



Protecting the Aircraft Parts Supply Chain

It has now been over a year since AOG Technics hit the news. AOG Technics was a U.K.-based aircraft parts distribution company that was accused of serious fraud concerning aircraft parts documentation that they provided. They were accused of selling used parts under paperwork that falsely suggested they were new. A diligent airline receiving inspector recognized that the physical condition of these “new” parts made them look used. This set off an investigation that revealed an apparent pattern of fraud.

Some of you might be wondering what industry and government bodies have done to make sure this fraud cannot be repeated. If this is your concern, then you should rest easy in the knowledge that detection and prevention mechanisms are being improved to help make a good system, even better.

The industry tends to rely on the Voluntary Industry Distributor Accreditation Program (VIDAP) as a mechanism for mitigating the risk of aircraft parts quality issues, including the sort of fraud alleged in the AOG Technics case. This program began as an advisory circular published by the Federal Aviation Administration (FAA): AC 00-56. Because of this, the VIDAP is often known as the 00-56 program. In addition to being an effective program for mitigating the risks of fraud, it is also a useful vehicle for rapidly introducing quality assurance improvements into the aircraft parts distribution industry.

In the 1990s, the U.S. Department of Transportation Inspector General raised concerns about the integrity of the aircraft parts supply chain. In response to these, the FAA and industry collaborated to produce the VIDAP and its advisory circular. The VIDAP was originally crafted to allow the distribution industry to develop programs designed to prevent serious safety hazards. At the time, the collaboration that produced the voluntary program identified many of the leading elements of a robust quality system.

There are two important features of the VIDAP. The first is the quality assurance system.

A VIDAP quality assurance system is a collection of processes and procedures that meet the list of 18 quality system elements found in the advisory circular, ranging from training to effective receiving inspection, warehousing, and shipping processes. In addition to those requirements, the distributor’s quality system must also meet the requirements of a formally recognized quality system (presently, the FAA recognizes ASA-100, ISO

9001, and the AS9100 series of standards).

A distributor that wants to participate must establish a quality system that meets each of the elements. Many of these elements are specifically aimed at ensuring the integrity of the aircraft parts supply chain. Compliance must be confirmed through an audit by a third-party organization authorized to audit to the applicable recognized standard.

The second important feature of the VIDAP is a documentation matrix that sets minimum standards for traceability. Traceability was an immature commercial feature in the United States of the 1990s — the VIDAP was an attempt to standardize traceability concepts. The VIDAP recognizes minimum standards for traceability that the distributor should expect to receive, with different types of documentation expectations based on the nature of the aircraft part. For example, the matrix recognizes that new parts produced under FAA production approval may be documented with an 8130-3 tag; but it also recognizes that they can be identified using other documentation or even with parts markings where the parts markings are regulated by the FAA.

Compliance to the system is audited by a third-party auditor who is required to perform a live audit of the premises to ensure that the manuals (and the implementation of the manuals) meet the requirements.

Companies who pass a compliance audit with an appropriate system are eligible to be listed in the FAA’s accreditation database.

The VIDAP program has grown well-beyond its humble roots in the United States to become a global program that is trusted by airlines and MROs around the world. Many parts-buyers will use the AC 00-56 list (which is available online) as the start for their inquiry into a potential partner. Today, the VIDAP is formally recognized in the aviation regulatory systems of the European Union and China. The Chinese system recognizes ASA-100 (one of the FAA-recognized standards).

As it happens, when the AOG Technics issue arose, the Federal Aviation Administration (FAA) had already begun an audit of the VIDAP. This is a regular periodic process that the FAA undertakes. As part of this audit, they inspected each of the quality standard organizations who hold standards recognized under the program. This allowed the FAA to support the international fraud investigations while also acting

proactively and expeditiously to make the distribution system better. This was a separate process from the FAA unapproved parts notice that was issued in response to AOG Technics (EASA, UK CAA and many other aviation authorities issued comparable notices of their own).

The Serious Frauds Office in the United Kingdom investigated AOG Technics. In December 2023 they searched the AOG Technics headquarters (which was also the home of the founder) and they also arrested founder Jose Alejandro Zamora Yrala. By this time, FAA, EASA, UK CAA and numerous other aviation authorities had already issued parts notices calling out the AOG Technics' parts.

This was not the end of government action, though. As part of the FAA's ongoing VIDAP audit process, they audited Transonic Aviation, who held the TAC 2000 standard. This audit revealed that Transonic Aviation was not in compliance with their obligations under AC 00-56 (it is believed that they were not conducting in-person third-party audits in all cases). Following the FAA's audit of Transonic Aviation, the accreditation organization withdrew TAC 2000 from participation in the VIDAP. The FAA announced that it would cease to permit new TAC 2000 facilities into the FAA's accreditation database, and that all TAC 2000 facilities would be purged from the accreditation database by January 24, 2025.

While notices and arrests helped to remedy the immediate AOG Technics situation, the industry wanted to make use of this situation to help the industry improve its own fraud detection processes. As part of this effort, organizations like the Aviation Suppliers Association (ASA) began to investigate what went wrong, and how the possibility of

future flaws could be addressed proactively through processes intended to prevent both intentional fraud and inadvertent misrepresentations, too. This led to increased training products being offered to the aviation industry (many of which are free to ASA members). ASA identified changes it could make in its own standard (ASA-100) to improve distribution oversight. It also formed a subcommittee to examine the FAA's advisory circular (AC 00-56B); that subcommittee will be recommending improvements to the advisory circular. Many of the changes have to do with oversight of quality functions that may be performed outside of the main facility — like delegated inspections that are performed when parts are drop-shipped from another location — in order to impose greater rigor in quality assurance. This is intended to improve the ability of distributors to be able to catch aircraft parts problems before they lead to bad parts being installed on good aircraft.

ASA is not the only industry group looking for answers. ASA has advised an ad hoc industry group known as the Aviation Supply Chain Integrity Coalition (ASCIC) on a variety of industry changes that could be implemented to improve safety. ASCIC is made up of large manufacturers and air carriers and they are continuing their own efforts to improve the industry.

Nearly 30 years after its inception, the VIDAP remains an effective program for mitigating hazards associated with aircraft parts distribution. It is a living program that is being constantly improved to reflect the needs of the industry. Recent events have illustrated elements where the VIDAP could be improved and both industry and the FAA have taken advantage of these opportunities to make changes that help to improve the VIDAP's ability to be a positive contributor to aviation safety. **AM**



2024 MARPA CONFERENCE

NOVEMBER 12-14, 2024
HOLLYWOOD, CALIFORNIA SHERATON UNIVERSAL HOTEL



Featuring Keynote Speaker

DAVID THOMPSON

VICE PRESIDENT – ENGINEERING, QUALITY & SUPPORT
DELTA AIR LINES

Network with regulators, manufacturers, air carriers, MROs, and more. Sign up for MARPA-facilitated member-to-member meetings and show your management your scheduled good use of time before you've even left the office. Stay current with the latest industry changes and trends, taught by FAA regulators, industry specialists, engineers, and business leaders offering their knowledge to help your business thrive.

WWW.PMAPARTS.ORG/ANNUALCONFERENCE

HEICO

R&D Dynamics Corporation

ET PARTS ENGINEERING, LLC

ATS AVIATION TECHNICAL SERVICES

DELTA TechOps

WENCOR

adp

CHROMALLOY

First Aviation Services Inc.

MITCHELL Aircraft

MINGO AEROSPACE

VOGT AERO

AER BRAKE

INTERNATIONAL TRADE ADMINISTRATION