

ADVISORY CIRCULAR



DEPARTMENT OF TRANSPORTATION
Federal Aviation Administration
Washington, D.C.

FAR GUIDANCE MATERIAL

Subject: APPROVED AIRCRAFT INSPECTION PROGRAM

1. **PURPOSE.** This advisory circular provides principal information and guidance for approved aircraft inspection programs.

2. **FOCUS.** This document is appropriate for the guidance of that segment of the public which elects to, or is required to, have an Approved Aircraft Inspection Program (AAIP) under Federal Aviation Regulations (FAR), Part 135.

3. **DISCUSSION.** FAR Section 135.419 provides for AAIP's, when formally approved by the FAA, for aircraft of nine or less passenger seats operated under Part 135. The AAIP concept was first developed for the benefit of air taxi operators who requested regulatory authority to develop and utilize inspection programs more suitable to aircraft in their operating environments than the conventional 100-hour/annual inspections required by Part 91.

a. The AAIP allows each operator to develop a program tailored to its particular needs to satisfy aircraft inspection requirements. It allows each operator to adjust the intervals between individual inspection tasks in accordance with the needs of the aircraft rather than repeat all tasks at each 100-hour increment. It also allows them to develop procedures and standards for the accomplishment of those tasks. Concurrent with these benefits is the ability and willingness of the operator to substantiate the program, and revisions thereto, to the Federal Aviation Administration (FAA) as providing an acceptable level of equivalency to the conventional Part 91 inspection requirements.

b. The AAIP serves as the operator's specification for each segment of the program. This is in contrast to the 100-hour/annual inspection wherein the performing mechanic or repair station determines, in accordance with Appendix D of Part 43, what work is required. Under the AAIP, the operator is responsible for the program content and standards, and the performing mechanic or repair station is responsible for accomplishment of the inspection as specified by worksheets and other criteria designated by the program.

c. The AAIP places control of the program under the operator, which is in keeping with the responsibility for airworthiness assigned by FAR Section 135.413. A well developed and monitored AAIP should result in more effective maintenance at less cost than the use of a rigid 100-hour/annual inspection system.

4. PROGRAM REQUIREMENTS. An approved aircraft inspection program should encompass the total aircraft including all installed equipment such as communications and navigational gear, cargo provisions, etc. The program should include the following elements:

a. A schedule of the individual tasks or groups of tasks that comprise the program and their frequency of accomplishment. A group may include all of the tasks making up an identifiable segment of the program such as a "No. 1 Inspection." In this case, the individual tasks can be identified on work forms and the schedule can designate the applicable forms and their frequency of accomplishment.

b. Work forms designating these tasks or groups with a sign-off provision for each. The tasks can be arranged or consolidated according to the complexity of the program, the type aircraft involved, and the character of the maintenance entity performing the work; i.e., the work forms for an inspection of a complex aircraft by a large departmentalized maintenance facility should be subdivided to accommodate that situation. The forms also serve to coordinate and control work in progress. They may be developed by the operator or adopted from another source.

c. Instructions for accomplishing each task. These instructions must satisfy FAR Section 43.13(a) regarding methods, techniques, and practices; and tools and equipment, and should provide standards such as dimensions and tolerances. These instructions may be provided by several means, each of which should provide adequate information in a form suitable for use by the person performing the work.

(1) The instructions may be printed directly on the work forms.

(2) They may be published in a manual section in a format that can be cross referenced to items on the form.

(3) References to specific chapters, sections, or paragraphs of a manufacturer's manual or other pertinent instruction can be incorporated on the form or in the operator's manual.

(4) Provisions for operator-developed revisions to referenced instructions should be incorporated.

d. A system for recording discrepancies and their correction. If deferral of discrepancies is authorized by the program, a system for control and followup action for deferred discrepancies is essential.

e. A means of accounting for work forms upon completion of the inspection. These forms are used to satisfy FAR Section 91.173 so they must be complete, legible, and identifiable as to the aircraft and specific inspection they relate to. In some cases, the forms may also serve to satisfy FAR Section 43.11 should the aircraft revert to Part 91 inspection requirements.

f. Accommodation for variations in equipment and configurations between aircraft in the fleet to which it applies. This includes installations and alterations that deviate from the original aircraft configuration.

g. Procedures for transferring an aircraft from another program to the AAIP. Although not essential to the AAIP, procedures for transferring an aircraft to Part 91 inspection requirements would be helpful, should the aircraft ever be transferred back to Part 91 operation.

5. PROGRAM BASES. An approved aircraft inspection program may be developed from one of the following:

a. Adoption of an aircraft manufacturer's inspection program. Under this arrangement, the aircraft manufacturer's program (including methods, techniques, practices, and standards for its accomplishment) along with inspection intervals is adopted in its entirety. If the manufacturer's program affords options, such as particular inspections that need be done only during the winter in cold climates, the operator's AAIP should designate if and when those items need to be accomplished.

