

# NATIONAL TRANSPORTATION SAFETY BOARD

Vehicle Recorder Division

Washington, D.C. 20594

April 18, 2012

## Flight Data Recorder - 10

### Specialist's Factual Report

By Erin Gormley

#### 1. EVENT SUMMARY

Location: Point Mugu, California  
Date: May 18, 2011  
Aircraft: Boeing 707  
Registration: N707AR  
Operator: Omega  
NTSB Number: DCA11PA075

On May 18, 2011, at 5:27 pm Pacific Daylight Time (PDT), a modified Boeing 707, registration N707AR, operating as Omega Aerial Refueling Services (Omega) flight 70, crashed on takeoff from runway 21 at the Point Mugu Naval Air Station, California (KNTD). The airplane impacted a marsh area to the left side and beyond the departure end of the runway and was substantially damaged by post-impact fire. The three flight crewmembers received minor injuries. The flight was conducted under the provisions of a contract between Omega and the U.S. Navy to provide aerial refueling of Navy F/A-18s in offshore warning area airspace. According to Omega and the U.S. Navy, the airplane was operating as a public aircraft under the provisions of Title 49 of the United States Code (U.S.C.) Section 40102 and 40125.

#### 2. FLIGHT DATA RECORDER GROUP

A flight data recorder (FDR) group was not convened.

#### 3. DETAILS OF FLIGHT DATA RECORDER INVESTIGATION

The flight data recorder (FDR) on board this aircraft was an LAS 109-C oscillographic foil-type recorder. Following the accident, the FDR was located in the wreckage as seen in Figure 1 below.

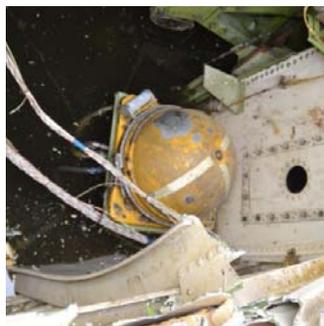


Figure 1. FDR as found in N707AR

The entire FDR unit was unable to be removed immediately following the event so the FDR cover was opened in situ and the cassette containing the recording medium was removed. Figure 2 is not the actual unit from the accident aircraft but rather an exemplar of the same type of recorder showing the recording medium cassette with its top cover removed.



**Figure 2. Exemplar interior of similar FDR**

The recording medium was received by the Safety Board's Vehicle Recorder Division in Washington, DC on May 24, 2011. Normally for this type recorder, the foil medium is spooled on a supply reel, spanned over an open strip where styli imprint data traces and then wound by a take-up reel. When the cartridge was examined in the laboratory, figure 3, it was noted that there was no exposed foil medium observed.



**Figure 3. Recording medium cassette**

When the top cover was opened, it was observed that one of the reels was full of foil and the other reel was empty. When the reels were removed from the cassette, figure 4, it was evident that the full reel had been secured with clear tape. This indicated that the recorder was not operating at the time of the accident flight and for an undetermined time beforehand. Thus, no accident data was recorded on the unit.



**Figure 4. FDR foil media from N707AR**