Federal Aviation Agency
Washington, D.C.

Civil Air Regulations, Part 60

AIR TRAFFIC RULES

Supplement No. 7, CAR 60 dated May 15, 1961 **March 1, 1962**

SUBJECT: Amendment 60-27 to CAR 60. Supplement 33 to CAM 60.

Amendment 60-27 was adopted by the Administrator on January 19, 1962, to revise section 60.49, Radio failure, effective May 1, 1962.

Section 60.49 was revised to recognize the operating limitations of jet aircraft at low altitudes and the operational problems which became apparent with the introduction of the three-level route structure.

Supplement 33 to CAM 60 was issued by the Administrator on January 19, 1962 to delete sections 60.21-1 and 60.49-1 of CAM 60 which became obsolete upon the adoption of Amendment 60-27.

Appendix A office listings are subject to frequent change, making it impractical to maintain the list current in a publication which is not issued on a scheduled basis. Accordingly Appendix A has been deleted from this publication.

Included in this supplement as an addendum to Part 60 is the preamble to Amendment 60-27 which sets forth the basis for this rule making action. This amendment is forwarded in advance of its effective date to afford additional public notice of its provisions. Page revisions should NOT be inserted until effective on May 1, 1962.

Remove the following pages:	*Insert the following new pages:*
III through VI	III through VI
9 through 12	9 through 12
P-5 and P-6	P-5 through P-7
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D. D. THOMAS, *Director*
Air Traffic Service

Attachments.

Civil Air Regulations Part 60

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Definitions

NOTE.—The statements contained in the notes in this Part are intended as explanation only and shall not be construed as official interpretations of the regulations.

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Special Civil Air Regulations Which Affect Part 60

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Civil Aeronautics Manual 60

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cedure prescribed for that airport by the Administrator shall be used, unless:

(a) A different instrument approach procedure specifically authorized by the Administrator is used, or

(b) A different instrument approach procedure is authorized by air traffic control for the particular approach, provided such authorization is issued in accordance with procedures approved by the Administrator.

Note: Standard instrument approach procedures prescribed by the Administrator are published in Parts 609 and 610 of this title, and also may be found in the Approach and Landing Charts and Radio Facility Charts of the U.S. Coast and Geodetic Survey, and in the Airman's Guide. Such procedures have been carefully investigated with respect to pattern and terrain clearance. Safety would not permit several aircraft to make simultaneous use of more than one instrument approach procedure unless such operations were controlled.

60.47 Radio communications. Within controlled airspace the pilot in command of the aircraft shall ensure that a continuous watch is maintained on the appropriate radio frequencies and shall report by radio as soon as possible the time and altitude of passing each designated reporting point, or the reporting points specified by air traffic control, together with weather conditions which have not been forecast, and other information pertinent to the safety of flight.

Note: Designated reporting points are noted in publications of aids to air navigation. Control of air traffic is predicated on knowledge of the position of aircraft in flight. The reporting of unanticipated weather encountered en route such as icing or extreme turbulence may be of importance to the safety of other aircraft anticipating flight within the area.

[60.49 *Radio communications failure.* In the event of two-way radio communications failure the pilot shall comply with the following procedures, unless otherwise authorized by air traffic control:

[(a) *VFR conditions.* If the failure occurs in VFR conditions or if such conditions are subsequently encountered, continue flight under VFR and land as soon as practicable.

[(b) *IFR conditions.* If the failure occurs in IFR conditions or if the provisions of paragraph (a) of this section cannot be followed, continue flight to the airport of destination.

[(1) *Route.* Via the route specified in the last air traffic control clearance received or, if no route has been specified, via the planned route.

[(2) *Altitude.* At whichever of the following altitudes or flight levels is the higher:

[(i) At the altitude or flight level specified in the last air traffic control clearance received;

[(ii) At the minimum safe altitude; or

[(iii) At the lowest cardinal altitude or flight level (1,000-foot level), at or above the MEA of the highest planned route structure.

[When climb to a higher route structure is necessary, climb shall be initiated, unless required earlier by the minimum safe altitude, 10 minutes after passing the first compulsory reporting point over which the failure prevented communications with air traffic control.

[(3) *Holding.* When holding instructions have been received, depart the holding fix at the expected further clearance time received or, if an expected approach clearance time has been received, depart the holding fix so as to arrive over the radio facility to be used for the approach at the destination airport as nearly as possible to the expected approach clearance time.

[(4) *Descent.* Descent from the en route altitude or flight level shall be initiated at the radio facility to be used for the approach at the destination airport at whichever of the following times is the later:

[(i) The expected approach clearance time, if received;

[(ii) The estimated time of arrival as determined from the flight plan, as amended with air traffic control; or

[(iii) The actual time of arrival over the facility.

[*Note:* Detailed procedures to be followed by the pilot are contained in the FAA Flight Information Manual, for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C.]

Definitions

60.60 Definitions. As used in this Part, terms shall be defined as follows:

Acrobatic flight. Maneuvers intentionally performed by an aircraft involving an abrupt change in its altitude, an abnormal attitude, or an abnormal acceleration.

Note: The term "acrobatic flight" is not intended to include turns or maneuvers necessary to normal flight.

Air traffic. Aircraft in operation anywhere in the airspace and on that area of an airport normally used for the movement of aircraft.

Air traffic clearance. Authorization by air traffic control, for the purpose of preventing collision between known aircraft, for an aircraft to proceed under specified traffic conditions within controlled airspace.

Air traffic control. A service operated by appropriate authority to promote the safe, orderly, and expeditious flow of air traffic.

Aircraft. Any contrivance used or designed for navigation of or flight in the air, except a parachute or other contrivance designed for such navigation but used primarily as safety equipment.

Airplane. A mechanically propelled aircraft the support of which in flight is derived dynamically from the reaction on surfaces in a fixed position relative to the aircraft but in motion relative to the air.

Airport. A defined area on land or water, including any buildings and installations, normally used for the take-off and landing of aircraft.

Airport traffic area. An airport traffic area is that airspace within a circular limit defined by a 5 statute mile horizontal radius from the geographical center of an airport at which an operative airport traffic control tower is located and extending upwards from the surface to, but not including 2,000 feet above the surface.

