U. S. DEPARTMENT OF COMMERCE
DANIEL C. ROPER, Secretary
BUREAU OF AIR COMMERCE
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CIVIL AIR REGULATIONS

40.—SCHEDULED AIRLINE CERTIFICATION
(INTERSTATE AND INTRA-TERRITORIAL)

As Amended to May 31, 1938

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1938

CIVIL AIR REGULATIONS

Pursuant to the authority contained in the Air Commerce Act of 1926 (44 Stat. 568) as amended by the Act of February 28, 1929 (45 Stat. 1404), the Act of June 19, 1934 (48 Stat. 1113), the Act of June 19, 1934 (48 Stat. 1116), and Sections 11 and 12 of the Act of June 12, 1934 (48 Stat. 933, 937), the following Civil Air Regulations are hereby made, prescribed, and issued to be known as—

Part 00. Aircraft Registration Certificate.
Part 01. Aircraft Certificates.
Part 02. Aircraft Identification Mark.
Part 03. Aircraft Title Transfer.
Part 04. Airplane Airworthiness.
Part 13. Aircraft Engine Airworthiness.
Part 14. Aircraft Propeller Airworthiness.
Part 15. Aircraft Equipment Airworthiness.
Part 18. Repair and Alteration of Aircraft.
Part 20. Pilot Rating.
Part 21. Airline Pilot Rating.
Part 23. Ground Instructor Rating.
Part 24. Mechanic Rating.
Part 25. Parachute Rigger Rating.
Part 26. Airport Control Tower Operator Rating.
Part 27. Airline Dispatcher Rating.
Part 40. Scheduled Airline Certification (Interstate and Intra-Territorial).
Part 50. Flying School Rating.
Part 52. Aircraft Repair Station Rating.
Part 60. Air Traffic Rules.
Part 61. Scheduled Airline Rules (Interstate).
Part 90. Air Mail.
Part 91. Aircraft Accident Investigations.
Part 92. Hearings Upon Certificates (Issued, Renewed, Denied, Suspended or Revoked).
Part 93. Evidence.
Part 94. Penalties.
Part 95. Imposition, Remission and Mitigation of Penalties.
Part 96. Authorization to Act for the Secretary.
Part 98. Definitions.
Part 99. Mode of Citation of Regulations.

Any and all rules and regulations heretofore made, prescribed, and issued by the Secretary of Commerce pursuant to the authority first above stated are hereby repealed.

Approved May 31, 1938.

[SEAL]

DANIEL C. ROPER,
Secretary of Commerce.

PART 40.—SCHEDULED AIRLINE CERTIFICATION (INTERSTATE AND INTRA-TERRITORIAL)

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40.0 Provision for certification. Pursuant to the provisions of the Air Commerce Act requiring the Secretary of Commerce to provide for the examination and rating of and the issuance of certificates to all airlines engaged in interstate or foreign air commerce as to their qualifications for such service, the following regulations are prescribed for such certification of scheduled airlines engaged in interstate, including intra-territorial, air commerce as to their competency.

40.1 General minimum requirements. To be eligible for a scheduled airline competency certificate, an applicant shall meet and comply with the following general minimum requirements.

40.10 Economic strength. Applicant shall show economic and financial strength sufficient to establish a presumption of ability to operate the airline with reasonable safety as related to the service offered, for a period of at least one year.

40.11 Route. Applicant shall show that the route, including any alternate route, over which it proposes to operate is, or prior to operation will be, equipped with such air navigation facilities (including terminal and intermediate airports, intermediate landing fields and ground aids to air navigation) as are deemed by the Secretary to be necessary for safe operation as related to the service offered.

40.12 Aircraft. Applicant shall show certificated aircraft as provided in Part 04, of a model and number deemed by the Secretary to be necessary for safe operation as related to the service offered, the route traversed, and the operating and maintenance procedures and techniques proposed.

40.13 Airmen. Applicant shall show certificated airmen (including both flight and ground personnel) of kind, grade and number deemed by the Secretary to be necessary for safe operation as related to the service offered, the route traversed, the aircraft used, and the operating and maintenance procedures and techniques proposed.

40.14 Operations manual. Applicant shall show an operations manual, prepared for the use of its airmen, which fully details the operating and communications methods, procedures and techniques proposed for its airline.

40.15 Maintenance manual. Applicant shall show a maintenance manual or suitable equivalent prepared for the use of its airmen and other maintenance personnel which adequately defines the maintenance methods, procedures and techniques proposed for its airline operations.

40.16 Schedules. Applicant shall show proposed schedules set up with due regard to sufficient time for the adequate servicing with fuel and oil at intermediate stops, and to prevailing winds, and on the basis of a cruising speed of the aircraft at not to exceed the specified cruising power output of the engines as operated in the aircraft.

40.2 Passenger minimum requirements (interstate). To be eligible for a scheduled airline competency certificate for the carriage of persons in interstate air commerce, an applicant, in addition to meeting the minimum requirements provided for in § 40.1, shall meet and comply with the following minimum requirements prescribed for the particular kind of operation proposed.

40.20 Route requirements: visual-contact day operation.

40.200 Airway. Applicant shall show that the regular route over which the proposed operations will be conducted is, or prior to authorization will be, within the limits of a civil airway, or is otherwise deemed satisfactory by the Secretary for the operation proposed. (If applicant's proposed route does not lie within the limits of a civil airway, a petition requesting that a civil airway be designated to

embrace such route may be made simultaneously with the airline certificate application.)