(1) Many aircraft manufacturers' programs do not encompass appliances and related installations, which should be incorporated into the AAIP.

(2) Revisions to the program published by the manufacturer should be immediately analyzed for inclusion in the program.

b. Modified manufacturer's programs. The operator can modify a manufacturer's program to suit his needs. The modifications can be done to work forms, to published methods, techniques, practices, and standards, or to maintenance/inspection intervals. Modifications to manufacturer's instructions should be clearly identified.

c. Operator developed program. This type program is developed and published in its entirety by the operator. It should include methods, techniques, practices, and standards necessary for proper accomplishment of the program.

d. An existing progressive inspection program (Section 91.171) can be converted to an AAIP.

6. PROGRAM EVALUATION AND REVISION BASIS. An inspection program, other than one developed by an operator from scratch, should be evaluated by the operator prior to submitting it to FAA for approval.

a. This evaluation should establish, at a minimum, that the program applies to the aircraft make, model, configuration and modification status, and that it encompasses the avionics installation and all aircraft equipment.

b. The program should also be evaluated for its suitability with regard to peculiarities of the operator such as climate, stage length (flight time between landings), and the provisional inspections for special purpose operations, etc.

c. The basis for revision to a program in preparation for initial approval or for an ongoing AAIP may be service experience, tests or inspections to determine serviceability or condition, disassembly analysis, modifications, changes in environment, etc.

(1) Revisions predicated on tests, inspections, disassembly analysis, etc., should be coordinated with FAA to accommodate their observation of the conditions under analysis.

(2) Historical data for revisions based on service experience should be provided by the operator.

(3) Manufacturers' recommendations or manufacturers' inspection program revisions do not, by themselves, justify revision to an AAIP.

7. PROGRAM ADMINISTRATION. Procedures for administering the program should be established. These should include all facets of the program, such as:

a. Duties and responsibilities for all personnel involved in administering the program.

b. Scheduling inspections and recording their accomplishment.

c. Editing the program and/or related manual pages, work forms, etc., and revisions thereto.

d. FAA approval of revisions.

e. Accounting for and maintaining a file of completed work forms.

f. Arrangements with contract agencies for performing inspections.

g. For computerized maintenance/inspection programs, procedures peculiar to those programs.

8. OPERATOR'S MANUAL. The operator's manual should include a section that clearly describes the program including procedures for program scheduling, recording, accountability for continuing accomplishment, and for program revision. This section serves to facilitate administration of the program by the certificate holder and to direct its accomplishment by mechanics or repair stations. It should include copies of the work forms and schedule of maintenance/inspection intervals, or it should identify and reference the forms and schedule if they are located elsewhere in the operator's manual system. The operator's manual should also include or reference instructions for methods, techniques, and practices and for standards, tools, and equipment for accomplishment of the maintenance/inspection tasks.

9. PROGRAM APPROVAL. FAA approval of an AAIP is documented by operations specifications, FAA Form 1014. An FAA Flight Standards District Office will provide sample operations specifications to aid the operator in developing appropriate specifications for its program. Individual approval is required for each operator and for each model aircraft; i.e., there is no provision for an individual approval for all model aircraft used by one operator or for approval of a specific program for use by several operators.

a. The administrative provisions of an AAIP are a significant part of the program and will be reviewed for approval accordingly.

b. In general, manufacturers' instructions are acceptable but all manufacturers' programs will be reviewed for adequacy (encompassing the entire aircraft including appliances, passenger accommodations, and emergency equipment).

c. If the additional maintenance requirements are incorporated in the AAIP, the operations specifications and program description should so state.

d. Amendments or changes to an AAIP may be accomplished by amending the operations specifications or by a suitable method incorporated into the program. Appendix 1 depicts a typical revision control record for this purpose.

e. Maintenance manual pages or other instructions pertaining to administration of the program are considered in program approval.



M. C. Beard
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FIGURE A-1 REVISION CONTROL RECORD

AMENDMENT NUMBER	PAGE NUMBER(S)	DESCRIPTION	OPERATOR APPROVAL	FAA APPROVAL	APPROVAL DATE
Amendment 20	7.2531 7.2533	Delete graphs Typo. error	<i>John Doe</i>	<i>G. J. Boyer</i>	8/15/80
Amendment 21	7.2322 7.2323 7.2324 7.2402	Delete FAA References	<i>John Doe</i>	<i>G. J. Boyer</i>	3/15/80
Amendment 22	7.2403 7.2311	Code IV Rewritten	<i>John Doe</i>	<i>G. J. Boyer</i>	9/27/80