NASA Aviation Safety
Procurement Quality Assurance

Senior Management ViTS Meeting
November 2, 2015

Steve Foster
Chief, Quality Assurance Branch
Armstrong Flight Research Center

This and previous presentations are archived at
https://sma.nasa.gov/safety-messages
What’s changing? Who will be affected?

- NASA Simplified Acquisitions will transition to the NASA Shared Services Center (NSSC) by December 2016.

- For the scope of this briefing, all centers are affected who operate crewed aircraft (Armstrong Flight Research Center, Ames Research Center, Glenn Research Center, Johnson Space Center, Kennedy Space Center, Langley Research Center and Wallops Flight Facility) or Unmanned Aerial System (UAS) aircraft and need to procure aircraft parts via the Simplified Acquisitions process.
NASA’s role in procurement of EEE and Aircraft parts

- Quality and traceability are the two critical functions in the procurement of Electrical, Electronic and Electromechanical (EEE) parts, aircraft parts, and services to mitigate the risk of
  - Counterfeit parts
  - Substandard parts
  - Workmanship issues

- Aviation domain knowledge and experience are crucial to making a safe transition for flying centers. With UAS proliferation, every center could become a flying center.
Aviation Safety Considerations

- **Safe transition**: Implement a proven process for qualifying suppliers of EEE and aircraft parts currently in use by centers procuring aircraft parts to assist the NSSC in this transition
  
  - Seven NASA centers with aviation operations have rigorous processes to ensure Aviation Safety
  - Collectively help develop assessment and analysis of all aircraft vendors, including review of their quality manual and quality management system
  - Verify ISO certifications (i.e., ISO 9001, AS9100, AS9110, AS9120, AS6081, AS5553, or Federal Aviation Administration Repair Station Certificate)
  - Determine level of risk of supplier counterfeit avoidance program
  - Review process for handling Electrostatic-Sensitive Devices
  - Review performance history using the Government-Industry Data Exchange Program and Electronic Resellers Association, Inc.
  - Help develop agency on-site assessment requirements
Transition Opportunities

• Together, center aircraft operations organizations can help make this a smooth transition for the NSSC and for the agency:
  – Centers today have significant experience in Procurement Quality Assurance (PQA). Adopting an agency approach to a centralized database which houses a Qualified Suppliers List and EEE vendors and includes all supporting documents, certificates and a complete assessment of all qualified and non-qualified vendors will reduce the risk of procuring substandard parts.
  – The NSSC can benefit by utilizing multiple centers’ expertise in aircraft operations and parts procurement to adopt an agency approach for procuring aircraft parts.
  – Recommendation: a small team of center PQA subject matter experts could work with NSSC representatives as a working group to help plan and implement the safe transition described here.
Conclusion

Thank you for your time and attention to NASA aircraft operations — safely performing missions in the National Airspace System and around the globe.

Questions?