



NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

December 13, 2021

Specialist's Factual Report

AIR TRAFFIC CONTROL

ANC20MA010

A. ACCIDENT

Location: Lihue, Hawaii

Date: December 26, 2019

Time: 1657 Hawaii standard time (HST)¹

0257 coordinated universal time (UTC) (December 27, 2019)

Helicopter: Airbus AS350, N985SA

B. AIR TRAFFIC CONTROL (ATC) SPECIALIST

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National Transportation Safety Board (NTSB)

Washington, D.C.

C. SUMMARY

On December 26, 2019, about 1657 Hawaii standard time, an Airbus AS350 B2 helicopter, N985SA, was destroyed when it was involved in an accident about 24 miles northwest of Lihue, Hawaii. The pilot and the six passengers were fatally injured. Safari Aviation Inc. (Safari), doing business as Safari Helicopters, operated the flight as a Title 14 *Code of Federal Regulations (CFR)* Part 135 on-demand air tour under visual flight rules (VFR).

D. DETAILS OF THE INVESTIGATION

The ATC specialist did not travel in support of this investigation and all work was conducted from the home office. ATC services were not provided to the accident helicopter, and this report serves only to document the flight track surveillance information. Surveillance data were provided by the Federal Aviation Administration (FAA) and used to produce the graphics presented in this report.

E. FACTUAL INFORMATION

1.0 Flight Track Surveillance Information

The helicopter was equipped with a transponder and was transmitting transponder code of 1200 (appropriate for VFR flight). The helicopter was not Automatic Dependent Surveillance-Broadcast (ADS-B) equipped (and was not required to be equipped). Therefore, radar was the only surveillance information available and was limited based on the low-flying nature of the accident helicopter's flight and mountainous terrain across the central part of the island between the radar site and accident location.

Because there was no other associated information with the 1200 transponder code, while considered highly likely based on reported time of departure and other known helicopters operating at the time, a flight track cannot be definitively determined to be that of the accident helicopter.

¹ All times are in Hawaii standard time (HST) unless otherwise indicated.

1.1 Radar Data

Two radar sensors captured flight track information that are likely that of the accident helicopter. Flight track information was used from both sensors in illustrating the flight track with the greatest fidelity possible. The radar sensors were:

- Lihue (LIH)
Airport Surveillance Radar (ASR-8)
Elevation: 72 ft msl
Lihue, Hawaii
- Oahu / Mt Kaala (QKA)
Air Route Surveillance Radar (ARSR-4)
Elevation: 4112 ft msl
Oahu, Hawaii

Radar data provided by the FAA were of good quality with the LIH ASR-8 providing the more complete “overall” flight track picture, and the QKA ARSR-4 providing the last three radar returns. Tabular radar data is provided in Attachment 2: Radar Data and combines data from both sensors into the same file.

2.0 History of Flight

The following timeline was produced using the certified surveillance data provided by the FAA. Times are rounded to the nearest minute, and altitudes are indicated in feet above mean sea level (msl) unless otherwise indicated.

- 1632 N985SA departed from the north side of the field at Lihue Airport (LIH) in Lihue, HI and flew south-southeast bound across runway 21, then gradually turned right and flew west-northwest bound.
- 1639 After flying west-northwest bound for about 7 miles, the last recorded radar return from the LIH ASR-8 indicated an altitude of 2,300 feet and an approximate heading of 294.
- 1640 The last three recorded radar returns associated with this flight track were from the QKA ARSR-4 radar sensor and indicated an altitude of 2,300 feet and a heading turning slightly right from about 295-299 when radar data was lost likely due to the limited low altitude coverage through the mountainous terrain.

F. Flight Track Graphics

Full-size scalable versions of the radar graphics below are provided in Attachment 1: Radar Graphics.

