

DATE 9/25/80

# ADVISORY CIRCULAR



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

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**Subject:** AIRPLANE FLIGHT MANUALS (AFM), APPROVED MANUAL MATERIALS, MARKINGS, AND PLACARDS - AIRPLANES

1. PURPOSE. This advisory circular calls attention to the regulatory requirements governing AIRPLANE FLIGHT MANUALS, APPROVED MANUAL MATERIALS, MARKINGS, and PLACARDS, and provides information useful to pilots in complying with these requirements.

2. CANCELLATION. Advisory Circular 60-6A, dated February 9, 1976, is cancelled.

3. RELATED PUBLICATIONS. Civil Air Regulations (CAR) 3, 04, 4a, 4b; Federal Aviation Regulations (FAR) Parts 21, 23, 25, 61, 91, 121; and Advisory Circular Numbers 61-9A, Pilot Transition Courses for Complex Single-Engine and Light, Twin-Engine Airplanes; 61-54A, Flight Test Guide (Part 61 revised)--Private Pilot Airplane; 61-55A, Commercial Pilot Airplane Flight Test Guide; and 61-57A, Multiengine Airplane Class and Type Ratings, Flight Test Guide.

4. BACKGROUND.

a. The type certification requirements effective at the time an airplane is originally type certificated usually govern the operating limitations of that airplane, unless a supplementary type certificate has been issued, the original type certificate has been revised, or changes have been effected by specific amendments to the FAR.

b. Accident investigations, pilot flight tests, and the observation of flight operations have indicated that many pilots are not always aware of the requirements which apply to a particular airplane. As a result, some airplanes have been operated beyond their approved operating limitations and without the required combination of placards, markings, flight manuals or approved manual materials. In some instances, this has occurred after a change in ownership, if the previous owner removed the AFM, or was engaged in air carrier operations that properly authorized the incorporation of required operating data in a company operations manual.

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## 5. INFORMATION.

a. Section 91.31 of the FAR, in part, provides that an airplane must be operated in compliance with the operating limitations as set forth in the AIRPLANE FLIGHT MANUAL, APPROVED MANUAL MATERIALS, MARKINGS, and PLACARDS for the particular airplane type. This section of the FAR also provides that these documents, or any required combination, must be current and available in the airplane during operation.

b. AFMs are required for all airplanes certificated in the transport category. No provision exists for approval of an AFM for airplanes type certificated in the normal or acrobatic categories under CAR 04 or 4a.

c. AFMs are also required for airplanes type certificated under CAR 3 and FAR Part 23 at gross weights over 6,000 pounds, however, all aircraft that were manufactured after March 1, 1979, must have an AFM. The required information for airplanes, type certificated at gross weights of 6,000 pounds or under, which are not required to have an AFM, may be furnished in an airplane flight manual or in any combination of approved manual material, markings, and placards.

d. AFMs may be required for certain other airplane types which have been issued supplementary type certificates changing the original type certification requirements. Notable examples are numerous DC-3s which have been approved for operations in the transport category under a supplemental type certificate.

e. Section 21.5 of the FAR provides that for each airplane that was not type certificated with an AFM and that has had no flight prior to March 1, 1979, the holder of the Type Certificate (including a Supplemental Type Certificate or the licensee of a Type Certificate) shall make available to the owner at the time of delivery of the airplane a current approved AFM. The AFM must contain operating limitations and information required to be furnished in an AFM or manual material, markings, and placards, by the applicable regulations under which the airplane was certificated. The maximum ambient atmospheric temperature for which engine cooling was demonstrated must be in the AFM performance section, if not required to be in the operating limitations section.

f. Specific placards and markings are prescribed by airworthiness standards in addition to required AFMs or approved manual materials.

g. Supplemental operating and performance information which has not been specifically or formally approved by the FAA is usually provided by the manufacturer for a particular type airplane. This information generally is in the form of an "Owner's Handbook," an "Owner's Manual," or as supplemental pages in an AFM.

h. The FAA recommends appropriate use of such unapproved information when furnished by a manufacturer, but only to the extent that such information does not conflict with the performance or operating limitations of any FAA-approved markings, placards, airplane flight manuals, or Type Certificate Data Sheet specification.

i. The principal source of information for identifying required AIRPLANE FLIGHT MANUALS, APPROVED MANUAL MATERIALS, MARKINGS, and PLACARDS is the FAA Type Certificate Data Sheet or Aircraft Specification issued for each airplane eligible for an airworthiness certificate. This information may be obtained from FAA General Aviation District Offices (GADOs), Flight Standards District Offices (FSDOs), FAA-approved aircraft repair stations, and certificated mechanics holding Inspection Authorizations. Some other aircraft repair facilities also maintain a reference library of Type Certificate Data Sheets.

## 6. RECOMMENDATIONS.

a. Prior to operating a civil airplane, pilots must assure that there is available in that airplane either a current AFM or approved manual materials, if required, along with necessary markings and placards. If you have any uncertainty about specific requirements for a given airplane, clear up that uncertainty through one of the above sources before you fly.

b. Flight instructors should emphasize civil aircraft operating limitations and marking requirements as a part of student pilot training in the general operating rules of Part 91, and help each student become familiar with the information available to them in the Type Certificate Data Sheets or Aircraft Specifications.



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