40.201 Airports. Applicant shall show that the airport to be used at each proposed route terminal and scheduled intermediate stop is deemed adequate by the Secretary for the service offered.

40.202 Public protection. Applicant shall show that reasonable and adequate facilities and safety devices (including protection from revolving aircraft propellers) are provided for the protection of the public at each terminal and scheduled intermediate stop.

40.203 Intermediate fields. Applicant shall show intermediate fields, available for safe landings with the load authorized for the route or part thereof, located at not more than 100 mile intervals along the proposed route provided that at the discretion of the Secretary, intermediate fields may be permitted or required at other than 100 mile intervals.

40.204 Refueling facilities. Applicant shall show that adequate refueling facilities including equipment to test gasoline storage tanks for the presence of water and to remove any water or condensation found therein, are provided at each terminal, scheduled intermediate stop and intermediate field where refueling is contemplated.

40.205 Radio facilities. Applicant shall show a two-way ground-to-aircraft radio telephone communication system at such terminals and at such points as may be deemed necessary by the Secretary to insure satisfactory communications over the entire route under normal operating conditions. Such system shall be independent of radio facilities provided by Federal or other governmental agencies.

40.206 Weather reporting. Applicant shall show weather reporting services at the proposed terminals and enroute, adequate to insure sufficient weather reports prepared from observations made and released by the United States Weather Bureau or by a source approved by it.

40.21 Route requirements: visual-contact night operation.

40.210 Airway. Applicant shall meet the requirements of § 40.200 and, in addition, shall show that the proposed route is equipped with such airway beacons and obstruction lights as are deemed by the Secretary to be adequate for safe airline operation at night.

40.211 Airports. Applicant shall meet the requirements of § 40.201 and, in addition, shall show that the airport to be used at each proposed terminal and scheduled intermediate stop is equipped with such lighting facilities as are deemed by the Secretary to be adequate for safe airline operation at night.

40.212 Public protection. Same as in § 40.202.

40.213 Intermediate fields. Applicant shall meet the requirements of § 40.203 and, in addition, shall show that such intermediate fields are equipped with lighting facilities as required by § 40.211.

40.214 Refueling facilities. Same as in § 40.204.

40.215 Radio facilities. Same as in § 40.205.

40.216 Weather reporting. Same as in § 40.206.

40.22 Route requirements: Instrument or over-the-top operation.

40.220 Airway. Applicant shall meet the requirements of § 40.200 for day operation, or of § 40.210 for night operation. In addition, for

either day or night operation, applicant shall show that the proposed route is equipped with such radio ranges (or equivalent facilities) projecting courses over the proposed route, as are deemed by the Secretary to be adequate for safe airline operation. Applicant shall also show other radio navigational aids (including radio markers) as may be deemed necessary by the Secretary.

40.221 Airports. For day operation applicant shall show that the airport to be used at each proposed route terminal, scheduled intermediate stop and alternate terminal is deemed adequate by the Secretary for the service offered. For night operation applicant shall meet the foregoing requirements and, in addition, shall show that the proposed terminal, scheduled intermediate stop, and alternate, airports are provided with such lighting facilities as are deemed by the Secretary to be adequate for safe airline operation at night.

40.222 Public protection. Same as in § 40.202.

40.223 Intermediate fields. Same as in § 40.203 for day operation, and as in § 40.213 for night operation.

40.224 Refueling facilities. Same as in § 40.204.

40.225 Radio facilities. Same as in § 40.205.

40.226 Weather reporting. Same as in § 40.206.

40.23 Aircraft requirements: Visual-contact day operation.

40.230 If single-engine operation over land. Applicant shall show land aircraft of model and number necessary for safe operation, or applicant may show a similar number of water aircraft if the route to be flown over is such that the aircraft can, at all times, reach open water deemed suitable by the Secretary for a safe landing in the event of complete power failure. Single-engine aircraft may be operated over routes deemed by the Secretary to have suitable landing terrain.

40.231 If single-engine operation over water. Applicant shall show water aircraft of model and number necessary for safe operation, or applicant may show a similar number of land aircraft if the route to be flown over is such that the aircraft can, at all times, reach land deemed suitable by the Secretary for a safe landing in the event of complete power failure.

40.232 If multi-engine operation over land. Applicant shall show aircraft of a model and number necessary for safe operation. Applicant shall also show that such aircraft (other than those specifically listed as in scheduled airline service by the applicant prior to January 1, 1935) to be used on the proposed route or part thereof are capable, with any one engine inoperative, of maintaining level flight with authorized load for the route or part thereof at an altitude of at least 1,000 feet above the highest obstruction to flight on the valley level of such route or part thereof on which the aircraft will be operated.

