

# NATIONAL TRANSPORTATION SAFETY BOARD

Vehicle Recorder Division  
Washington, D.C. 20594

June 24, 2020

## Personal Electronic Devices

### Specialist's Factual Report By Gerald Kawamoto

#### 1. EVENT SUMMARY

Location: Big Grand Cay, Bahamas  
Date: July 4, 2019  
Aircraft: Agusta AW139  
Registration: N32CC  
Operator: Challenger Management, LLC  
NTSB Number: ERA19FA210

On July 4, 2019, about 0153 eastern daylight time, an Agusta S.p.A. AW139, N32CC, owned and operated by Challenger Management LLC, impacted the Atlantic Ocean near Big Grand Cay, Abaco, Bahamas. The commercial pilot, airline transport rated co-pilot, and five passengers were fatally injured. The helicopter was substantially damaged. The helicopter was being operated under the provisions of title 14 *Code of Federal Regulations* Part 91 as a personal flight. Dark night visual meteorological conditions prevailed at the time and an instrument flight rules (IFR) flight plan was filed for a flight from Walker's Cay Airport (MYAW), Walker's Cay, Bahamas, to Fort Lauderdale/Hollywood International Airport (FLL), Fort Lauderdale, Florida. The flight originated about 0152 from a concrete pad located at Big Grand Cay, Abaco, Bahamas.

#### 2. GROUP

A group was not convened.

#### 3. DETAILS OF INVESTIGATION

The National Transportation Safety Board (NTSB) Vehicle Recorder Division received the following personal electronic devices (PEDs):

Device Manufacturer/Model: Serial Number:	<b>Apple iPad Pro DLXWK2D1HP34</b>
Device Manufacturer/Model: Serial Number:	<b>Apple iPhone X 356171097446107</b>
Device Manufacturer/Model: Serial Number:	<b>Apple iPhone X 356171094214227</b>
Device Manufacturer/Model: Serial Number:	<b>Apple iPhone X 359409087674487</b>
Device Manufacturer/Model:	<b>Apple iPod Touch</b>

Serial Number:	<b>CCQX60PNGM18</b>
Device Manufacturer/Model: Serial Number:	<b>Apple iPod Nano DCYPN538F0GP</b>
Device Manufacturer/Model: Serial Number:	<b>Apple iPhone 7 353806086001495</b>
Device Manufacturer/Model: Serial Number:	<b>Apple iPhone 7 355318080917666</b>

### 3.1. Device Description

PEDs are a category of devices comprised primarily of portable computing devices and mobile phones. Portable computing devices are typically capable of taking photos and videos, internet access, email, messaging services, and can run user-installed applications to perform specific tasks. PED user and system data is typically stored on non-volatile memory and can be accessed through manufacturer-provided interfaces.<sup>1</sup>

### 3.2. Data Recovery

Each PED was recovered from saltwater. The devices arrived at the Vehicle Recorder Laboratory in fresh water and were cleaned and dried. Examinations of the devices revealed that all devices with exception of the iPhone X, S/N 356171097446107, had sustained internal water damage and corrosion. The extent of the damage on those devices precluded normal recovery procedures, and additional attempts at recovering data were unsuccessful, thus no data were recovered. The damaged devices are shown in Figures 1 through 7. The iPhone X, S/N 356171097446107, shown in Figure 8, powered on normally and data were extracted using laboratory tools.



**Figure 1. Damaged Apple iPad Pro.**

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<sup>1</sup> Non-volatile memory is semiconductor memory that does not require external power for data retention.



**Figure 2. Damaged Apple iPhone X S/N 356171094214227.**



**Figure 3. Damaged Apple iPhone X S/N 359409087674487.**



**Figure 4. Damaged Apple iPhone 7 S/N 353806086001495.**



**Figure 5. Damaged Apple iPhone 7 S/N 355318080917666.**



**Figure 6. Damaged Apple iPod Touch.**



**Figure 7. Damaged Apple iPod Nano.**



**Figure 8. iPhone X S/N 356171097446107.**

#### **4. DEVICE INVESTIGATION**

##### **4.1. Apple iPhone X S/N 356171097446107**

The content of the device was examined and it was determined there was no accident related data contained on the device.