



## **NATIONAL TRANSPORTATION SAFETY BOARD**

Office of Aviation Safety  
Western Pacific Region

August 16-17, 2015

# **ACCIDENT SITE EXAMINATION SUMMARY**

**WPR15MA243AB**

This document contains 7 embedded images.

### **A. ACCIDENT**

Location: San Diego, CA

Date: August 16, 2015  
Aircraft: N1285U; Cessna 172M  
N442RM; Sabreliner NA265-60SC (Sabre 60)

## **B. PARTICIPANTS**

Andrew Swick-NTSB IIC  
Howard Plagens-NTSB  
Patrick Jones-NTSB  
Betty Koschig-NTSB  
Gary W. Glenn-FAA IIC  
Bob Hendrickson-FAA AVP-100  
Mark T. Morter-BAE Systems, TSS  
Brian Weber-Textron Aviation

## **C. SUMMARY**

On August 16, 2015, about 1100 Pacific daylight time, two airplanes, a Cessna 172, N1285U, and an experimental Sabreliner, (Sabre 60), N442RM, collided midair approximately 1 mile northeast of Brown Field Municipal Airport (SDM), San Diego, California. The two pilots and two mission specialists aboard the Sabreliner were fatally injured. The pilot of the Cessna, the sole occupant of the airplane, was fatally injured. The Sabreliner was being operated as a public aircraft flight by the U.S. Department of Defense in support of the U.S. Navy. The Sabreliner was registered to BAE Systems Technology Solutions & Services, Inc. The Cessna was registered to Plus One Flyers, Inc., of San Diego, California, and operated by the pilot as a personal flight under the provisions of 14 Code of Federal Regulations Part 91. Both airplanes were destroyed. Visual meteorological conditions prevailed at SDM. Both airplanes departed SDM earlier that day and a mission flight plan was on file for the Sabreliner; no flight plan was filed for the Cessna 172. A controller in the SDM air traffic control tower (ATCT) was in contact with both accident airplanes prior to the collision.

