DoD Maintenance & Sustainment Costs

DoD Totals:

- **35,000 Combat Vehicles**
- **237 Ships**
- **14,000 Aircraft**
- **356,000 Tactical Vehicles**
  + Communications Equipment
  + Support Equipment
  + Facilities Systems

Maintenance Costs in FY15:

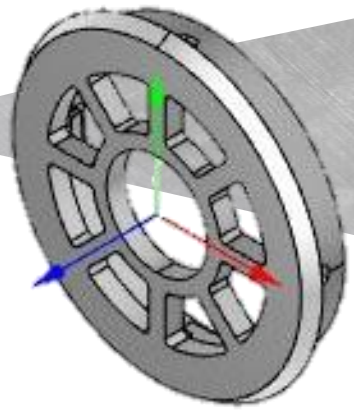
- **$74.8 Billion**

Sustainment Costs in FY15:

- **Over $200 Billion**
- **Nearly 30% of DoD Budget**

Food Waste Disposal Throat Guard

Missing Guard Poses Safety Concern



Build Time: 3 Hours

Material Extrusion

ABS Plastic

All Test Results Satisfactory For Application

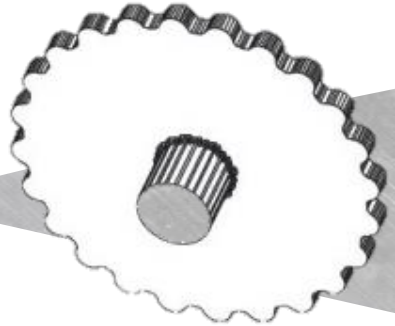
Points of Contact

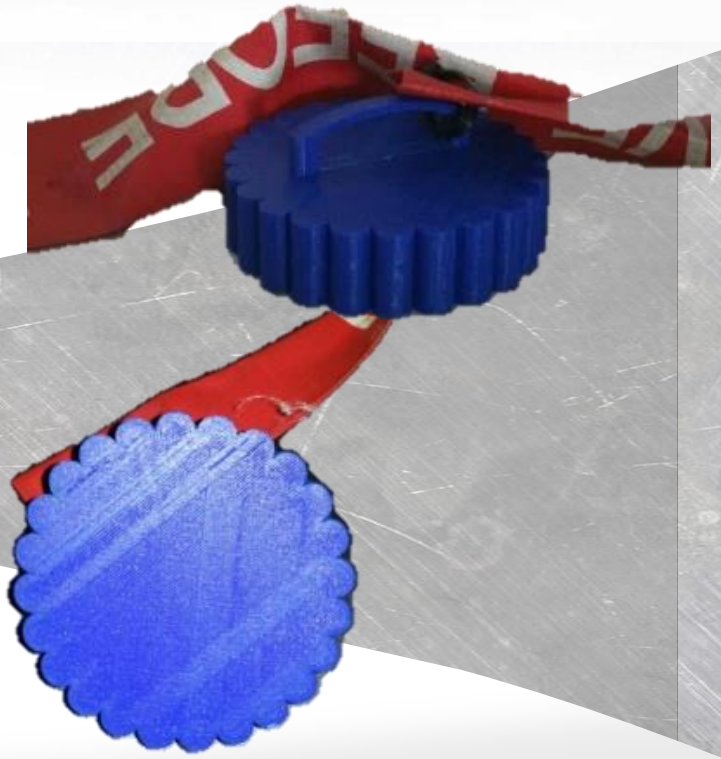
- NAVAIR Program Manager: NAVAIR AM-IPT
- Performer: FABLAB (MARMC), Innovation Cell (NAVAIR)

NSN: None

FOD Reduction Cap

Possible Transducer Loss without Cap





Build Time: 3 Hours

Material Extrusion

ABS Plastic

Minimum Cost Savings: $90,000/yr.

