



Maintenance Survey Checklist

October 2012

Introduction

This document has been developed to assist in your preparation for a Department of Defense (DOD) survey. It is a derivative of the same checklist we will use during performance of your survey. Detailed explanations of our expectations are provided where necessary.

Items followed by a (**) symbol is common areas for findings (reviewed for applicability: May 1, 2011). All requirements listed herein are rooted in the Code of Federal Regulations (CFRs) and the DOD Commercial Air Carrier Quality and Safety Requirements and are not intended to replace either. When the word “ALL” is used it means that requirement is applicable to all air carriers (135/121). This checklist will be available to carriers via the DOD Commercial Airlift Division public website <http://www.amc.af.mil/library/businesscustomers.asp> or upon request. The page format was recently changed and now has each of the respective 12 rated areas grouped together. This should allow for easier printing and distribution of each section. The content has remained largely the same; bold vertical lines on the left side of an area indicate where changes have been made.

Should you have any questions or comments concerning this document, please contact us at: (618) 229-4343, fax (618) 256-5937.

1. MANAGEMENT	YES	NO	N/A
a. Are there clearly defined lines of management authority? <i>All – Applicable manuals include concise job descriptions and definitive lines of authority.</i>	X		
b. Is there sufficient management staffing to support carrier maintenance operations? <i>CFR Part 121 – Reference CFR 119.65</i> <i>CFR Part 135 – Reference CFR 119.69</i>	X		
c. Personnel with aviation credentials and experience fill key management positions? <i>CFR Part 121 – Reference CFR 119.67</i> <i>CFR Part 135 – Reference CFR 119.71</i>	X		
d. Does management provide sufficient oversight of carrier maintenance programs?	X		
e. Does management structure meet the needs of the carrier?	X		
f. Is there clear and effective communication between management, the workforce, and functional areas?	X		
g. Are quality and production on an equal or better footing? <i>All – Aircraft maintenance is properly accomplished in spite of scheduling, or potential of lost revenue due to mission cancellation or delay, and/or competitive image or other pressures.</i>	X		
h. Is it clear that passenger and employee safety is paramount? <i>All – Maintenance supervisors ensure all personnel understand that in spite of scheduling pressure, peer pressure, supervisory pressure, or other factors, all maintenance is performed safely and aircraft are airworthy prior to flight.</i>	X		

2. PERSONNEL	YES	NO	N/A
a. Are there sufficient maintenance personnel to safely maintain company aircraft at primary facility and en route locations? <i>All – This includes personnel to supervise those not certificated.</i>	X		
b. Does the new-hire process provide for:			
(1) Sufficient background check?	X		
(2) FAA verification of certificates to include company employees, contracted on-call agencies, and emergency on-call maintenance. This also includes employees that have been rehired/re-instated and temporary certificates. <i>All – All certificates are verified through the FAA. FAA A&P website http://registry.faa.gov or write the FAA at Airman License Verification Office, P.O. box 25082, OK City, OK 73125, phone: 405-954-3261. FAA can also be contacted via email at 9-amc-afs760-airmen@faa.gov or automated phone: 1-866-878-2498. Select “1” on the phone keypad to reach the examiner and verify certificate is valid. Carrier can use contracted agencies verification for contracted employees performing maintenance on the carrier’s aircraft. Proof of verifications is tracked and copies kept on file. Emergency on-call maintenance: verification that the mechanic possesses a license at time of work.</i>	X		
(3) Drug and alcohol abuse testing? <i>All – Carrier has an approved substance abuse program that strives to ensure freedom from illegal drugs and alcohol abuse.</i> <i>Ref: CFR Part 121/135 & CFR 120.1</i>	X		
c. Do carrier maintenance personnel have sufficient experience to support carrier maintenance requirements? <i>Average experience level?</i>	X		
d. Does the carrier experience a great deal of turnover?		X	
e. Are the carrier’s maintenance employee’s union members?			X
(1) When is the contract up for renegotiations and are any problems expected?			X
(2) What is the quality of the relationship between management and the union?			X