## D. DETAILS OF THE INVESTIGATION

### 1.0 Accident Site Examination

Cessna's Main Wreckage: N32° 34.769', W-116° 56.798' – Elevation: 570 feet

Sabreliner's Main Wreckage: N32° 34.645', W-116° 56.939' – Elevation: 545 feet

SDM was about 1 3/4 miles on a heading 249° from the Cessna's main wreckage

SDM was about 1 1/4 miles on a heading 250° from the Sabreliner's main wreckage

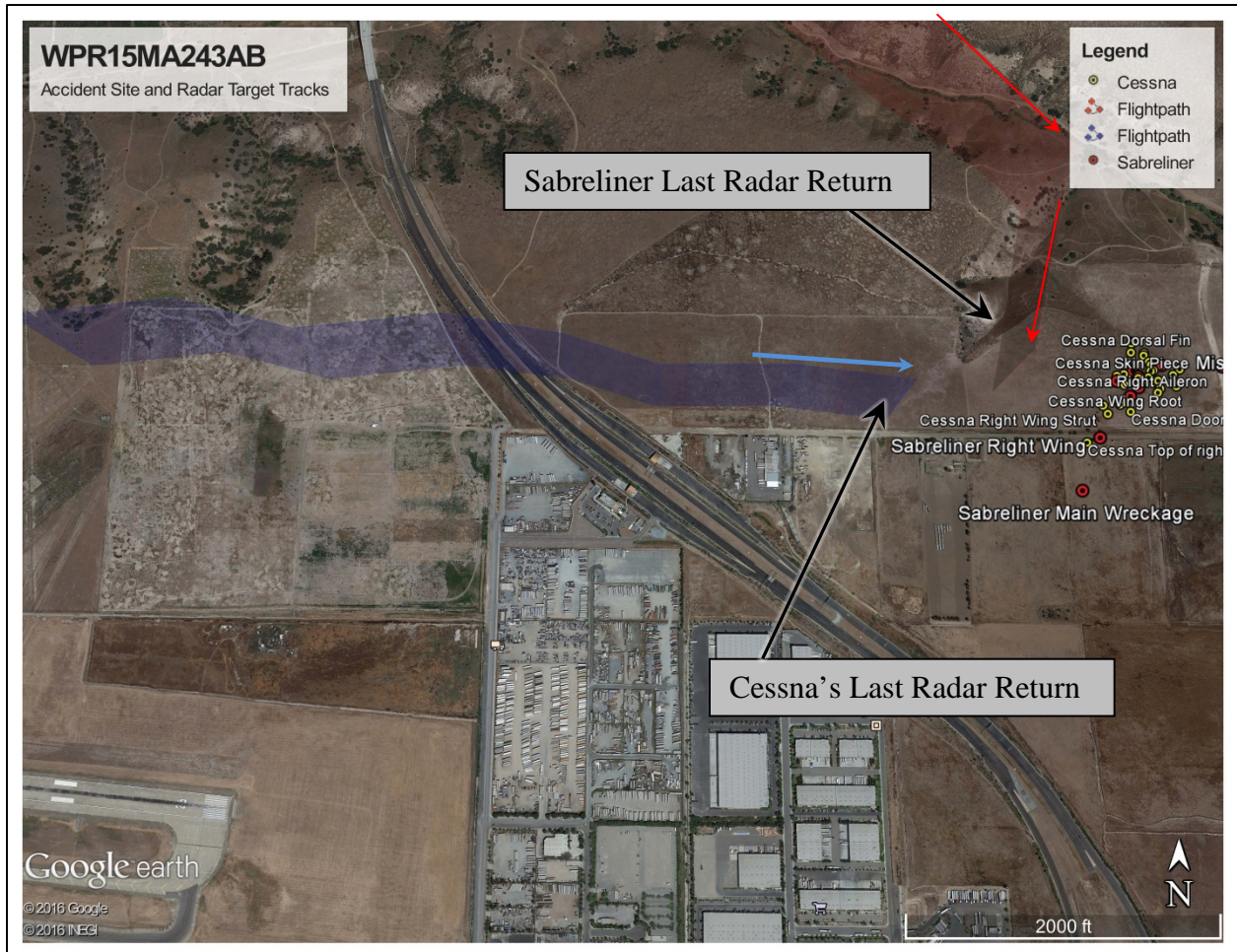


Figure 1-Satellite View of Airport, Radar Target Tracks and Accident Site

The Cessna radar returns tracked eastward at 1,400 feet above ground level (agl) towards the accident site location. The last radar return for the Cessna was about 1/4 mile from the accident site at 1,400 feet agl. The Sabreliner's radar returns tracked eastward just north of the Cessna's track at about 2,000 feet agl and turned southbound, decreasing in altitude until reaching its last radar return about 1/8 mile from the accident site at 1,400 feet agl.



Figure 2-Aerial View of Accident Site

The accident site consisted of two debris fields. The Cessna's debris field was located about 400 feet northeast of the Sabreliner's debris field. The Cessna's debris field was about 1,200 feet in length at a magnetic heading of 055 degrees, and contained parts from the Sabreliner.

The Cessna's debris field was about 1,200 feet in length at a magnetic heading of 055 degrees, and contained parts from the Sabreliner. The Cessna was highly fragmented throughout its debris field.

