



Air Force Lifecycle Management Center (AFLCMC)



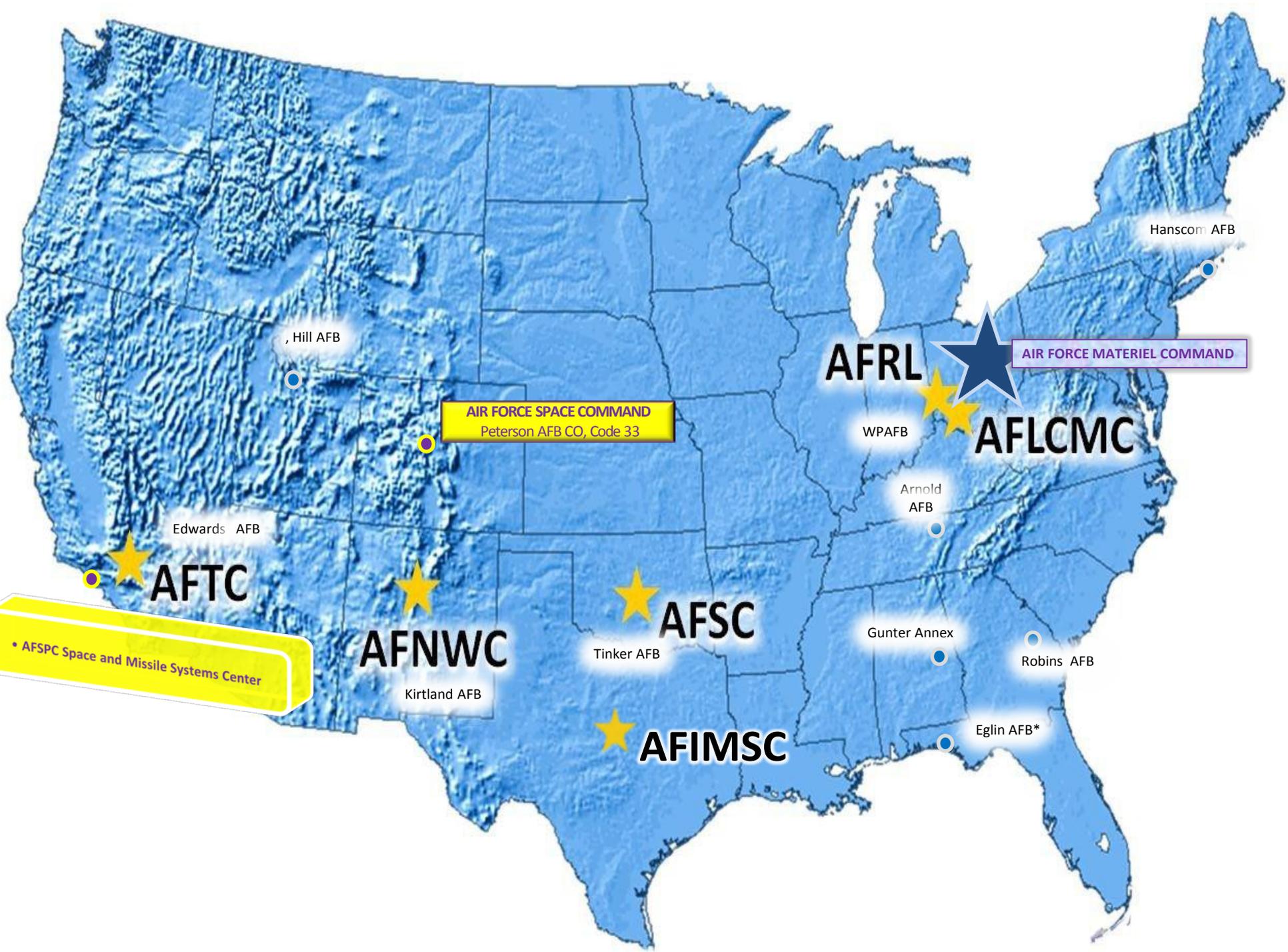
Air Force Materiel Command Parts Management