3. QUALITY ASSURANCE	YES	NO	N/A
a. Does the carrier have a continuing analysis and surveillance program that allows for continuous oversight and analysis of the performance and effectiveness of maintenance activities and aircraft inspection programs? (As req'd by FAR 121.373/135.431). Chp 6 QCM <i>This question summarizes the information collected through the remaining questions in this section.</i>	X		
b. Does the carrier have 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? <i>All – All carriers have a formal, documented IAP that verifies compliance with all company policies and procedures and FAA regulations. Documentation refers to both program description/requirements and compliance. This program includes all functional areas within the maintenance department (e.g., quality assurance, records, manuals, maintenance control/scheduling, stores, training, inspection, and facilities, etc...) Program complexity is dependent on carrier size.</i>	X		
(1) A method to schedule and track required audits? ** <i>All – All audits are accomplished on a set frequency unless supported by an advanced, robust risk-based program. Current information such as last audit date and next audit due date is available and used to ensure all audit schedule requirements are being met. Dependent on the complexity of the program, this can entail anything from a database or spreadsheet to a periodically scheduled review of each area's file.</i>	X		
(2) A program to track and follow-up discrepancies or concerns discovered during audits? ** <i>All – All audit discrepancies are documented, and concerns are reviewed by applicable management personnel and tracked until closed. Follow up as required; verifying corrective action is taken to prevent recurrence.</i>	X		
(3) Files (electronic/hard copy) containing the last completed audit checklist and/or reports and follow-up action for each functional area? **	X		
(a) Audit results are analyzed in order to determine the cause not just the symptom, of any deficiency? **	X		
(b) Are repeat discrepancies addressed? **	X		

QUALITY ASSURANCE CONT.			
c. Does the carrier have a system to evaluate contract vendors, suppliers, and their products? ** Ref: CFR Parts 121.367 & 135.413	X		
(1) An approved vendor list that is made available to those responsible for purchasing spares and maintenance support? ** – Carrier has a method, through the vendor audit program, to approve vendors for use by the carrier. Vendors are approved after successful accomplishment of an on-site or mail-out vendor audit checklist or a one-time approval checklist. The approved vendor list is regularly updated and provided to those who are responsible for purchasing spares and maintenance support.	X		
(a) Is the list controlled by appropriate level of management? **	X		
(b) Does receiving use the list to verify parts are received from only approved vendors, suppliers/distributors?	X		
(2) An adequate checklist for the performance of both on-site and mail-out audits? ** <i>All – Checklists contents will vary, but should contain requirements to ensure the vendor is certified to perform the work required, has an approved substance abuse program, and has the quality programs necessary to ensure good service and compliance with FAA and industry standards.</i>	X		
(a) Is there an established method to determine audit type (on-site or mail-out) for each vendor? ** <i>ALL – A process in place to determine what type of audit each vendor will receive, the complexity of the process will vary with carrier size. The process may entail a program for selecting vendors who overhaul safety of flight or major aircraft components (i.e. engines, landing gear, primary flight controls and emergency rafts and slides) will receive an on-site audit; while all others will receive another form of audit i.e. phone, mail-out audits etc. If risk-based, the process must have an established, robust means for measuring and assigning risk.</i>	X		
(3) Complete and accurate files (electronic or hard copy) for each approved vendor, that contain as a minimum the following: **	X		

QUALITY ASSURANCE CONT.			
(a) A copy of vendor's repair certificate indicating capabilities and limitations? **			
(b) Last audit checklist and/or report and follow-up action? **			
(c) Copy of vendor's drug/alcohol program letter?			
(4) A method to schedule and track required audits? ** All – All audits are accomplished on a set frequency. Current information such as last audit date and next audit due date is available and used to ensure audit schedule requirements are being met. Dependent on the complexity of the program, this can entail anything from a database or spreadsheet to a periodically scheduled review of each area's file.			
(5) A program to track and follow up discrepancies or concerns discovered during audits? ** All – All audit discrepancies and concerns are reviewed by applicable management personnel and tracked until closed. Follow up as required; verifying corrective action is taken to prevent recurrence.			
(6) Is the carrier a sustaining member of Coordinating Agency for Supplier Evaluation (CASE)? If yes, complete the following items: CASE Members – The following checklist items are reproduced from the CASE Policy and Procedures (P&P) Manual, Air Carrier Evaluation Report. See the CASE P&P Manual for details on these items. A successful DOD audit fulfills the CASE periodic air carrier evaluation requirement.			
(a) Is there a documented CASE auditor training program, and are training records maintained? (CACS 9)			
(b) Do vendor audit forms cover applicable CASE standards?			
(c) Is the CASE P&P manual current (electronic or hard copy)?			
(d) Does each CASE Level III/IV auditor have his own copy of the CASE P&P manual?			
(e) Do auditors have access to CFRs (web/electronic/hard copy)?			
(f) Does the file for each vendor allocated by CASE have a current letter of expectation (CACS-7)?			
(g) Has the carrier completed an annual self audit, using an Air Carrier Evaluation Report (CACS-6) to verify continued compliance (Refer P&P, 2-1-0, Pg1, Para B. 8), 12/15/2008?			

