Federal Aviation Agency
Washington, D.C.

Civil Aeronautics Manual 43

General Operations Rules

Supplement No. 8, CAM 43 dated Sept. 1959 **Dec. 15, 1962**

SUBJECT: Revisions to CAM 43.

This supplement is issued to add to CAM 43 an amendment to section 43.47(b), and Special Civil Air Regulations Nos. SR–450A and SR–454A.

Section 43.47(b) is amended to restrict jumps made from aircraft, except in an emergency, to the provisions of Part 105 [New]. This amendment appeared in the preamble to Part 105 [New] and was published in 27 F.R. 11635, on November 27, 1962, to become effective on February 26, 1963.

Special regulation SR–450A *concerns airspeed operation limitation for transport category* airplanes. This regulation was issued August 29, 1962, and supersedes Special Civil Air Regulation No. SR–450.

Special regulation SR–454A concerns a special operating rule within certain areas of the State of Florida and over its adjacent waters. This regulation was issued and became effective on November 23, 1962, and rescinds SR–454. Because of its emergency nature, SR–454 was distributed to holders of CAM 43 without the usual supplement transmittal sheet and may now be destroyed.

New or revised material is enclosed in brackets with the exception of the Special Civil Air Regulations which are new in their entirety.

Remove the following pages:	*Insert the following new pages:*
III and IV	III and IV
9 and 10	9 and 10
89 through 91	89 and 90
SR–454	97 and 98

ATTACHMENTS.

GEORGE C. PRILL, *Director,*
Flight Standards Service.

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(4) Proper lighting for aircraft and tow when night operations are involved.

(5) General airworthy condition of the aircraft and tow.

(Published in 18 F.R. 6871, Oct. 31, 1953, effective Nov. 25, 1953.)

43.46–3 *Certificate conditions (FAA policies which apply to sec. 43.46).* A Certificate of Waiver or Authorization for towing objects by aircraft will be issued subject to the following conditions and limitations:

(a) *Operations authorized.* Operations will be limited to those specified on the certificate. No authorization will be issued unless the operation:

(1) Will not create a hazard to other air traffic, or persons or property on the ground.

(2) In a control zone, can be controlled by air traffic control, or other air traffic can be advised of the operation.

(3) On airways, or in the vicinity of busy airports, can be made known to affected air traffic.

(4) Can be conducted in accordance with such special provisions which the approving agent deems necessary.

(b) *Duration.* The certificate will contain an expiration date which will allow ample time to complete the operation, but may be surrendered by the holder or cancelled by the Administrator at any time.

(c) *Special provisions.* The certificate will contain such special provisions as the approving agent may deem necessary in the interest of safety. *Examples illustrating such provisions are:*

(1) A thorough inspection of the aircraft, engine, and special equipment shall be made prior to each day's operations.

(2) A planned course of action shall be followed with emphasis on selection of available emergency landing areas.

(3) A capable and experienced pilot holding at least a commercial rating will be used.

(4) Air traffic control and appropriate officials of the community shall be notified prior to beginning operations.

(5) Any other specific precaution the agent may assign.

(Published in 18 F.R. 6872, Oct. 31, 1953, effective Nov. 25, 1953.)

43.47 *Dropping objects or persons.*

(a) No person piloting an aircraft shall permit any object to be dropped from such aircraft in flight which creates a hazard to persons or property.

***Note:* This rule prohibits neither aerial application operations, such as seeding, spraying or dusting, nor the dropping of newspapers, periodicals, circulars, or objects of any other kind, provided reasonable precautions are taken to avoid injury or damage to persons or property.**

[(b) Except in an emergency, no person piloting an aircraft may allow a parachute jump to be made from that aircraft contrary to the provisions of Part 105 [New].]

(Sec. 43.47(b) amended by preamble to Part 105 [New] published in 27 F.R. 11635, on Nov. 27, 1962, effective Feb. 26, 1963.)

