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Title: Senior Air Safety Investigator
Division: AS-ERA

Date: 07/10/2024
Subject: ERA24LA240 Zebulon, North Carolina
Contact: John Swett - Operator/Witness

Mr. John Swett is the son of the pilot, a co-owner, and co-operator of the North Carolina Soaring Association and a witness to the accident. In a string of emails, he provided a witness statement and responded to questions which added detail and clarity to certain points.

The statement was copied in its entirety below, and salient points were excerpted and added to the digest for additional detail.

According to Mr. Swett:

I am a club member, partial airport operation manager, tow pilot and North Carolina Soaring Association Member. I am also currently the president of the North Carolina Soaring Foundation, a non-profit foundation to assist flight training in gliders for students.

7NC5 airport with 04/22 runway headings.

I had previously flown N7650V on 5-25-2024 for about 3.6 hours (13 glider tows and 2 fuel runs) and 93 hours total in this airplane and 200 hours in the same model. We don;t keep fuel on the field and fly to KLHZ for fuel runs. We use the gauges, # of tows and tach time. We always refuel when we hit 2 hours tach. time unless fuel gauges dictate otherwise. We also tow no more than 5 launches per tank so usually 10 glider tows/ launches per fuel run. The callair holds 20 gallons each tank. 7nc5 to Klhz is about 8 KN miles away.

I didn't see and was not around for flying most of the day. I did arrive at the end of the day to assist in putting up aircraft and check on the day's activities. I arrived just after the launch and was standing at our covered shelter at the North end of the runway. I was aware Frank Swett had just taken over for the previous pilot Alex Stahl who needed to depart early. The time was approx. 5PM. The towplane and glider had just departed and towed up to our usual altitude of 3000' AGL. Field elevation is 250 MSL.

I witnessed the last minute of tow and visual saw the release and heard the radio communication of the glider released. I witnessed our standard procedure of the towplane making a left turn and glider right turn to gain separation from each other. They released roughly a mile or just under Northeast of the North end of the airfield. The tow plane was headed back to the airfield in a south westerly to westerly direction. Due to trees on the north end and northeast corner I could only see parts of the tow plane return. When the tow plane was north of the field and customary for entering a final to 22 to drop the tow rope I heard the engine quit and sputter some. I have had this happen personally when low fuel in a tank and doing either hard slipping or spiraling turns to descend. We will slip and spiral down to descend quickly and not shock cool the engine too get to the field quickly and launch another glider. If no glider is staged to launch we will drop the tow rope on 22 and then make a normal pattern and land runway 04. the runway is sloped downhill North to south. Unless wind is high our normal operations are to launch 22 land 04.

I then saw the tow plane through a clearing at the North end a little lower than normal approach and no engine running. I then lost site of the plane as it was apparent it would not make the runway and a couple seconds later heard a loud boom as the tow plane impacted the ground. The last 100' of altitude was not visible due to small trees and brush at the north end of the runway. Prior to this I couldn't see if the towplane was slipping or steep bank angles, only heard the engine quit then saw it approach and clear one set of trees but not make a second line of trees before the runway. There is a small house just North of the end of runway 22 roughly 500' from the end.

We drove golf carts to the property line and ran across a bush and fence line. The plane had impacted the yard between a tree line and a house in the yard. Luckily the homeowner was standing nearby and heard the crash and was on the phone with 911 by the time we arrived.

I assisted EMS and the fire department in the removal of the crash victim.

Fuel was rapidly running out of the top of the fuel valve. The valve was on the left tank. It was still connected to the wing but the line running to the engine was

broken off and fuel was running out. At the request of the fire dept. I tried shutting the valve off to stop fuel flow. The shaft from the handle to the valve was bent and we could not shut off. They put out a bucket full of absorbent dry and removed any bystanders in case the fuel ignited. We shut off mags and master switches, although at the time I did not notice the batteries were laying on the ground several feet away.

When I first approached the aircraft the pilot was moving slightly with a definite broken right arm. and cuts to the face. It took several emt's fire dept. members and two of us to remove the pilot.

In response to questions about fuel management and fuel consumption both generally and on the day of the accident, Mr. Swett replied:

1. Mr. Stahl started the day with a preflight and then pattern flight and towing as the plane already had about 3/4 fuel. He then performed 2 tows.

2. Mr. Stahl then went to LHZ and filled the aircraft full.

3. Mr. Stahl returned and did several more tows. He had a break in towing and knew they needed one more fuel run so, Mr. Stahl went back to LHZ and refilled again. Filling both tanks full.

4. Mr. Stahl returned from LHZ and performed roughly 3 tows. on the right tank and left tank still indicated Full.

5. Mr. Stahl and Frank Swett then performed a crew change and Mr. Swett started towing. This was Mr. Swett's first and only tow of the day and should have been the 4th tow on the right tank. Mr. Swett did not service the airplane. He just noted the refuel time, number of tows on the tank and fuel level.

Fuel burn is around 14 gph

LHZ is 8 nautical miles away, and a cruise speed of 90mph-100 mph. (a callair climb at best rate or angle would put us above pattern altitude quickly for LHZ (with climb rate just over 1000 feet a minute empty), flight time plus pattern entry (with no traffic) is 2/10 of flight time. Traffic patterns at LHZ for airplanes are on the East side of the field (rotorcraft on the west side) so no matter the runway we are set up for a 45 degree entry into downwind on either runway. from 7NC5. Traffic at LHZ will dictate time but 2/10 to 3/10 max for engine run up checks and flight back.