Points of Contact

- NAVAIR Program Manager: NAVAIR AM-IPT
- Performer: FRC Mid-Atlantic

NSN: None, New Part

Clamshell Tool Box Insert

Failure: Tool Box Rendered Unusable

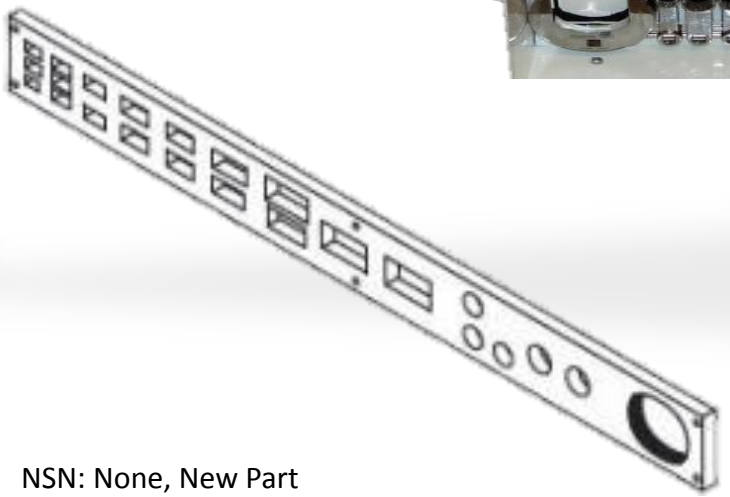
Approximately 297,000 Inserts Fleetwide

Build Time: 3-4 Hours

Material Extrusion

ABS Plastic

Cost Savings of $75/insert



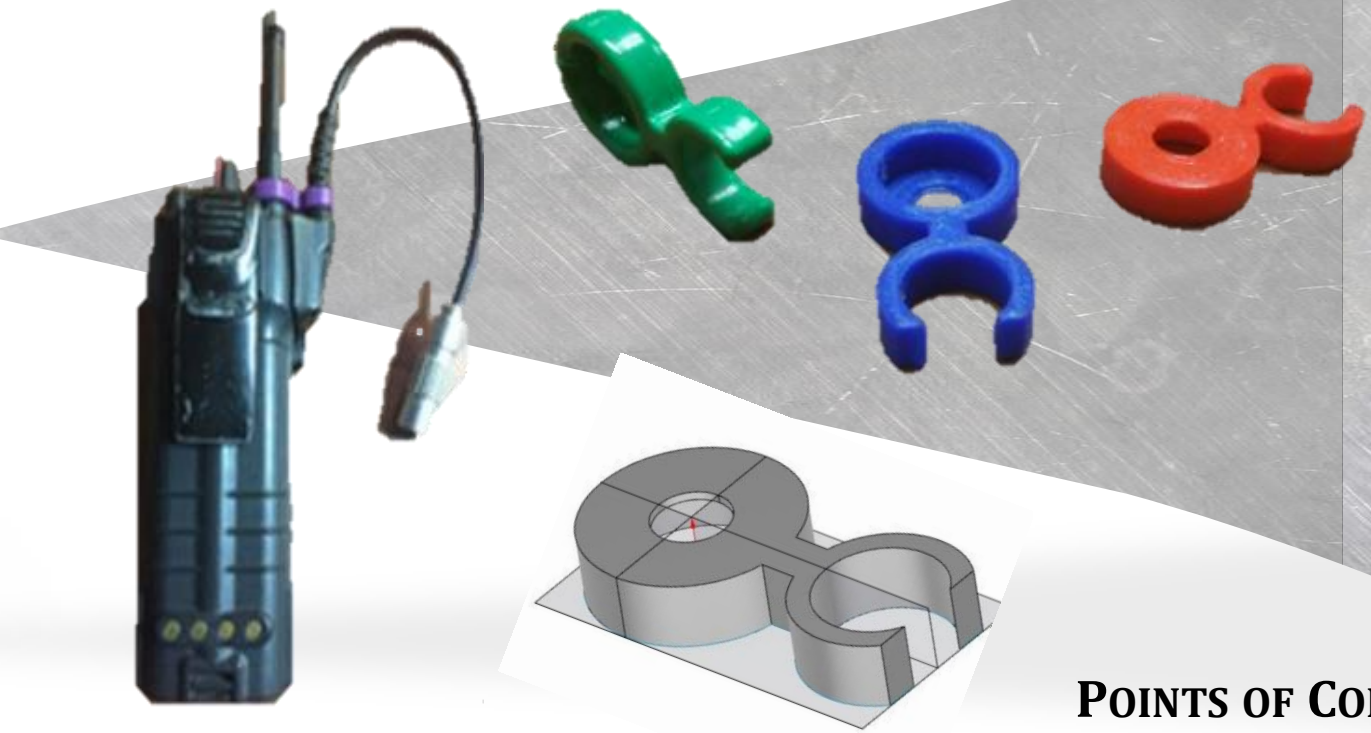
NSN: None, New Part

POINTS OF CONTACT

- NAVAIR Program Manager: NAVAIR AM-IPT
- Performer: Innovation Cell

HYDRA Radio Adapter Clip

Failure: Frequent Radio Antenna Breakage @ $617/ea



Build Time: 20 Min.

Material Extrusion

PLA Plastic

Cost Savings of $7,200/mo.