Airship. A mechanically propelled aircraft whose support is derived from lighter-than-air gas.

Alternate airport. An airport specified in the flight plan to which a flight may proceed when a landing at the point of first intended landing becomes inadvisable.

Balloon. An aircraft, excluding moored balloons, without mechanical means of propulsion, the support of which is derived from lighter-than-air gas.

Basic airworthiness. "Basic airworthiness" means the structural integrity and controllability of an aircraft as determined by the pilot in normal flight maneuvering such that there is no reasonable probability of failure which would endanger persons or property.

Ceiling. The height above the ground or water of the lowest layer of clouds or obscuring phenomena that is reported as "broken," "overcast," or "obscuration" and not classified as "thin" or "partial."

Controlled airspace. Airspace of defined dimensions designated in Part 601 of this title as continental control area, control area, control zone or transition area, within which air traffic control is exercised.

(1) *Continental control area.* The Continental Control Area consists of the airspace of the continental United States at and above 14,500 feet MSL but excludes: (1) The State of Alaska, (2) the airspace less than 1,500 feet above terrain, and (3) prohibited and restricted areas except those restricted areas specified in Part 601 of this Title.

(2) *Control area.* Unless otherwise provided in appropriate cases, control areas extend upward from 700 feet above the surface until designated from 1,200 feet above the surface or from at least 500 feet below the MEA, whichever is higher, to the base of the continental control area.

(3) *Control zone.* Control zones extend upward from the surface. A control zone may include one or more airports and is normally a circular area of 5 statute miles in radius with extensions where necessary to include instrument approach and departure paths.

(4) *Transition area.* Transition areas extend upward from 1,200 feet or higher above the surface when designated to complement control zones; from 700 feet above the surface when designated in conjunction with an airport with no control zone but for which an instrument approach procedure has been prescribed; or from 1,200 feet or higher above the surface when designated in conjunction with airway route structures or segments. Unless otherwise

limited, transition areas terminate at the base of the overlying controlled airspace.

Cruising altitude. Cruising altitude is a level determined by vertical measurement from mean sea level.

Expected approach time. The time at which it is expected that an arriving aircraft will be cleared to commence approach for a landing.

Flight level. Flight level is a level of constant atmospheric pressure related to a reference datum of 29.92" Hg. For example, flight level 250 is equivalent to an altimeter indication of 25,000 feet, and flight level 265 to 26,500 feet.

Flight plan. Specified information filed either verbally or in writing with air traffic control relative to the intended flight of an aircraft.

Flight test. "Flight test" means flight for the purpose of investigating or checking the operational capabilities of a new type of aircraft, engine, or propeller, the airworthiness of which has not been determined by appropriate military or civil authority; or flights of production aircraft until the basic airworthiness of the aircraft, engine, or propeller contemplated by the appropriate production specification or type certificate is determined by the pilot; or flights involving aircraft, engines, or propellers following major alteration, as defined in Part 18 of the Civil Air Regulations, until the basic airworthiness of the aircraft, engine, or propeller has been determined by the pilot.

Flight visibility. The average horizontal distance that prominent objects may be seen from the cockpit.

Glider. An aircraft without mechanical means of propulsion, the support of which in flight is derived dynamically from the reaction on surfaces in motion relative to the air.

Ground visibility. The average range of vision in the vicinity of an airport as reported by the U.S. Weather Bureau or, if unavailable, by an accredited observer.

Helicopter. A type of rotorcraft the support of which in the air is normally derived from airfoils mechanically rotated about an approximately vertical axis.

IFR. The symbol used to designate instrument flight rules.

IFR conditions. Weather conditions below the minimum prescribed for flights under VFR.

Large aircraft. Aircraft of more than 12,500 pounds maximum certificated take-off weight.

Magnetic course. The true course or track, corrected for magnetic variation, between two points on the surface of the earth.

MEA. The minimum en route IFR altitude applicable to a particular route or route segment, from radio fix to radio fix, as specified in Part 610 of this title.

Person. Means an individual, firm, copartnership, corporation, company, association, joint-stock association, or body politic; and includes any trustee, receiver, assignee, or other similar representative thereof.

Prohibited area. Airspace identified by an area on the surface of the earth within which the flight of aircraft is prohibited.

Reporting point. A geographical location in relation to which the position of an aircraft is reported.

Restricted area. Airspace identified by an area on the surface of the earth within which the flight of aircraft, while not wholly prohibited, is subject to restrictions.

Rotorcraft. An aircraft whose support in the air is chiefly derived from the vertical component of the force produced by rotating airfoils.

Special VFR conditions (special VFR minimum weather conditions). Weather conditions which are less than basic VFR weather conditions and which permit flight under Visual Flight Rules as specified in section 60.31.

Sunset and sunrise. Sunset and sunrise are the mean solar times of sunset and sunrise as published in the Nautical Almanac converted to local standard time for the locality concerned, except within the State of Alaska.

Note: The Nautical Almanac containing sunshine tables may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. Information is also available from

the sunshine tables in the offices of the Federal Aviation Agency or the United States Weather Bureau.

Traffic pattern. The flow of aircraft operating on and in the vicinity of an airport during specified wind conditions as established by appropriate authority.

VFR. The symbol used to designate visual flight rules.

VFR conditions (VFR minimum weather conditions). Basic weather conditions prescribed in section 60.30 for flight under VFR.

Basic VFR minimums
as provided in section 60.30

	Visibility	Distance from clouds	
Control zone	3 miles [1]	500 feet under. [1] 1,000 feet over. [1] 2,000 feet horizontally. [1] and 1,000-foot ceiling.	
Control area and transition area	3 miles	500 feet under. 1,000 feet over. 2,000 feet horizontally.	
Continental control area	5 miles	1,000 feet under. 1,000 feet over. 1 mile horizontally.	
		1,200 feet or below	Above 1,200 feet
Outside controlled airspace	1 mile [2]	Clear of clouds	500 feet under. 1,000 feet over. 2,000 feet horizontally.

[1] If traffic conditions permit, Air Traffic Control will issue an air traffic clearance for flight within a control zone when the weather conditions are less than above. However, no person shall operate an aircraft VFR, other than a helicopter, irrespective of any clearance, unless the visibility is 1 mile. All flights shall remain clear of clouds.

