

# **DEPARTMENT OF DEFENSE**

## **COMMERCIAL AIR CARRIER QUALITY AND SAFETY REQUIREMENTS**

### **DOD COMMERCIAL AIR CARRIER QUALITY AND SAFETY REQUIREMENTS**

The Department of Defense (DOD), as a customer of airlift services, expects an air carrier or operator soliciting for or doing business with the DOD to engage in quality programs and business practices that not only ensure good service but enhance the safety, operational, and maintenance standards established by the applicable Civil Aviation Agency Regulations (CARs). Accordingly, and as required by US Public Law 99-661, the DOD has established a set of air carrier quality and safety requirements that reflect the type programs and practices the DOD seeks from air carriers or operators airlifting DOD resources.

A DOD survey team will use the following requirements, the specifics of the applicable DOD contract or agreement, the CARs, and the experienced judgment of DOD personnel to evaluate an air carrier's capability to perform for the DOD. The survey will also include, with the carrier's coordination, observation of cockpit crew performance, as well as ramp inspections of selected company aircraft. A satisfactory on-site survey (audit) conducted by DOD personnel is prerequisite to participation in the DOD Air Transportation Program. Surveys are conducted prior to an air carrier's acceptance into the program; thereafter, surveys will be completed on a biennial basis and when otherwise required to validate adherence to DOD quality and safety requirements. DOD personnel will also assess these quality and safety requirements when conducting periodic commercial air carrier table-top performance evaluations.

The size of an air carrier, along with the type and scope of operations, will be considered during the on-site survey. For example, while an air taxi/FAA Part 135 air carrier may not have a formal flight control function, such as a 24-hour dispatch organization, that same air taxi is expected to demonstrate some kind of effective flight following capability. On the other hand, a major carrier/FAA Part 121 air carrier is expected to have a formal flight control or dispatch function.

Both, however, will be evaluated based on the effectiveness and quality of whatever flight following function they do maintain.

The Air Carrier Requirements stated in this document provide the criteria against which would-be DOD air carrier contractors may be subjectively evaluated by the DOD. These requirements are neither all-inclusive nor are they inflexible in nature. They are not replacements for the certification criteria and other regulations established by civil aviation agencies; rather, these requirements are customer-developed and describe enhanced air carrier activities sought by the DOD. **NOTE:** The term “Civil Aviation Agency (CAA)” is used throughout this document since these requirements are applicable to US and international air carriers doing business with DOD. CAA includes the United States Federal Aviation Administration.

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### **PRIOR EXPERIENCE**

US certificated air carriers or operators applying to conduct business for the United States Department of Defense are required to possess 12 months of continuous service equivalent to the service sought by DOD. If the air carrier or operator is applying to airlift passengers on domestic US routes, then the air carrier or operator must have conducted passenger service equivalent to what the DOD is seeking for the 12 continuous months immediately prior to applying for DOD business. In order to provide international passenger airlift for DOD, the same criteria applies. The air carrier must have conducted international passenger operations comparable to the service DOD is seeking for the 12 continuous months immediately prior to applying for business with the Department of Defense. Prior experience must be equivalent in difficulty and complexity in regard to distance, weather systems, international or national procedures, similar aircraft, schedule demands, aircrew experience, and management required.

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### **AIR CARRIER MANAGEMENT**

Management has clearly defined safety as the number one company priority, and safety is never sacrificed to satisfy passenger concern, convenience, or cost. Policies, procedures, and goals that

enhance the CAA's minimum operations and maintenance standards have been established and implemented. A cooperative response to CAA inspections, critiques, or comments is demonstrated. Proper support infrastructure, including facilities, equipment, parts, and qualified personnel, is provided at the certificate holder's primary facility and en route stations. Personnel with aviation credentials and experience fill key management positions. An internal quality audit program or other method capable of identifying in-house deficiencies and measuring the company's compliance with their stated policies and standards has been implemented. Audit results are analyzed in order to determine the cause, not just the symptom, of any deficiency. The result of sound fiscal policy is evident throughout the company.

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### **OPERATIONS**

**Flight Safety.** Establish policies that promote flight safety. These policies are infused among all aircrew and operational personnel who translate the policies into practice. New or revised safety-related data are promptly disseminated to affected personnel who understand that deviation from any established safety policy is unacceptable. An audit system that detects unsafe practices is in place and a feedback structure informs management of safety policy results including possible safety problems. Management ensures that corrective actions resolve every unsafe condition.

**Flight Operations.** Established flight operations policies and procedures are up-to-date, reflect the current scope of operations, and are clearly defined to aviation department employees. These adhered-to procedures are further supported by a flow of current, management-generated safety and operational communications. Managers are in touch with mission requirements, supervise crew selection, and ensure the risk associated with all flight operations is reduced to the lowest acceptable level. Flight crews are free from undue management pressure and are comfortable with exercising their professional judgment during flight activities, even if such actions do not support the flight schedule. Effective lines of communication permit feedback from line crews to operations managers. Personnel records are maintained and reflect such data as experience, qualifications, and medical status.

