

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety

October 19, 2016

Enhanced Ground Proximity Warning System (EGPWS) Download

ANC17FA001

This document contains 3 embedded photos.

A. ACCIDENT

Location:Togiak, AKDate:October 2, 2016Aircraft:Cessna 208B, Registration #: N208SD, Serial #: 208B0491NTSB IIC:Shaun Williams

B. EXAMINATION PARTICIPANTS:

Kate Benhoff Air Safety Investigator National Transportation Safety Board 505 South 336th Street, Suite 540 Federal Way, WA 98003

Eric Swenson Air Safety Investigator National Transportation Safety Board 222 West 7th Avenue, Room 216 Anchorage, AK 99513 Jack Vanover Air Safety Investigator National Transportation Safety Board 505 South 336th Street, Suite 540 Federal Way, WA 98003

Jim Mulkins Principal Systems Engineer - Honeywell 15001 N.E. 36th Street Redmond, WA 98052

C. SUMMARY

On October 2, 2016, about 1154 Alaska daylight time, a turbine-powered Cessna 208B Grand Caravan airplane, N208SD, sustained substantial damage after impacting steep, mountainous, rocky terrain about 12 miles northwest of Togiak, Alaska. The airplane was being operated as flight 3153 by Hageland Aviation Services, Inc., dba Ravn Connect, Anchorage, Alaska, as a scheduled commuter flight under the provisions of 14 Code of Federal Regulations (CFR) Part 135 and visual flight rules (VFR). All three people on board (two commercial pilots and one passenger) sustained fatal injuries. Visual meteorological conditions prevailed at the Togiak Airport, Togiak, and company flight following procedures were in effect. Flight 3153 departed Quinhagak, Alaska, at 1133, destined for Togiak.

Download of the recovered EGPWS (Serial number- 24510435), was conducted on October 19, 2016 at the facilities of Honeywell, Redmond, WA.

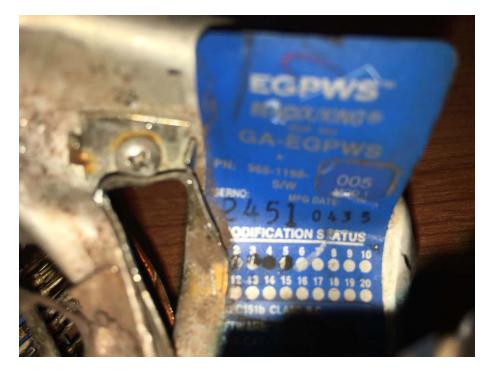


Figure 1: Photo of data plate

D. INSPECTION OF THE UNIT PRIOR TO DOWNLOAD

The outer box assembly was covered in dirt and was heavily crushed due to impact. The main data interface connector was also crushed and the main data plate panel was partially separated from the box assembly.



Figure 2: Damaged EGPWS

FACTUAL REPORT

E. DISASSEMBLY OF THE UNIT

A grinder was used to remove outer bolts and nuts and a drill was used to remove rivets on the bottom panel that had shifted to the side. The bottom panel was removed. All three circuit boards were broken and fragmented.

Terrain Database Version installed: 466N, with a release date of 09/18/2012. The current version at the time of the accident was 480N with a release date of August 2016. According to the Honeywell representative, the database update in 480N would not have affected the accident flight.

F. EGPWS DOWNLOAD

Download was unable to occur due to a damaged U24 chip, the flash memory for the flight data. The chip will be sent to Micron in Folsom, CA for further examination.

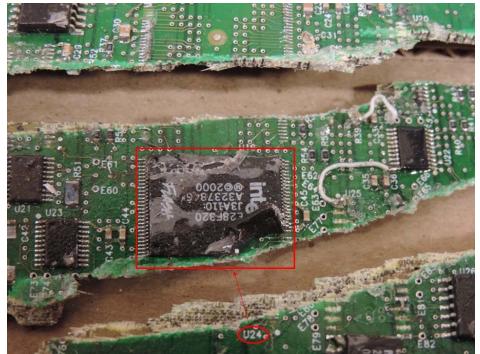


Figure 3: Damaged U24 chip

Submitted by: Investigator Kate Benhoff