[2] Helicopters are excepted from the 1 mile requirement when operated at or below 1,200 feet and at reduced airspeed. (See section 60.30.)

The close proximity of airports indicated that it would be impractical to depict the specific points for any given airport. Such action is, therefore, considered inadvisable.

Considerable apprehension was expressed that adoption of speed regulations would impose a severe economic burden upon the air lines and it was stated that adoption of the proposed rule might result in an added annual operating cost to air carrier companies as high as $15,000,000. The Agency appreciates the seriousness of such a consequence; however, it must weigh all safety factors and consider the public interest as the matter of primary concern in making its decisions. It is unfortunate that the intrinsic assets of safety cannot be utilized to balance a monetary deficit. Although the Agency does not wish to penalize the nation's air transportation system, it has no alternative but to select that course which it considers necessary in the interest of safety. This responsibility and authority are exercised only after careful and deliberate judgment.

In this regard, sufficiently persuasive arguments have been presented to convince the Agency that the area in which the speed limitation is applicable should be reduced to the absolute minimum consistent with the requirements of safety. Accordingly, the area of applicability has been reduced to include that airspace below 10,000 feet m.s.l. within 30 nautical miles of the destination airport. While there are various ways whereby this reduction might be accomplished, each has inherent limitations. For example, it was suggested that the altitude of applicability should be established "above terrain" rather than in reference to "mean sea level." This treatment would result in a variable "ceiling" that would follow the contour of the earth's surface. Such a limitation would present obvious compliance difficulties in mountainous areas. While it is equally true that some of the benefits of this rule will be lost in the vicinity of airports located in mountainous areas, due to a "mean sea level" application, it appears that this loss can be countenanced without compromising the rule to an unacceptable degree. Further reduction of the economic impact may be realized from a study currently being conducted to consider the feasibility of permitting the transition of turbojet aircraft from the terminal fixes to final approach courses at altitudes in excess of 10,000 feet m.s.l. Should such procedures prove feasible, a significant reduction in the economic impact of this rule will be realized.

Concern was expressed that the proposal did not clearly indicate the time or place at which a pilot would be required to comply with the speed limitation. The phrase "arriving aircraft" has always, in an aeronautical sense, been used to connote an arrival operation as opposed to any other phase of flight. The exact time at which an aircraft becomes an "arrival aircraft" is entirely dependent upon the intentions of the pilot. The word "arriving" as used in the rule is intended to apply to a pilot operating an aircraft inbound to an airport for the purpose of conducting an actual or simulated approach regardless of whether a landing is effected.

Amendment added a new section 60.27, Aircraft speed.

Amendment 60–26

Operation at Airports	Adopted:	December 19, 1961
	Effective:	January 23, 1962
	Published:	December 23, 1962 (26 F.R. 12283)

Civil Air Regulations Amendment 60–24, as published on September 27, 1961, (26 F.R. 9069) amends Part 60, section 60.18, *Operation on and in the vicinity of an airport.* As revised, section 60.18(c)(3) establishes certain communications requirements for aircraft operating to or from an airport not served by a control tower, but at which an operative Federal Aviation Agency Flight Service Station (FSS) is located, and so depicted on the current appropriate Sectional Aeronautical Chart of the U.S. Coast and Geodetic Survey.

At the present time, Sectional Aeronautical Charts are not published for the State of Alaska, the Virgin Islands and certain Pacific Ocean islands. Therefore, until such Sectional Charts are published, it will be necessary to depict Flight Service Stations in

these areas on appropriate World Aeronautical Charts. Such depictions will be accomplished no earlier than May 1962.

The Notice of Proposed Rule Making on this subject, Draft Release 60-17, published October 7, 1960 (25 F.R. 9868), had proposed application of this requirement to each airport not served by a control tower but having an FSS, without regard to the FSS being appropriately charted.

Since this amendment is within the scope of the original Notice, further compliance with the notice and public procedures requirements of the Administrative Procedure Act is unnecessary. The amendment will be made effective at least thirty days after publication.

Amendment revised section 60.18(c) (3).

Amendment 60-27

Radio Failure

Adopted: January 19, 1962
Effective: May 1, 1962
Published: January 26, 1962 (27 F.R. 768)

Draft Release No. 61-13 published as a notice of proposed rule making in the Federal Register on June 16, 1961 (26 FR 5404), gave notice that the Federal Aviation Agency proposed to amend section 60.49, Radio Failure, of Part 60 of the Civil Air Regulations. The reasons for the amendment were outlined in detail in the draft release. All comments received in response to this draft release have been reviewed and given due consideration. The majority of comments received either endorsed the proposed revisions or recommended certain changes. Only one comment was in opposition to the amendment.

The proposed rule contained the provision that when weather conditions permit, the pilot shall terminate his flight in VFR conditions and land as soon as practicable. One organization and one individual tempered their concurrence with the recommendation to delete this mandatory requirement. It was contended that the ATC system either cannot or does not want to cope with aircraft which experience radio communications failure in VFR conditions. It is emphasized that the question is not whether the system can or cannot cope with the situation but whether the resultant adverse impact upon other users of the system is reasonable compared to the possible inconvenience to one pilot. Air traffic control provides standard separation to all en route IFR aircraft regardless of weather conditions. When a radio communications failure occurs, a near emergency situation is sometimes created, in that it may become necessary for air traffic control to reroute or reclear a substantial number of IFR aircraft in order to maintain proper separation. In essence, air traffic control is often forced, for reasons of safety, to grant priority to the aircraft experiencing the failure. It is not considered logical to permit an aircraft which is in VFR conditions to continue an extended flight to the destination at the possible inconvenience of other aircraft using the system. As stated in the Draft Release, the simplest way to eliminate such a problem is to remove the source, i.e., to require the pilot of the aircraft experiencing the malfunction to land.

In the original proposal, the requirement to terminate the flight under VFR would not apply to operations conducted within positive control airspace. Upon consideration of the safety factors involved, it has been determined that the requirement to land VFR should also apply to this airspace. Therefore, this regulation provides that, regardless of the airspace involved, when VFR conditions prevail the flight must be terminated as soon as practicable. It should be emphasized the pilot of an aircraft in such circumstances is fully responsible for the separation of his aircraft from all others.