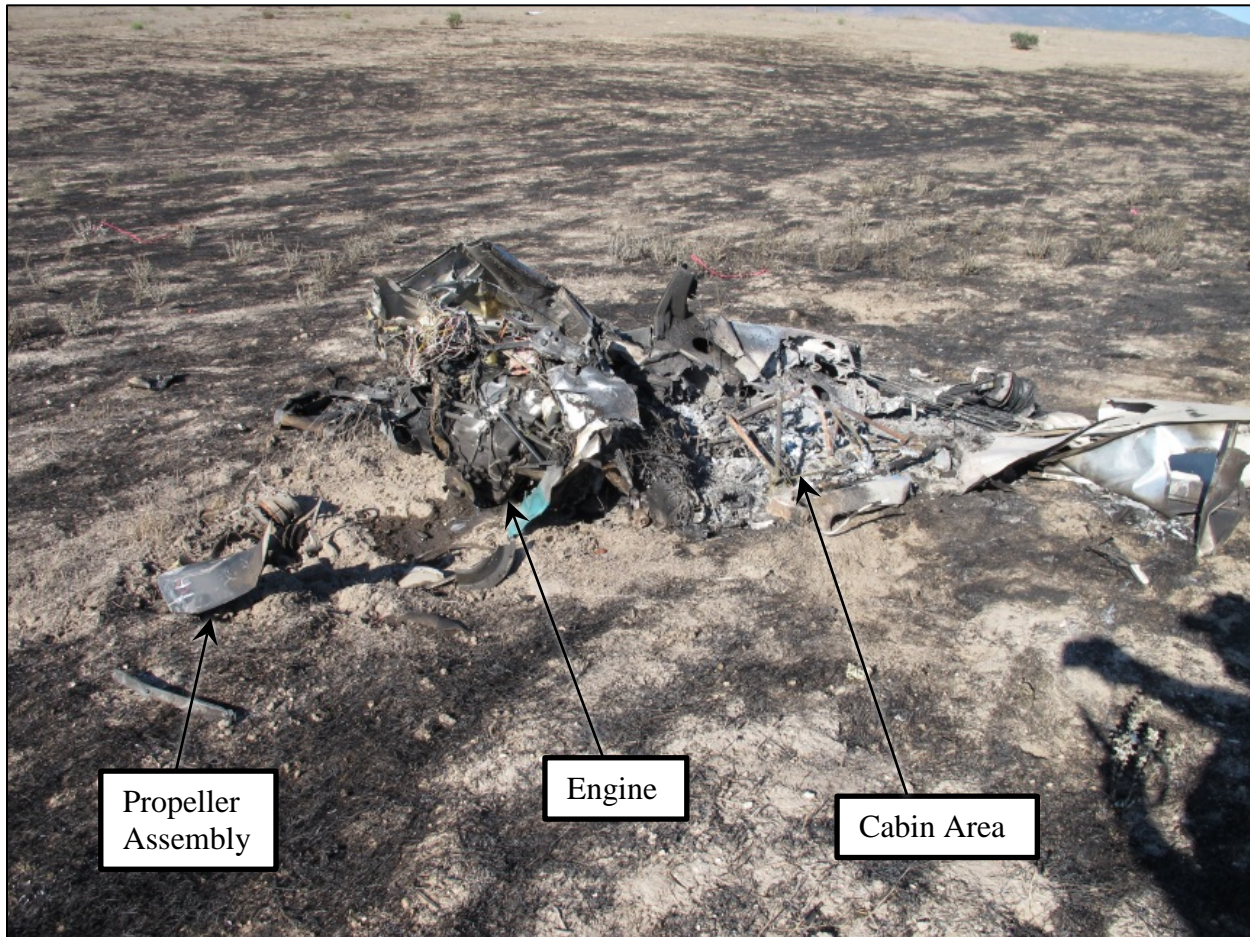


Figure 3-Cessna Main Wreckage

The Cessna's main wreckage contained part of the main cabin, engine, and propeller and was destroyed thermally and by impact forces. The main cabin consisted of parts of floor, seats and structure. The engine remained partially attached to the firewall and exhibited impact damage to its left side revealing cylinder overhead components. The propeller assembly separated from the engine and was found partially buried in a small crater. The propeller was heavily gouged and one blade had aft bending.