40.233 If multi-engine operation over water. Applicant shall show aircraft of model and number necessary for safe operation. Applicant shall also show that such aircraft, which are to be used on the proposed route or part thereof are capable, with any one engine inoperative, of maintaining level flight with authorized load at an altitude of at least 1,000 feet above the water. No multi-engine land aircraft shall be operated, over water, beyond gliding distance from shore without the aid of power, unless such aircraft is equipped with a retractable land-

ing gear, with one or more suitable emergency exits located in the upper half of the fuselage, with life preservers or other adequate flotation devices readily available for each person on board, with a Very pistol and cartridges or equivalent signal equipment deemed suitable by the Secretary, and with radio equipment as required by §§ 40.253, 40.2530, and 40.2531. The requirements of flotation devices and signal equipment are not applicable where the operation over water is merely that of landings and take-offs, provided there is available marine rescue equipment deemed suitable by the Secretary.

40.234 Number of aircraft. Applicant shall show aircraft, certificated as provided in § 04.53, of a number sufficient to permit the maintenance of all schedules proposed, as provided for in § 40.16.

40.235 Radio equipment. *Applicant shall show that each aircraft is* equipped with an approved two-way radio telephone having sufficient power to permit communication, under normal operating conditions, with at least one ground station used or to be used by the applicant on the regular or alternate route, and capable of communication with *other aircraft of the applicant in flight. In addition, each aircraft* shall be provided with at least one radio receiving system capable of receiving radio range signals and weather broadcasts. On and after July 1, 1938, such receiving system shall include an approved audio filter system with suitable switching arrangements to be used in connection with the reception of simultaneous radio range and voice broadcasts, *provided, however,* that such audio filter system will not be required if the airway or route traversed is not equipped with simultaneous type radio range stations.

40.236 Hangar facilities. Applicant shall show hangar or other facilities adequate for the proper maintenance of the aircraft, engines, equipment and parts.

40.237 Shop facilities. Applicant shall show shop facilities (including facilities for servicing, repair, and overhaul) adequate for the proper maintenance of all aircraft, engines and equipment used.

40.238 Inspection and overhaul organization and procedures. Applicant shall show inspection and overhaul organization, procedures and techniques adequate for the proper maintenance of all aircraft, engines and equipment used.

40.24 Aircraft requirements: Visual-contact night operation.

NOTE.—Single-engine aircraft may not be used in night operation with passengers.

40.240 If operation over land. Applicant shall show multi-engine land aircraft, which meet the flight performance requirements of § 40.232, and of a number necessary for safe operation as provided for in § 40.234.

40.241 If operation over water. Applicant shall show multi-engine land aircraft, which meet the flight performance and equipment requirements of § 40.233, and of a number necessary for safe operation as provided for in § 40.234.

40.242 Number of aircraft. Same as in § 40.234.

40.243 Radio equipment. Same as in § 40.235.

40.244 Hangar facilities. Same as in § 40.236.

40.245 Shop facilities. Same as in § 40.237.

40.246 Inspection and overhaul organization and procedures. Same as in § 40.238.

40.25 Aircraft requirements: Instrument or over-the-top operation.

NOTE.—Single-engine aircraft may not be used in an instrument or over-the-top operation with passengers.

40.250 If operation over land. Applicant shall show multi-engine aircraft of model and number necessary for safe operation. Applicant shall also show that such aircraft (other than those specifically listed as in scheduled airline service by the applicant prior to January 1, 1935) to be used on the proposed route, or part thereof, are capable, with any one engine inoperative, of maintaining level flight, with authorized load for the route or part thereof, at an altitude equivalent to 1,000 feet above the highest part of the terrain on the proposed instrument course of the route, or part thereof.

40.251 If operation over water. Same as in § 40.241.

40.252 Number of aircraft. Same as in § 40.234.

40.253 Radio equipment. Same as in § 40.235 and, in addition, applicant shall show that there is installed in each aircraft to be used in instrument or over-the-top operation (during day or night) over the proposed route, or part thereof, one additional separate radio receiving system capable of receiving radio range signals and weather broadcasts. Such receiver system shall normally operate from the main source of electrical supply of the aircraft but, in event of failure of the normal power source, shall be capable of being switched to operate from an independent power source. This system shall include an independent power source capable of operating such receiver continuously for a period of at least 4 hours. It is also required that such receiver operate from an independent antenna or from either of two antennaes. Two sets of headphones shall be carried in the aircraft at all times.

40.2530 Radio direction finder. Applicant shall show that there is installed in each aircraft an approved radio direction finder, covering at least the frequency range of 200 to 400 kilocycles. The design of the radio direction finder shall be such as to permit its regular operation in the taking of line bearings on any station to which the direction finder may be tuned without altering the course of the aircraft. The radio direction finder shall also be provided with means to eliminate, insofar as possible consistent with the advancement of the art, that type of interference commonly known as rain, snow, sleet or dust static. The radio direction finder shall provide means for audible reception of radio range and weather broadcast messages. It may be installed in lieu of the emergency receiver required in § 40.253 provided that an independent power source equal to that described therein for such receiver is employed on either the radio range receiver required therein or on this radio direction finder.

40.2531 Radio anti-static antenna. Applicant shall show that there is installed in each aircraft an approved radio antenna system, which has for its purpose the collection of radio range signals, weather broadcast and emergency messages transmitted within the frequency range of 200 to 400 kilocycles. The design of this antenna system

shall be such as to eliminate insofar as possible, consistent with the advancement of the art, that type of interference commonly known as rain, snow, sleet or dust static. This antenna system shall be designed to operate efficiently when used in conjunction with a receiver installed aboard such aircraft which has for its primary purpose the reception of radio range signals, weather broadcast and emergency messages.

