

NATIONAL TRANSPORTATION SAFETY BOARD

Vehicle Recorder Division
Washington, DC 20594

October 27, 2021

Image Recorder

Specialist's Factual Report By Charles Cates

1. EVENT SUMMARY

Location: Osage Beach, Missouri
Date: August 16, 2020
Aircraft: Cirrus SR22
Registration: N949CG
Operator: Private
NTSB Number: CEN20LA336

Witnesses observed the flight preparing to depart Grand Glaize-Osage Beach Airport (K15), Osage Beach, Missouri, for a cross country flight. The pilot was observed "flooding the engine" during startup to the point fuel was observed coming out of the engine cowling and down the nose wheel. Black smoke was seen coming out of the engine compartment after the engine started and before the airplane taxied. The flight was seen conducting a run up prior to takeoff. Black smoke was seen coming from the left side of the engine compartment during takeoff and several witnesses said the engine did not sound normal. The pilot reported on the CTAF frequency that he was returning to the airport. The airplane was seen to enter a left turn back to the airport at about 100 ft above the trees and then descend steeply into the ground. The airplane wreckage was mostly consumed by post-impact fire.

2. GROUP

A video group was not convened for this accident.

3. DETAILS OF INVESTIGATION

The National Transportation Safety Board (NTSB) Vehicle Recorder Division received two video files from a security video system for review.

3.1. Recorder Description

The security video file referenced as Cam 4 contained 3 minutes 33 seconds of video data recorded at a resolution of 1280x720 pixels at 30 frames per second. The video file referenced as Cam 2 contained 8 minutes 43 seconds of video data recorded at a resolution of 1280x720 pixels at 30 frames per second.

The videos were superimposed with the date and current time in the top left corner and the camera identification in the bottom left corner. The superimposed date was 2020-08-16 on both videos and the time ranged from 13:09:59 to 13:15:12 on Cam 4 and 13:09:57 to 13:18:39 on Cam 2.

3.2. Timing and Correlation

The times used in this report are expressed as recorder time recorded by the security camera system and superimposed on the image. The superimposed time was used as the time of the events for the video descriptions in Section 3.3. No correlation was made between the recorder time and any other source.

3.3. Summary of Recording Contents

The view of Cam 4 was of a paved airplane ramp parking/tiedown area. There were 10 airplanes in view of the camera including the Cirrus identified as the accident airplane. The video's timestamp partially obscured the accident airplane. At the beginning of the video the left side door of the Cirrus was open. There were two other airplanes in view being prepared for departure.

In the foreground of Cam 2 were parking spaces at the airport, buildings on airport grounds, and fuel trucks under an awning. The accident airplane was mostly obscured by the fuel trucks. In the background some of the ramp parking/tiedown area seen in Cam 4 was visible as well as the departure end of runway 14. There were trees in the distance beyond the airport.

The following are observations of movements of and around the accident airplane.

Time	Source	Event
13:10:07	Cam 4	The propeller of the accident airplane turns, consistent with engine cranking, for 8 seconds.
13:10:30	Cam 4	The propeller of the accident airplane turns, consistent with engine cranking, for 15 seconds.
13:10:53	Cam 4	The propeller of the accident airplane turns, consistent with engine cranking, for 11 seconds.
13:11:12	Cam 4	The propeller of the accident airplane turns, consistent with engine cranking, for 11 seconds, until the engine starts with a cloud of smoke.
13:11:23	Cam 4	The engine starts with a large cloud of blue-white smoke from the engine area. The cloud wafts over the ramp area and out of the view of the camera.
13:11:26	Cam 2	A large cloud of blue-white smoke can be seen emanating from the area of the accident airplane. The smoke wafts over the ramp area and out of the view of the camera.
13:13:41	Cam 4	A 27-second gap in the video from Cam 4 exists. The overlaid time jumps from 13:13:41 to 13:14:08.

Time	Source	Event
13:13:43	Cam 2	One of the other airplanes being prepared for departure begins its taxi towards the runway.
13:14:08	Cam 4	The airplane seen in Cam 2 beginning to taxi has begun to taxi out towards the runway [at the end of the 27-second gap in Cam 4].
13:14:23	Cam 4	The door on the left side of the accident airplane closes.
13:14:38	Cam 4	The accident airplane begins to taxi towards the runway.
13:14:40	Cam 2	The accident airplane can be seen from behind the fuel truck beginning its taxi towards the runway.
13:15:12	Cam 4	The Cam 4 video ends as the aircraft taxis out of the frame towards the runway.
13:15:13	Cam 2	The accident airplane leaves the field of view of Cam 2 as it taxis towards the runway.
13:15:38	Cam 2	The first airplane to depart the ramp area can be seen accelerating and taking off from the runway.
13:17:27	Cam 2	The accident airplane can be seen accelerating on the runway.
13:17:34	Cam 2	The airplane rotates and begins to climb away from the runway. The aircraft has a right roll excursion shortly after liftoff that is corrected.
13:17:44	Cam 2	A vapor of black smoke becomes visible and can be seen streaming from the airplane as it climbs.
13:17:53	Cam 2	The airplane stops climbing and begins a turn to the left with smoke still visible behind the airplane.
13:18:04	Cam 2	The airplane, in a level pitch attitude and still turning left, is lost from view behind distant trees.
13:18:31	Cam 2	A plume of billowing black smoke can be seen in the distance from behind distant trees. The plume continues building and rising until the end of the video.
13:18:39	Cam 2	The Cam 2 video ends with black smoke still billowing in the distance.