

National Transportation Safety Board

Office of Aviation Safety
Central Region



CEN21LA156

MEMORANDUM OF CONVERSATION

Richard W. Ryan, Pilot

March 13, 2021

Interviewee: Richard W. Ryan (Pilot)
Date/Time: March 13, 2021 / 1427 CDT & 1523 CDT
Location: Telephone Calls
Investigator: Andrew Todd Fox, NTSB Air Safety Investigator

Mr. Ryan and NTSB Investigator Fox discussed the following:

On 7 March 2021, Mr. Ryan departed his home base at Lincoln Regional Airport (LHM), Lincoln, California, and flew to General William J Fox Airfield (WJF), Lancaster, California, then to Kingman Airport (IGM), Kingman, Arizona, to Winslow-Lindbergh Regional Airport (INW), Winslow, Arizona. Mr. Ryan spent the 1st night (7 March 2021) in Winslow, Arizona.

On 8 March 2021, Mr. Ryan departed INW and flew to Sandia Airpark Estates East Airport (1N1), Edgewood, New Mexico, then to River Falls Airport (H81), Amarillo, Texas, and then to Shawnee Regional Airport (SNL), Shawnee, Oklahoma. He spent the 2nd night (8 March 2021) in Shawnee, Oklahoma.

On 9 March 2021, Mr. Ryan departed SNL about 0900 local (CST) and that his intended destination was Poplar Bluff Regional Business Airport (POF), Poplar Bluff, Missouri. When asked how certain he was on the departure time being 0900 local, he replied that he was "pretty sure" but wasn't 100% certain. When asked, Mr. Ryan replied that the airplane had a total fuel capacity of 42 gallons, but only 37 gallons were considered useable. He also stated that the fuel consumption rate was between 9.5 and 10 gallons per hour. Mr. Ryan stated that the accident occurred about 1215 CST.

Mr. Ryan stated that the airplane does have an electrical system, powered by an alternator and battery, and is equipped with older Narco digital radios. Mr. Ryan stated that the airplane was not equipped with VOR navigation equipment, panel-mounted GPS, transponder, or ADS-B devices.

Mr. Ryan did not fly with sectional charts onboard the airplane, but instead relied on his mobile phone and/or a handheld GPS device that he installed on one of the airplane's control yokes for navigational reference during a flight.

Investigator Fox asked if Mr. Ryan currently had the handheld GPS device in his possession. Mr. Ryan replied that he did bring the Garmin GPSmap 396 device back with him after the accident. Investigator Fox talked Mr. Ryan through how to troubleshoot/determine if there was something wrong with the Garmin GPS device.

Investigator Fox had Mr. Ryan first verify with a multimeter that the fuse from the Garmin cigarette-lighter adapter was still intact (i.e. not blown); the fuse was intact when Mr. Ryan tested for continuity using his multimeter.

Investigator Fox then asked Mr. Ryan to power-on the GPS device with the battery pack installed; the GPS device did not power-up with the battery installed.

Investigator Fox then told Mr. Ryan to remove the battery from the device and ensure that a GPS antenna was not attached to the device. Investigator Fox then asked Mr. Ryan to take the GPS device and its cigarette-lighter adapter to his vehicle and attempt to power-on the GPS device using the vehicle's 12-volt power receptacle; the GPS device powered-up normally using the cigarette-lighter adapter (with the battery removed).

Investigator Fox then had Mr. Ryan scroll through the several menu pages displayed on the device to determine if there was any recorded data. The device was configured to auto-record the "active track" and 58% of the active memory had been used. However, when the GPS device powered-on (without the GPS antenna attached) it displayed the date/time was shortly after midnight on 8 March 2021 (the day before the accident flight) and that the position of the airplane was still at/near the Winslow-Lindbergh Regional Airport (INW), Winslow, Arizona, where Mr. Ryan had landed safely and stayed the night of 7 March 2021.

At this point of the conversation, Investigator Fox asked Mr. Ryan if he had used the Garmin GPSmap 396 device at any point during the 3 flight legs that he completed on March 8th and during the accident flight on March 9th. Mr. Ryan replied that the GPS device was the property of the potential buyer of the airplane, that he did not prefer to use the GPS device, and that he only used the Garmin GPSmap 396 on the first day of cross-country flights (7 March 2021). I asked Mr. Ryan to text me photos of the recorded flight legs, which confirmed the last time the device was powered-on and tracked a flight was on 7 March 2021 for the flight from Kingman Airport (IGM), Kingman, Arizona, to Winslow-Lindbergh Regional Airport (INW), Winslow, Arizona.