It is not intended that the requirement to "land as soon as practicable" be construed to mean "as soon as possible." The pilot, of course, retains his prerogative of exercising his best judgment and is not required to land at an unauthorized airport, at an airport unsuitable for the type of aircraft flown, or to land only minutes short of his intended destination. The primary objective of this provision of the rule is to preclude extended IFR operations in the air traffic control system in VFR weather conditions. The regulation

does not prohibit the pilot experiencing radio communications failure, after landing and cancelling his IFR flight plan, from taking off again and proceeding to the destination in accordance with VFR if he so desires.

The Air Line Pilots Association (ALPA) recommended that in the event of radio communications failure, a pilot would proceed according to the route and altitude filed in the flight plan, rather than via the route and altitude specified by air traffic control. Such a provision would require a pilot to proceed via the filed route which might be a considerable distance away from the route specified in the air traffic control clearance. In a similar manner, a pilot who has been assigned an altitude other than his filed altitude within a route structure would be required to climb or to descend, as might be appropriate, to the filed altitude. Obviously, pilot action which would disregard an ATC clearance and revert to a filed flight plan is not feasible since it is virtually impossible to develop procedures for transition to flight planned route and altitude which would be applicable in all situations.

ALPA also suggested that, when a climb to a higher route structure is necessary, the pilot should climb to the altitude or flight level specified in the flight plan rather than the cardinal altitude at or above the MEA of the filed route structure. Since pilots often may file multiple altitudes or multiple route structures in a single flight plan, such a regulation would only compound the problems and impair the ability of air traffic control to provide proper separation. It is concluded that one easily determined and easily recalled altitude for application during radio communication failure is imperative to meet the needs of the pilot and the air traffic control system.

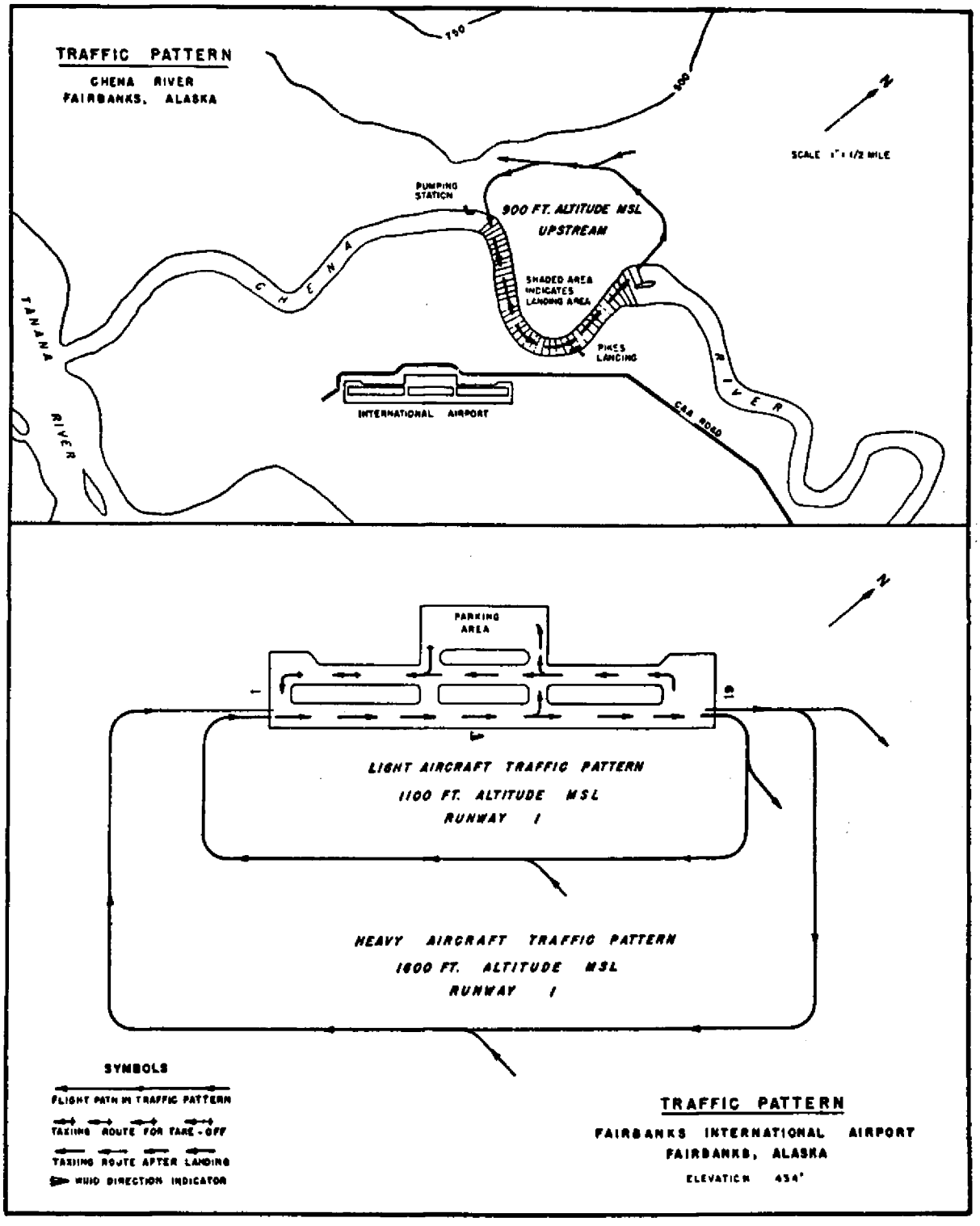
The Air Traffic Control Association (ATCA) suggested that when a climb to a higher route structure is necessary, the pilot should be required to exercise his emergency authority and initiate climb at his discretion. Such a requirement would eliminate the provision to "initiate climb ten minutes after passing the first compulsory reporting point over which the failure prevented communications with air traffic control." ATCA contended that the controller would not, in all cases, be able to provide standard separation in the event of such a climb. This contention may be valid in some cases; however, the ten minute delay before initiating climb will provide a margin of safety which is considered indispensable. In addition, to require a pilot to use such emergency authority is not feasible since in most cases pilots do not consider radio communications failure to be an emergency situation.