QUALITY ASSURANCE CONT.			
d. Does the carrier have a program to perform mechanical performance monitoring? – Mechanical performance monitoring can be as simple as a basic CAS program or as complex as an FAA-approved reliability program with computerized performance tracking.	X		
(1) Is it used to determine the cause of any recurring discrepancies or negative trends, and are corrective actions implemented as required?	X		
e. Does the carrier have a formal tool/test equipment calibration program with: **	X		
(1) A method to track tool inventory and calibration status? ** ALL – All equipment requiring calibration is calibrated on a set frequency. Current information, such as last calibration date and next calibration due date, is available and used to ensure all calibration requirements are being met. Dependent on the complexity of the program, this can entail anything from a computerized database or spreadsheet to a periodically scheduled and documented review of each piece of equipment's calibration documentation.	X		
(2) Files that contain certification forms for each tool that requires calibration? **			
(3) All carrier provided tools are kept calibrated and in good condition? **	X		
(4) A means to ensure any employee-owned tools allowed to be used on company aircraft are kept calibrated? **	X		

4. MAINTENANCE INSPECTION ACTIVITY	YES	NO	N/A
a. Who has quality oversight responsibility for the carrier?			
b. Does the carrier have a required inspection item (RII) program or equivalent? (example: second set of eyes program)	X		
(1) Maintains a list of inspector qualified individuals as required by CFR, for both company and contract maintenance? a. Equivalent program- authorized personnel listing for 9 or less CFR Part 121 – Reference CFR 121.371(d) CFR Part 135 10 or More – Reference CFR 135.429(e)	X		
(2) Provides sufficient well-qualified, delegated, and designated inspectors?	X		
(3) Provides a well-defined list of maintenance tasks that require RII action and procedures to accomplish RII inspection? Task listing highly recommended for 9 or less- CFR Part 121 – Reference CFR 121.369(b)(2) CFR Part 135 10 or More – Reference CFR 135.427(b)(2)			X
(4) Ensures only authorized personnel accomplish RII (or equivalent inspection) actions?	X		
(5) Provides and documents initial and recurrent training for both inspectors and designees? ** – All inspectors including receiving inspectors are provided initial and recurrent training (to include RII equivalent program for 9 or less inspectors)(at a frequency established by the carrier) using an effective training course syllabus. All training is documented.	X		
(6) Are all RII (or equivalent program) personnel authorized by letter with any limitations listed, and are the authorization letters maintained on file? CFR Part 121 – Reference CFR 121.371(d) CFR Part 135 10 or More – Reference CFR 135.429(e)			X
(7) Ensures maintenance that can impact safety of flight is properly accomplished?	X		
c. Is there an effective inspector/mechanic stamp program? Procedures address: Stamp issue, tracking, disposal, relinquish, and loss.			

