

National Transportation Safety Board

Office of Aviation Safety

Washington, DC 20594



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UNMANNED AIRCRAFT SYSTEM AERIAL IMAGERY

April 30, 2025

TABLE OF CONTENTS

A. ACCIDENT.....	3
B. UNMANNED AIRCRAFT SYSTEM AERIAL IMAGERY	3
C. ACCIDENT SUMMARY.....	3
D. DETAILS OF IMAGERY	3
1.0 EQUIPMENT	3
2.0 AIRSPACE.....	4
3.0 MISSION FLIGHTS.....	4
3.1 Accident Airplane	4
3.2 Accident Site.....	5
4.0 PHOTOGRAMMETRY PROCESSING	5

A. ACCIDENT

Location: Cottonwood, California
Date: April 29, 2025
Time: 15:34 Pacific daylight time
Airplane: N6310N, Champion, 7ECA

B. UNMANNED AIRCRAFT SYSTEM AERIAL IMAGERY

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C. ACCIDENT SUMMARY

On April 29, 2025, about 1534 Pacific daylight time, a Champion, 7ECA, N6310N, was destroyed when it was involved in an accident near Cottonwood, California. The flight instructor and pilot receiving instruction were fatally injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 instructional flight.

D. DETAILS OF IMAGERY

The small Unmanned Aerial System (sUAS) Specialist's factual is a collection of information regarding the aerial documentation of the post-accident site and the area south of the Flying N Ranch Airport, Cottonwood, California.

1.0 Equipment

Mapping and imagery flights were conducted on April 30, 2025, using the NTSB Parrot ANAFI Ai. The sUAS is equipped with a dual GPS/GLONASS receiver which provides geo-referenced information encoded in all still photographs. The sUAS is equipped with an ANAFI Ai camera that has a 1/2-inch Quad Bayer 48-megapixel CMOS sensor, with a focal length of 28 millimeters.

The location where the airplane impacted terrain was located at the coordinates of latitude: 40.340722° and longitude: -122.339651°. The crash site was located within class-Golf (G) uncontrolled airspace, with no active advisories or temporary flight restrictions in place. The nearest private airport was the Flying N Ranch Airport (CA04), Cottonwood, California, which was located about 585 north of the accident site (Figure 1).



3.0 MISSION FLIGHTS

A manual orbital flight of the accident airplane was conducted at the accident location. The flight was conducted outdoors. A total of 31 aerial images were captured during the mission. Figure 2 depicts an image captured by the sUAS during the manual orbital flight.

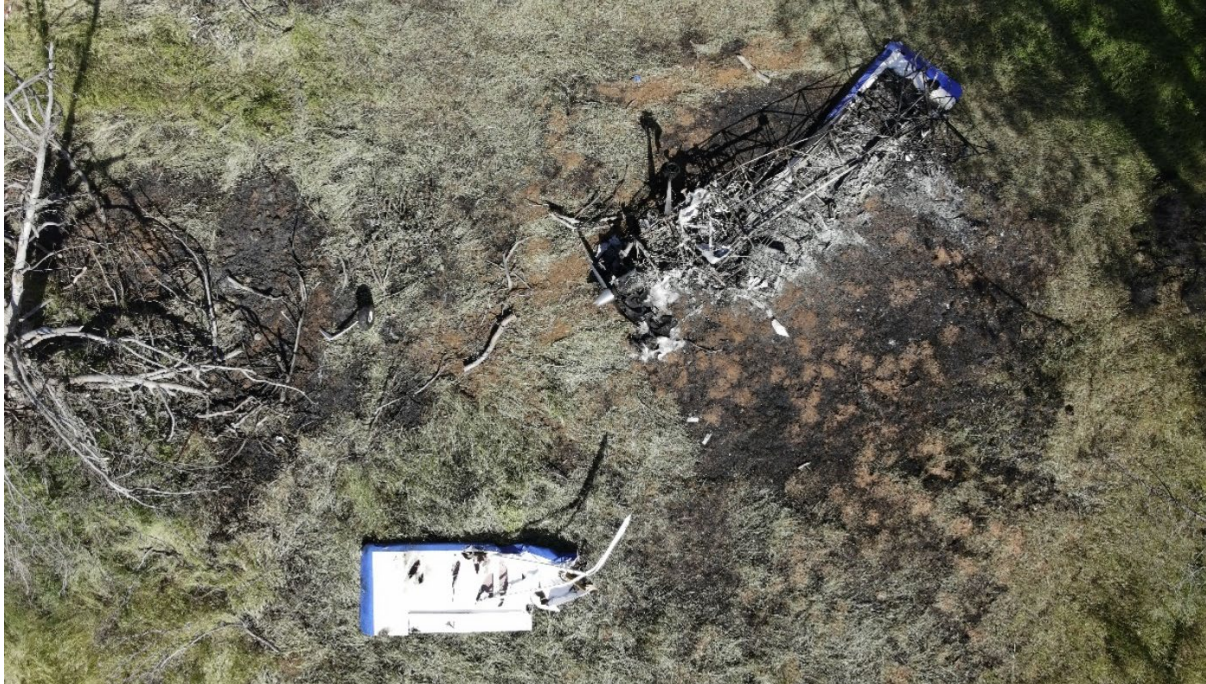


Figure 2: Image captured during the orbital flight of the accident airplane.

3.2 Accident Site

Four missions were conducted to capture aerial imagery of the accident site, including the accident site, departure end of the runway and surrounding environment. Two automated flights and two manual flights, using Parrot FreeFlight7, were performed to capture grid patterns of overlapping images covering the accident site. During all flight missions, no vehicular traffic was present underneath the sUAS while in flight.

During the two automated flights, a double grid pattern and a single grid pattern were flown with an oblique camera angle. The flight was programmed at a planned altitude of 164 feet above ground level (AGL). A total of 454 aerial images were captured during the automated flight.

Two manual flights were conducted, one with the camera at an oblique angle and the other NADIR, were flown over the crash site at an altitude between 40 and 164 feet AGL. A total of 72 aerial images, 5 NADIR images and 68 oblique images were captured during the manual flights.

4.0 PHOTOGRAMMETRY PROCESSING

The high resolution and georeferenced images were processed using Pix4Dmapper photogrammetry software to produce a 3-dimensional point cloud, textured mesh, and orthomosaic map.



Figure 3: Screenshot of point cloud generated by Pix4D depicting areas of interest.

Submitted by:

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