

conditions if the airplane is not equipped for icing conditions. Thus the final rule § 121.341 incorporates the part 135 language.

*Pitot heat indication system.* Section 25.1326 requires a pitot heat indication system to indicate to the flightcrew when a pitot heating system is not operating. Part 23 currently requires pitot heat systems for airplanes approved for IFR flight or flight in icing conditions, but does not require pitot heat indicators. Section 121.342 currently requires a pitot heat indication system on all airplanes that have pitot heat systems installed.

In recommendation A-92-86, the National Transportation Safety Board (NTSB) recommended that small airplanes certificated to operate in icing conditions and at altitudes of 18,000 feet mean sea level and above should be modified to provide a pitot heat operating light similar to the light required by § 25.1326. As recommended by the NTSB, the FAA proposed to amend part 23 to require such indication for commuter category airplanes (Notice No. 94-21, 59 FR 37620, July 22, 1994). This new requirement, when adopted, will apply to new type certification and will not affect existing in-service commuter airplanes or future production of currently approved commuter airplanes.

In Notice 95-5, the FAA proposed to amend § 121.342 to require nontransport category airplanes type certificated after December 31, 1964, to incorporate pitot heat indication systems. Affected commuters would have to comply within 4 years after the publication date of this rulemaking.

*Comments:* Three comments were received on this proposal. Fairchild Aircraft Co., a manufacturer of commuter airplanes fully supports the proposal.

RAA notes that FAA's cost estimate of \$500 was significantly lower than the commenter's estimate of between \$1,500 and \$25,000 per airplane. The commenter further states that there was no known history of accidents or incidents to justify the cost of retrofits and recommends that the requirements apply only to newly manufactured airplanes.

Commuter Air Technology, an aircraft modifier, notes that pitot tubes are accessible to ground personnel who could ascertain their proper function prior to flight. The commenter argues that because of the short duration of commuter flights (usually 1 hour) failure in flight would probably allow for continued flight to the next airport.

*FAA Response:* As a result of comments received in response to

Notice 95-5, the FAA re-examined the cost estimates of this rulemaking. Those revised cost estimates, which are higher than those in the proposal, are included in the Regulation Evaluation Summary of this rulemaking.

The FAA disagrees with the commenter's contention that ground checks and short flights preclude the need for pitot tube heat indicators. Airspeed indicating errors caused by unheated pitot tubes have contributed to icing-related accidents. Airspeed indicating errors are not always obvious to the pilot who may make decisions based on the resulting erroneous information. A system which indicates when the pitot tube is, or is not, heated will provide the crew with the status of the system.

Therefore, the FAA is amending § 121.342, as proposed, to require nontransport category airplanes type certificated after December 31, 1964, that are equipped with a flight instrument pitot heating system to incorporate pitot heat indication systems within 4 years after the effective date of this rulemaking.

*Flight data recorders (FDR's).* Notice 95-5 did not propose any substantive revisions to current part 121 or part 135 flight data recorder (FDR) requirements. According to the proposal, affected commuters would continue to meet part 135 requirements while the FAA is developing updated FDR requirements for both parts 121 and 135.

*Comments:* One commenter states that some of the current equipment being used is providing inadequate records and that part 121 and 135 certificate holders should be required by December 31, 1999, to install new FDR on all airplanes. He further states that industry data indicates the changeover will cost \$29 million divided by 454 million passengers a year, and that equates to 6 cents increase in ticket prices.

AIA and Raytheon state that following NTSB safety recommendations on FDR's could result in as large an impact on the economic viability for current and future aircraft in this category as the effects of Notice 95-5. They further state that although additional information from FDR's is needed, the safety recommendations as written would require 56 to 84 channels of data on a 1900D and would be excessive for most data requirements. This would result in a large redesign effort and related increases in costs.

American Eagle comments that it believes that this equipment, as well as cockpit voice recorders, is important in the post-incident investigation process and, as a result, has installed FDR's on all its aircraft even though not all

aircraft operated under part 135 are required to have them. It strongly supports extending the current part 121 requirement to all aircraft with 10 or more seats operating in scheduled passenger service. In addition, the commenter supports regulations which would require such equipment to meet a new, higher minimum standard.

*FAA Response:* A recommendation for a rule change on FDR's is being addressed by the Aviation Rulemaking Advisory Committee (ARAC), and the concerns of the commenting parties will be reflected in that separate rulemaking if a rule change is proposed. This rulemaking did not propose any increase in channels for existing FDR's.

For clarification the proposed rule language has been revised in § 121.344 of the final rule to state that § 135.152 FDR requirements will apply to airplanes with a payload capacity of 7,500 pounds or less and a passenger seating configuration, excluding any pilot seat, of 10-30 seats. The proposed rule had not specified passenger seating capacity.

*Radio equipment.* Sections 121.345 through 121.351 cover radio equipment requirements. Part 121 specifies radio equipment requirements for operations under VFR over routes navigated by pilotage, for operations under VFR over routes not navigated by pilotage or for operations under IFR or over-the-top, and for extended overwater operations. The requirements are more specific and restrictive than those in § 135.161. The radio equipment requirements in part 121 are cumulative; that is, the regulations prescribe basic radio equipment requirements for VFR over routes navigated by pilotage and additional equipment for VFR over-the-top or IFR. Almost all part 121 operations are conducted under IFR. The proposed rule would require affected commuters to comply with part 121 radio equipment requirements.

The final rule revised § 121.349 (radio equipment for operations under VFR over routes not navigated by pilotage or for operations under IFR or over the top) by adding a new paragraph (e) which incorporates requirements in § 135.165(a). This change is necessary because part 121 does not have comparable requirements.

*Emergency equipment for operations over uninhabited terrain.* Section 121.353 prescribes the emergency equipment needed for operations over uninhabited terrain for flag and supplemental operations. The requirements include pyrotechnic signaling devices, emergency locator transmitters (ELT's), and survival kits equipped for the route to be flown. The