British Overseas Airways Corporation suggested that transponder procedures be developed for use during radio communications failure. While such procedures would be very advantageous, the lack of decoding equipment in ATC facilities at present prohibits the adoption of this suggestion. The implementation of transponder procedures is contemplated when adequate decoding equipment becomes available.

The one comment in opposition to the amendment contended that it would not be possible for military jet aircraft to complete certain flights if radio communication failure provisions require that the operation be conducted at Flight Level 240. It was recommended that the rule be amended to require a cruising altitude advisory prior to take-off in order that the pilot might proceed to his destination at the flight level advised by ATC. Procedures currently in effect provide that when a pilot is not issued a clearance within the filed route structure, the pilot must be issued an advisory as to when he may expect a clearance to an altitude in the requested structure. Since this procedure appears to satisfy the objective of this recommendation, it is not considered necessary to alter the provisions of the rule.

It is virtually impossible to promulgate a rule which provides definitive action for every conceivable eventuality associated with radio communications failure. Such a rule would be too voluminous for ready comprehension and application. Conversely, it is not intended to promulgate a rule so brief or general as to be ambiguous. It is not intended to attempt to regulate emergency or near emergency situations. For example, the rule omits reference to the problems arising from a missed approach. The circumstances would be so unpredictable in such a situation that it is considered that an emergency would exist and, as such, would not be subject to regulation.

Concurrently with the adoption of the rule contained herein, detailed procedures which shall be followed in the event of radio communications failure will be published in the Flight Information Manual. All necessary supplementary data will be consolidated in this publication. The Flight Information Manual will henceforth be the sole source of FAA supplementary material applicable to radio communications failure.


TRAFFIC PATTERN
CHENA RIVER
FAIRBANKS, ALASKA
150
600
N
SCALE 1" = 1/2 MILE
PUMPING STATION
900 FT. ALTITUDE MSL
UPSTREAM
SHADED AREA INDICATES LANDING AREA
PIKES LANDING
CHENA
TANANA RIVER
INTERNATIONAL AIRPORT
CAA ROAD
RIVER
PARKING AREA
LIGHT AIRCRAFT TRAFFIC PATTERN
1100 FT. ALTITUDE MSL
RUNWAY 1
HEAVY AIRCRAFT TRAFFIC PATTERN
1600 FT. ALTITUDE MSL
RUNWAY 1
SYMBOLS
FLIGHT PATH IN TRAFFIC PATTERN
TAXIING ROUTE FOR TAKE-OFF
TAXIING ROUTE AFTER LANDING
WIND DIRECTION INDICATOR
TRAFFIC PATTERN
FAIRBANKS INTERNATIONAL AIRPORT
FAIRBANKS, ALASKA
ELEVATION 454'

(Rev. 3/1/62)

(*ii*) Heavy aircraft shall enter the traffic pattern at an altitude of 1,600 feet mean sea level and at an angle of 45° to the approximate midpoint of the downwind leg.

(*4*) *Landing.*

(*i*) Light aircraft shall be operated so as to enter the final approach at a distance of at least 1,000 feet from the approach end of the runway.

(*ii*) Heavy aircraft shall be operated so as to enter the final approach at a distance of at least 1,500 feet from the approach end of the runway.

(b) *Chena River Landing Area.*

(1) *Landing area.* The landing area shall be defined as those portions of the Chena River upstream and downstream from a place on the river commonly known and identified as Pike's Landing, and extending downstream to the pumping station and upstream to the first right turn from Pike's Landing.

(2) *Traffic control.*

(i) Aircraft operating in the traffic patterns defined in this chapter will not normally be controlled by the Fairbanks Control Tower.

(ii) Any traffic control instructions issued by the Fairbanks Tower to aircraft landing at or taking off from the defined landing area on the Chena River will be issued only with respect to existing traffic at the Fairbanks Airport. Separation of surface traffic, therefore, will be the responsibility of the aircraft operator.

(3) *Traffic patterns.*

(i) Traffic patterns for the defined landing area on the Chena River shall be circular, shall lie to the west side of the river, and shall not extend east of the defined landing area on the Chena River as illustrated on the diagram set forth below.

(ii) Landing or takeoff upstream (north or east) shall be to the left.

(iii) Landing or takeoff downstream (south or west) shall be to the right.

(4) *Departure from traffic pattern.* Aircraft shall depart from the traffic pattern on a westerly heading.

(5) *Entrance to traffic pattern.* Aircraft shall enter the traffic pattern on an easterly heading at an altitude of 900 feet mean sea level.

(Published in 16 F. R. 6831, July 17, 1951, effective 0001 A. S. T., July 14, 1951, and amended in 20 F. R. 5676, Aug. 6, 1955, effective Sept. 1, 1955.)

60.21–1 [Deleted]

60.21–2 *Emergency descent (FAA policies which apply to sec. 60.21).* Upon receipt of advice that an aircraft in flight within a control area or control zone has encountered an emergency which may affect other air traffic, Air Traffic Control will act to give the aircraft encountering the emergency priority over any other aircraft involved. Should it become necessary for an aircraft holding to make an emergency descent for a landing through other traffic, the pilot of that aircraft should so advise Air Traffic Control through appropriate communications facilities.

Upon receipt of advice that an aircraft is making an emergency descent through traffic assigned altitudes over the airport, Air Traffic Control will immediately broadcast, or cause to be broadcast, on radio range frequency the following:

EMERGENCY TO ALL CONCERNED ------
EMERGENCY LANDING AT ------ AIRPORT
ALL AIRCRAFT BELOW ------ THOUSAND FEET
WITHIN ------ MILES OF ------ RADIO RANGE/OMNI
LEAVE ------ COURSES/RADIALS IMMEDIATELY

Upon receipt of such a broadcast, pilots of aircraft affected should clear specified areas in accordance with the emergency instructions. Air Traffic Control will issue further directions through appropriate communications facilities immediately following the emergency broadcast. When terrain or other factors make it impractical for an aircraft to maintain the last assigned altitude, Air Traffic Control will issue specific directions to the aircraft.

