

NATIONAL TRANSPORTATION SAFETY BOARD
Vehicle Recorder Division
Washington, DC 20594

April 26, 2018

Recorded Audio and Video

Specialist's Factual Report By Christopher Babcock

1. EVENT SUMMARY

Location: 430 Nautical Miles northwest of San Francisco, California
Date: August 13, 2015
Aircraft: Bartels Lancair Evolution
Registration: N427LE
NTSB Number: WPR15LA242

On August 13, 2015, about 2215 Pacific daylight time, an experimental Bartels Lancair Evolution, N427LE, descended into the Pacific Ocean about 430 nautical miles (nm) northwest of San Francisco, California. The airplane was registered to and being operated by Unmanned Systems, Inc., under the provisions of Title 14 *Code of Federal Regulations* Part 91. The certified flight instructor was fatally injured, and the airplane was destroyed. The personal flight departed from Phoenix Deer Valley Airport, Phoenix, Arizona about 1815 with a planned destination of Hesperia Airport, Hesperia, California. Visual meteorological conditions prevailed and an instrument flight rules (IFR) flight plan had been filed and activated.

2. AUDIO/VIDEO GROUP

An audio/video group was not convened.

3. DETAILS OF INVESTIGATION

The National Transportation Safety Board (NTSB) Vehicle Recorder Division received several air traffic control (ATC) recordings and video recorded from C-130 search and rescue aircraft.

3.1. ATC Audio Recording Description

Three ATC audio recordings were forwarded to the Vehicle Recorder Division. Table 1 shows the description of each file. Recording Time was determined by using the IRIG time code embedded on the right channel of the stereo recording.¹

¹ Inter-range instrumentation group time codes, commonly known as IRIG time codes, are standard formats for transferring timing information.

Table 1. ATC audio files received.

File Name	Recording Source	Recording Time
Previous Flight Audio.wav ^A	PHX Approach Biltmore	0045:00-0148:00 UTC 8/14/2015
ZAB-ARTCC_42 R Certified Audio ZOA-ARTCC-0217 Accident N427LE 8-14-15 0050-0226.wav	ABQ ARTCC Position R42	0050:50-0226:00 UTC 8/14/2015
ZAB-ARTCC_91 R Certified Audio ZOA-ARTCC-0217 Accident N427LE 8-14-15 0059-0226.wav	ABQ ARTCC Position R91	0059:10-0026:00 UTC 8/14/2015

^A While named "Previous Flight Audio.wav," the file appears to be from the accident flight.

3.1.1. Previous Flight Audio.wav

Table 2 shows transmissions to and from the accident aircraft on this file.

Table 2. Transmissions to and from accident aircraft from Previous Flight Audio.wav.

Time (UTC)	Source	Content
0116:32	N427LE	Phoenix Departure good afternoon. Evolution four two seven lima echo with you at [unintelligible].
0116:42	ATC	november four two seven lima echo Phoenix uh Departure radar contact. Phoenix altimeter two niner seven seven. say again altitude. climb maintain one four thousand.
0116:50	N427LE	up to one four thousand. are climbing through four thousand four hundred now seven lima echo.
0117:57	ATC	november four two seven lima echo cleared direct Buckeye. contact approach one two six point eight.
0118:04	N427LE	alright one two six point eight uh direct buckeye seven lima echo good day.

3.1.2. ZAB-ARTCC_42 R Certified Audio ZOA-ARTCC-0217 Accident N427LE 8-14-15 0050-0226.wav

Table 3 shows transmissions to and from the accident aircraft on this file. Landline conversation with other ATC facilities regarding N427LE was not transcribed.

Table 3. Transmissions to and from accident aircraft from ZAB-ARTCC_42 R Certified Audio ZOA-ARTCC-0217 Accident N427LE 8-14-15 0050-0226.wav.

Time (UTC)	Source	Content
0125:24	N427LE	Albuquerque Center Evolution four two seven lima echo checking in with you eighteen thousand one hundred for two one oh.
0125:29	ATC	november four two seven lima echo Albuquerque Center. climb and maintain flight level two five zero.
0125:34	N427LE	two five zero seven lima echo
0129:48	ATC	november four two seven lima echo contact Albuquerque Center one three five point one five

Time (UTC)	Source	Content
0129:54	N427LE	thirty [unintelligible] thirty five fifteen seven lima echo.
0134:08	ATC	november four two seven lima echo Albuquerque?
0134:36	ATC	november four two seven lima echo radio check. ident.
0155:22	ATC	november four two seven lima echo how do you hear?

3.1.3. ZAB-ARTCC_91 R Certified Audio ZOA-ARTCC-0217 Accident N427LE 8-14-15 0059-0226.wav

No transmissions from the accident aircraft were found on this file. Table 4 shows transmissions to the accident aircraft and other pertinent transmissions on this file. Landline conversation with other ATC facilities regarding N427LE was not transcribed.

Table 4. Transmissions to and from accident aircraft from ZAB-ARTCC_91 R Certified Audio ZOA-ARTCC-0217 Accident N427LE 8-14-15 0059-0226.wav.

Time (UTC)	Source	Content
0133:51	ATC	november four two seven lima echo are you on frequency?
0133:58	ATC	november four two seven lima echo?
0134:28	ATC	november four two seven lima echo Albuquerque Center. radio check.
0134:55	ATC	four two seven lima echo Albuquerque Center?
0135:17	ATC	november four two seven lima echo Albuquerque Center?
0136:02	ATC	American eleven fifty-one?
0136:07	AA1151	American eleven fifty-one go ahead.
0136:09	ATC	yes sir. could you try november four two seven lima echo on twenty-one five for me.
0137:02	AA1151	and for American eleven fifty-one. no joy.
0137:50	ATC	november seven lima echo if you hear me ident.
0155:26	ATC	november four two seven lima echo Albuquerque Center. radio check.

3.2. Post-Accident Video

A 48-minute, 53-second low-light video recording titled VTS_10_1.vob was obtained from a C-130 showing the accident aircraft after impact with the water.² The video did not contain audio or any timing information other than video elapsed time. The resolution of the video was 352 by 240 pixels. Figure 1 shows a frame from the beginning of the video. The right wing appears to be visible just below the surface of the water. The aircraft was out of the frame or out of focus for long segments of time. At about 19 minutes elapsed video time, the

² The video can be found in the public docket for this accident.

video showed the aircraft in a nose low attitude with the nose of the aircraft submerged beneath the surface (Figure 2). Figure 3 shows a still after the camera had zoomed in on the aircraft. Figure 4 shows a still frame of the empennage of the aircraft with the left wing, horizontal stabilizer, and vertical stabilizer visible about 20 minutes into the video. Figure 5 shows the last clear view of the aircraft in the video, showing the left wingtip and tail, at about 42 minutes into the video.

At times during the video what appears to be a light is visible when the camera is not in focus zoomed in on the aircraft. It could not be determined whether this was a vessel or the low-light reflection off the aircraft in the distance. No aircraft-related lights appear to be visible whenever the camera is focused and zoomed on the aircraft.



Figure 1. Still frame from beginning of video.



Figure 2. Still frame from about 19 minutes into the video showing nose low attitude.



Figure 3. Still frame after camera had zoomed in.



Figure 4. Still frame showing left wing, vertical stabilizer, and horizontal stabilizer visible.



Figure 5. Last clear view of the aircraft in the video.



Figure 6. Unknown "light" visible when camera is not focused on accident aircraft.