Engineering Support to review a forging sketch submitted to NAVSEA for technical completeness.

Solution: FORGE-IT worked with Metal FACT review the drawing sketches provided by NAVSEA. Multiple conference calls were held to discuss technical recommendations.

Result: FORGE-IT provided technical recommendations for NAVSEA to communicate to the forge shop.

“We greatly appreciate the assistance with this forging sketch review.” - NAVSEA SUBSAFE Engineering Support Division Head





# Takeaway

- Mailbox – [DSCC.cast.forge@dla.mil](mailto:DSCC.cast.forge@dla.mil)
- The MetaL FACT (Maritime & Land Forging and Casting Team) is available to provide assistance.
  - Who: To both Government and Contractor entities.
  - What: Parts manufactured via cast or forge process.
  - How: Email above address to engage our resources.



