

# TRANSPORT AIRCRAFT TECHNICAL SERVICES COMPANY, INC.

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*Serving as an FAA Designated Airworthiness Representative Since 1983*

\*\*\*\*\* NEWSLETTER \*\*\*\*\*

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ATOS — AIR TRANSPORTATION OVERSIGHT SYSTEM . . . . We were asked to write this article by a Part 121 operator who is about to “join” those carriers that have been subject to the ATOS (rather than the Surveillance and Evaluation Program —SEP inspections). You may recall we covered the two types of “audit systems” in our August 2005 NEWSLETTER — more on that later.

Air carrier Internal Evaluation Programs were the subject of Advisory Circular 120-59, dated 10/20/92. “This Advisory Circular (AC) provides information and guidance material that may be used by air carrier certificate holders, operating under Federal Aviation Regulations (FAR) Parts 121 and 135, to design or develop an Internal Evaluation Program”. The AC was not published to provide a means to satisfy a Regulation, but as a document to develop procedures<sup>1</sup> and practices. “The Internal Evaluation Program is a voluntary program. Participation is left solely to the discretion of each certificate holder”. Only two regulations — Section 601 (b) and Section 605 (b)(2) of the “Act of 1958” are cited. We don’t note any problems with “§ 601” but when you review the later revision of the AC “§ 605 (b)(2) is significant . . . . (b) *The Administrator shall employ inspectors who shall be charged with . . . . and (2) of advising and cooperating with each air carrier in the inspection and maintenance thereof by the air carrier. Whenever any inspector shall, in the performance of his duty, find that any aircraft, aircraft engine, propeller, or appliance, used or intended to be used by any air carrier in air transportation, is not in condition for safe operation, he shall so notify the carrier, in such form and manner as the Administrator may prescribe; and, for a period of five days thereafter, such aircraft, aircraft engine, propeller, or appliance shall not be used in air transportation, or in such manner as to endanger air transportation unless found by the Administrator or his inspector to be in condition for safe operation.*

All appeared to go well — the air carriers did their “thing” . . . the FAA began to reengineer, with the support of Sandia National Laboratories<sup>2</sup>, the surveillance planning function. The AFS Program Management Committee established the Improved Surveillance Planning

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<sup>1</sup> The procedures are all of those used by an air carrier — including security and flight operations.

<sup>2</sup> Sandia, which has its roots in the Atomic Bomb project of WWII, is a government-owned/contractor operated (GOCO) facility. Sandia Corporation, a Lockheed Martin company, manages Sandia for the U.S. Department of Energy's National Nuclear Security Administration. We have noted their participation in past FAA Research & Development programs — *i.e. aircraft corrosion*.

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Process (ISP) Team in June 1997 and the Continuous ATOS Development (CAD) Team in 1999 to complete, review and revise the ATOS processes . . . . and the *Jihadists* began their training and planning for “9/11” (to get it going before the good guys plugged all the holes).

Then came “9/11” . . . . more than 1,000 airliners were removed from service causing a substantial work load for Maintenance and Quality Control Staffs. Early retirements left some positions unfilled and pilot reassignments placed a burden on the training departments. Logically this was a time to increase FAA OVERSIGHT but was it prudent to push new system developments and require new tasks for an industry on the brink of failure? Why not?

The first “public step” was Jim Ballough’s, the FAA’s Director, Flight Standards Service, presentation of the ATOS Concept (a copy of his presentation is on our web site — tatsco.com) at the 19<sup>th</sup> Annual FAA/JAA International Conference held at Scottsdale June 3 – 7, 2002. . . . . “*While the Air Transportation Oversight System (ATOS) is now a required program for the top ten U.S. air carriers (and will expand to additional 121 operators following initial implementation)*” . . . . A very interesting statement . . . . I can’t find any “requirement” for it in 14 CFR Part 121 in 2002 and the term ATOS wasn’t introduced in an FAA “public document” until AC 120-59A was published on 4/17/06. ATOS tasks were required of FAA personnel by Appendix 6 FAA Order 8400.10<sup>3</sup> Change 13, dated October 19, 2001 — it contained **47 pages**. Appendix 6 of the latest version of 8400.10 we have (Summit Aviation’s 28 January 2007 CD) contains 163 pages — and it still does not appear as a Regulation in 14 CFR Part 121.

In our August 2005 NEWSLETTER we reported on ATOS problems <sup>4</sup>. . . .

**“SPEAKING OF THE FAA . . . . YOU HAVE PROBABLY READ THE HEADLINES ABOUT FAA INPECTORS NOT MONITORING THE NIGHT SHIFT MAINTENANCE AT SOME AIR CARRIERS but have you read the “book”?** The “book” in this case is the SAFETY OVERSIGHT<sup>5</sup> OF AN AIR CARRIER INDUSTRY IN TRANSITION — FAA REPORT AV-2005-062, dated June 3, 2005. It is approximately 58 pages — but many paragraphs have been repeated in different places.

There are 3,400 (which will decline by 203 in 2006) Aviation Safety Inspectors — sometimes known as the FSDO Folks — Assigned to Flight Standards District Offices to oversee operations of air carriers, aircraft repair facilities, general aviation operators, mechanics, pilots, DARs, and training facilities. To provide oversight of passenger air carriers the FAA uses two different inspection systems — the Air Transportation Oversight System (ATOS) for 15 air carriers and the Surveillance and Evaluation Program (SEP) for the remaining **112** carriers. About 582 of the FAA’s inspectors use ATOS and 495 use SEP (allow me to *run some numbers* . . . that is 38.8 inspectors per air carrier for the ATOS folks and 4.41 inspectors for the SEP folks).