40.2532 Marker beacon receiver. Applicant shall show that there is installed in each aircraft an ultra-high frequency marker beacon receiving system operating on the frequency of 75 megacycles. The system shall provide means for the visual and aural indications of signals transmitted by ultra-high frequency positive-cone-of-silence and fan type marker stations. The design of the system shall preclude, insofar as possible, erroneous patterns of the transmitted signal caused by the receiving system. Such receiving system will not be required if the airway or route traversed is not equipped with ultra-high frequency positive-cone-of-silence or fan-type marker stations. (Effective January 1, 1939.)

40.254 Hangar facilities. Same as in § 40.236.

40.255 Shop facilities. Same as in § 40.237.

40.256 Inspection and overhaul organization and procedures. Same as in § 40.238.

40.26 Airmen requirements: Visual-contact day operation.

40.260 Number. Applicant shall show airmen of a number sufficient to permit the maintaining of all schedules proposed, under safe operating conditions.

40.261 First pilots. Applicant shall show that prior to the issuance of the airline certificate all persons employed to serve as first pilots for the airline meet the following minimum requirements for qualification as to aircraft and route competency.

40.2610 (*a*) Each first pilot shall be possessed of a valid airline pilot competency rating with specifications or ratings indicating competency to pilot aircraft of each model to be used by him in scheduled operation.

40.2611 (*b*) Each first pilot, within the 6 months immediately preceding his qualification for the route, shall have made one one-way trip without passengers over the proposed route or part thereof on which he will pilot aircraft for applicant, landing at least once at each terminal, scheduled intermediate stop and intermediate field. If landings cannot be effected at each intermediate field, then the pilot shall make a ground examination, or where impracticable by reason of field conditions, a visual examination from the air at a safe low altitude, of each such field on which no landing was made and shall render a written inspection report thereon promptly to the Secretary; in the case of a visual examination he shall submit to the Secretary a sketch of the field setting forth its condition, obstructions and surrounding terrain. During the preliminary trip, the survey and landing may be accomplished by 2 or more first pilots flying together, provided each complies with the foregoing requirements.

40.2612 (*c*) Each first pilot shall have made 2 round trips, in addition to the trip required by § 40.2611 over the proposed route or

part thereof on which he will pilot aircraft for applicant as first pilot, without passengers, or shall have made 3 round trips in addition to that required by § 40.2611 as second pilot, with or without passengers, within the 12 months immediately preceding his qualification for such route.

40.2613 (*d*) During these trips required by § 40.2611 and § 40.2612 the flights shall be visual-contact and the visibility shall be not less than 5 miles as observed from the aircraft.

40.2614 (*e*) Each first pilot to be qualified as to route competency with respect to an alternate route shall have complied with the provisions of §§ 40.2611 and 40.2613 as applied to such alternate route.

40.2615 (*f*) Each first pilot shall be familiar with the aircraft, and shall demonstrate to an airline inspector representing the Secretary, or to a check pilot of the airline duly authorized by the Secretary, satisfactory capability to maneuver such aircraft with the load authorized for the route or part thereof; and, if the aircraft is multi-engined, then in addition to the foregoing he shall demonstrate his ability to maneuver such aircraft with said load, with any one engine fully throttled, at an altitude equivalent to 500 feet above the highest part of the terrain on the proposed route or part thereof to be flown by the pilot in airline service.

40.262 Second pilots. Applicant shall show that each person employed to serve as a second pilot for the airline is possessed of at least a valid commercial pilot competency rating and before serving as second pilot in any aircraft in scheduled airline service shall have demonstrated, to an airline inspector representing the Secretary or to a check pilot of the airline duly authorized by the Secretary, his ability to take-off and land such aircraft in which he is to serve by making at least 3 satisfactory take-offs and landings in each model of such aircraft. On and after July 1, 1938, each applicant for or holder of an airline competency certificate will be required to show that each such person is possessed of a valid instrument rating, unless possessed of a valid airline pilot competency rating.

40.263 Airline dispatchers. Applicant shall show that each person assuming aircraft dispatcher duties for the airline is familiar with the route or part thereof over which he will dispatch aircraft, the weather characteristics and phenomena peculiar to such route, the nature and peculiarities of the terrain and of obstructions to flight, the air navigation facilities available on the ground and in the aircraft, the contents of the operations manual of the proposed airline and the aircraft limitations specified in the certificates of the aircraft proposed for use. On and after July 1, 1938, each applicant for or holder of an airline competency certificate will be required to show that each such person is possessed of a valid and appropriate airline dispatcher competency rating.

40.27 Airmen requirements: Visual-contact night operation.

40.270 Number. Same as in § 40.260.

40.271 First pilots. Same as in § 40.261, except that at least one trip required by § 40.2612 shall have been made between the hours of sun-

set and sunrise, except that for qualification on an alternate route flights shall be made in accordance with § 40.2614.