60.23–1 *Aircraft lights in Alaska (FAA rules which apply to sec. 60.23).* In Alaska the lights required by this section shall be displayed when any unlighted aircraft or other unlighted prominent objects cannot readily be seen

beyond a distance of 3 miles, or when the sun is more than 6° below the horizon. [6]

(Published in 14 F. R. 38, Jan. 5, 1949, effective upon publication.)

60.23–2 *Operations before sunrise and after sunset (FAA policies which apply to sec. 60.23).* It is the policy of the Administrator to issue a Certificate of Waiver or Authorization for operation before sunrise and after sunset without lights only for agricultural or industrial operations, in accordance with section 60.1–2(b).

60.24–1 *Approval of flight test areas (FAA policies which apply to sec. 60.24).* Flight test areas will be approved only over open water or sparsely populated areas where the conduct of tests will be a minimum hazard to persons or property. In approving a flight test area, consideration will be given to such factors as the type of flying, air speeds, altitudes involved, the amount of traffic being operated in the area and any other factors essential to safety.

(Published in 22 F. R., Mar. 1, 1957, effective Mar. 1, 1957.)

60.24–2 *Application for approval of flight test area (FAA policies which apply to sec. 60.24).* Any person may apply for approval of a test area [7] by making application in triplicate by letter addressed to the local district office. The application is to contain the following information:

(a) Aeronautical chart showing geographical boundaries of the area to be used (latitude, longitude, highways, railroads, or similar landmarks, readily discernible from operating altitudes).

(b) Hours during which operations are to be conducted.

(c) Conditions for operating: VFR, ceiling, visibility, altitudes, etc.

(d) Nature of flight tests to be performed (production, experimental, prototype, etc.).

(Published in 22 F. R., Mar. 1, 1957, effective Mar. 1, 1957; amended in 22 F. R. 5541, effective Aug. 1, 1957.)

60.24–3 *Duration and renewal of test area approval (FAA policies which apply to sec. 60.24).*

(a) Approval of a flight test area will be given for a period not to exceed 24 months subject to earlier cancellation where the Administrator finds that changed conditions would not justify original approval. Cancellation will be effective upon receipt of written notice from the Administrator or his representatives.

(b) Approval of a flight test area may be renewed by making application in the form prescribed in section 60.24–2. The renewal request need contain only changes made in the original application. Items unchanged should be incorporated by reference.

(Published in 22 F. R., Mar. 1, 1957, effective Mar. 1, 1957; amended in 22 F. R. 5541, effective Aug. 1, 1957.)

60.24–4 *Traffic rules for flight test areas designated by the Administrator (FAA rules which apply to sec. 60.24).* No person shall flight test an aircraft within an area *designated* [8] by the Administrator for such purposes except in accordance with the following:

(a) *Filing of flight plan.* A flight plan shall be filed with Air Traffic Control and shall contain at least the following information:

(1) Aircraft identification and type.

(2) Proposed departure time.

(3) Estimated duration of flight.

(4) Altitude or altitudes to be used within the test area.

(5) Proposed time of entry into and egress from test area.

(b) *Filing of position reports.* IFR flights (in addition to those reports normally required of IFR operations within controlled airspace), and VFR flights with a functioning two-way radio, shall report actual time of entry and egress of the test area.

(c) *Deviations from flight plan.* No person shall deviate from the provisions of his flight plan unless Air Traffic Control is advised in advance.

[6] The duration of civil twilight is the interval in the evening from sun set until the time when the center of the sun is 6° below the horizon; or the corresponding interval in the morning between sunrise and the time at which the sun was still 6° below the horizon. "Tables of Sunrise, Sunset, and Twilight," United States Naval Observatory, 1946, p. 9.

[7] Aircraft having experimental airworthiness certificates shall operate in accordance with the area limitations prescribed within their respective airworthiness certificates.

[8] Designated flight test areas are those areas, other than approved flight test areas, which are designated after appropriate hearings are conducted through the Airspace Subcommittee of the Air Coordinating Committee, and may be used by any person in accordance with the rules set forth herein.

NOTE: In addition to special traffic rules or procedures prescribed for operations within approved or designated flight test areas, the provisions of CAR 60 are applicable.

(Published in 22 F. R., Mar. 1, 1957, effective Mar. 1, 1957.)

60.24–5 *Sparsely populated areas having light air traffic (FAA policies which apply to sec. 60.24 (a) (1)).*

(a) For the purpose of approving flight test areas, sparsely populated areas are areas in which cities, towns, and villages are sufficiently widely scattered to permit the users to avoid all congested areas when conducting flight test operations; and light air traffic areas [9] are those areas not located within (1) main arterial airways (colored and VOR), (2) control zones, (3) high density traffic zones, and (4) portions of control areas used for VFR departures and arrivals, such as areas used for noise abatement procedures.

(Published in 22 F. R. 5541, effective Aug. 1, 1957.

Visual Flight Rules (VFR)

60.30–1 *Authorization by Air Traffic Control (FAA policies which apply to sec. 60.30).* Authorization by Air Traffic Control to enter or depart control zones under VFR when the ceiling is less than 1,000 feet, and to fly closer to clouds than 500 feet vertically below, 1,000 feet vertically above, and 2,000 feet horizontally within a control zone will be issued in the form of an air traffic clearance. This clearance may be obtained by contacting the Flight Service Station or airport control tower in the control zone concerned. An appropriate clearance for such flight should conform closely to the following example:

> ATC clears (aircraft ident.) out of/to enter control zone (number of) miles (direction) of (airport) cruise not above (altitude) while in control zone.

60.31–1 *Air traffic clearance for takeoff or landing (FAA policies which apply to sec. 60.31).* A VFR takeoff or landing may be made at an airport within a control zone when the flight or ground visibility is less than 3 miles only if an air traffic clearance has been received. A takeoff or departure clearance will normally contain specific instructions as to the direction of takeoff, turn after takeoff, track and altitude to be maintained, and any other necessary maneuver.

60.32–1 Deleted

(Deletion published in 24, F. R. 7253, Sept. 9, 1959, effective Sept. 9, 1959.)

60.32–2 Deleted

(Deletion published in 24, F. R. 7253, Sept. 9, 1959, effective Sept. 9, 1959.)