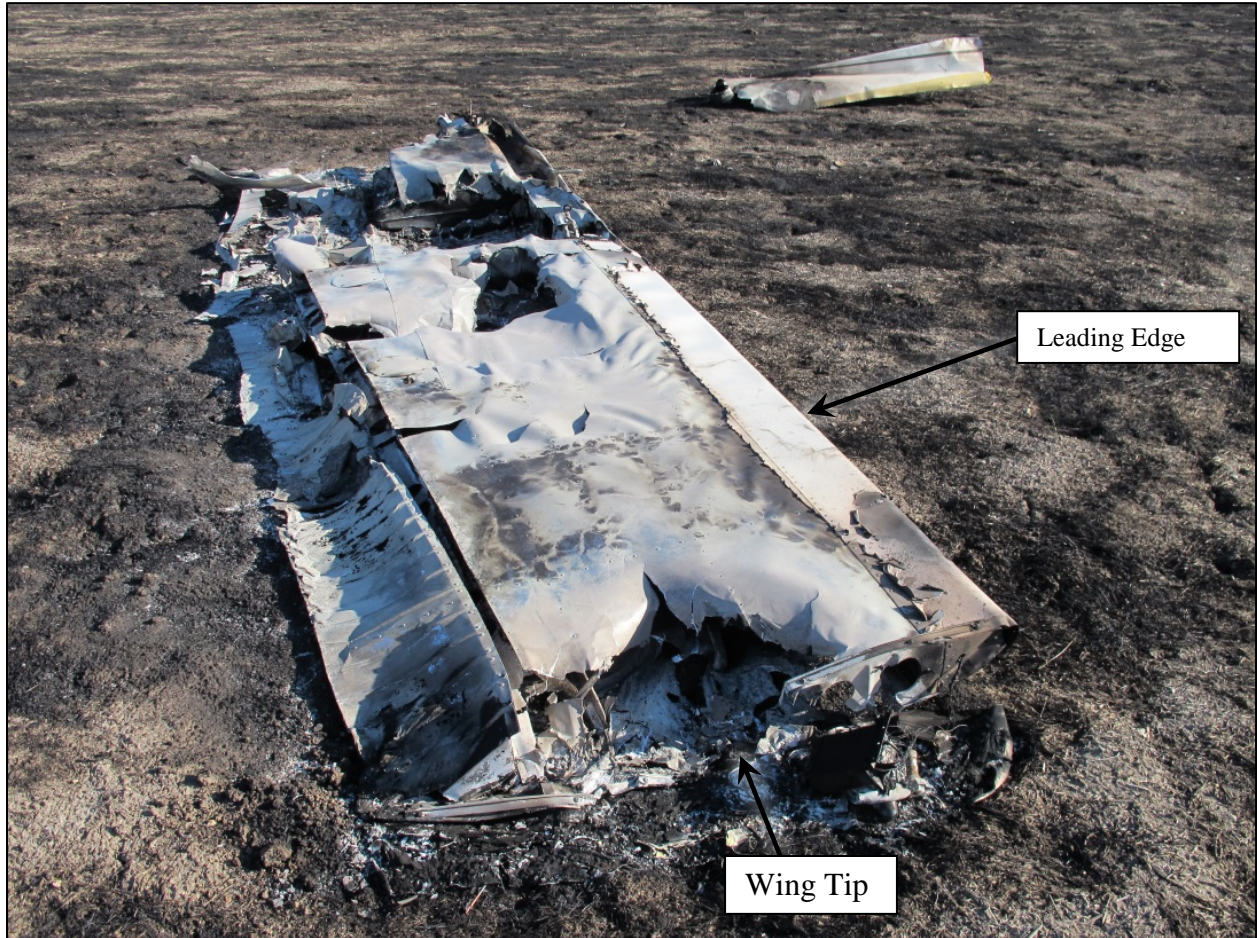


Figure 4-Cessna's Left Wing (Lower Wing Surface in View) and Rear Fuselage and Dorsal Fairing in the background.

The Cessna's left wing and a portion of the cabin roof remained intact and came to rest inverted. The wing and roof section had thermal damage. The flap and aileron flight control surfaces remained attached to the wing. The inboard portion of the leading edge of the left wing displayed impact damage and red colored transfer marks. The Cessna's fuselage and right wing were highly fragmented and spread throughout the debris field.



Figure 5-Sabreliner's Main Wreckage (South View)

The Sabreliner's debris field was contained within a radius of about 100 feet, and no Cessna parts were located within that radius. The Sabreliner came to rest at a magnetic heading of 060 degrees. The Sabreliner's main wreckage consisted of the cabin area, left wing, empennage, both engines and test pod. The forward cabin area came to rest on its upper left side and was crushed. The remaining cabin area was crushed and had thermal damage. The left wing came to rest on its trailing edge, supported at an angle by the wing's landing gear. Both engines were found near the tail section and displayed crush damage. The test pod and internal equipment had impact and thermal damage.