**Flight Crew Hiring.** Established procedures ensure that applicants are carefully screened, including a review of the individual's health and suitability to perform flight crew duties. Consideration is given to the applicant's total aviation background, appropriate experience, and the

individuals potential to perform safely. Freedom from alcohol abuse and illegal drugs is required. If new-hire cockpit crewmembers do not meet industry standards for experience and qualification, then increased training and management attention to properly quality these personnel are required.

**Aircrew Training.** Training, including recurrent training, that develops and refines skills designed to eliminate mishaps and improve safety is essential to a quality operation. Crew coordination training that facilitates full cockpit crews training and interacting together using standardized procedures and including the principles of Cockpit Resource Management (CRM) is required. Programs involving the use of simulators or other devices that can provide realistic training scenarios are desired. Captain and First Officer training objectives cultivate similar levels of proficiency. Appropriate emergency procedures training (e.g., evacuation procedures) is provided to flight deck and flight attendant personnel as a total crew whenever possible; such training focuses on cockpit and cabin crews functioning as a coordinated team during emergencies. Crew training—be it pilot, engineer, or flight attendant—is appropriate to the level of risk and circumstances anticipated for the trainee. Training programs have the flexibility to incorporate and resolve recurring problem areas associated with day-to-day flight operations. Trainers are highly skilled in both subject matter and training techniques. Training received is documented, and that documentation is maintained in a current status.

**Captain Upgrade Training.** A selection and training process that considers proven experience, decision making, cockpit resource management, and response to unusual situations, including stress and pressure, is required. Also important is emphasis on captain responsibility and authority.

**Aircrew Scheduling.** A closely monitored system that evaluates operational risks, experience levels of crewmembers, and ensures the proper pairing of aircrews on all flights is required. New captains are scheduled with highly experienced first officers, and new or low-time first officers are scheduled with experienced captains. Except for aircraft new to the company, captains and first officers assigned to DOD charter passenger missions possess at least 250 hours combined experience in the type aircraft being operated. The scheduling system involves an established flight duty time program for aircrews, including flight attendants, carefully managed so as to ensure proper crew rest and considers quality-of-life factors. Attention is given to the stress on aircrews during strikes, mergers, or periods of labor-management difficulties.

**In-Flight Performance.** Aircrews, including flight attendants, are fit for flight duties and trained to handle normal, abnormal, and emergency situations. They demonstrate crew discipline and a knowledge of aviation rules; use company-developed standardized procedures; adhere to checklists;

and emphasize safety, including security considerations, throughout all preflight, in-flight, and postflight operations. Qualified company personnel evaluate aircrews and analyze results; known performance deficiencies are eliminated. Evaluations ensure aircrews demonstrate aircraft proficiency in accordance with company established standards. Flight crews are able to determine an aircraft's maintenance condition prior to flight and use standardized methods to accurately report aircraft deficiencies to the maintenance activity.

**Operational Control/Support.** Effective mission control includes communications with aircrews and the capability to respond to irregularities or difficulties. Clear written procedures for mission preparation and flight following aircraft and aircrews are provided. There is access to weather, flight planning, and aircraft maintenance data. There are personnel available who are knowledgeable in aircraft performance and mission requirements and that can correctly respond to emergency situations. There is close interface between operations and maintenance, ensuring a mutual awareness of aircraft operational and maintenance status. Procedures to notify DOD in case of an accident or serious incident have been established. Flight crews involved in such accidents or incidents report the situation to company personnel who, in turn, have procedures to evaluate the flight crew's capability to continue the mission. Aircraft involved in accidents or incidents are inspected in accordance with Civil Aviation Regulations and a determination made as to whether or not the aircraft is safe for continued operations.

**DOD Charter Procedures.** Detailed procedures addressing military charter requirements are expected. The level of risk associated with DOD charter missions does not exceed the risks inherent in the carrier's non-DOD daily flight operations. Complete route planning and airport analyses are accomplished, and actual passenger and cargo weights are used in computing aircraft weight and balance.

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### **MAINTENANCE**

Maintenance supervisors ensure all personnel understand that in spite of scheduling pressure, peer pressure, supervisory pressure, or other factors, the airplane must be airworthy prior to flight. Passenger and employee safety is a paramount management concern. Quality, completeness, and integrity of work are trademarks of the maintenance manager and maintenance department. Nonconformance to established maintenance practices is not tolerated. Management ensures that

contracted maintenance, including repair and overhaul facilities, is performed by maintenance organizations acceptable to the CAA.