60.33–1 *VFR flight plans (FAA policies which apply to sec. 60.33).* VFR flight plans may be filed in person or by telephone or radio with any Flight Service Station or control tower operator.

Good operating practices in connection with planning a flight, filing flight plan, flying the flight plan, carrying out radio communications procedures for all purposes can be found in the FAA Technical Manual No. 102, "Pilots' Radio Handbook." [10]

Instrument Flight Rules (IFR)[11]

60.46–1 *Standard instrument approach procedures (FAA rules which apply to sec. 60.46).* Standard instrument approach procedures prescribed by the Administrator are published in Part 609 of Regulations of the Administrator.

(Published in 16 F. R. 7351, July 27, 1951, effective upon publication.)

60.46–2 *Instrument approach ceiling and visibility minimums (FAA policies which apply to sec. 60.46).* Authorization for lower instrument approach ceiling and visibility minimums than those prescribed by the Administrator in

[9] Areas above 25,000 feet above the surface under certain stipulated circumstances, dictated by local conditions, may be considered as being light traffic areas.

[10] For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D. C. The price of the manual is 60 cents.

[11] For information concerning instrument flight operations, see the following:

(1) The Flight Information Manual which may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C.

(2) Instrument Approach and Landing Charts which may be purchased from the U.S. Coast and Geodetic Survey, Department of Commerce, Washington 25, D.C., at 10 cents each.

(3) Air Traffic Control Procedures, ATM-2-A, November 1, 1960, may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington 25, D.C. The price including supplementary revision service is $2.00 domestic; $2.75 foreign.

Part 609 of the Regulations of the Administrator may be issued for approaches at those airports where the minimums have not been revised in accordance with the new policy.[12] The issuance of an authorization is subject to the following conditions:

(a) *Application.*

(1) Application will be made on Form ACA–400, Application for Certificate of Waiver. The application, in triplicate, will be submitted to any local Bureau of Flight Standards District Office.

(2) Arrange with Bureau of Flight Standards District Office for inspection of the aircraft equipment and instrument competency flight test for each pilot in command who will operate the aircraft under the lower ceiling and visibility minimums.

(b) *Issuance requirements.* The authorization for lower minimums may be issued to the owner of the aircraft, the operator, individual pilot, or pilots employed by the owner or operator, upon compliance with the following:

(1) *Aircraft.* Aircraft must be equipped with approved type radio equipment appropriate for the types of approaches requested.

(2) *Pilots.* Each pilot-in-command will be properly certificated, hold a currently valid instrument rating, and demonstrate to an inspector his competency to execute safely the approach procedures for each type of approach to the minimums requested. This flight test will be conducted by an inspector and will include pertinent items of the standard instrument rating test on the systems to be used.

(3) *Aircraft more than 12,500 pounds.* When aircraft of more than 12,500 pounds are used, each pilot-in-command and copilot will be required to successfully complete an equipment check to determine his familiarity with the aircraft. The equipment check is to be conducted by a representative of the Administrator, and based on the aircraft manufacturer's specifications.

(4) *Pilot training program.* The applicant should provide a pilot training program which should include training on instrument approach procedures, air traffic control procedures, and other subjects deemed necessary by the inspector to assure continuing proficiency on the types of instrument approaches involved; and at least two instrument approaches, actual or hooded flight, every 30-day period on each type of approach for which authority is requested. Approaches made to the minimums authorized during the course of regular trips can be counted toward meeting these requirements.

(c) *Operational requirements.*

(1) Instrument approach may not be conducted below the minimums established for air carrier use, and never lower than the minimums to which the pilots have demonstrated their competency.

(2) Current information on scheduled air carrier minimums for the airports into which operations are to be conducted are to be readily available in the cockpit at all times during flight.

(3) Each pilot-in-command is expected to successfully complete requalifying instrument competency checks within 6 months prior to exercising the authority for lower minimums. The recheck is to be conducted by a representative of the Administrator. When aircraft of over 12,500 pounds are utilized, each pilot in command and copilot is expected to successfully complete an equipment check each 6 months prior to exercising authority for lower minimums.

(4) There is expected to be available in the cockpit at all times during flight, current flight information data, such as Radio Facility Guide, Airman's Guide, Approach Procedures, and maps.

(5) Special provisions applicable to the type of operation and aircraft equipment may be entered on and become a part of the authorization. These may include any or all, but are not limited to, those listed in appendix C.

(d) *Duration.*

(1) The authorization is valid for a period of 12 months, but may be surrendered by the holder or terminated by the Administrator at any time.

[12] In accordance with the present policy, ceiling and visibility minimums for approaches are being revised for all airports. Such minimums are based on obstruction clearance criteria and are the lowest minimums which can be used by anyone. Ultimately all airports will have the revised minimums in effect. During the interim period minimums established under the old policy will exist at some airports. Authorization to use lower minimums may be granted for these airports.

(2) Failure to comply with any of the conditions under section 60.46–1 (b) and (c), or the Special Provisions appended to the authorization, is considered sufficient grounds for terminating the authorization for lower minimums.

(e) *Reissuance.*

(1) The authorization may be reissued for a period of 12 months, upon application.

(2) Requirements for reissuance are identical to those for original issuance.

60.47–1 *Route of flight and communications procedures (FAA policies which apply to sec. 60.47).*

(a) *Off-airway operation.* If a flight is to be conducted over an off-airway route which joins or crosses federal airways, or terminates within federal airways, the route of flight should be indicated, and check points within control zones or areas over which the flight will pass are to be selected. The check points selected are to be points over which the position of the aircraft can be accurately determined or regularly designated reporting points.

(b) *Change of flight plan.* Any change of altitude or route of flight from that specified in the traffic clearance, should be reported to the air traffic control center or flight advisory area before the change is made. A change of flight plan should be reported and approval received before the change is made while operating within a control area; or, if outside of control area, prior to entering a control area.

[NOTE: Appendix A was deleted by Supplement No. 7
Appendix B, page 73 follows.]