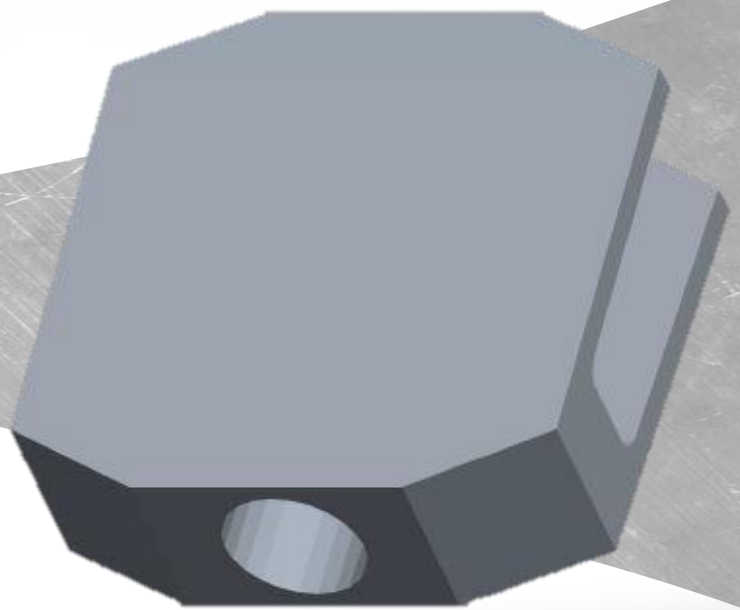
NSN: None, New Part

POINTS OF CONTACT

- NAVAIR Program Manager: NAVAIR AM-IPT
- Performer: MARMC/Innovation Cell

F/A-18 Gun Hoist Retainer

Failure: Aircraft Is Grounded, Damage To Gun, And Injury To Personnel.



Build Time: 80 Min.

Material Extrusion

Nylon 618

Demonstrates feasibility of print-on-demand for multiple applications

Points of Contact

- NAVAIR Program Manager: FRC Mid-Atlantic
- Performer: MARMC/Innovation Cell

Part No: 74D750088-1001

OTO Visor Support

Failure: Helmet rendered unusable. Part could break in service. High failure rate is affecting readiness.

Build Time: 1 Hour

Material Extrusion

ABS/PLA or ULTEM

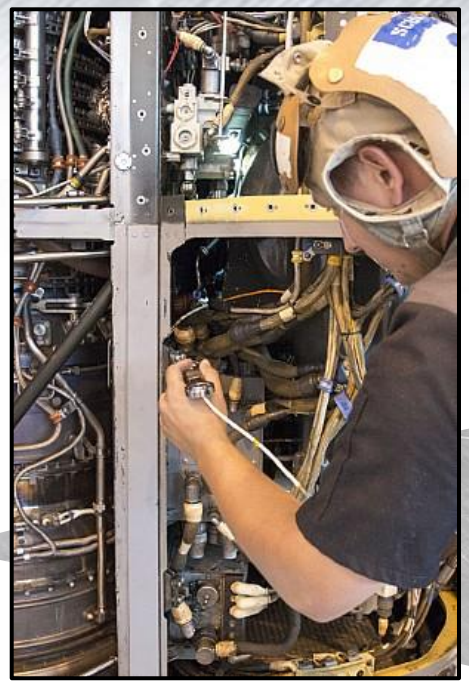
Print-on-demand faster than conventional fabrication methods