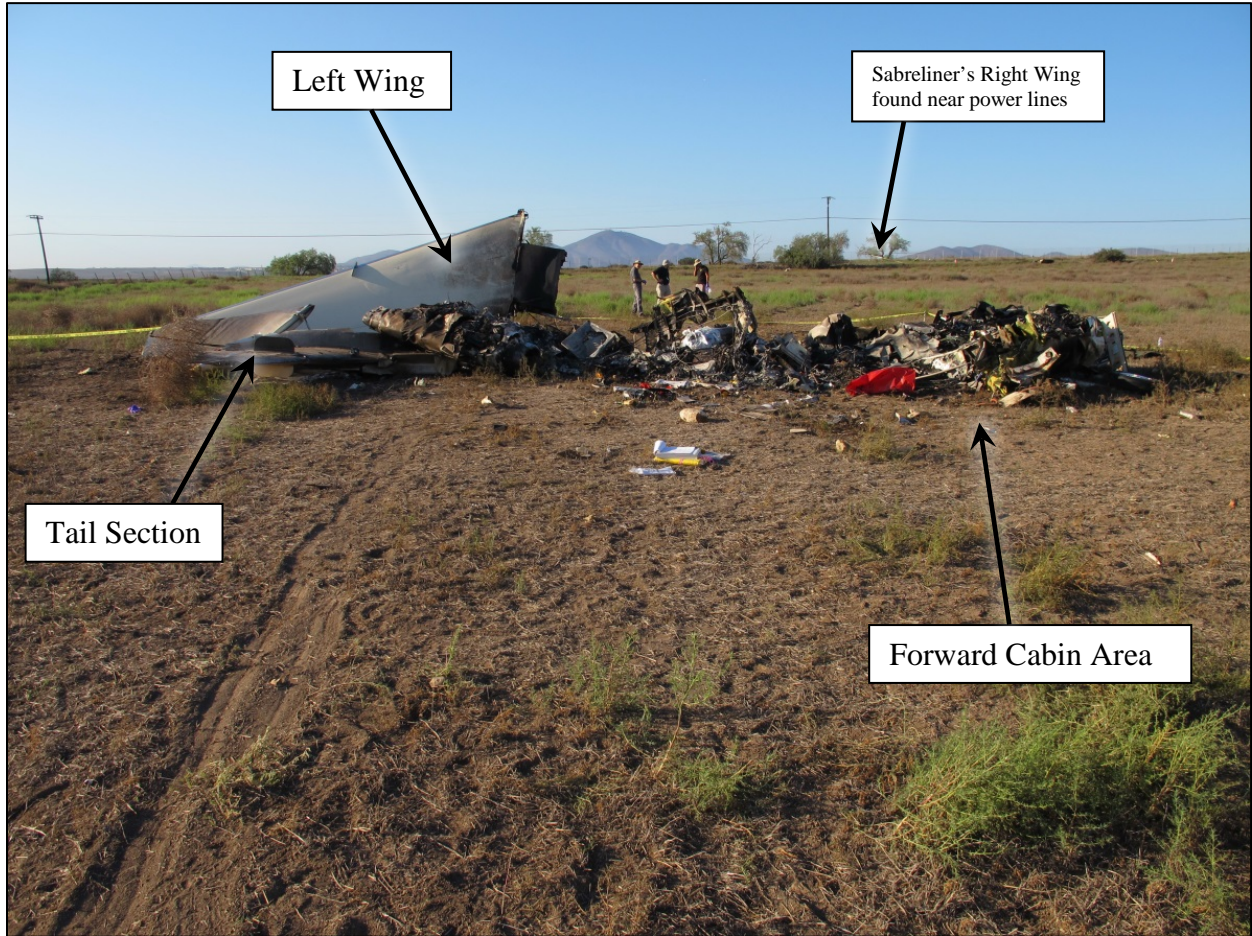


Figure 6-Sabreliner's Main Wreckage (North View)





Figure 7-Sabreliner's Right Wing (leading edge damage)

The Sabreliner's right wing was found near the Cessna's debris field about 400 feet north of the Sabreliner's main wreckage. The wing displayed leading edge damage from near the tip to the separation of the inboard portion of the wing. About four feet of the inboard wing was missing. A section of leading edge from the stall fence inboard about 5 feet in length, displayed excessive leading edge damage revealing the internal surfaces of the wing. The remaining outboard section of the wing displayed impact marks and paint transfer marks.

With the approval of the NTSB Investigator-in-Charge, mission-related equipment was removed from the accident site by employees of the Navy, during the onsite investigation.

A cockpit voice recorder (CVR) was found in the wreckage of the Sabreliner. The CVR had impact damage to its housing and was sent to National Transportation Safety Board (NTSB) laboratories for further examination.

The wreckage of both airplanes was relocated to a secure facility for further examination.