

## **Quality and Safety Requirements**

**Introduction:** ARG/US expects an operator to engage in quality programs and business practices that not only ensure good service, but also enhance the safety, operational and maintenance standards established by the FAA or applicable Civil Aviation Agency Regulations (CARs). Therefore, ARG/US has established a set of air carrier quality and safety requirements that reflect the type of programs and practices ARG/US seeks from air carriers who provide transportation for our clients.

An ARG/US survey team will use the following requirements: the specifics of any applicable contract, the provisions of the CARs, and the experience of the ARG/US safety inspection personnel to evaluate an air carrier's capability to perform for the customer. The survey will also include, with the carrier's coordination, observation of cockpit crew performance, as well as ramp inspections of selected company aircraft.

Operators who have a good historical safety history meet the ARGUS equipment and personnel standards, and a pass a satisfactory on-site survey conducted by ARGUS personnel, will be awarded the ARGUS Platinum Rating for Air Carrier Quality and Safety Standards. Surveys are conducted on a bi-annual basis throughout the duration of the contract, or more frequently if needed to validate continued adherence to the ARG/US quality and safety requirements. ARGUS personnel will also assess these quality and safety requirements when conducting periodic air carrier database performance evaluations. These CHEQ reports, also conducted by ARGUS, involve research into various government and private data files to assess the health and performance of the carrier.

These air carrier requirements are neither all-inclusive, nor are they inflexible. They describe concepts by which the carriers are expected to operate, not the specifics of how management should implement these systems. All carriers are expected to demonstrate compliance with applicable CARs, as a minimum. Adherence to the ARG/US requirements will vary with the size of the carrier and the sophistication of the carrier's management structure.

**Prior Experience:** ARG/US expects carriers seeking a contract with the customer to have accumulated at least 12 months' experience providing similar service to the public.

**Air Carrier Management:** Management of the carriers must have 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 FAA's minimum operations and maintenance standards should be established and implemented. A cooperative response to FAA inspections,

critiques, or comments should be demonstrated. Proper support infrastructure, including facilities, equipment, parts, and qualified personnel, should be provided at the carrier's primary facility and enroute stations. Personnel with aviation credentials and experience must 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 should be implemented. Audit results should be analyzed in order to determine the cause, not just the symptom, of any deficiency. The result of sound fiscal policy must be evident throughout the company.

## **Operational Requirements**

**Flight Safety:** The carriers establish policies that promote flight safety. All aircrew and operational personnel are driven by these safety policies, and they translate them into practice. Available safety data reaches all personnel promptly. Deviation from safety policy is not considered as an option. Each carrier audits itself to detect unsafe practices, and findings are revealed to management, including safety problems. Management is supportive, and takes prompt action to resolve unsafe conditions.

**Flight Operations:** Flight operations policies and procedures are up-to-date, reflect the current scope of operations, and are clearly defined to all flight ops employees. Employees adhere to these procedures, supported by a flow of current safety and operational communications from management. Managers are in touch with mission requirements, supervise crew selection, and work to reduce unacceptable risk. Flight crews exercise their professional judgment during flight activities, without economic or scheduling pressure from management. There is opportunity for feedback from line crews to operations managers. Personnel records are thorough, 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, experience, and potential to carry out the mission safely. If a carrier hires cockpit crewmembers who do not meet industry standards for experience or qualification, then management provides additional training and observation to ensure high standards are maintained.

**Aircrew Training:** The carriers tailor valuable training resources to meet CARs, improve safety, and avoid mishaps. Crew Resource Management (CRM) is taught, practiced and evaluated during all phases of operations training. Flight and mission simulation is used for training if available. Flight and cabin crews practice emergency procedures together on a recurring basis. All training is realistic, in that it resembles the mission requirements faced by the carrier during

daily operations. Instructors are highly qualified and skilled in training techniques. Records of training are current and audited by operations management.

**Captain Upgrade Training:** ARG/US requires carriers to use a selection process that considers experience, decision-making, and CRM when selecting pilots for upgrade to captain. Training and evaluation are provided, concentrating on adherence to safety procedures, and captain responsibilities and authority.

**Aircrew Scheduling:** Carriers schedule crews with safety as the primary guide. Management closely monitors the scheduling process, to evaluate risks, assess the experience level of crews, and ensure the proper pairing of crewmembers. Carriers avoid pairing inexperienced first officers with new captains. The scheduling system tracks flight and duty times for pilots as well as flight attendants, and trips are managed to ensure CAR compliance as well as fatigue reduction.

**Inflight Performance:** When carrier crews are observed performing flight duties, they demonstrate a thorough knowledge of, and ability to perform, normal, abnormal, and emergency procedures. Crews are disciplined, using company and regulatory standardized procedures, adhering to checklists, and emphasizing safety in all phases of operations. Qualified carrier personnel evaluate aircrews, analyze results, and provide feedback to the training division to eliminate performance deficiencies. Flight crews are able to accurately determine an aircraft's maintenance condition prior to flight, and use standardized methods to report problems to the maintenance division.

**Operational Control and Support:** Effective mission control includes communications with aircrews and the capability to respond to irregularities or difficulties. The carrier provides clear written procedures for mission preparation and flight following aircraft and aircrews. Crews and decision makers have access to weather, flight planning and maintenance data. The company has personnel available to respond to the latest developments who are qualified to make decisions and provide guidance in aircraft performance, maintenance, and emergency situations. Operations and maintenance work closely together to resolve problems. The corporate emergency response comes from a written plan, which the entire company acts from, in concert. Flight crews have guidance on reporting accidents and incidents, and the company thoroughly inspects damaged aircraft before releasing them for flight.

## **Maintenance Requirements**

**General:** Maintenance supervisors ensure that, in spite of scheduling pressure, peer pressure, supervisory pressure, or other factors, the aircraft must be airworthy prior to flight. Passenger and employee safety is a primary management concern. Quality, completeness and integrity of work are trademarks of the maintenance manager and maintenance department. Non-

conformance 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:** 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 and at enroute 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 must be fit for duty, properly certificated, with the company verifying certification, and these personnel must possess the knowledge and the necessary aircraft-specific experience to accomplish the maintenance tasks. Non-certified and inexperienced personnel must receive proper supervision. Freedom from alcohol and drug abuse is required.

**Quality Assurance (Continuing Analysis and Surveillance Program):** A system that continually analyzes the performance and effectiveness of maintenance activities and maintenance inspection programs is required for all carriers. This system evaluates such functions as reliability reports, audits, component teardown 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 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:** ARG/US requires each carrier to have a process for ensuring required aircraft inspections are completed, and the results properly documented. 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 must be 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 are 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 must be current, complete, well maintained, and correctly identifies any special authorizations such as

inspection and airworthiness release. Trainers are to be fully qualified in the subject matter.

**Maintenance Control:** ARG/US requires carriers to control maintenance activities and track aircraft status. Qualified personnel must 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 CAA. Constant and effective communication between maintenance and flight operations ensures 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 logbooks 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:** Aircraft exteriors, including all visible surfaces and components, are clean and well maintained. Interiors are also clean, orderly, and worn or frayed items are replaced regularly. Required safety equipment and systems are available and operable. Digital photos of aircraft interiors and exteriors are a required part of the ARG/US annual survey report.

**Fueling and Servicing:** Aircraft fuel is free from contamination, and 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:** Carriers maintenance facilities are expected to be clean, adequate for the level of repair authorized. Safety equipment is available in hangars and shops, and it is serviceable. Shipping, receiving, and stores areas are likewise clean and orderly. Parts are correctly packaged, tagged, segregated, and shelf life is properly monitored.