NSN: F1469666, New Part

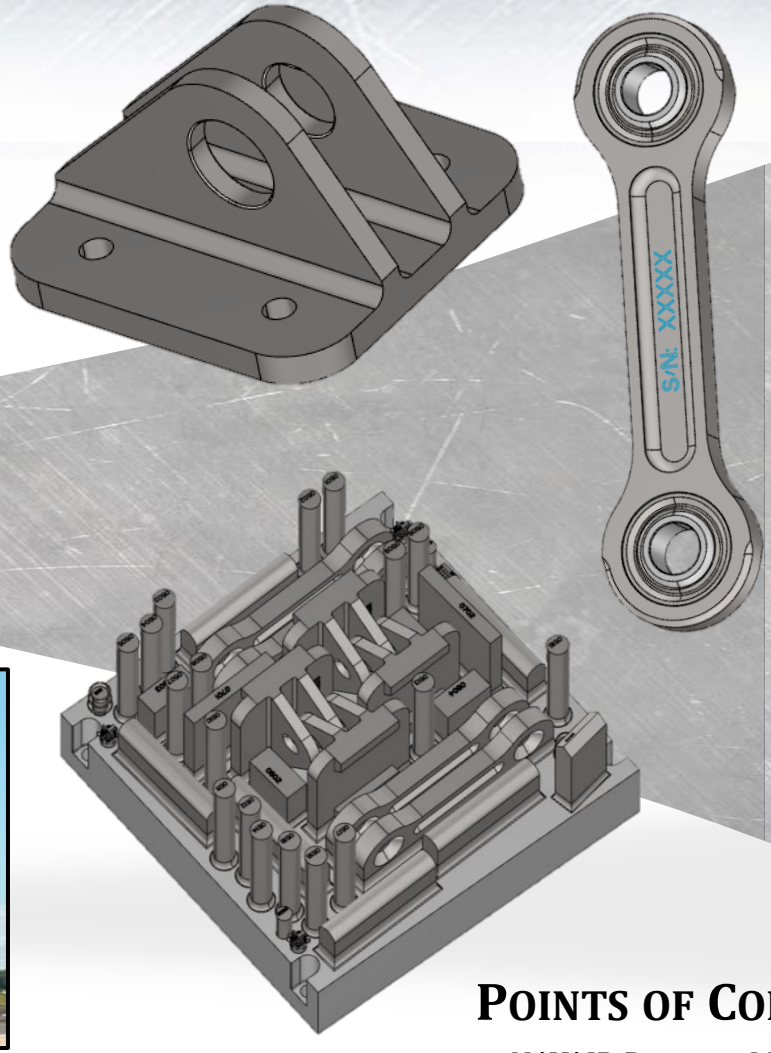
Points of Contact

- NAVAIR Program Manager: NAVAIR AM-IPT
- Performer: Innovation Cell

V-22 Nacelle Link and Fitting



4124AS1014-1 (Assembly Part Number)



Build Time: 2 Days

Metal Powder Bed Fusion

Titanium (TiAL6V4)

1st Metal AM Safety Critical Part Flown in U.S. Navy Aircraft

4 Assemblies Secure MV-22 Engine Nacelle To Primary Wing Structure.

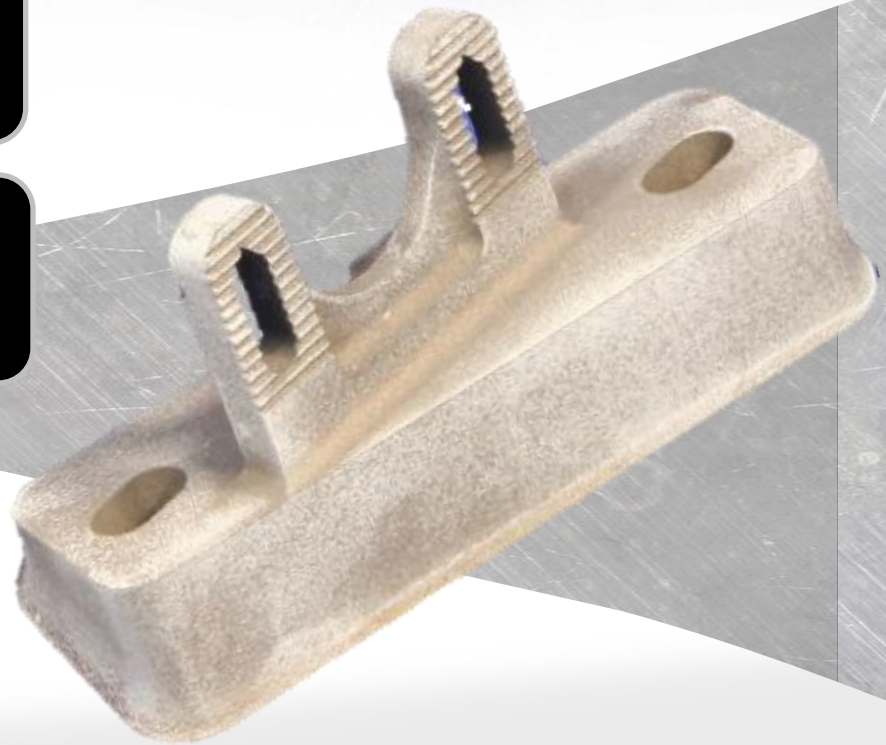
Points of Contact

- NAVAIR Program Manager: NAVAIR AM-IPT
- Performer: NAVAIR/NAWCAD/PMA-275

H-1 Suppressor Support

Vendor Sourcing Issue

DLA Identified Degrader



Build Time: 17 Hours

Metal Powder Bed Fusion

Stainless Steel 15-5PH

Considered Critical Item

NSN: None, New Part

Points of Contact

- NAVAIR Program Manager: NAVAIR AM-IPT
- Performer: NAVAIR/NAWCAD/PMA-276

H-1 APEX Fitting

21 Month Average Lead Time

Build Time: 20 Hours

Metal Powder Bed Fusion

Stainless Steel 15-5PH

Considered Critical Item

Points of Contact

- NAVAIR Program Manager: NAVAIR AM-IPT
- Performer: NAVAIR/NAWCAD/PMA-276

NSN: None Provided

H-53K Clevis, Latch Catch

Very Hard to Make Due to Tight Tolerances

Build Time: 20 Hours

Metal Powder Bed Fusion

Titanium (TiAL6V4)

Considered Critical Item

Points of Contact

- NAVAIR Program Manager: NAVAIR AM-IPT
- Performer: NAVAIR/NAWCAD/PMA-261