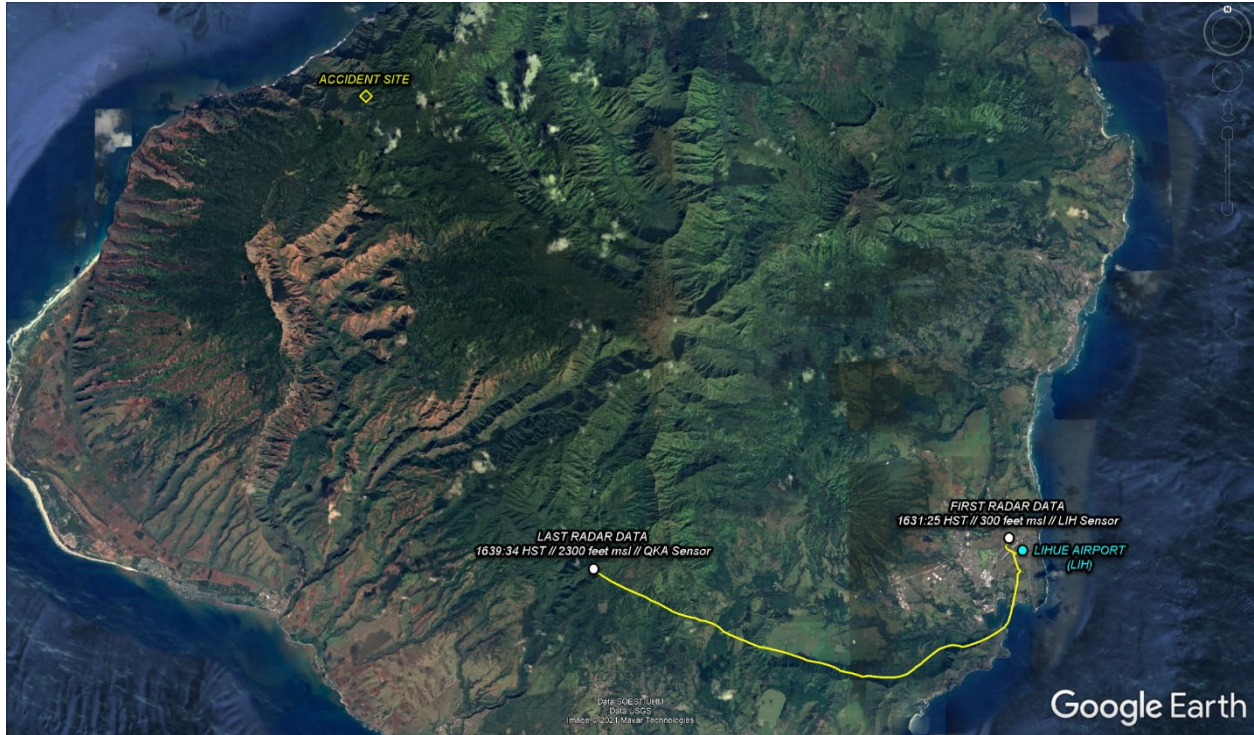


Figure 1. Overhead view of likely accident flight track

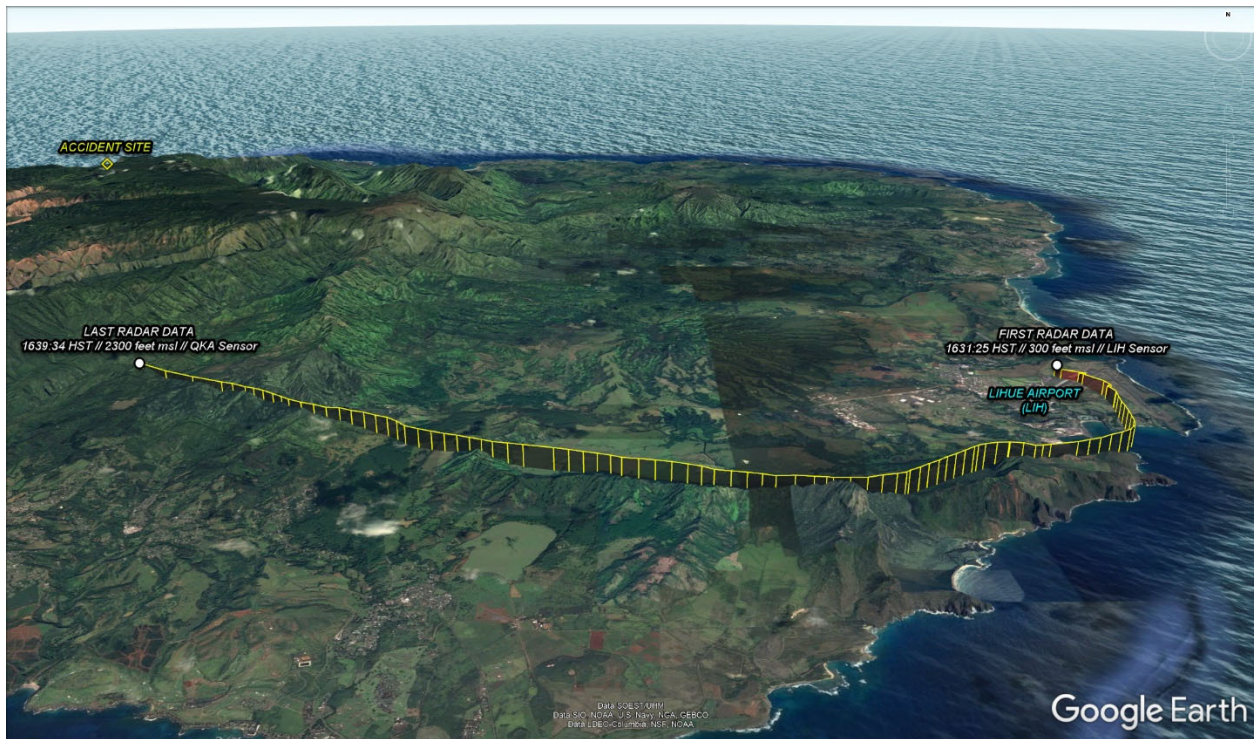


Figure 2. Profile view of likely accident flight track

G. LIST OF ATTACHMENTS

Attachment 1: Flight Track Graphics

Attachment 2: Radar Data

Submitted by:

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