40.272 Second pilots. Same as in § 40.262.

40.273 Airline dispatchers. Same as in § 40.263.

40.28 Airmen requirements: Instrument or over-the-top operation.

40.280 Number. Same as in § 40.260.

40.281 First Pilots. Same as in § 40.261 and, in addition, applicant shall show that each first pilot, for whom instrument authorization is sought, has demonstrated to an airline inspector representing the Secretary, or to a check pilot of the airline duly authorized by the Secretary, satisfactory capability with respect to the following:

40.2810 (*a*) Familiarity with the aircraft, including demonstration of ability to maneuver such aircraft with the load authorized for the route or part thereof, with any one engine fully throttled, at an altitude equivalent to 1,000 feet above the highest part of the terrain on the proposed instrument course of the route, or part thereof, to be flown by the pilot in airline service.

40.2811 (*b*) Familiarity with the route and with instruments, including demonstration of ability to fly solely by instruments, under actual or simulated conditions, over the route for which qualification is sought.

40.2812 (*c*) Familiarity with procedures, including demonstration of ability to accomplish a let-down-through by instruments, according to the procedure specified in the appropriate competency letter, at one station at least, on the route, in each model of aircraft to be used by the pilot in airline operation. Such demonstrations as to the other stations as deemed necessary by the Secretary may be made to an airline inspector representing the Secretary, or to a check pilot of the airline duly authorized by the Secretary, under simulated conditions or by equivalent means approved by the Secretary.

40.282 Second pilots. Are required for all instrument operations and shall meet the minimum requirements of § 40.262.

40.283 Airline dispatchers. Same as in § 40.263.

40.29 Miscellaneous requirements.

40.290 Weather minimums. Authorization of ceiling and visibility minimums for purposes of flight clearance and for transition from instrument to visual-contact flights and vice-versa will be made by the Secretary and will be based upon the following considerations affecting the clearance and completion of the flight:

(*a*) the terrain conditions affecting the flight area necessary for the working out of an approach and let-down-through procedure, or for a climb-up-through procedure; and

(*b*) the skill and experience of dispatcher personnel; and

(*c*) the skill and experience of pilot personnel; and

(*d*) the model and maneuverability of the aircraft; and

(*e*) the obstructions to flight, considered both vertically and horizontally, in the vicinity of the landing area; and

(*f*) the quality and quantity of meteorological service and of other ground aids to flight available.

40.291 Airline operation skill. Applicant shall demonstrate, during a test period (of not less than 10 days of operation including at least

10 round trips) determined by the Secretary (in which time applicant may in the discretion of the Secretary carry mail or goods, as the case may be, in interstate air commerce), ability to operate with safety a scheduled airline service over the route proposed, with the aircraft and airmen proposed, and by means of the operating and maintenance procedures and techniques proposed. For extensions of established operations the test period will be determined by the Secretary on the basis of the length of the proposed extension, pilot qualifications, air navigation facilities and all other factors affecting the applicant's proposed operation.

40.3 Goods minimum requirements (interstate). To be eligible for a scheduled airline competency certificate for the carriage of goods (including mail) in interstate air commerce, an applicant, in addition to meeting the minimum requirements provided for in § 40.1, shall meet and comply with the following minimum requirements prescribed for the particular kind of operation proposed:

40.30 Route requirements: Visual-contact day operation.

40.300 Airway. Same as in § 40.200.

40.301 Airports. Same as in § 40.201.

40.302 Public Protection. Same as in § 40.202.

40.303 Intermediate Fields. Same as in § 40.203.

40.304 Refueling Facilities. Same as in § 40.204.

40.305 Radio Facilities. Same as in § 40.205.

40.306 Weather Reporting. Same as in § 40.206.

40.31 Route requirements: Visual-contact night operation.

40.310 Airway. Applicant shall meet the requirements of § 40.200 and shall show that the proposed route is provided with such obstruction lights as are deemed by the Secretary to be adequate for safe airline operation at night. In addition applicant shall show that the proposed route is equipped with such airway beacons as are deemed by the Secretary to be adequate for safe airline operation, or the applicant may show that the proposed route is equipped with such radio ranges (or equivalent facilities) projecting courses over the proposed route as are deemed adequate by the Secretary for safe airline operation.

40.311 Airports. Same as in § 40.211.

40.312 Public protection. Same as in § 40.202.

40.313. Intermediate fields. Same as in § 40.213.

40.314 Refueling facilities. Same as in § 40.204.

40.315 Radio facilities. Same as in § 40.205.

40.316 Weather reporting. Same as in § 40.206.

40.32 Route requirements: Instrument or over-the-top operation.

40.320 Airway. Applicant shall meet the requirements of § 40.200 for a proposed day operation, or of § 40.310 for a proposed night operation. In addition, for either day or night operation, applicant shall show that the proposed route is equipped with radio ranges (or equivalent facilities) projecting courses over the proposed route, as are deemed to be adequate by the Secretary for safe airline operation. Applicant shall also show other radio navigational aids (including radio markers), as may be deemed necessary by the Secretary.

40.321 Airports. Same as in § 40.221.

40.322 Public protection. Same as in § 40.202.

40.323 Intermediate fields. Same as in § 40.203 for day operation, and as in § 40.213 for night operation.

40.324 Refueling facilities. Same as in § 40.204.

40.325 Radio facilities. Same as in § 40.205.

40.326 Weather reporting. Same as in § 40.206.

40.33 Aircraft requirements: Visual-contact day operation.

40.330 If single-engine operation over land. Same as in § 40.230.

40.331 If single-engine operation over water. Same as in § 40.231.

40.332 If multi-engine operation over land. Applicant shall show aircraft of model and number necessary for safe operation. Applicant shall also show that such aircraft to be used on the proposed route or part thereof are capable, with any one engine inoperative, of maintaining level flight with the authorized load for the route or part thereof at an altitude of at least 1,000 feet above the airport at each terminal and scheduled intermediate stop on the route or part thereof on which the aircraft will be operated.

