4. Recommendations

4.1 New Recommendations

To the Federal Aviation Administration:

Identify high-traffic air tour areas and require, through a special federal aviation regulation or other means, that Title 14 *Code of Federal Regulations* Parts 91 and 135 air tour operators that operate within those areas be equipped with an Automatic Dependent Surveillance-Broadcast Out- and In-supported traffic advisory system that 1) includes both visual and aural alerts, 2) is driven by an algorithm designed to minimize nuisance alerts, and 3) is operational during all flight operations. (A-21-15)

In the high-traffic air tour areas identified in Safety Recommendation A-21-15, require that all non-air tour aircraft operating within the airspace be equipped with Automatic Dependent Surveillance-Broadcast Out. (A-21-16)

Require the installation of Automatic Dependent Surveillance-Broadcast Out- and Insupported airborne traffic advisory systems that include aural and visual alerting functions in all aircraft conducting operations under Title 14 *Code of Federal Regulations* Part 135. (A-21-17)

Review current and future supplemental type certificate installation instructions and flight manual supplements to ensure they provide provisions to prevent the inadvertent disabling of the broadcast of pressure altitude data, by design, where practicable. (A-21-18)

Ensure that checklists for all Capstone Program (phase 2) aircraft include verification that the Garmin GSL 71 control head selector knob is in the ON position and that the unit is in ALT mode before takeoff. (A-21-19)

Update the *Aeronautical Information Manual* and the *Pilot's Handbook of Aeronautical Knowledge* to include the limitations inherent in visual scans for traffic and the benefits and best practices of using cockpit displays of traffic information to supplement visual scans to help overcome these limitations. (A-21-20)

To ForeFlight:

Update your traffic alerting algorithms so that traffic targets for which there is no altitude information are assumed to be at the same altitude as the ownship (that is, the aircraft receiving the target data). (A-21-21)

To Taquan Air:

Revise the checklists for your fleet of aircraft to ensure they include verification that the Garmin GSL 71 control head selector knob is in the ON position and that the unit is in ALT mode before takeoff. (A-21-22)

To aviation industry groups (Aircraft Owners and Pilots Association, Experimental Aircraft Association, National Business Aviation Association, Tour Operators Program of Safety, Tongass Aircraft Pilots Association, and Helicopter Association International):

Inform your members about the circumstances of this accident and encourage them to take the following actions: (1) become familiar with the traffic display equipment installed in their aircraft; (2) if their equipment does not provide an aural alert concerning proximate targets that might pose a collision threat, encourage pilots/operators to supplement the equipment with devices that provide both an aural and visual alert; and (3) remind pilots to include the traffic display when scanning for traffic through the aircraft's windows. (A-21-23)

To the National Association of Flight Instructors and the Society of Aviation and Flight Educators:

Inform your members of the circumstances of this accident and incorporate instruction on including the traffic display when scanning for traffic through an aircraft's windows in both initial and recurrent pilot training. (A-21-24)

4.2 Previously Issued Recommendation Reiterated in This Report

The National Transportation Safety Board reiterates the following safety recommendation.

To the Federal Aviation Administration:

Require all 14 *Code of Federal Regulations* Part 135 operators to establish safety management system programs. (A-16-36)