and the runway. For the purpose of determining the allowable landing weight at the destination airport, the following is assumed:

(i) The airplane is landed on the most favorable runway and in the most favorable direction, in still air.

(ii) The airplane is landed on the most suitable runway considering the probable wind velocity and direction and the ground handling characteristics of that airplane, and considering other conditions such as landing aids and terrain.

(3) The operation is authorized by management specifications.

(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, the pilot must designate as an alternate an airport that has a weather reporting facility meeting that criteria.

§ 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 management specifications.

(b) 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.

(c) 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
§ 91.1043 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.