U.S. AIR FORCE

PSMC 1 NOV 2016

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SIX CENTERS

- Air Force Installation and Mission Support Center
- Air Force Life Cycle Management Center
 - System Acquisition (WPAFB, Eglin, Hanscom)
 - System Sustainment (Tinker, Hill, Robins)
- Air Force Nuclear Weapons Center
 - Nuclear Weapon Acquisition (Kirkland)
 - Nuclear Weapon Sustainment (Tinker & Hill)
- Air Force Research Laboratory
- Air Force Sustainment Center
 - Supply Chain and Repair (Tinker, Hill, & Robins)
- Air Force Test Center



AF Engineering Enterprise Focus

AFMC Re-Org



- **AF Engineering Enterprise Strategic Planning**
 - Improve Technical Management and Standardization; one of top four priorities
- **AFMC Re-Org**
 - AFLCMC, single center focused on Lifecycle Management
 - Facilitate cradle-to-grave Lifecycle Management & enterprise view
 - AFLCMC Challenges
 - On-going integration of acquisition & sustainment Business Processes
 - Ensuring all key processes still have champion



AFLCMC/EN Focus Areas:

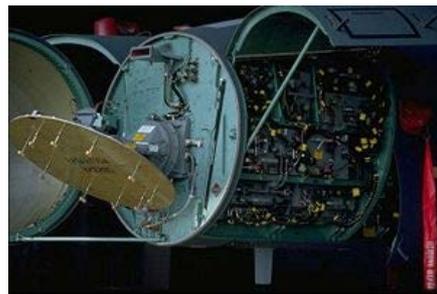
- Engineering competency
- Utilization of state of art engineering tools
- Airworthiness
- Proper Engineering Delegation



EZSS Electronic Components



- **Air Force Engineering Support Activity (ESA) and Standardization Management Activity (SMA) for Electronic Components, Wire/Cable**
 - Engineering, Technical, Logistics & Standardization Support
 - Positives of move to AFLCMC/EN
 - Much better access to system acquisition engineering functional experts
 - Enhances program office awareness of parts management



Electronic Components Responsibility

285,000 Items (DLA Managed NSN's)
5700 Specs/Std's
28 Federal Stock Classes (FSC)

5905 – Resistors	5910- Capacitors
5915 – Filters	5920 – Fuses
5925 – Circuit Breakers	5930 – Switches
5935 – Connectors	5940 – Lugs/Terminals
5945 – Relays	5950 – Transformers
5960 – Electron Tubes	5961 – Semiconductors
5962 – Microcircuits	5963 – Modules
5965 – Headsets, Microphones	5970 – Electrical Insulators
5975 – Electrical Hardware	5977 – Electrical Contact Brushes
5980 – Optoelectronic Devices	5985 – Antennas & Waveguides
5990 – Synchros & Resolvers	5995 – Cable Assemblies
5996 – Amplifiers	5998 – Circuit Card Assemblies
5999 – Contacts & Misc. Elec	60GP – Fiber Optics
6145 – Wire & Cable	6150 – Misc. Electrical Power



Military/Industry Spec/Std Parts



- **Still the best DoD enterprise solution for parts across weapon system life cycle**
 - Quality, Reliability, Aerospace performance
 - Eliminate duplication of multiple OEM parts
 - Increase availability as result of cumulative demand
 - Lower cost (single vs multi qualification effort, single vs multi item procurement)
- **Sustainment Phase Challenges**
 - Extremely small procurements ... not feasible to maintain or develop sources; maintain requirements
 - Established Reliability Resistors Failure Rate Levels
 - Replacing Qual with FAT ... still no supplier or previous high rel non-qual source can not economically support