40.333 If multi-engine operation over water. Same as in § 40.233.

40.334 Number of aircraft. Applicant shall show aircraft, certificated as provided in § 04.52, of a number sufficient to permit the maintenance of all schedules proposed, as provided for in § 40.16.

40.335 Radio equipment. Same as in § 40.235.

40.336 Hangar facilities. Same as in § 40.236.

40.337 Shop facilities. Same as in § 40.237.

40.338 Inspection and overhaul organization and procedures. Same as in § 40.238.

40.34 Aircraft requirements: Visual-contact night operation.

40.340 If single-engine operation over land. Applicant shall show aircraft of model and number necessary for safe operation, and, in addition thereto, that the routes over which the proposed operation is to be conducted are deemed by the Secretary to have suitable landing terrain.

40.341 If single-engine operation over water. Applicant shall show aircraft of model and number necessary for safe operation. Applicant shall also show that the route to be flown over is such that the aircraft can, at all times, reach land deemed suitable by the Secretary for a safe landing in the event of complete power failure.

40.342 If multi-engine operation over land. Same as in § 40.332.

40.343 If multi-engine operation over water. Same as in § 40.233.

40.344 Number of aircraft. Same as in § 40.334.

40.345 Radio equipment. Same as in § 40.235 and, in addition, applicant shall meet the requirements of §§ 40.253, 40.2530, 40.2531 and 40.2532 if the proposed route is not equipped with airway beacons as provided in § 40.210.

40.346 Hangar facilities. Same as in § 40.236.

40.347 Shop facilities. Same as in § 40.237.

40.348 Inspection and overhaul organization and procedures. Same as in § 40.238.

40.35 Aircraft requirements: Instrument or over-the-top operation.

40.350 If single-engine operation over land. Same as in § 40.340.

40.351 If single-engine operation over water. Same as in § 40.341.

40.352 If multi-engine operation over land. Same as in § 40.332.

40.353 If multi-engine operation over water. Same as in § 40.233.

40.354 Number of aircraft. Same as in § 40.334.

40.355 Radio equipment. Same as in §§ 40.253, 40.2530, 40.2531 and 40.2532.

40.356 Hangar facilities. Same as in § 40.236.

40.357 Shop facilities. Same as in § 40.237.

40.358 Inspection and overhaul organization and procedures. Same as in § 40.238.

40.36 Airmen requirements: Visual-contact day operation.

40.360 Number. Same as in § 40.260.

40.361 First pilots. Applicant shall show prior to the issuance of the airline certificate that all persons employed to serve as first pilots for the airline meet the following minimum requirements for qualification as to aircraft and route competency:

40.3610 (*a*) Each first pilot shall be possessed of at least a valid commercial pilot competency rating with specifications or ratings indicating competency to pilot aircraft of each model to be used by him in scheduled operation. Each first pilot shall also be possessed of a valid instrument rating, unless possessed of a valid airline pilot competency rating.

40.3611 (*b*) Each first pilot, within the 6 months immediately preceding his qualification for the route, shall have made one one-way trip over the proposed route, or part thereof on which he will pilot aircraft for applicant, landing at least once at each terminal, scheduled intermediate stop and intermediate field. If landings cannot be effected at each intermediate field, then the pilot shall make a ground examination, or where impracticable by reason of field conditions, a visual examination from the air at a safe low altitude, of each such field on which no landing was made and shall render a written inspection report thereon promptly to the Secretary; in the case of a visual examination he shall submit to the Secretary a sketch of the field setting forth its condition, obstructions and surrounding terrain. During the preliminary trip, the survey and landing may be accomplished by 2 or more first pilots flying together, provided each complies with the foregoing requirements.

40.3612 (*c*) During the trip required by § 40.3611 the flight shall be visual-contact and the visibility shall be not less than 5 miles as observed from the aircraft.

40.3613 (*d*) Each first pilot to be qualified as to route competency with respect to an alternate route shall have complied with the provisions of §§ 40.3611 and 40.3612 as applied to such alternate route.

40.3614 (*e*) Same as § 40.2615 (*f*).

40.362 Second pilots. Applicant shall show that each person employed to serve as a second pilot for the airline is possessed of at least a valid commercial pilot competency rating and before serving as second pilot in any aircraft in scheduled airline service shall have demonstrated, to an airline inspector representing the Secretary or to a check pilot of the airline duly authorized by the Secretary, his ability to take-off and land such aircraft in which he is to serve by making at least 3 satisfactory take-offs and landings in each model of such aircraft.

40.363 Airline dispatchers. Same as in § 40.263.

40.37 Airmen requirements: Visual-contact night operation.

40.370 Number. Same as in § 40.260.

40.371 First pilots. Same as in § 40.361, except that each first pilot shall have logged at least 1,200 hours of certified solo flying time, and the trip required by § 40.3611 shall have been made between the hours of sunset and sunrise.

