



# National Transportation Safety Board



Promech Air, Inc.  
de Havilland DHC-3, N270PA  
Ketchikan, Alaska, June 25, 2015

Brice Banning  
Investigator-in-Charge

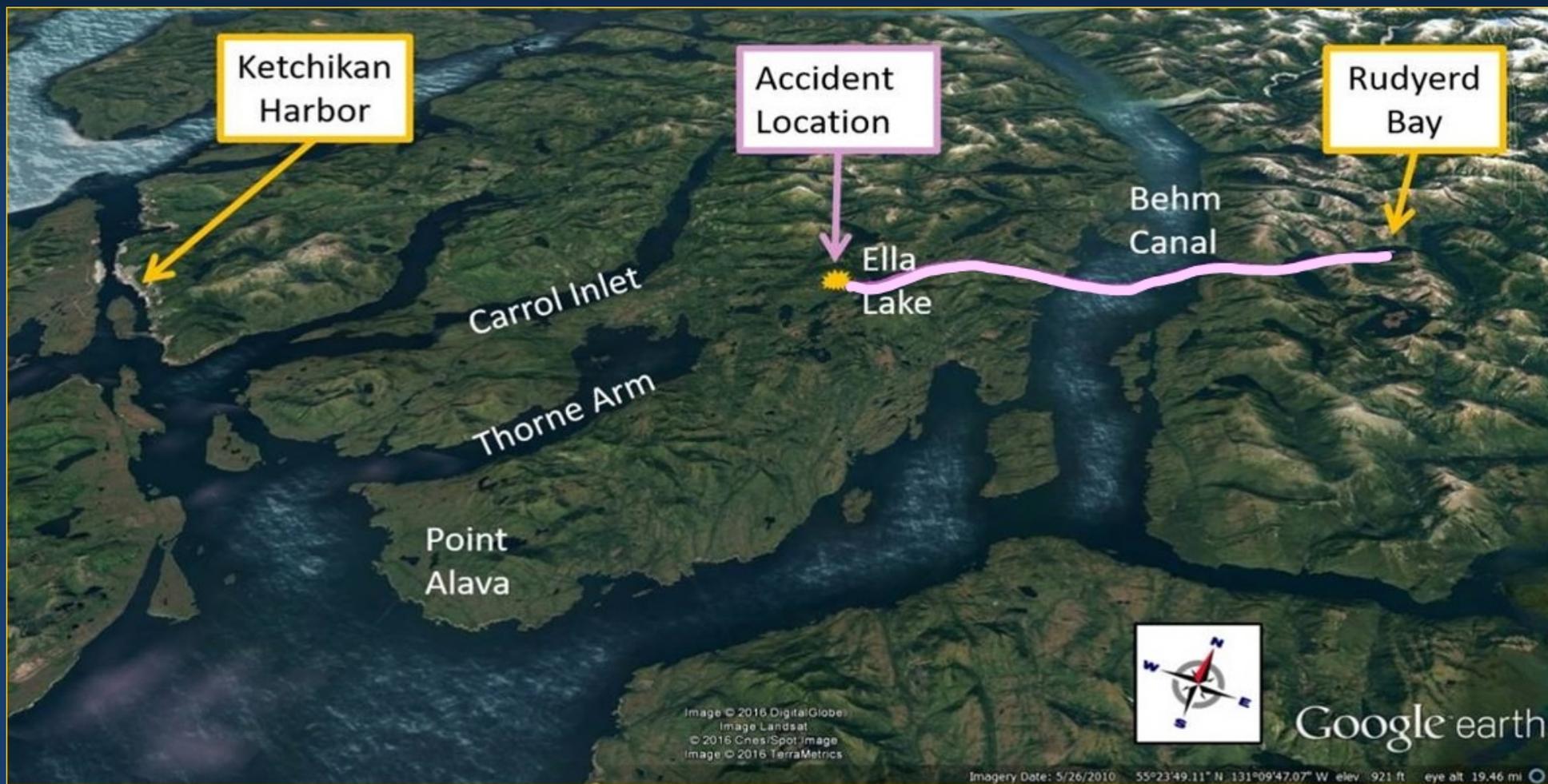
# Accident Flight

- June 25, 2015, about 1215
- Turbine-powered de Havilland DHC-3 (Otter)
- Ketchikan, Alaska
- Promech Air, Inc.
- Visual flight rules (VFR) Part 135 on-demand sightseeing flight
- Pilot and eight passengers fatally injured

# Accident Flight Path



# Accident Flight Path



# Weather

- Official weather forecasts
- Marginal VFR (MVFR) to instrument flight rules (IFR) conditions
- Airmen's meteorological information (AIRMET) for mountain obscuration



Accident Location Behind Ridge



Ella Lake

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# Aerial View of Accident Site



# Terrain Awareness and Warning System (TAWS)

- Alerts inhibited
- Multi-function display (MFD) visual depiction: red (warning), yellow (caution) available



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# 2003 Terrain Database



# 2003 Terrain Database



# 2007 Terrain Database



# Exclusions

- Pilot properly certificated
- Pilot performance not affected by fatigue, medical conditions, toxins, alcohol, other drugs
- Airplane properly certificated, equipped, maintained
- No preimpact engine or system failure

# Safety Issues

- Limitations of older terrain database, software for Chelton system
- Need for training program improvements for Ketchikan air tour operators
- Need for analysis of automatic dependent surveillance-broadcast (ADS-B) data to mitigate operational hazards

# Safety Issues

- Lack of conservative weather minimums for Ketchikan air tour operators
- Lack of defined CFIT training for all Part 135 operators
- TAWS nuisance alerts during tours
- Lack of minimum training requirements for operational control personnel

# Safety Issues

- Schedule pressures associated with air tours sold as shore excursions
- Lack of safety management system (SMS) requirement for Part 135 operators
- Lack of crash resistant flight recorder system

# Parties to the Investigation

- Federal Aviation Administration
- Promech Air, Inc.
- Hartzell Propeller
- Genesys Aerosystems (Chelton)
- Holland America Group

# ICAO Annex 13 Participants

- Transportation Safety Board of Canada
  - Viking Air Ltd. (type certificate holder)
  - Pratt & Whitney Canada

# Other Assistance

- Ketchikan Volunteer Rescue Squad

