Opening Statement

Good afternoon and welcome to the Boardroom of the National Transportation Safety Board.

I am Robert Sumwalt, and I'm honored to serve as the Chairman of the NTSB. Joining us today are my colleagues on the Board, Member Earl Weener and Member Bella Dinh-Zarr.

Today, we meet in open session, as required by the Government in the Sunshine Act, to consider the collision of a Cessna 208B with mountainous terrain near Togiak Village, Alaska, on October 2, 2016. This accident was the subject of an investigative hearing in Anchorage last year.

The accident airplane was operated by Hageland Aviation Services, Inc. Tragically, the plane's two pilots, as well as the only passenger, lost their lives as a result of the accident.

My colleagues and I want to offer our sincerest condolences to the loved ones of those lost in this accident, whether here in this Board room or watching remotely. Please understand that the sole purpose of this meeting is to learn from this accident to prevent future tragedies.

Today we're here to discuss how a well-equipped airplane, with not one but two professional pilots, impacted a mountainside. We'll discuss the many layers of protection against controlled flight into terrain, or CFIT, and how those protections failed.

In the mid-1960s, the Ground Proximity Warning System (GPWS), was invented, to protect against CFIT. Since 1971, the NTSB has urged wider implementation of these systems, and the FAA first required GPWS in airliners in the 1970s

In the mid-1990's, more advanced systems were developed and are known now as Terrain Awareness and Warning Systems (TAWS). These devices have saved countless lives.

The accident airplane was equipped with TAWS; yet this technological solution met an operational reality that rendered it ineffective.

The system on the accident airplane included a terrain inhibit switch to reduce nuisance alerts at certain airports. Once a pilot pushed the switch, alerts would be inhibited until the pilot pushed the switch again to uninhibit them.

The manufacturer's pilot guide states that alerts should **not** be inhibited for normal operations. The investigation found, however, that Hageland's practice was to permit pilots to inhibit alerts routinely.

Another layer of protection against such accidents comes from CFIT-avoidance training.

Although Hageland did provide CFIT-avoidance training, the NTSB notes a difference between the requirements for such training with Part 135 **helicopter** and **fixed wing** aircraft. Part 135 helicopter operators must train their pilots in CFIT avoidance whereas Part 135 **fixed-wing** operators are not required to provide such training. The NTSB does not support this carve-out.

To its credit, however, Hageland chose to voluntarily provide CFIT-avoidance training. We'll discuss the effectiveness of this voluntary training.

We'll also discuss crew resource management, or CRM. How did Hageland's second-in-command contribute to monitoring duties and decision-making? How well did Hageland's CRM training prepare the pilots to work together? How well were their roles defined?

The NTSB had investigated five accidents and one runway excursion involving Hageland flights from December 2012 through April 2014. On May 1, 2014, we issued an urgent recommendation for the FAA to audit aviation operations and training by Hageland's then-parent company, HoTH—as well a recommendation for an audit of FAA's oversight of HoTH.

This investigation sheds new light on how the FAA exercised its oversight, and how effective this oversight was.

Finally, the accident airplane did not have, and was not required to have, a crash-resistant flight recorder system that captures audio and images.

Today, the NTSB staff will briefly present the most pertinent facts and analysis found in the draft report. Our public docket, available at www.ntsb.gov, contains more than 2,000 pages of additional information, including interview and hearing testimony transcripts, as well as crew training records.

Staff have pursued all avenues in order to propose findings, a probable cause, and recommendations to the Board. We on the Board will then question staff to ensure that the report, as adopted, truly provides the best opportunity to enhance safety.

Now Managing Director Dennis Jones, if you would kindly introduce the staff.

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