

## **Consider the Challenges Related to the Aviation USM (Used Serviceable Material) Market**

Sofema Aviation Services (SAS) [www.sassofia.com](http://www.sassofia.com) considers the key issues related to buying, selling, and leasing of used aircraft parts and components for maintenance, repair, and overhaul (MRO) purposes.

### **Introduction**

The Air Transport USM (Used Serviceable Material) are often obtained from retired or disassembled aircraft and provides a cost-effective alternative to new parts.

By implementing robust documentation practices, leveraging technology, conducting regular audits, and fostering strong partnerships with suppliers and MRO providers, companies can create a transparent and reliable traceability system.

The USM market presents significant challenges

### **Quality and Traceability:**

- **Ensuring Quality:** One of the primary challenges is maintaining the quality of used parts. The parts must meet all required safety standards and performance criteria.
- **Traceability Issues:** Lack of traceability can lead to safety concerns and regulatory non-compliance.
  - o It is essential to maintain a clear audit trail to establish the provenance and airworthiness of the parts.
- **Certification Processes:** Ensuring that used parts are properly certified whilst of critical importance can be time-consuming and expensive.
- **Trust Issues:** There can be skepticism about the reliability of used parts compared to new parts.
  - o Building trust becomes a key challenge for all organisations working within the supply chain – not to forget that Trust is hard won and Easily Lost!
- **Inventory Management:** Managing inventory in the USM market is complex and needs to address the unpredictability of parts availability and demand.
- **Sourcing Issues:** Acquiring high-quality used parts can be challenging, especially for newer aircraft models, where fewer parts may be available on the secondary market.

### **Best Practices in the USM Market - Rigorous Quality Control:**

- Implement stringent quality control measures to ensure that USM parts comply with certification processes to guarantee airworthiness.

- Maintaining a transparent documentation process can mitigate risks associated with traceability issues.
  - Education and communication are key to ensuring effective engagement with industry
- Developing a strategic approach to sourcing USM parts can help ensure a steady supply of high-quality components.
- Effective inventory management, including forecasting and just-in-time inventory practices, can reduce costs and minimize the risks associated with excess inventory or stockouts.

## Understanding FAA 8130-3 and EASA Form 1

- **FAA 8130-3:** This form is compliant with the Federal Aviation Administration (FAA) in the United States and serves as an airworthiness approval document for aircraft parts. It certifies that the parts comply with all applicable regulations and are safe for use.
- **EASA Form 1:** Similar to the FAA 8130-3, EASA Form 1 is compliant with the European Union Aviation Safety Agency (EASA) and certifies that a part is airworthy and complies with European aviation regulations.

Both forms are used to demonstrate the history of a part and ensure it meets the stringent safety standards required for aviation operations. – Note these are only forms they can be easily generated so it is important to know and trust the supplier.

## Ensuring Traceability - Supplier Verification and Auditing

- **Comprehensive Supplier Vetting:** Conduct due diligence on suppliers before entering into any business agreement. This includes verifying their certifications, reputation, and track record in the industry.
- **Regular Supplier Audits:** Implement a robust auditing process where suppliers are regularly inspected to ensure compliance with industry standards and regulations. Audits should focus on the supplier's quality management systems, traceability practices, and adherence to certification requirements.
- **Approved Supplier Lists:** Work only with suppliers who are on an approved list, which is regularly updated based on performance reviews, audit results, and any regulatory issues. This list should be maintained and monitored by a dedicated team within the organization.
  - **Accurate Record Keeping:** Maintain comprehensive and accurate records for each part, including its origin, maintenance history, and any modifications. These records should be readily accessible and clearly document the issuance of FAA 8130-3 or EASA Form 1.

Note that the value of the part Material or Component is pivotal on the credibility and acceptance of the documentation.

- **Compliance Programs:** Establish compliance programs that routinely verify the traceability of parts. This includes ensuring that all certifications are valid and have not been altered or tampered with.
- **Regular Audits -** Suppliers should have a quality system compliant with ISO 9001-2015 or equivalent
  - o Conduct regular audits of records and processes to ensure that necessary documentation is correctly associated with the parts.

### **The Challenge of Suspect Parts**

- Suspect parts are components whose authenticity, quality, or airworthiness is questionable. These parts may be counterfeit, improperly documented, or not up to the required standards, posing serious risks to aircraft safety and regulatory compliance.
- Safeguarding against suspect parts requires a multi-faceted approach involving stringent controls, advanced technologies, and strong industry collaboration.
- Enhanced Documentation Standards Ensure that all parts come with complete and accurate documentation, including FAA 8130-3 or EASA Form 1, maintenance records, and previous usage history. This documentation should be reviewed by qualified personnel to confirm its legitimacy.

### **Cross-Referencing and Verification**

- Before a part is accepted, its documentation should be cross-referenced with industry databases, such as the FAA's & EASA Suspected Unapproved Parts (SUP) database, to ensure it has not been flagged as suspect.

**Next Steps** - Sofema Aviation Services ([www.sassofia.com](http://www.sassofia.com)) and Sofema Online ([www.sofemaonline.com](http://www.sofemaonline.com)) provide multiple supply chain training courses including Suspect Parts – Please see the websites or email [team@sassofia.com](mailto:team@sassofia.com)