**Maintenance Personnel.** Air carriers are expected to hire and train the number of employees required to safely maintain the company aircraft and support the scope of the maintenance operation both at home station (the company's primary facility) and at en route locations. These personnel ensure that all maintenance tasks, including required inspections and airworthiness directives, are performed; that maintenance actions are properly documented; and that the discrepancies identified between inspections are corrected. Mechanics are fit for duty, properly certificated, the company verifies certification, and these personnel possess the knowledge and the necessary aircraft-specific experience to accomplish the maintenance tasks. Noncertified and inexperienced personnel receive proper supervision. Freedom from alcohol abuse and illegal drugs is required.

**Quality Assurance (Continuing Analysis and Surveillance Program).** A system that continuously analyzes the performance and effectiveness of maintenance activities and maintenance inspection programs is required. This system evaluates such functions as reliability reports, audits, component tear-down reports, inspection procedures and results, tool calibration program, real-time aircraft maintenance actions, warranty programs, and other maintenance functions. The extent of this program is directly related to the air carrier's size and scope of operation. The cause of any recurring discrepancy or negative trend is researched and eliminated. Action is taken to prevent recurrence of these discrepancies and preventive actions are monitored to ensure effectiveness. The results of preventive actions are provided to appropriate maintenance technicians.

**Maintenance Inspection Activity.** A process to ensure required aircraft inspections are completed and the results properly documented is required. Also required is a system to evaluate contract vendors, suppliers, and their products. Inspection personnel are identified, trained (initial and recurrent), and provided guidance regarding inspector responsibility and authority. The inspection activity is normally a separate entity within the maintenance department.

**Maintenance Training.** Training is conducted commensurate with the size and type of maintenance function being performed. Continuing education and progressive experience are provided for all maintenance personnel. Orientation, familiarization, on-the-job, and appropriate recurrent training for all full and part-time personnel is expected. The use of such training aids as mockups, simulators, and computer-based training enhances maintenance training efforts and is desired. Training documentation is required; it is current, complete, well-maintained, and correctly

identifies any special authorizations such as inspection and airworthiness release. Trainers are fully qualified in the subject matter.

**Maintenance Control.** A method to control maintenance activities and track aircraft status is required. Qualified personnel monitor maintenance preplanning, ensure completion of maintenance actions, and track deferred discrepancies. Deferred maintenance actions are identified to supervisory personnel and corrected in accordance with the criteria provided by the manufacturer or regulatory agency. Constant and effective communications between maintenance and flight operations ensure an exchange of critical information.

**Aircraft Maintenance Program.** Aircraft are properly certified and maintained in a manner that ensures they are airworthy and safe. The program includes the use of manufacturer's and CAA information, as well as company policies and procedures. Airworthiness directives are complied with in the prescribed time frame, and service bulletins are evaluated for applicable action. Approved reliability programs are proactive, providing management with visibility on the effectiveness of the maintenance program; attention is given to initial component and older aircraft inspection intervals and to deferred maintenance actions. Special tools and equipment are calibrated.

**Maintenance Records.** Maintenance actions are well documented and provide a complete record of maintenance accomplished and, for repetitive actions, maintenance required. Such records as aircraft log books and maintenance documentation are legibly prepared, dated, clean, readily identifiable, and maintained in an orderly fashion. Inspection compliance, airworthiness release, and maintenance release records, etc., are complete and signed by approved personnel.

**Aircraft Appearance (in-Service Aircraft).** Aircraft exteriors, including all visible surfaces and components, are clean and well maintained. Interiors are also clean and orderly. Required safety equipment and systems are available and operable.

**Fueling and Servicing.** Aircraft fuel is free from contamination, and company fuel facilities (farms) are inspected and results documented. Procedures and instructions pertaining to servicing, handling, and storing fuel and oil meet established safety standards. Procedures for monitoring and verifying vendor servicing practices are included in this program.

**Maintenance Manuals.** Company policy manuals and manufacturer's maintenance manuals are current, available, clear, complete, and adhered to by maintenance personnel. These manuals

provide maintenance personnel with standardized procedures for maintaining company aircraft. Management policies, lines of authority, and company maintenance procedures are documented in company manuals and kept in a current status.

**Maintenance Facilities.** Well maintained, clean maintenance facilities adequate for the level of aircraft repair authorized in the company's CAA certificate are expected. Safety equipment is available in hangars, shops, etc., and is serviceable. Shipping, receiving, and stores areas are likewise clean and orderly. Parts are correctly packaged, tagged, segregated, and shelf life properly monitored.

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### **SECURITY**

Company personnel are schooled in security responsibilities and practice applicable procedures during ground and in-flight operations. Compliance with provisions of the appropriate standard security program, established by the CAA, is required for all DOD missions.

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### **SPECIFIC EQUIPMENT REQUIREMENTS**

Air carriers satisfy DOD equipment and other requirements as specified in Air Mobility Command contracts or Military Traffic Management Command Military Air Transportation Agreements.