§ 121.357 Collision Avoidance Systems—Continued

If you operate any—

Then you must operate that airplane with—

(i) TCAS II that meets TSO C–119a (version 6.04A Enhanced) that was installed in that airplane before May 1, 2003. If that TCAS II version 6.04A Enhanced no longer can be repaired to TSO C–119a standards, it must be replaced with a TCAS II that meets TSO C–119b (version 7.0), or a later version.

(ii) A collision avoidance system equivalent to TSO C–119b (version 7.0), or a later version, capable of coordinating with units that meet TSO C–119a (version 6.04A Enhanced), or a later version.

(iii) A collision avoidance system and Mode S transponder that meet paragraph (a)(1) of this section.

(b) Passenger or combination cargo/passenger (combi) airplane that has a passenger seat configuration of 10–30 seats.

(1) TCAS I that meets TSO C–118, or a later version, or

(2) A collision avoidance system equivalent to TSO C–118, or a later version, or

(3) A collision avoidance system and Mode S transponder that meet paragraph (a)(1) of this section.

(c) Piston-powered airplane of more than 33,000 pounds maximum certificated takeoff weight.

§ 121.358 Low-altitude windshear system equipment requirements.

(a) Airplanes manufactured after January 2, 1991. No person may operate a turbine-powered airplane manufactured after January 2, 1991, unless it is equipped with either an approved airborne windshear warning and flight guidance system, an approved airborne detection and avoidance system, or an approved combination of these systems.

(b) Airplanes manufactured before January 3, 1991. Except as provided in paragraph (c) of this section, after January 2, 1991, no person may operate a turbine-powered airplane manufactured before January 3, 1991 unless it meets one of the following requirements as applicable.

1. The makes/models/series listed below must be equipped with either an approved airborne windshear warning and flight guidance system, an approved airborne detection and avoidance system, or an approved combination of these systems:

   (i) A–300–600;
   (ii) A–310—all series;
   (iii) A–320—all series;
   (iv) B–737–300, 400, and 500 series;
   (v) B–747–400;
   (vi) B–757—all series;
§ 121.359 Cockpit voice recorders.

(a) No certificate holder may operate a large turbine engine powered airplane or a large pressurized airplane with four reciprocating engines unless an approved cockpit voice recorder is installed in that airplane and is operated continuously from the start of the use of the checklist (before starting engines for the purpose of flight), to completion of the final checklist at the termination of the flight.

(b) [Reserved]

(c) The cockpit voice recorder required by paragraph (a) of this section must meet the following application standards:

(1) The requirements of part 25 of this chapter in effect on August 31, 1977.
(2) After September 1, 1980, each recorder container must—
   (i) Be either bright orange or bright yellow;
   (ii) Have reflective tape affixed to the external surface to facilitate its location under water; and
   (iii) Have an approved underwater locating device on or adjacent to the container which is secured in such a manner that they are not likely to be separated during crash impact, unless the cockpit voice recorder, and the flight recorder required by § 121.343, are installed adjacent to each other in such a manner that they are not likely to be separated during crash impact.

(d) No person may operate a multengine, turbine-powered airplane having a passenger seat configuration of 10–19 seats unless it is equipped with an approved cockpit voice recorder that:

(1) Is installed in compliance with § 23.1457(a)(1) and (2), (b), (c), (d)(1)(i), (2) and (3), (e), (f), and (g); or § 25.1457(a)(1) and (2), (b), (c), (d)(1)(i), (2) and (3), (e), (f), and (g) of this chapter, as applicable; and
(2) Is operated continuously from the use of the checklist before the flight to completion of the final checklist at the end of the flight.

(e) No person may operate a multengine, turbine-powered airplane having a passenger seat configuration of 20 to