Non-Gov't Standards Groups



- **Component Non-Gov't Standards Groups and OEM Users Group Including DoD**
 - WG members very dedicated to DoD Aerospace mission
 - Increasing challenge convincing business leadership to support the Aero Defense business and NGS Groups
 - DoD resource challenge to actively participate
 - Gov't/Industry both face loss of expertise
- **Standardizing new technology**
 - Significant increase in number of new materials and technology
 - Hitting market more quickly
 - Developing aerospace requirements and inspections



New Technology



- **Microcircuits**
 - Plastic Encapsulated Microcircuits
 - Copper Bond Wire
- **Semiconductors**
 - New die material
- **Connectors**
 - JSF (F135 Engine) utilizing small shell size (6 & 7)
 - Keeping up with data capabilities



Non-Gov't Standards and DoD Working Groups



EZSS NGS Involvement

- JEDEC (JC-13)/G-12 Solid State Devices
- G-11 Component Parts
- SAE AE-8 Electrical Wiring Interconnect System (EWIS) Components
- NEPAG

EZSS NGS Involvement

- Joint Service Wiring Action Group
 - Forum for DoD wiring experts to collaborate on wiring issues across weapon systems through lifecycle
 - Activities cross-over with EWIS NGS



Item Reduction Program



Item Reduction

Reduces number of sizes and kinds of items in the Federal Supply System that are generally similar in form, fit and function

Benefits:

- Increased material availability to Warfighter
- Cost savings associated with the elimination of the non-standard items.
- Elimination of stock item confusion due to duplication or non-standard items

Problem: Limited Focus since DoD Revitalization Effort ~ 10 yrs ago

- EZSS is AF Item Reduction Program Manager
 - Team support from Standardization Liaisons at Tinker, Hill, & Robins AFB Sustainment Complexes:



EZSS DMSMS Involvement



Mostly Reactive

- Resolve DLA 339s obsolescence issues
 - Focus to ID alternate parts, sources; MIL/Ind Parts
 - At times NSNs already in no stock/backorder situations
- Overcome Stock Reduction Initiatives at DLA & AF eliminating best solution, use of existing DoD Stock
 - Collaboration with DLA DMSMS to change policies on excess & disposal

Getting Proactive?

- Become part of DoD and AF DMSMS WGs
 - Research for alternate part/source solutions prior to Life-Of-Type Buys
- Is there an enterprise view in AF? DoD?



Counterfeit/Non-Compliance Involvement



G-11/12 Counterfeit Parts Sub-Committee:

- **DLA DNA marking initiative in 2012**
 - Negatively impacted cost (2x) & risk; collaboration
 - Collaboration with AFMC/A4, AFSC/ENS, 448 SCMW, AFLCMC, & AFRL supported 2014 process change
- **2016 QML Connector Sourcing Issues**
 - 1st time collaboration with AFLCMC systems acquisition experts ... key initial steps to facilitate enterprise view
- **NEPAG Discussions on GIDEP Alerts**

**Involved in AFMC, AFLCMC, AFSC
Coordination on SAE docs and GAO queries**



Lead-Free Solder Issues Reliability (Tin Whiskers/new mat'l unknowns and higher solder temp)

- Effect of mixed use
- ID in procurement process
- ID and control risk
- EZSS part of SAE G-24 & PERM



Cadmium Plating Issues

- Electrical Connectors
- Maintain for legacy use
- Gov't/Ind review of potential replacement finishes
- Identify service, source and functional issues
- Possible synergy with other commodities (ie - fasteners)



Summary of AFMC Parts Mgmt



- **Utilize AF EE Strategic Planning and NGS links to consider SMC Parts Management Practices**
 - Other models ... Army Missile Command and NAVAIR
- **Establish Center and Command enterprise view on Parts Management**
 - Build on leadership support in Systems Engineering Division and Branch Chief connection to HQ AFMC EN
 - Analyze Center/Command awareness and educate if lacking
 - Analyze Center/Command practices on DMSMS; facilitate discussion if gaps
- **Keep up the fight in EZSS**

Questions?