43.48 *Aerobatic flight.* No pilot shall intentionally fly an aircraft in aerobatic flight carrying passengers unless all occupants are equipped with approved parachutes.

43.48–1 *Aerobatic flight (FAA interpretations which apply to sec. 43.48).* Aerobatic flight, insofar as it concerns the wearing of parachutes, must be deemed to exist when any maneuver intentionally performed results in the following:

(a) A bank in excess of 60° relative to the horizon, or

(b) A nose up or nose down attitude in excess of 30° relative to the horizon.

An example of the application of this interpretation is that parachutes are not required when stalls, lazy eights, etc., are performed within these limits, while these same maneuvers performed with attitudes in excess of the limits would require the wearing of parachutes. Stalls as practiced for the private pilot flight test normally would not exceed the prescribed limits.

Consideration must be given to the fact that these limits are not intended to insure that all

maneuvers which could be performed within them are also within the safe operating limits of the aircraft. It is reasonably certain that a prolonged full power descent in a nose down attitude of less than 30° would exceed placarded speeds, and that sudden full application of elevators at cruising speed could produce stresses sufficient to cause structural failure.

This interpretation is intended only to define the circumstances under which parachutes must be worn in accordance with section 43.48, and does not in any way modify the definition of aerobatic flight as it applies to other sections of the Civil Air Regulations.

(Published in 15 F.R. 5843. Aug. 30, 1950, effective Aug. 30, 1950.)

43.49 *Parachutes.* No pilot shall carry on an aircraft a parachute which is available for emergency use unless:

(a) It is an approved chair-type (canopy in back) parachute which has been packed by a qualified parachute rigger within the preceding 120 days; or

(b) It is an approved-type, other than a chair-type (canopy in back) parachute which has been packed by a qualified parachute rigger within the preceding 60 days.

43.50 *Transportation of explosives and other dangerous articles.* No person piloting an aircraft shall permit explosives or other dangerous articles such as inflammable liquids or solids, oxidizing material, corrosive liquid, inflammable or noninflammable compressed gas, poison gas or liquid, poisonous liquid or solid, or tear gas to be carried in aircraft, except as provided for in Part 49 of this chapter. Small arms ammunition for personal use, necessary aircraft signaling devices, and equipment necessary to safe operation of the aircraft are permitted.

43.51 *Fuel supply.* Aircraft operated under IFR conditions shall carry sufficient fuel, considering weather reports and forecasts of wind and other weather conditions, to complete the flight to the point of first intended landing, to fly from there to the alternate airport, and to fly thereafter for 45 minutes at normal cruising speed.

Student Pilot Limitations Deleted

The provisions of *Student Pilot Limitations* have been transferred to Part 61 [New] effective November 1, 1962.

43.52 Deleted effective November 1, 1962.

The provisions of section 43.52 have been transferred to Part 61 [New].

43.55 Deleted effective November 1, 1962.

The provisions of section 43.55 have been transferred to Part 61 [New].

43.56 Deleted effective November 1, 1962.

The provisions of section 43.56 have been transferred to Part 61 [New].

Private and Commercial Pilot Privileges and Limitations

43.60 Deleted effective November 1, 1962.

The provisions of section 43.60 have been transferred to Part 61 [New].

43.61 Deleted effective November 1, 1962.

The provisions of section 43.61 have been transferred to Part 61 [New].

43.62 Deleted effective November 1, 1962.

The provisions of section 43.62 have been transferred to Part 61 [New].

43.63 Deleted effective November 1, 1962.

The provisions of section 43.63 have been transferred to Part 61 [New].

43.64 *Flight instruction limitations.* This section governs flight instructions:

(a) *Aircraft.* Aircraft shall be equipped with fully functioning dual controls.

(b) Deleted effective November 1, 1962.

(c) Deleted effective November 1, 1962.

(d) Deleted effective November 1, 1962.