5. MAINTENANCE TRAINING	YES	NO	N/A
a. Does the carrier training program provide well-qualified personnel to support carrier maintenance operations? All – This question summarizes the information collected through the remaining questions in this section.	X		
b. Does the carrier provide and conduct initial/recurrent training for a minimum of the following? (Full and part-time personnel)	X		
(1) Indoctrination: All – Ensures thorough understanding of company manuals, policies, procedures, and forms?	X		
(2) General aircraft systems: All – Factory, classroom, or OJT training in aircraft familiarization, systems, or other requirements applicable to individual positions.	X		
(3) Engine-run/taxi (initial and recurrent)? ** All – Personnel qualified to operate aircraft engines and/or taxi aircraft receive both initial and recurrent training in equipment operation, limitations, and emergency procedures. Recurrent training program may be as simple as a check ride or as complex as a formal classroom refresher with simulator or on-aircraft check ride. Recurrent training frequency is established and accomplishment documented.			X
(4) De-icing? All – If maintenance personnel perform aircraft de-icing, initial and recurrent (annual) training is provided.			X
(5) ETOPS? (if applicable) (initial and recurrent to include awareness training for all personnel) – Both initial and recurrent training on ETOPS maintenance requirements is performed and documented at a frequency established by the carrier. Reference: AC 120-42B.			X
(6) CAT II & III landing? (initial and recurrent to include awareness training for all personnel) Reference AC 120-28A&D (28A covers I/II, 28D covers III). Initial and recurrent training on CAT II & III maintenance requirements are performed and documented.			X
(7) RVSM? (initial and recurrent to include awareness training for all personnel **) (If Applicable) Initial and recurrent training on RVSM maintenance requirements are performed and documented. CFR Part 121/135 – Appendix G to FAR Part 91 AC91-85(f)			X

MAINTENANCE TRAINING CONT.			
c. Does the carrier have sufficient training facilities and instructors?	X		
d. Does the carrier employ a scheduling method that ensures all required initial training is accomplished and recurrent training is accomplished on time? ** All – Current information such as individual training requirements, training completion date, and recurrent training due date is available and used to ensure all training requirements are being met. Dependent on the complexity of the program, this can entail anything from a database or spreadsheet to a hand written list or chart maintained in each individual's training file.			
e. Does the carrier document all training, to include on-the-job training and track all requirements to ensure accomplishment? ** All – Accomplishment of all training to include formal and informal on-the-job training is documented.			
(1) Are accurate files kept containing all training certification forms, OJT records, prior training reviews, and copies of certificates? **			
(2) Are special authorizations such as inspection and airworthiness release identified and documented?			
(3) Are trainers fully qualified in the subject matter?	X		
f. Does the carrier ensure training received through prior employment is reviewed for applicability to the present training requirements and document any waivers to the normal training requirement? ** All – This should entail at the minimum, a memo that addresses all prior training, its applicability to current assignment training requirements, and any waivers to those requirements.	X		

6. MAINTENANCE CONTROL/PLANNING	YES	NO	N/A
a. Does the carrier maintain a system that provides a means to control maintenance activities and track aircraft maintenance status? All – This system can be as simple as a dry erase status board or hand written status sheet for a small carrier, to a complex computerized maintenance status tracking and control program. However complex, it enables the carrier to track and control aircraft maintenance.	X		
b. Does the location and structure of the maintenance control department support good communication with the rest of the maintenance organization and flight operations?	X		
(1) Only company-approved contract maintenance facilities and/or on-call maintenance contractors are used. All – All contract maintenance organizations are approved through the carrier's vendor approval process, and any lists used to contact the vendors are controlled to ensure currency and accuracy.	X		
(2) Does the carrier have documented procedures for the approval of ferry flights, and does it provide a list of those authorized to approve? Carriers with special ferry flight authorization – Procedures should contain detailed instructions for ferry flight approval and a list of those individuals authorized to approve ferry flights.			
(3) Is the carrier able to readily identify aircraft with special capabilities; i.e. ETOPS, RVSM, CAT II/III?			X
(a) Procedures exist for downgrading aircraft with special capabilities?			X
c. Does the carrier have adequate programs to manage and control deferred maintenance? All – A process is used to closely track to closure: status, parts, equipment, manpower requirements, and expiration date of all deferred maintenance?	X		
(1) Is there a program to track all deferred maintenance?	X		
(2) All requirements are coordinated to support closure?	X		

MAINTENANCE CONTROL/PLANNING CONT.			
d. Does the carrier promote good MEL practices, and are procedures adequate to support the program? Carriers with approved MEL programs – MEL practices and procedures ensure correct deferral and adherence to all procedures.	X		
(1) Does the carrier's MEL/deferred maintenance rate reflect a drive to keep open maintenance items to a minimum? Carriers with approved MEL programs – This rate should be continuously monitored for adverse trends.	X		
e. Does the daily utilization rate of the aircraft provide sufficient time to troubleshoot problems and effect repairs?	X		
f. Does the carrier have programs that adequately plan for all maintenance requirements?	X		
(1) Is there a process to track and schedule replacement of all life-limited components?	X		
(2) Is there a process to track and schedule all recurrent maintenance requirements (ADs, SBs, etc...)?	X		
(3). Is there a process to plan both short- and long-term maintenance requirements?	X		

