NATIONAL TRANSPORTATION SAFETY BOARD
Vehicle Recorder Division
Washington, D.C. 20594

May 1, 2014

Personal Electronic Device Factual Report

Specialist's Factual Report
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1. EVENT

Location:	Waterford, Michigan
Date:	January 10, 2014
Aircraft:	Cessna 310R
Registration:	N3829G
Operator:	Royal Air Freight, Inc
NTSB Number:	CEN14FA110

On January 10, 2014, about 1948 eastern standard time, a Cessna 310R, N3829G, impacted trees and terrain about 1,500 feet west of the approach end of runway 9R (6,521 feet by 150 feet, asphalt) at Oakland County International Airport (PTK), Pontiac, Michigan, during an instrument landing system approach to the runway. Night instrument meteorological conditions prevailed at the time of the accident. The airplane was destroyed by impact forces and post impact fire. The commercial pilot sustained fatal injuries. The airplane was registered to and operated by Royal Air Freight, Inc. as Flight 907 under 14 Code of Federal Regulations Part 91. The positioning flight was operating on an instrument rules flight plan and departed from Fulton County Airport-Brown Field (FTY), Atlanta, Georgia, about 1701, and was destined to PTK.

2. DETAILS OF DEVICE INVESTIGATION

The Safety Board's Vehicle Recorder Division received the following device:

Device:	Apple iPhone 5
Device Serial Number:	Unknown

2.1. Apple iPhone 5 Device Description

The Apple iPhone is a touch-screen operated smart-phone capable of voice calling, text messaging, email, photo/video recording, audio (music) playback, and numerous other specialized functions depending on configuration. The unit is capable of accessing

wireless networks using Wi-Fi and Bluetooth[1]. Specialized functions are supported by additional user-installed program applications (Apps). Application data is stored in non-volatile memory and may include call logs, text messaging logs, image, video, and position location information. In addition, specialized application data may be stored in a proprietary file structure using numerous file formats including: binary, ASCII, HTML, SQL, etc. The amount and type of data stored varies based on the software version and configuration of the specific device.

2.1.1. Apple iPhone 5 Data Recovery

Upon arrival at the Vehicle Recorder Laboratory, an exterior examination revealed that the unit had sustained prolonged thermal exposure. An interior inspection revealed that the circuit board containing the unit's non-volatile memory sustained excessive thermal damage (figure 1) and the internal memory was not able to be recovered.

Figure 1. Apple iPhone 5, as received.

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[1] A short-range, low bandwidth wireless protocol used in consumer electronics mostly for low-overhead functions.