Investigator Fox then asked Mr. Ryan how he navigated during the multiple flight legs flown on March 8th and March 9th. Mr. Ryan replied that he had flown the cross-country route from his home base at LHM to SNL several times and that he primarily followed highways/roads. Mr. Ryan stated that he had not flown the route from SNL to POF before. Mr. Ryan noted that he would use his Android LG mobile phone and the installed "Avare" application to periodically verify his position during a flight.

Investigator Fox asked Mr. Ryan if he had used the Avare application constantly throughout the flight to navigate, which could drain the mobile phone battery if not connected to an external power source. Mr. Ryan replied that he did not use his

mobile phone to actively navigate during the flight, instead he flew by dead-reckoning and followed a highway/road.

Investigator Fox then asked Mr. Ryan if the mobile phone had been plugged into a charger during the flight. Mr. Ryan replied that he had another cigarette-lighter adapter and charging cable for his mobile phone that he would swap back-and-forth with the Garmin's cigarette-lighter adapter during a flight.

Investigator Fox asked Mr. Ryan to provide screenshots of the Avare application to discern where the application believed it was located. Unfortunately, the Avare application had already updated its position to Mr. Ryan's location in Lincoln, California. Mr. Ryan stated that the application was not configured to automatically to display/record tracks. Investigator Fox asked Mr. Ryan to provide additional screenshots of the Avare application.

Investigator Fox then asked Mr. Ryan to reinstall the battery into the Garmin GPSmap 396 device and try to power on the device. The GPS device did not power-on with the battery pack installed for a second time.

At this point of the conversation, Investigator Fox asked Mr. Ryan to describe the accident flight. Mr. Ryan stated that his mobile phone battery became depleted about 15 to 20 minutes before the city of Poplar Bluff, Missouri. After his mobile phone had powered-off, Mr. Ryan plugged the Garmin cigarette-lighter adapter back in and attempted to power-up the Garmin GPSmap 396 device. When the Garmin GPSmap 396 device did not power-up, Mr. Ryan continued to fly on his current heading (070° magnetic) which took him directly over the city of Poplar Bluff, Missouri.

When Mr. Ryan did not see the POF airport to the east of the city (apparently a tree line blocked his view of the airport at that point) he turned south and flew a couple miles south of the city before he made a 180° turn to back to a north heading and flew over the city northbound. After flying several miles north of the city, Mr. Ryan decided that he should locate a good field to make a precautionary landing due to the airplane's low-fuel status. The left tank gauge indicated "empty" and Mr. Ryan estimated that he had about 10 minutes of fuel remaining in the right tank. Mr. Ryan stated that he always flew the airplane with the fuel selector in the both position. Mr. Ryan turned the airplane into the wind (south) and landed in what he believed to be a suitable field. Mr. Ryan reiterated that the engine was still running throughout the precautionary landing. After touchdown, the airplane rolled about 200-300 ft before the main landing gear dug into the soft terrain and the airplane nosed over. After the accident, Mr. Ryan collected his personal items and walked about ¼ mile to a road where a motorist picked him up and took him to a nearby service station. At the service station he purchased a mobile phone charger adapter and started to make phone calls after his phone had charged a short time.

Mr. Ryan believes that he left the cigarette-lighter USB power adapter (used to charge mobile phone during flight) in the airplane after the accident. The USB power adapter had two outlets, 2.5 amp and 3 amp, and was primarily black in color.

Following the final telephone conversation, Investigator Fox followed-up with Mr. Ryan via text message to ask him to conduct another test of the Garmin GPSmap 396, this time with the GPS battery reinstalled. Mr. Ryan replied via text message that the GPS device (with its battery installed) powered-on automatically when electrical power was applied through the Garmin cigarette-lighter adapter inserted into his vehicle's 12-volt power supply. Mr. Ryan further confirmed that the GPS device had powered-on automatically during the previous testing (without the battery installed) when connected to his vehicle's 12-volt power supply through the Garmin cigarette-lighter adapter.