



National Transportation Safety Board Aviation Accident Data Summary

| | | | |
|--------------------------------|---|-------------------------|------------|
| Location: | Togiak, AK | Accident Number: | ANC17MA001 |
| Date & Time: | 10/02/2016, 1157 AKD | Registration: | N208SD |
| Aircraft: | CESSNA 208B | Injuries: | 3 Fatal |
| Flight Conducted Under: | Part 135: Air Taxi & Commuter - Scheduled | | |

Analysis

The NTSB's full report is available at <http://www.nts.gov/investigations/AccidentReports/Pages/AccidentReports.aspx>. The Aircraft Accident Report number is NTSB/AAR-18/02.

On October 2, 2016, about 1157 Alaska daylight time, Ravn Connect flight 3153, a turbine-powered Cessna 208B Grand Caravan airplane, N208SD, collided with steep, mountainous terrain about 10 nautical miles northwest of Togiak Airport (PATG), Togiak, Alaska. The two commercial pilots and the passenger were killed, and the airplane was destroyed. The scheduled commuter flight was operated under visual flight rules by Hageland Aviation Services, Inc., Anchorage, Alaska, under the provisions of Title 14 Code of Federal Regulations Part 135. Visual meteorological conditions prevailed at PATG (which had the closest weather observing station to the accident site), but a second company flight crew (whose flight departed about 2 minutes after the accident airplane and initially followed a similar route) reported that they observed unexpected fog, changing clouds, and the potential for rain along the accident route. Company flight-following procedures were in effect. The flight departed Quinhagak Airport, Quinhagak, Alaska, about 1133 and was en route to PATG.

Flight Events

Enroute-cruise - VFR encounter with IMC
Enroute-cruise - Controlled flight into terr/obj (CFIT)

Probable Cause

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The flight crew's decision to continue the visual flight rules flight into deteriorating visibility and their failure to perform an immediate escape maneuver after entry into instrument meteorological conditions, which resulted in controlled flight into terrain (CFIT). Contributing to the accident were (1) Hageland's allowance of routine use of the terrain inhibit switch for inhibiting the terrain awareness and warning system alerts and inadequate guidance for uninhibiting the alerts, which reduced the margin of safety, particularly in deteriorating visibility; (2) Hageland's inadequate crew resource management (CRM) training; (3) the Federal Aviation Administration's failure to ensure that Hageland's approved CRM training contained all the required elements of Title 14 *Code of Federal Regulations* 135.330; and (4) Hageland's CFIT avoidance ground training, which was not tailored to the company's operations and did not address current CFIT-avoidance technologies.

Findings

Aircraft-Aircraft oper/perf/capability-Performance/control parameters-Altitude-Not attained/maintained - C
Aircraft-Aircraft systems-Navigation system-Ground proximity system-Not used/operated
Aircraft-Aircraft systems-Navigation system-Ground proximity system-Related operating info
Aircraft-Aircraft systems-Navigation system-Ground proximity system-Capability exceeded
Aircraft-Aircraft systems-Navigation system-Ground proximity system-Design
Aircraft-Aircraft systems-Indicating/recording systems-Data recorders (flight/maint)-Not installed/available
Personnel issues-Action/decision-Info processing/decision-Decision making/judgment-Flight crew - C
Personnel issues-Action/decision-Action-Lack of action-Flight crew - C
Environmental issues-Conditions/weather/phenomena-Ceiling/visibility/precip-Below VFR minima-Decision related to condition - C
Environmental issues-Conditions/weather/phenomena-Ceiling/visibility/precip-Below VFR minima-Response/compensation - C
Environmental issues-Physical environment-Terrain-Mountainous/hilly terrain-Response/compensation - C
Environmental issues-Physical environment-Terrain-Mountainous/hilly terrain-Contributed to outcome - C
Environmental issues-Operating environment-Communication system-VHF/HF radio-Not specified
Environmental issues-Operating environment-Meteorological services-Meteo equip coverage/avail-Not specified
Organizational issues-Management-Policy/procedure-Adequacy of policy/proc-Operator - F
Organizational issues-Support/oversight/monitoring-Training-CRM/MRM training-Operator - F
Organizational issues-Support/oversight/monitoring-Training-CRM/MRM training-FAA/Regulator - F
Organizational issues-Support/oversight/monitoring-Training-(general)-Operator - F
Organizational issues-Support/oversight/monitoring-Safety programs-(general)-FAA/Regulator
Organizational issues-Support/oversight/monitoring-Safety programs-(general)-Other institution/organization