Appendix B

Agricultural and Industrial Operations

1. Dusting.
2. Spraying.
3. Seeding.
4. Fertilizing.
5. Defoliation.
6. Grasshopper baiting.
7. Spraying towns—pest control.
8. Agitating cherry trees.
9. Antifrost agitation.
10. Knocking ripe fruit from trees.
11. Checking fallow land.
12. Chasing birds from rice fields.
13. Checking crops.
14. Powerline patrol.
15. Pipeline patrol.
16. Telephone line patrol.
17. Fence patrol.
18. Border patrol.
19. Highway patrol.
20. Forestry patrol.
21. Truckline patrol.
22. Log patrol.
23. Game and fish patrol.
24. Game survey.
25. Hunting predatory animals.
26. Hunting eagles.
27. Hunting lost persons.
28. Herding wild game.
29. Herding livestock.
30. Checking livestock.
31. Mapping and survey.
32. Aerial photography.
33. Sign towing (see CAM 43).
34. Glider towing (see CAM 43).
35. Skywriting.
36. Aerial advertising (neon lights).
37. Aerial advertising (loudspeaker).
38. Dropping leaflets.
39. Operation of moored balloons (see CAM 48).
40. Sailplane and water-ski towing (see CAM 43).
41. Transportation of explosives (see CAM 49).
42. Transportation of serum and medical supplies.
43. Transportation of fur.
44. Transportation of food in emergency.
45. Transportation of fishing/hunting parties.
46. Transportation of artificial insemination.
47. Transportation of baby chicks.
48. Transportation of feed and equipment.
49. Oil company transportation.
50. Ambulance service.
51. Air police.
52. Oil well service.
53. Mineral prospecting.
54. Oil research (radar-magnetometer).
55. Range survey.
56. Rainmaking.
57. Determining snowfall, high/low water.
58. Spotting schools of fish.
59. Stocking lakes and streams with fish.
60. Dropping beaver and pheasant.
61. Checking windmills/water holes.
62. Locating dam sites and checking irrigation.
63. Forest fire fighting.
64. Appraising and showing farms/ranches.
65. Radio and TV transmitting.
66. Delivery of mail and newspapers.

Appendix C

Special Provisions

Any or all of the following provisions may be made a part of the waiver issued for instrument approach ceiling and visibility minimums lower than those prescribed in Regulations of the Administrator, Part 609.

I. *Navigation and approach information*

(a) It will be the responsibility of the holder of this authorization to obtain from any recognized source all the pertinent information concerning air carrier minimums for all airports at which instrument approaches will be made under the privileges granted by this waiver.

(b) It will be the responsibility of the holder of this waiver to make arrangements through any recognized source that will assure him that all additions, deletions, or amendments to the air carrier minimums will be furnished immediately.

(c) It will be the responsibility of the holder of this waiver to determine that the information referred to in I. (a) and (b) above is readily available in the cockpit at all times during flight.

(d) It will be the responsibility of the holder of this waiver to determine that there is available in the cockpit at all times during flight, current flight information data such as Radio Facility Guide, Airman's Guide, Approach Procedures, maps, etc. These items must be either the official Government publication, or from some recognized and approved source.

(e) (Types of approaches covered by this waiver will be listed.)

II. *Weather minimums*

(a) Authorization is limited to the lowest ceiling and visibility minimums meeting the obstruction clearance criteria, but in no case lower than the minimums to which the pilot has demonstrated competency.

(b) No instrument approach to an airport shall be started where the reported ceiling and/or visibility is below those published in Regulations of the Administrator, Part 609 unless the pilot in command has the latest air carrier information for the airport to which the approach is being made.

III. *ILS minimums*

ILS minimums above apply only when it has been determined that all units of the ILS, both ground and airborne, are fully functioning and only when the landing can be made straight-in on the designated ILS runway following an ILS standard approach procedure for that airport. Circling is permitted only when existing weather is at or above regular minimums. When the use of automatic approach equipment for ILS is desired, the Special Provision should read as follows:

ILS minimums above apply only when it has been determined that all units of the ILS, both ground and airborne, are fully functioning and only when the landing can be made straight-in on the designated ILS runway using the Sperry A-12 automatic approach equipment throughout the ILS standard approach procedure for that airport. Circling approach is permitted only when the existing weather is at or above regular minimums.

IV. *Radio equipment*

No ILS approaches shall be executed unless the airborne equipment is type certificated and has been calibrated within the last 120 days to the standards prescribed by the Radio Technical Committee for Aeronautics. Where instrument approaches are made, using visual courses of VHF range or instrument landing system facilities, descent below the approved

initial approach altitude is not authorized unless the airborne equipment utilized for the reception of navigational signals is equipped with an approved device to automatically indicate failure or malfunctioning of the system.

V. *Pilots and copilots*

This certificate is valid only when the members of the flight crew are properly certificated. Type rating will also be required for the pilot in command of aircraft certificated for a maximum takeoff weight of 12,500 pounds or more. In addition, the pilot in command shall have successfully accomplished an instrument competency check within the preceding 6 months on the same category and class (and type if over 12,500 lbs.) equipment to be flown, using minimums granted in the waiver. In aircraft over 12,500 pounds, when the aircraft specifications require a copilot, both the pilot in command and the copilot shall have accomplished an equipment check on the aircraft being flown.

VI. *Aircraft*

This certificate is valid only for the operation of the following aircraft: (List pertinent information.)

Aircraft make and model.
Registration number.
Registered owner's name and address.

VII. *Weather report*

No instrument approach procedure shall be executed, or landing made, when the latest U. S. Weather Bureau report for that airport indicates the ceiling or visibility is less than that prescribed in Special Provisions.

VIII. *Checklists*

When operating under the terms of this certificate, a cockpit checklist acceptable to the Administrator shall be appropriately used by physical reference by the flight crews on each flight.

IX. *Training*

An adequate training program must be provided by the holder of this certificate of waiver. Such training program must provide for at least two instrument approaches, actual or hooded, every 30-day period on each type of approach approved, using the facilities at and of the airports covered by this authorization. These approaches shall be flown down to the minimums granted in this certificate of waiver. Approaches made to the minimum granted during the course of regular trips can be counted in meeting these minimum training program requirements.

X. *List of pilots*

(Pilots will be listed by name, certificate number, and ratings.)

U. S. GOVERNMENT PRINTING OFFICE: 1962 O—631279