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CIVIL AERONAUTICS MANUAL 3

U. S. Department of Commerce

Civil Aeronautics Administration

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Supplement No. 6

May 17, 1950

Subject: 3.6 Airplane Categories

The purpose of this supplement is to make available current interpretations relating to approved nonacrobatic and limited acrobatic maneuvers for Normal and Utility Category aircraft, respectively.

3.6-1 Approved Maneuvers for Normal Category Aircraft

3.6-2 Approved Limited Acrobatic Maneuvers for Utility Category Aircraft

Attached hereto are new pages relating to the above items dated May 17, 1950. These pages supersede interpretations outlined in CAM 3.6-1 of Supplement No. 5, dated March 8, 1950, and should be retained as the sixth in a series of similar statements that will be issued explaining or implementing Civil Air Regulation Part 3. Also attached is an errata sheet transmitting two ink revisions to be made to Supplement No. 5.

John F. Warlick
for E. S. Hensley
Director, Office of
Aviation Safety

Attachment

Distribution: AIR 1, 2, 3, 8, 9, 11, 13,
14, 40 All Tabs, 40-B, 40-C,
40-D, 40-E, 40-F-1

Errata Sheet - Civil Aeronautics Manual 3

Subject: Corrections to CAM 3.174-3 and CAM 3.422-2 in Supplement No. 5, dated March 8, 1950

Please make the following ink corrections to the above manual material previously issued by CAA:

CAM 3.174-3 (a): Change the reference date in sub-paragraph (a) to "May 1943."

CAM 3.422-2: Revise second sentence to read:

"For aircraft employing struts of the leaf spring type, a deflection corresponding to 1.5g should be used to determine whether positive clearance exists."

May 17, 1950

"AIRPLANE CATEGORIES"

"CAR 3.6 Airplane categories. (a) In this part airplanes are divided upon the basis of their intended operation into the following categories for the purpose of certification.

"(1) Normal - Suffix 'N'. Airplanes in this category are intended for nonacrobatic, nonscheduled passenger, and nonscheduled cargo operation.

"(2) Utility - Suffix 'U'. Airplanes in this category are intended for normal operations and limited acrobatic maneuvers. These airplanes are not suited for use in snap or inverted maneuvers.

"(3) Acrobatic - Suffix 'A'. Airplanes in this category will have no specific restrictions as to type of maneuver permitted unless the necessity therefor is disclosed by the required flight tests.

"(4) Restricted purpose - Suffix 'R'. Airplanes in this category are intended to be operated for restricted purposes not logically encompassed by the foregoing categories. The requirements of this category shall consist of all of the provisions for any one of the foregoing categories which are not rendered inapplicable by the nature of the special purpose involved, plus suitable operating restrictions which the Administrator finds will provide a level of safety equivalent to that contemplated for the foregoing categories.

"(b) An airplane may be certificated under the requirements of a particular category, or in more than one category, provided that all of the requirements of such categories are met. Sections of this part which apply to only one or more, but not all, categories are identified in this part by the appropriate suffixes, as indicated above, added to the section number. All sections not identified by a suffix are applicable to all categories except as otherwise specified.

"Note: For rules governing the eligibility of airplanes certificated under this part for use in air carrier operations see Parts 40, 41, 42, and 61 of this chapter."

3.6-1 APPROVED MANEUVERS FOR NORMAL CATEGORY AIRCRAFT.
(CAA interpretations which apply to section 3.6).

The phrase "nonacrobatic operation" as used in CAR 3.6(a)(1) is interpreted to mean that type of operation in which the aircraft is limited to those maneuvers incidental to normal flying and including stalls (except whip stalls) and turns in which the angle of bank is not in excess of 60°.

May 17, 1950

3.6-2 APPROVED LIMITED ACROBATIC MANEUVERS FOR UTILITY CATEGORY AIRCRAFT. (CAA interpretations which apply to section 3.6).

The phrase "limited acrobatic maneuvers" as used in CAR 3.6(a)(2) is interpreted to include spins (where approved for the particular type airplane), lazy eights, chandelles and steep turns in which the angle of bank is in excess of 60° . It is recognized that aircraft in this category are also capable of performing all normal maneuvers listed in CAM 3.6-1 for Normal Category aircraft. Although it is possible in many airplanes to perform other acrobatic maneuvers, such as loops, without exceeding airspeed and strength limitations, inexperienced or uninstructed pilots are likely to get into difficulty. It is therefore considered unwise to label such maneuvers "approved" in the Airplane Flight Manual.

May 17, 1950