Pilot Information

| | | | |
|----------------------------------|--|------------------------------|--|
| Certificate: | Flight Instructor; Commercial | Age: | 43 |
| Airplane Rating(s): | Multi-engine Land; Single-engine Land | Instrument Rating(s): | Airplane |
| Other Aircraft Rating(s): | None | Instructor Rating(s): | Airplane Multi-engine; Airplane Single-engine; Instrument Airplane |
| Flight Time: | 6481 hours (Total, all aircraft), 781 hours (Total, this make and model), 6181 hours (Pilot In Command, all aircraft), 271 hours (Last 90 days, all aircraft), 102 hours (Last 30 days, all aircraft), 4 hours (Last 24 hours, all aircraft) | | |

Co-Pilot Information

| | | | |
|----------------------------------|---|------------------------------|----------|
| Certificate: | Commercial | Age: | 29 |
| Airplane Rating(s): | Single-engine Land | Instrument Rating(s): | Airplane |
| Other Aircraft Rating(s): | None | Instructor Rating(s): | None |
| Flight Time: | 273 hours (Total, all aircraft), 84 hours (Total, this make and model), 139 hours (Pilot In Command, all aircraft), 84 hours (Last 90 days, all aircraft), 83 hours (Last 30 days, all aircraft), 5 hours (Last 24 hours, all aircraft) | | |

Aircraft and Owner/Operator Information

| | | | |
|---------------------------------------|--|-----------------------------|--------------|
| Aircraft Make: | CESSNA | Registration: | N208SD |
| Model/Series: | 208B | Engines: | 1 Turbo Prop |
| Operator: | HAGELAND AVIATION SERVICES INC | Engine Manufacturer: | P&W |
| Operating Certificate(s) Held: | Commuter Air Carrier (135); On-demand Air Taxi (135) | Engine Model/Series: | PT6-114A |
| Flight Conducted Under: | Part 135: Air Taxi & Commuter - Scheduled | | |

Meteorological Information and Flight Plan

| | | | |
|---|------------------------|-------------------------------------|------------------------------|
| Conditions at Accident Site: | Visual Conditions | Condition of Light: | Day |
| Observation Facility, Elevation: | PATG, 20 ft msl | Weather Information Source: | Weather Observation Facility |
| Lowest Ceiling: | Overcast / 4700 ft agl | Wind Speed/Gusts, Direction: | Calm / , |
| Temperature: | 7° C | Visibility | 7 Miles |
| Precipitation and Obscuration: | Light - Rain | | |
| Departure Point: | QUINHAGAK, AK (PAQH) | Destination: | TOGIAC, AK (PATG) |

Airport Information

| | | | |
|-----------------------------|---------------|----------------------------------|---------|
| Airport: | TOGIAC (PATG) | Runway Surface Type: | N/A |
| Runway Used: | N/A | Runway Surface Condition: | Unknown |
| Runway Length/Width: | | | |

Wreckage and Impact Information

| | | | |
|-----------------------------|------------------------|----------------------------|---------------------------|
| Crew Injuries: | 2 Fatal | Aircraft Damage: | Destroyed |
| Passenger Injuries: | 1 Fatal | Aircraft Fire: | Fire At Unknown Time |
| Ground Injuries: | N/A | Aircraft Explosion: | Explosion At Unknown Time |
| Latitude, Longitude: | 59.165556, -160.653333 | | |

Administrative Information

| | | | |
|-------------------------------|---|---------------|------------|
| Investigator In Charge (IIC): | David S Williams | Adopted Date: | 05/01/2018 |
| Note: | The NTSB traveled to the scene of this accident. | | |
| Investigation Docket: | http://dms.nts.gov/pubdms/search/dockList.cfm?mKey=94121 | | |

The National Transportation Safety Board (NTSB), established in 1967, is an independent federal agency mandated by Congress through the Independent Safety Board Act of 1974 to investigate transportation accidents, determine the probable causes of the accidents, issue safety recommendations, study transportation safety issues, and evaluate the safety effectiveness of government agencies involved in transportation. The NTSB makes public its actions and decisions through accident reports, safety studies, special investigation reports, safety recommendations, and statistical reviews.

The Independent Safety Board Act, as codified at 49 U.S.C. Section 1154(b), precludes the admission into evidence or use of any part of an NTSB report related to an incident or accident in a civil action for damages resulting from a matter mentioned in the report.