7. AIRCRAFT MAINTENANCE PROGRAM	YES	NO	N/A
a. What type of maintenance program does the carrier use to maintain its aircraft? Manufacturer			
b. Does the carrier use a contractor to accomplish routine maintenance?		X	
(1) At what levels?			X
(2) Are the contractors monitored under the vendor audit program? All – All contract maintenance organizations are approved and monitored through the carrier’s vendor approval and audit process.			
(3) Does the company provide representatives during heavy maintenance checks? All – To ensure quality of work performed, the carrier is expected to have either a representative on-site to monitor contract heavy maintenance or a process in place that provides periodic oversight of the maintenance and a comprehensive acceptance inspection.			X
c. Does the carrier have a dedicated engineering department?			X
d. Does the carrier coordinate for review and schedule for accomplishment, airworthiness directives and service bulletins in a manner that supports on-time and complete accomplishment?	X		
e. Does the carrier use fleet campaigns to accomplish inspections or effect repairs identified as causing reliability or operational problems? All – This program should ensure all the required coordination between maintenance departments, inspections, and repairs is accomplished.			X
f. Does the carrier have an FAA-approved reliability program?			X
(1) Does management get involved and use information from the reliability program to improve aircraft reliability?			
g. Does the carrier have an engine-condition monitoring program?		X	
(1) Is engine-condition data routinely and accurately collected to support the analysis program?			X
(2) Is engine-condition monitoring data used to prevent failures and improve reliability?			X
h. Has the carrier instituted programs to inspect for and prevent corrosion?	X		
i. Is there a process for inclusion of new requirements into the maintenance program?	X		

8. MAINTENANCE RECORDS	YES	NO	N/A
a. Does the carrier have records management procedures that ensure the following:			
(1) Completeness and quality of records entries? All - A process is in place to verify records quality.	X		
(a) Inspections, airworthiness release, maintenance release, etc., are signed by approved personnel only?	X		
(b) Records are maintained in an orderly fashion?			
(2) Security of files? All - Location provides limited access.			

9. AIRCRAFT APPEARANCE	YES	NO	N/A
a. Are aircraft exteriors, including all visible surfaces and components, clean and well maintained?	X		
b. Are required safety equipment and systems available and operable?	X		
c. Are aircraft interiors clean and orderly?	X		
d. Was maintenance observed accomplished safely and accurately?	X		

10. FUELS	YES	NO	N/A
a. Does the carrier have a formal program to conduct quality assurance checks of their own fuel farms and fuel servicing equipment? ** All - A formal program that provides written procedures for quality assurance checks of all company-owned/operated fuel farms and servicing equipment using applicable standards. Checks are scheduled and performed at an established frequency and accomplishment is documented.	X		
b. If fuel servicing is contracted, does the carrier have a formal, verifiable program to ensure all fuel received is contaminant-free? ** All – If the carrier does this through a fuel vendor audit program to monitor the quality of fuel provided by regularly used vendors, are:			X
(1) Complete and accurate files kept? **			
(2) Last audit checklist and/or report and follow-up action kept? **			
(3) A method to schedule and track required audits? ** All - All audits are accomplished on a set frequency. Current information such as last audit date and next audit due date is available and used to ensure all audit schedule requirements are being met. Dependent on the complexity of the program, this can entail anything from a computerized database or spreadsheet to a documented periodic review of each area's file.	X		
(4) A program to track and follow up discrepancies or concerns discovered during audits? ** All - All audit discrepancies and concerns are documented and reviewed by applicable management personnel and tracked until closed. Follow up as required verifying corrective action is taken to prevent recurrence.	X		
c. If the carrier utilizes another method, (utilizes DOD approved vendors and monitors approval via the Defense Fuels website: http://www.desc.dla.mil/DCM/DCMPage.asp?LinkID=IntoPlane via other Part 121 carriers audit results etc.,) is it documented and comprehensive enough to provide sufficient oversight?			
d. Does the carrier have a documented program to ensure fuel quality at non-routine locations? Does a requirement exist for this procedure to be documented when accomplished? **			

