the primary ice detection system indicates activation is necessary.

(ii) When the airframe ice protection system is activated, any other procedures in the Airplane Flight Manual for operating in icing conditions must be initiated.

(2) Visual cues of the first sign of ice formation anywhere on the airplane and a certificated advisory airframe ice detection system must be provided.

(i) The airframe ice protection system must be activated when any of the visual cues are observed or when the advisory airframe ice detection system indicates activation is necessary, whichever occurs first.

(ii) When the airframe ice protection system is activated, any other procedures in the Airplane Flight Manual for operating in icing conditions must be initiated.

(3) If the airplane is not equipped to comply with the provisions of paragraph (a)(1) or (2) of this section, then the following apply:

(i) When operating in conditions conducive to airframe icing, the airframe ice protection system must be activated prior to, and operated during, the following phases of flight:

(A) Takeoff climb after second segment,

(B) En route climb,

(C) Go-around climb,

(D) Holding,

(E) Maneuvering for approach and landing, and

(F) Any other operation at approach or holding airspeeds.

(ii) During any other phase of flight, the airframe ice protection system must be activated and operated at the first sign of ice formation anywhere on the airplane, unless the Airplane Flight Manual specifies that the airframe ice protection system should not be used or provides other operational instructions.

(iii) Any additional procedures for operation in conditions conducive to icing specified in the Airplane Flight Manual or in the manual required by §121.133 must be initiated.

(b) If the procedures specified in paragraph (a)(3)(i) of this section are specifically prohibited in the Airplane Flight Manual, compliance must be shown with the requirements of paragraph (a)(1) or (2) of this section.

(c) Procedures necessary for safe operation of the airframe ice protection system must be established and documented in:

(1) The Airplane Flight Manual for airplanes that comply with paragraph (a)(1) or (2) of this section, or

(2) The Airplane Flight Manual or in the manual required by §121.133 for airplanes that comply with paragraph (a)(3) of this section.

(d) Procedures for operation of the airframe ice protection system must include initial activation, operation after initial activation, and deactivation. Procedures for operation after initial activation of the ice protection system must address—

(1) Continuous operation,

(2) Automatic cycling,

(3) Manual cycling if the airplane is equipped with an ice detection system that alerts the flightcrew each time the ice protection system must be cycled, or

(4) Manual cycling based on a time interval if the airplane type is not equipped with features necessary to implement (d)(1)–(3) of this section.

(e) System installations used to comply with paragraph (a)(1) or (a)(2) of this section must be approved through an amended or supplemental type certificate in accordance with part 21 of this chapter.

[Doc. No. FAA–2009–0675, 78 FR 15876, Mar. 13, 2013]

§121.323 Instruments and equipment for operations at night.

No person may operate an airplane at night under this part unless it is equipped with the following instruments and equipment in addition to those required by §§121.305 through 121.321 and 121.803:

(a) Position lights.

(b) An anti-collision light.

(c) Two landing lights, except that only one landing light is required for nontransport category airplanes type certificated after December 31, 1964.

(d) Instrument lights providing enough light to make each required instrument, switch, or similar instrument, easily readable and installed so that the direct rays are shielded from