40.372 Second pilots. Same as in § 40.362 and, in addition, 6 months after the effective date of these regulations, each applicant for or holder of an airline competency certificate will be required to show that each such person is possessed of a valid instrument rating, unless possessed of a valid airline pilot competency rating.

40.373 Airline dispatchers. Same as in § 40.263.

40.38 Airmen requirements: Instrument or over-the-top operation.

40.380 Number. Same as in § 40.260.

40.381 First pilots. Same as in § 40.361, except that each first pilot shall have logged at least 1,200 hours of certified solo flying time, and, in addition, applicant shall show that each first pilot, for whom instrument authorization is sought, has demonstrated to an airline inspector representing the Secretary or to a check pilot of the airline duly authorized by the Secretary, satisfactory capability with respect to the following:

40.3810 (*a*) Familiarity with the aircraft, including demonstration of ability to maneuver such aircraft with the load authorized for the route or part thereof; and, if multi-engine aircraft, then the foregoing and in addition thereto a demonstration of ability to maneuver such aircraft with said load, with any one engine fully throttled, at an altitude equivalent to 1,000 feet above the highest part of the terrain on the proposed instrument course of the route or part thereof to be flown by the pilot in airline service.

40.3811 (*b*) Familiarity with the route and with instruments, including demonstration of ability to fly solely by instruments, under actual or simulated conditions, over the route for which qualification is sought.

40.3812 (*c*) Familiarity with procedures, including demonstration of ability to accomplish a let-down-through by instruments, according to the procedure specified in the appropriate competency letter, at one station at least, on the route, in each model of aircraft to be used by the pilot in airline operation. Such demonstrations as to other stations as deemed necessary by the Secretary may be made to an airline inspector representing the Secretary, or to a check pilot of the airline duly authorized by the Secretary, under simulated conditions or by equivalent means approved by the Secretary.

40.382 Second pilots. Same as in § 40.262.

40.383 Airline dispatchers. Same as in § 40.263.

40.39 Miscellaneous requirements.

40.390 Weather minimums. Same as in § 40.29, giving consideration to the fact that no passengers are being carried in this operation and providing for the most rapid progress of the art of flying.

40.391 Airline operation skill. Same as in § 40.291.

40.4 Passenger minimum requirements (intra-territorial). (To be supplied.)

40.5 Goods minimum requirements (intra-territorial). (To be supplied.)

40.6 Airline competency certificate.

40.60 Provision for issuance. An airline competency certificate will be issued by the Secretary to an applicant after approval of application made and proofs submitted in connection therewith and if, upon inspection and examination, said applicant is found by the Secretary to meet the general requirements prescribed in § 40.1 and the appropriate particular minimum requirements prescribed in §§ 40.2, 40.3, 40.4 or 40.5 and is, therefore rated as competent to engage in interstate or intra-territorial air commerce, or both, for the carriage of mail, goods, or passengers, in scheduled operation as specified in the certificate or appended competency letters (provided for in § 40.7). An airline which heretofore has proven its competency for safe operation and which was conducting authorized operations on and prior to March 31, 1938, and which had applied for an airline competency certificate, as provided for in § 40.61, on or before such date, shall be entitled presumptively to the airline certificate so applied for. In the interim until the issuance or denial of an airline certificate, operations shall be conducted under authority heretofore granted or subsequently amended, unless sooner suspended or revoked by the Secretary.

40.61 Application. Application for a scheduled airline certificate shall be made to the Secretary and subscribed under oath by the applicant in the manner outlined in Form AC 40–1.

40.610 Number of copies. Applicant shall submit at least three copies of the application duly completed and executed, and, in the discretion of the Secretary, may be required to submit a great number not to exceed ten.

40.611 Application to amend. When changes in, or amendments thereto, the original application are desired, the applicant shall submit one copy in addition to the number previously required for the original application, of the amended page or pages, incorporating the change or changes desired in the manner provided in § 40.61. These copies shall be submitted to the Secretary through the supervising airline inspector involved and shall not be effective until written approval of the Secretary has been received, except that approval may be granted by the supervising airline inspector for changes in pilot and dispatcher personnel.

40.612 Proceeding to amend. A proceeding to amend an airline certificate may be instituted by the Secretary when, in his opinion, the airline operator is no longer competent in respect of some matter specified in the certificate. Notice of such proceeding will be addressed to the airline operator with opportunity for a hearing. In the interim, the part of the certificate affected may be suspended in whole or in part by the Secretary. Following the hearing, the Secretary may issue a re-rating as to competency, in which event the findings will be incorporated in a new competency letter or letters.

40.613 Inspection. The applicant for an airline certificate shall offer full cooperation with respect to any inspection or examination which may be made of said applicant upon proper demand by any authorized representative of the Secretary prior or subsequent to the issuance of such airline certificate.

40.62 Temporary permit. Following application made for an airline certificate, but prior to approval thereof and issuance of the certificate, a temporary permit may be issued by the Secretary in order to enable the applicant to demonstrate ability to meet and comply with the minimum requirements of § 40.291 pertaining to airline operation skill. During such period no pay passengers shall be carried.

40.63 Issuance. An airline certificate will be issued in an appropriate form in accordance with the provisions of § 40.60.