The provisions of paragraphs (b), (c), and (d) of section 43.64 have been transferred to Part 61 [New].

43.65 Deleted effective November 1, 1962.

The provisions of section 43.65 have been transferred to Part 61 [New].

43.67 *Simulated instrument flight.* Aircraft shall not be flown under simulated instrument flight conditions unless:

(a) Fully functioning dual controls are installed in the aircraft.

SPECIAL CIVIL AIR REGULATION NO. SR-450A

Effective: Aug. 31, 1962
Adopted: Aug. 29, 1962
Published: Sept. 1, 1962
(27 F.R. 8760)

Airspeed Operation Limitation for Transport Category Airplanes

Special Civil Air Regulation No. SR-450, effective May 3, 1962 (27 F.R. 2995), contained a number of requirements dealing with airspeed operating limitations to airplanes certificated under the provisions of Part 4b in effect prior to May 3, 1962. A revision of the Airplane Flight Manual statement concerning airspeed operating limitations was prescribed for all such airplanes. Consistent revision of airspeed placards and instrument markings, and the installation of a speed warning device, were additionally prescribed for turbine-powered airplanes. The special regulation required compliance with the speed warning device provision on or before February 1, 1963; with all other provisions, on or before September 1, 1962.

Several operators of airplanes affected by SR-450 have requested extensions of the compliance dates specified therein, contending that compliance before these dates would be unnecessarily and excessively burdensome in relation to the attained increment of safety. With respect to the September 1, 1962, compliance date specified in section 1(a)(2), they point out that remarking airspeed instruments generally involves removal of the instrument seal. When this is done, the instrument is processed through a time-consuming overhaul schedule to make certain that its calibration has not been changed. They state, in addition, that the airplane manufacturer delayed delivery of the detailed service information required for the modification until necessary technical consultations with the instrument manufacturer, and with representatives of this Agency, could be completed. With respect to the February 1, 1963, date established for compliance with section 1(b), operators of turbine-powered airplanes not already equipped with a speed warning device report that they cannot obtain delivery of the device in less than 5 months; that installation of the device involves extensive electrical modifications, rework of the pitot-static pressure system, and other installation changes; that ground and flight tests are necessary to insure proper functioning of the modified systems; and that such modifications and tests, to be conducted in a safe manner, should be scheduled during a major airplane overhaul.

The Agency has determined that, for the reasons stated above and despite diligent efforts on their part, many persons affected by SR-450 will not be able to comply with its provisions before the specified dates and that a period of relief may be granted without adversely affecting safety. Accordingly, SR-450 has been amended by extending the Sep-

tember 1, 1962, compliance dates to March 1, 1963, and by extending the February 1, 1963, compliance date to February 1, 1964.

Since this regulation provides relief from the provisions of the previous regulation, and imposes no additional burden upon any persons, compliance with the notice and public procedure provisions of the Administrative Procedure Act is unnecessary, and good cause exists for making this regulation effective on less than 30 days' notice.

In consideration of the foregoing, the following Special Civil Air Regulation is hereby adopted to become effective August 31, 1962:

Contrary provisions of the Civil Air Regulations notwithstanding, the following requirements shall be applicable to transport category airplanes certificated under the provisions of Part 4b in effect prior to May 3, 1962:

1. *Turbine-powered airplanes.*

(a) On or before March 1, 1963:

(1) The airspeed operating limitations in the Airplane Flight Manual shall be revised by deleting the term "normal operating limit speed" and the corresponding symbols "V_{NO}/M_{NO}", together with statements explaining the significance of this term, and inserting in lieu thereof the term "maximum operating limit speed", the corresponding symbols "V_{MO}/M_{MO}", and the following statement explaining the significance of the new term:

"The maximum operating limit speed shall not be deliberately exceeded in any regime of flight (climb, cruise, or descent), except where a higher speed is specifically authorized for flight test or pilot training operations, or in approved emergency procedures."

