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After the FSF Audit Team completes a safety audit, it submits a final report to the client that details the observations, findings and recommendations identified during the review. Observations are the client's policies, procedures and practices that exceed the industry best practices. Findings identify areas in which the Audit Team would like to see improvements to parallel industry best standards. Recommendations describe actions that could be taken by the client to meet industry best standards.

This article, the last in a series, will focus on the FSF Audit Team recommendations from 20 audits to correct

were not well defined in the maintenance directives in nine audits, or 45 percent.

Although not mandatory for U.S. Federal Aviation Regulations Part 91 operators, it is prudent to establish a formal procedure to conduct a second inspection of critical maintenance tasks. A second inspection is commonly referred to as required inspection items, "a second set of eyes" or follow-up review. Its purpose is to confirm that work has been properly completed with an entry in the maintenance records/task card. Part 91 operators should identify the critical maintenance tasks on each aircraft type and publish an

There was no inventory control system or shelf life monitoring in the stockroom in eight audits, or 40 percent.

Part 91 does not mandate a parts and materials inventory control system or shelf life control program, but it is prudent to incorporate these programs in day-to-day operations to ensure that parts and materials are



AUDIT FINDINGS AND RECOMMENDATIONS:

the most frequent findings (ASW, 9/06, p. 46) related to aircraft maintenance, aircraft configuration, airport facilities and security.

Aircraft Maintenance

Maintenance management was not properly safeguarding aircraft master logs in case of fire, flood or other natural disasters in 10 audits, 50 percent of the total.

The accepted industry best practice is to provide fire-resistant storage and security cabinets for these vital documents. The aircraft and engine master logs should be secured in the special storage cabinets any time the maintenance personnel are not in their hangar office facility and whenever the aviation personnel leave the building. Some operators have chosen to have these records scanned into digital media and stored off-site.

Maintenance inspection and quality control policies and procedures

inspection requirement in their maintenance procedures documentation.

Technician maintenance actions and servicing were not properly signed off in the maintenance records in nine audits, or 45 percent.

The Audit Team maintenance specialists have observed that corrective action entries in the aircraft maintenance logs are incomplete or improper. "Will monitor," "Check on subsequent flight," "Being worked by OEM customer service," etc. are not proper corrective action entries without documentation that a functional check of the system or component found it to be operating within prescribed limits or tolerances. The recommended action is for a supervisor to conduct quality assurance reviews of all maintenance records for proper entries prior to filing. Improperly completed records should be reviewed with maintenance technicians to improve the quality of record keeping.

serviceable and readily available when needed. A parts and materials inventory is an essential safeguard against bogus parts.

Aircraft Configuration

The aircraft weight and balance management system was not in accordance with U.S. Federal Aviation Administration Advisory Circular 120-27E, *Aircraft Weight and Balance Control*, in 11 audits, or 55 percent.

Many Part 91 operators have not focused on the fact that the advisory circular is applicable to all classes of operators. One of the more critical facets of the latest revision is the use of higher crew and passenger weights, which could significantly affect loading and center of gravity control calculations. All operators should develop an appropriate management system that ensures that the aircraft basic operating weight is properly tracked and changes are provided to the flight crews and



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LAST ROUND

installed in the flight management system. All pilots and maintenance technicians must be trained on the requirements of the weight-and-balance management system.

Passenger safety briefing cards were not installed or did not reflect an accurate location of safety and emergency equipment in nine audits, or 45 percent.

Many operators have adopted generic passenger safety briefing cards provided by the aircraft manufacturer even though they have added additional emergency equipment such as an automatic external defibrillator, or even modified the cabin configuration. It is vital that the passenger briefing card accurately depict and describe the location and use of each item of passenger safety equipment in case there is an emergency and crewmember assistance is unavailable. The importance of an accurate passenger safety briefing card is further

magnified when no trained flight attendant is assigned to the flight.

Airport Facilities

Workplace safety standards in the hangar and shops were not in accordance with U.S. Occupational Safety and Health Administration/Environmental Protection Agency (OSHA/EPA) or National Safety Council standards in 11 audits, or 55 percent.

Although OSHA and EPA seldom conduct on-site inspections at a Part 91 operator's work site, every operator is required to meet these requirements. The FSF Audit Team often finds that the operator's parent company has OSHA/EPA expertise on its staff, but the aviation department has not taken advantage of this resource to help ensure that its facilities are in compliance. All operators should conduct quarterly facility inspections and establish a tracking system to implement corrections.

Security

Current security policies did not address aircraft security at contract maintenance facilities in 11 audits, or 55 percent.

The FSF Audit Team recommends that the contract maintenance vendor work-scope agreement with the operator define the security procedures the vendor will follow during the off-site visit. While most operators send a technician with their aircraft to a contract maintenance facility, it is impossible for that representative to be on-site all the time during the visit. The Audit Team recommends that hatches and doors not to be disturbed during a visit be sealed with security tape. The flight crew should conduct a comprehensive security inspection before departing from the maintenance facility.

The facility security program was inadequate for door access control or video monitoring of entrances and hangar doors in nine audits, or 45 percent.

The majority of operators have significantly increased their facility security measures following Sept. 11, 2001. The most common deficiency is the lack of a double-door vestibule at the primary entrance, thus requiring visitors to be out in the weather while waiting for access. Installation of a video monitor system that allows visitors to be clearly viewed before they are allowed entry is an essential security measure. The Audit Team recommends magnetic strip-controlled security doors leading from the office area to the hangar and the aircraft. ●

This article extends the discussion of the aviation department problems most frequently found by the FSF Audit Team, based on the final reports submitted to clients that contracted for operational safety audits during 2004, detailing the observations, findings and recommendations identified during the review (ASW, 9/06, p. 46). The recommendations cited in this story are the opinions of the FSF Audit Team.