40.64 Display. The airline certificate in its current and effective form (or a copy thereof) shall be conspicuously posted in the principal office of the airline where it may be readily seen, and any such certificate shall be presented for inspection upon demand of any authorized officer or employee of the Department of Commerce, or upon the reasonable request of any other person. Facsimile copies of such airline certificate may be posted for display elsewhere.

40.65 Duration. An airline certificate will remain effective for an indeterminate time, or until the certificate is suspended or revoked by the Secretary.

40.66. Non-transferability. An airline certificate is not transferable except with the consent of the Secretary.

40.67. Suspension or revocation. An airline certificate may be suspended or, after hearing, revoked, in whole or in part, by the Secretary for any of the following reasons:

40.670 (*a*) Any false statement by the airline operator in the application for such certificate, or in any information accompanying such application, or in any report required by the Secretary.

40.671 (*b*) Violation on the part of the operator of any of the terms, conditions, specifications, limitations or other provisions of such airline certificate.

40.672 (*c*) Violation on the part of the operator of any of the terms, conditions, specifications, limitations or other provisions of any competency letter appended to such certificate.

40.673 (*d*) Violation on the part of the operator of any provision of the Air Commerce Act or any rule or regulation duly issued thereunder.

40.674 (*e*) Grossly negligent or willful (and inexcusable) violation by any employee of the operator of any of the terms, conditions, specifications, limitations for other provisions of such airline certificate or any competency letter appended thereto, or of any provision of the Air Commerce Act or any rule or regulation duly issued thereunder, *provided, however,* that the airline certificate shall not be revoked in whole or in part upon a showing by the operator of due diligence and of reasonable precautions taken by the operator to prevent such conduct on the part of such employee.

40.675 (*f*) Suspension of airline service by the operator, except for reasons beyond control of the operator, or discontinuance of such service.

40.676 (*g*) Any unsafe operation of the airline.

40.677 (*h*) Any failure to maintain safety standards requisite to the obtaining of such certificate.

40.68 Surrender. Upon notice from the Secretary of the suspension or revocation of an airline certificate, the operator to whom it has been issued shall immediately return such certificate to the Secretary. In case of revocation, notwithstanding any failure or refusal to surrender an airline certificate, it shall be deemed canceled and of no further force or effect.

40.69 Re-application. An operator whose application for an airline certificate has been disapproved may re-apply at any time.

40.7 Airline competency letters.

40.70 Provision for issuance. To provide necessary minimum safety standards for the operation of a scheduled airline with sufficient flexibility to meet new and constantly changing situations, 6 airline competency letters will be appended to each airline certificate by the Secretary. Such letters will establish the basis for, and set the limitations upon, the competency of the airline operation and will be deemed an integral part of the airline certificate. The 6 competency letters will be as follows:

40.700 (*a*) Service competency letter.

40.701 (*b*) Route competency letter.

40.702 (*c*) Aircraft competency letter.

40.703 (*d*) Maintenance competency letter.

40.704 (*e*) Airmen competency letter.

40.705 (*f*) Weather competency letter.

40.71 Application. Application for an airline certificate will constitute, without other formality, application for a competency letter of each kind.

40.710 Application to amend. Application to amend a competency letter of any kind may be made by amending the application for the airline certificate as provided for in § 40.611.

40.711 Proceeding to amend. A proceeding to amend a competency letter of any kind may be instituted by the Secretary when, in his opinion, the airline operator is no longer competent in respect of some matter specified in the letter. Notice of such proceeding will be addressed to the airline operator with opportunity for a hearing. In the interim, the part of the letter affected may be suspended in whole or in part by the Secretary. Following the hearing, the Secretary may issue a re-rating as to competency in which event the findings will be incorporated in a new competency letter or letters.

40.712 Inspection. Same as § 40.613.

40.72 Temporary letter. Following application made for an airline certificate, but prior to approval and issuance thereof, temporary competency letters may be issued for the purpose of enabling applicant to demonstrate ability to meet the requirements as to service, route, aircraft, maintenance, airmen, and weather competency, for the duration of the temporary permit provided for in § 40.62.

40.73 Issuance. Upon approval of an application duly made and proofs submitted (including inspection and examination), a competency letter will be issued in an appropriate form.

40.74 Display. No competency letter need be posted for purposes of display, but all such letters shall be kept at the principal office of the holder of the certificate, unless otherwise specified by the Secretary, and any such letter shall be presented in its current and effective form for inspection upon demand of any authorized officer or employee of the Department of Commerce, or upon the reasonable request of any other person.

40.75 Duration. A competency letter will remain effective for an indeterminate time, or until

(*a*) the letter is superseded by a later competency letter of the same kind, or

(*b*) the letter is suspended or revoked by the Secretary, or

(*c*) the certificate of which it is a part is suspended or revoked by the Secretary.

40.76 Non-transferability. A competency letter is not transferable, except with the consent of the Secretary.

40.77 Suspension or revocation. A competency letter may be suspended or revoked for any of the reasons specified in § 40.67.

40.78 Surrender. Upon notice from the Secretary of the suspension or revocation of a competency letter, the operator to whom it has been issued shall immediately return such letter to the Secretary. In case of revocation, notwithstanding any failure or refusal to surrender a competency letter, it shall be deemed canceled and of no further force or effect.

40.79 Re-application. An operator, whose application for a competency letter has been disapproved, may re-apply at any time.

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