ORDER

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

8110.40

6/15/84

SUBJ: RESTRICTED CATEGORY - AERIAL SURVEY SPECIAL PURPOSE OPERATIONS

1. PURPOSE. This order identifies special purpose operations considered to be within the scope of aerial surveying.

2. DISTRIBUTION. This order is distributed to the branch level in the Office of Airworthiness and Flight Operations; to the branch level in the Aviation Standards National Field Office; to the branch level in the regional Flight Standards Divisions; to the section level in the Aircraft Certification Divisions; to all Aircraft Certification Offices, Aircraft Certification Field Offices, and Manufacturing Inspection District/Satellite Offices; to all General Aviation, Air Carrier, and Flight Standards District Offices; to all International, Aeronautical Quality Assurance, and International Aviation Field Offices; and to all Designated Engineering Representatives, and Designated Manufacturing Inspection Representatives.

3. BACKGROUND. The Office of Airworthiness has received inquiries concerning the validity of a number of restricted category special purpose operations that appear to be within the broad scope of Federal Aviation Regulations (FAR) 21.25(b)(3), but are not specifically identified. Among such operations are: maritime patrol; geophysical survey; atmospheric research; airborne surveillance; and airborne measurement of navigation signals in the airspace. FAR 21.25(b)(3), formerly Civil Aeronautics Manual (CAM) 8.0-1(b), lists only "photography," "mapping," and "oil and mineral exploration" as examples.

4. DISCUSSION. In reviewing the inquiries, it has become evident that all of the operations in question, as well as the examples in FAR 21.25(b)(3), have one element in common, that is, in each case the aircraft has specialized equipment installed to accomplish the special purpose. Such equipment and/or its installation may be of such nature that Federal Aviation Administration (FAA) approval would not be feasible or possible. In addition, except for airborne measurement of navigation signals in the airspace, all of the purposes would normally be carried out over open terrain or open water, and not over densely populated areas. In all cases, the operating limitations of FAR 91.39 would apply, which, for purposes such as airborne measurement of navigation signals in the airspace, may in some cases require a certificate of waiver issued under FAR 91.39(e). It may, therefore, be concluded that when CAM 8.0-1(b) was drafted, (recodified into FAR 21.25(b)) it did not envision all possible new special purposes that over the years could be included under the generic heading of "aerial surveying," but listed only examples of operations that may have been most active in 1950, when CAM 8.0-1(b) was adopted.

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Initiated By: AWS-200

5. PROCEDURES.

a. Field offices involved in restricted category certification under FAR 21.25 and 21.185 may accept applications showing "Aerial Surveying" as the special purpose operation, for operations not specifically listed as examples in FAR 21.25(b)(3), when:

(1) Accomplishment of the special purpose operation requires installation of specialized electronic or mechanical equipment that for any reason cannot be FAA approved, or would otherwise render the aircraft ineligible for a Standard Airworthiness Certificate;

(2) The special purpose operation would normally be conducted over open terrain or open water, and not over densely populated areas; and,

(3) The special purpose operation may be conducted within the provisions of FAR 91.39, including the provisions of a certificate of waiver if required.

b. Examples of eligible special purpose operations not specifically identified in the examples shown in FAR 21.25(b)(3) are:

(1) Airborne remote sensing - atmospheric research.

(2) Geophysical survey.

(3) Electromagnetic survey.

(4) Maritime surveillance.

(5) Airborne surveillance (air-to-air, air-to-ground).

(6) Airborne measurement of navigation signals in the airspace.

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