11. MAINTENANCE MANUALS	YES	NO	N/A
a. Do the carrier's maintenance manual(s) provide:			
(1) Detailed, standardized guidance for the accomplishment of aircraft maintenance and operation of the maintenance organization?	X		
(2) Detailed management policies, lines of authority, and responsibilities for key maintenance personnel? ** All - This information is detailed in either the general maintenance manual or maintenance section of the operations manual, as applicable.	X		
(3) A revision control process that ensures revisions are accomplished with follow-up actions as required? ** All - A process is established that ensures revisions are provided to manual holders and those responsible for revision of company and aircraft maintenance manuals in a timely manner and also tracks revision accomplishment. Normally, this will be accomplished through a revision return-receipt and tracking system. Program complexity is dependent on carrier size and can entail anything from a computerized database or spreadsheet to a periodically reviewed, hand-written list.	X		
(4) Does the company adhere to their maintenance manual?	X		
b. Carrier has sufficient technical publications program that:			
(1) Ensure they are maintained under current revision status? ** This process includes recurring interface with manufacturers to verify currency.			
(2) Available to all that require technical publications?			
(3) Are they in good condition? This includes manual display equipment must be available and operational if required to read manuals such as microfilms/tapes.			
(4) Are they adhered to by maintenance personnel?			
(5) Is the disposition of material printed from manual display equipment associated with microfilms/tapes/CD's properly controlled?			

12. MAINTENANCE FACILITIES/STORES	YES	NO	N/A
a. Does the carrier have sufficient hangar and/or shop facilities to support maintenance operations?	X		
b. Does the carrier maintain their maintenance facilities in a neat, orderly, and safe fashion?	X		
(1) Are sufficient fire extinguishers provided, and are they in serviceable condition?			
(2) Are flammables properly stored?			
(3) Are sufficient eye wash stations provided?			
c. Does the carrier have a FAA Part 145 certified repair station?	X		
(1) What are their capabilities/authorizations?			
d. Does the carriers stores or supply program provide for the following:			
(1) Parts are properly tagged and environmentally protected? ** All - All parts are identified (tagged or stamped.) Parts are stored in an area reasonably free from environmental contaminants and wrapped or boxed in a manner that precludes damage or contamination. All open ends of fabricated and bulk lines and hoses are capped or covered.	X		
(2) Detailed receiving inspection procedures that ensure only approved and serviceable parts (rotatable and consumable) are stocked for issue? All - All parts received are inspected through a process that verifies the item has been provided by an approved vendor, serviceability, the proper part has been received, and all required certification documentation is provided and properly accomplished. Program complexity is dependent on carrier size.	X		

MAINTENANCE FACILITIES/STORES CONT.			
(a) Do receiving inspectors use the approved vendor list during receiving inspections? **			
(3) Traceability for all parts? (Includes raw stock such as sheet metal, hardware, etc.) ** All - Stocked aircraft parts have documentation that certifies the item has been manufactured/repaired/overhauled to approved standards and when applicable, returned to service by an approved organization.			
(4) A shelf-life inspection program that ensures no items that have exceeded shelf-life limitations are available for use? ** All - All items, to include aircraft components, are closely monitored through periodic inspections of all shelf-life limited components and consumables to preclude issuance of expired supplies.	X		
(5) Segregation of unserviceable/repairable parts from serviceable parts? All - Parts are stored in a manner that prevents mixing of serviceable and unserviceable items. This may be as simple as identifying and marking shelves/cabinets/rooms for serviceable or unserviceable items. Aircraft parts and supplies are kept physically segregated from other supplies such as those for automotive or support equipment use.	X		
(6) Aircraft seals (O-rings) are stocked and issued according to aircraft/equipment manufacturer requirements?			
(7) A parts/material scrap program that renders all items unusable prior to disposal? All - A detailed process is established that identifies the steps required to scrap an item, especially life-limited components. All items should be damaged to preclude further use and a log of items scrapped should be kept.	X		
(8) Proper storage of flammables (stores)?			
(9) Is carrier authorized to package/handle/ship hazardous material? IF YES – A documented process is established that properly trains personnel to package/handle/ship hazardous material. Ref: 121.1001 & 1003, 135.501 & 503			