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<sup>3</sup> An FAA ORDER is an internal document used by FAA personnel — not a “public document”.

<sup>4</sup> The referenced “problems” may have been those discovered during the first required Annual Inspections.

<sup>5</sup> Don’t overlook the FAA’s new ENHANCED REPAIR STATION AND AIR CARRIER OUTSOURCING OVERSIGHT SYSTEM noted in APPENDIX 9 of FAA Handbook 8300.10.

The ATOS folks use a data-driven, risk based approach — which was designed to shift inspectors away from the NASIP inspections and ramp checks which had been used for over 30 years. The SEP folks are to use data and risk analysis in targeting inspections; however, the FAA requires the SEP inspectors to continue using its old National Programs, which require a predetermined number of inspections along with the SEP- generated inspections. The Report discusses the progress made but outlines the substantial work remaining.

*A look at some of the “performance numbers” . . .*

**INSPECTORS DID NOT COMPLETE ALL PLANNED INSPECTIONS  
OF AREAS WHERE RISKS WERE IDENTIFIED**

FAA Office	Inspections		
	No. Planned	Total Number (%) Not Completed)	Number (%) Not Completed That Were in Identified Risk Areas
United	617	259 (42%)	151 (58%)
Delta	582	234 (40%)	49 (21%)
American	614	168 (27%)	78 (46%)
Northwest	834	147 (18%)	108 (74%)
US Airways	894	130 (15%)	130 (100%)
Total	3,541	938(26%)	516 (55%)

If you are an Operator, Repair Station or a Lessor we encourage you to “read the book”. It is your people and your airplanes they are writing about.”

What action did the FAA appear to take in response to the IG Report? They often tell Congress they don’t have any money<sup>6</sup> so they place more burdens on the operators by revising AC 120-59 — it now contains 36 pages, an increase from the original 16 pages. It does not mention the FAA’s responsibility, i.e. § 605 (b)(2), noted in the basic AC, or any current regulation. It does introduce several new air carrier staff positions, including Director of Safety, Director of Internal Evaluations, Manager of Internal Evaluations, Supervisors of Internal Evaluation Programs, and a specific data base system for safety items. It discusses the “requirement” to evaluate all areas and all operating units of the carrier. We estimate at least \$1.5 million to get started — not including the re-writing of all of your existing Manuals to incorporate reference to and the requirements of the “IEPs”. Add to that about \$10,000 (cost) for each of the required meetings and before long you are talking about “big bucks”!

All of these numbers assume you don’t have to include any FAA folks onto your Evaluation team. But remember . . . they have 147 pages of ATOS “stuff” in their Manual<sup>7</sup> that

<sup>6</sup> But they will have the money to provide initial or refresher flight simulator, or actual aircraft, training so they can evaluate your flight crews (huh?) Say again Charlie Brown — a newly type rated pilot evaluating a pilot with several thousand hours (or 1 hour experience repeated thousands of times)?

<sup>7</sup> FAA Order 8400.10.

they are going to want to share with you<sup>8</sup> . . . . add in an extra half million dollars for their “help” and an unknown amount to participate in the self disclosure process — you disclose the problems and save them the cost of discovery.

If your “oversight person” feels his “stuff” is the same as a regulation (regulation by opinion) you have to adhere to, my estimates are “off the table” (if ATOS, and the Internal Evaluation Programs, were introduced thru the Notice Of Proposed Rulemaking Process the FAA would have been required to include an “economic analysis” and review, and answer, all of your comments). Oh, forget the money — the experienced folks you need for these programs are probably the ones that took advantage of your cost reduction “early retirement programs”.

We have been conducting “audits” for more than 25 years. They aren’t simple or easy. Good luck to those 100+ air carriers that will be invited to join the *ATOS Club* this year.

**THE HE SEZ — SHE SEZ DEBATE BETWEEN THE TWO LARGE AIRCRAFT BUILDERS IS ESCALATING . . . .** We don’t know what the Big Airplane Company folks said first, but the *EUROS* countered with claims the grandfather rights of the U.S. Authorities don’t provide you with a safe airplane. For example the new 747-xx, like the original aircraft may not have to meet current damage tolerance requirements (FAR 25 Amdt 43) and they (the Euros) finally noticed there aren’t any passenger doors in the most forward section<sup>9</sup> of the main cabin — maybe the *EURO GUYS* have to ride in the back of the airplane when they travel?

According to the FAA Type Certificate Data Sheet (TCDS) A35EU, the Euros elected to comply with FAR Amendment 25-43 which expanded the fail safe structural requirement to include the inspection requirements that made the structure “damaged tolerant” until you inspected<sup>10</sup> it on a scheduled interval. The A-300 demonstrated its “damage tolerant” capabilities when the rudder and vertical stabilizer failed on a Canadian registered aircraft cruising above 30,000’. Unfortunately it lost several thousand feet of altitude before the flight crew could sort-out the problem — the American Airlines flight crew that had a similar experience at JFK wasn’t high enough for the “sorting out” process and the location of the forward door didn’t provide any benefits.

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Jim Helms, President

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<sup>8</sup> Like the requirement to . . . . (5) Participate in periodic meetings with the air carrier to stay informed on the carrier’s financial health and growth plans, or other conditions that might cause an imbalance between resources and operations. These periodic meetings are among the best informal sources of information about where the carrier is headed.

<sup>9</sup> § 25.807 (f)(3) requires (3) — If more than one floor-level exit per side is prescribed, and the airplane does not have a combination cargo and passenger configuration, at least one floor-level exit must be located in each side **near** each end of the cabin.

<sup>10</sup> Supplemental Structural Inspection Documents, mandated by Airworthiness Directives, provide the required inspections to make previously approved Fail Safe Structure – Damage Tolerant.