(2) Airspeed placards and instrument markings shall be consistent with subparagraph (1) of this paragraph. Where color markings are used on airspeed or Mach indicators, the red radial line shall be at V_{MO}/M_{MO}. Where a maximum allowable airspeed indicator is used, the limit hand shall indicate V_{MO}/M_{MO}.

(b) On or before February 1, 1964, each airplane shall be equipped with a speed warning device which shall provide aural warning to the pilots, which is distinctly different from aural warnings used for other purposes, whenever the speed exceeds V_{MO} plus 6 knots or $M_{MO}+0.01$. The upper limit of the production tolerances permitted for the warning device shall be at a speed not greater than the prescribed warning speed.

2. *Reciprocation engine-powered airplanes.* On or before March 1, 1963, the airspeed operating limitations in the Airplane Flight Manual shall be revised as necessary to state that the normal operating limit speed, or the maximum structural cruising speed (whichever term is used in the particular manual), shall not be deliberately exceeded in any regime of flight (climb, cruise, or descent), except where a higher speed is specifically authorized for flight test or pilot training operations, or in approved emergency procedures.

This regulation supersedes Special Civil Air Regulation No. SR–450.

SPECIAL CIVIL AIR REGULATION NO. SR-454A

Effective: November 23, 1962
Adopted: November 23, 1962
Published: November 28, 1962

(27 F.R. 11692)

Amendment of Special Operating Rule Within Certain Areas of the State of Florida and Over Waters Adjacent Thereto

On October 23, 1962, this Agency adopted Special Civil Air Regulation No. SR-454 (27 F.R. 10444) in the interests of National defense and for the safety of air commerce. SR-454 prohibited the operation of civil aircraft, in specified areas of the State of Florida and over the waters adjacent thereto, unless certain aircraft equipment and operational limitations were satisfied.

After consultation with the Department of Defense, I have determined that the circumstances which generated the need for this regulation now permit its relaxation for the area over the land mass of the Florida peninsula north of latitude 25°10′ North subject to the inclusion, however, of a provision for reinstatement of its effect for that area, if required by changes in the situation. Accordingly, I find that Special Civil Air Regulation No. SR-454 should be rescinded and Special Civil Air Regulation No. SR-454A adopted.

Since this action relaxes an existing restriction, compliance with the notice, public procedure and effective date requirements of the Administrative Procedure Act is unnecessary.

In consideration of the foregoing, SR-454 is hereby rescinded and the following Special Civil Air Regulation is adopted:

Section 1. No person may operate any civil aircraft within the area described in Section 2 of this Regulation:

(1) Over water and outside the land mass of the State of Florida or over land South of 25°10′ North latitude, unless:

(a) It is operated under a flight plan that has been approved by appropriate military authority acting through an FAA air traffic control facility; and

(b) The aircraft possesses functioning navigation equipment and functioning communications equipment necessary to maintain two-way radio contact with air traffic control facilities at all times during the operation, and the pilot in command monitors the radio frequencies specified by air traffic control.

(2) Over the land mass of the State of Florida North of 25°10′ North latitude whenever a NOTAM has been issued by the Administrator which specifies this Regulation applies thereto, unless:

(a) It is operated under a flight plan that has been approved by appropriate military authority acting through an FAA air traffic control facility; and

(b) The aircraft possesses functioning navigation equipment, and functioning communications equipment necessary to maintain two-

way radio contact with air traffic control facilities at all times during the operation, and the pilot in command monitors the radio frequencies specified by air traffic control.

Section 2. This Regulation applies within the following area within the State of Florida and over waters adjacent thereto, from the surface upward:

> Beginning at 29 degrees North latitude, 85 degrees West longitude; thence clockwise to 29 degrees North latitude, 79 degrees 30 minutes West longitude, to 24 degrees North latitude, 79 degrees 30 minutes West longitude, to 24 degrees North latitude, 85 degrees West longitude, to the point of beginning.

This regulation becomes effective immediately.