- (d) No program manager or other person may select an airport as an alternate airport for a turbine engine powered large transport category airplane unless (based on the assumptions in paragraph (b) of this section) that airplane, at the weight expected at the time of arrival, can be brought to a full stop landing within 80 percent of the effective length of the runway from a point 50 feet above the intersection of the obstruction clearance plane and the runway.
- (e) Unless, based on a showing of actual operating landing techniques on wet runways, a shorter landing distance (but never less than that required by paragraph (b) or (c) of this section) has been approved for a specific type and model airplane and included in the Airplane Flight Manual, no person may take off a turbojet airplane when the appropriate weather reports or forecasts, or any combination of them, indicate that the runways at the destination or alternate airport may be wet or slippery at the estimated time of arrival unless the effective runway length at the destination airport is at least 115 percent of the runway length required under paragraph (b) or (c) of this section.

§91.1039 IFR takeoff, approach and landing minimums.

- (a) No pilot on a program aircraft operating a program flight may begin an instrument approach procedure to an airport unless—
- (1) Either that airport or the alternate airport has a weather reporting facility operated by the U.S. National Weather Service, a source approved by the U.S. National Weather Service, or a source approved by the Administrator; and
- (2) The latest weather report issued by the weather reporting facility includes a current local altimeter setting for the destination airport. If no local altimeter setting is available at the destination airport, the pilot must obtain the current local altimeter setting from a source provided by the facility designated on the approach chart for the destination airport.
- (b) For flight planning purposes, if the destination airport does not have a weather reporting facility described in

paragraph (a)(1) of this section, the pilot must designate as an alternate an airport that has a weather reporting facility meeting that criteria.

- (c) The MDA or Decision Altitude and visibility landing minimums prescribed in part 97 of this chapter or in the program manager's management specifications are increased by 100 feet and 1/2 mile respectively, but not to exceed the ceiling and visibility minimums for that airport when used as an alternate airport, for each pilot in command of a turbine-powered aircraft who has not served at least 100 hours as pilot in command in that type of aircraft.
- (d) No person may take off an aircraft under IFR from an airport where weather conditions are at or above takeoff minimums but are below authorized IFR landing minimums unless there is an alternate airport within one hour's flying time (at normal cruising speed, in still air) of the airport of departure.
- (e) Each pilot making an IFR takeoff or approach and landing at an airport must comply with applicable instrument approach procedures and take off and landing weather minimums prescribed by the authority having jurisdiction over the airport. In addition, no pilot may, at that airport take off when the visibility is less than 600 feet.

§91.1041 Aircraft proving and validation tests.

- (a) No program manager may permit the operation of an aircraft, other than a turbojet aircraft, for which two pilots are required by the type certification requirements of this chapter for operations under VFR, if it has not previously proved such an aircraft in operations under this part in at least 25 hours of proving tests acceptable to the Administrator including—
- (1) Five hours of night time, if night flights are to be authorized;
- (2) Five instrument approach procedures under simulated or actual conditions, if IFR flights are to be authorized; and
- (3) Entry into a representative number of en route airports as determined by the Administrator.
- (b) No program manager may permit the operation of a turbojet airplane if

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it has not previously proved a turbojet airplane in operations under this part in at least 25 hours of proving tests acceptable to the Administrator including—

- (1) Five hours of night time, if night flights are to be authorized;
- (2) Five instrument approach procedures under simulated or actual conditions, if IFR flights are to be authorized; and
- (3) Entry into a representative number of en route airports as determined by the Administrator.
- (c) No program manager may carry passengers in an aircraft during proving tests, except those needed to make the tests and those designated by the Administrator to observe the tests. However, pilot flight training may be conducted during the proving tests.
- (d) Validation testing is required to determine that a program manager is capable of conducting operations safely and in compliance with applicable regulatory standards. Validation tests are required for the following authorizations:
- (1) The addition of an aircraft for which two pilots are required for operations under VFR or a turbojet airplane, if that aircraft or an aircraft of the same make or similar design has not been previously proved or validated in operations under this part.
 - (2) Operations outside U.S. airspace.
- (3) Class II navigation authorizations.
- (4) Special performance or operational authorizations.
- (e) Validation tests must be accomplished by test methods acceptable to the Administrator. Actual flights may not be required when an applicant can demonstrate competence and compliance with appropriate regulations without conducting a flight.
- (f) Proving tests and validation tests may be conducted simultaneously when appropriate.
- (g) The Administrator may authorize deviations from this section if the Administrator finds that special circumstances make full compliance with this section unnecessary.

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§91.1045 Additional equipment requirements.

No person may operate a program aircraft on a program flight unless the aircraft is equipped with the following—

- (a) Airplanes having a passenger-seat configuration of more than 30 seats or a payload capacity of more than 7,500 pounds:
- (1) A cockpit voice recorder as required by §121.359 of this chapter as applicable to the aircraft specified in that section.
- (2) A flight recorder as required by §121.343 or §121.344 of this chapter as applicable to the aircraft specified in that section.
- (3) A terrain awareness and warning system as required by §121.354 of this chapter as applicable to the aircraft specified in that section.
- (4) A traffic alert and collision avoidance system as required by §121.356 of this chapter as applicable to the aircraft specified in that section.
- (5) Airborne weather radar as required by §121.357 of this chapter, as applicable to the aircraft specified in that section.
- (b) Airplanes having a passenger-seat configuration of 30 seats or fewer, excluding each crewmember, and a payload capacity of 7,500 pounds or less, and any rotorcraft (as applicable):
- (1) A cockpit voice recorder as required by §135.151 of this chapter as applicable to the aircraft specified in that section.
- (2) A flight recorder as required by §135.152 of this chapter as applicable to the aircraft specified in that section.
- (3) A terrain awareness and warning system as required by §135.154 of this chapter as applicable to the aircraft specified in that section.
- (4) A traffic alert and collision avoidance system as required by §135.180 of this chapter as applicable to the aircraft specified in that section.
- (5) As applicable to the aircraft specified in that section, either:
- (i) Airborne thunderstorm detection equipment as required by §135.173 of this chapter; or
- (ii) Airborne weather radar as required by §135.175 of this chapter.