

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Aviation Safety
Washington, D.C. 20594

March 24, 2023

SURVIVAL FACTORS

Survival Factors Specialist's Factual Report

ERA22FA141

A. ACCIDENT

Location: St Augustine, Florida
Date: March 2, 2022
Time: 1702 EST
Aircraft: Extra NG, N100NG

B. SURVIVAL FACTORS SPECIALIST

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C. SUMMARY

On March 2, 2022, at 1702 eastern standard time, an Extra NG, N100NG, was substantially damaged when it was involved in an accident near St. Augustine, Florida. The private pilot was fatally injured. The aircraft was operated by the pilot as a Title 14 Code of Federal Regulations Part 91 personal flight.

D. DETAILS OF THE INVESTIGATION

A survival factors investigator was assigned to this case on March 10, 2022 to help document the emergency response aspects of this accident. First responder statements were obtained, ATC audio recordings were reviewed and a summary of the sequence of events was developed. In addition, the investigator collected various paper and electronic records.

E. FACTUAL INFORMATION

1.0 Medical and Pathological Information

An autopsy report provided by the Medical Examiner's Office concluded that the cause of death for the occupant was drowning and listed the manner of death as aircraft accident.

2.0 Airport Information

Northeast Florida Regional Airport (SGJ) is a general and corporate aviation airport, located just north of the city of St. Augustine in northeast Florida. The airport configuration consists of a larger primary runway intersected by two smaller runways.

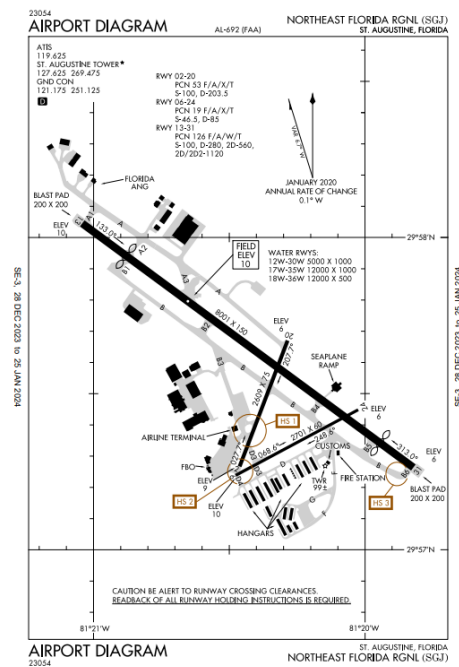


Figure 1- airport diagram

3.0 Operating Procedures

There is a letter of agreement (attachment 2) between the St. Augustine Air Traffic Control Tower, St Johns County Airport Authority, St Johns County Fire Rescue, and Northrop Grumman St Augustine Airport Fire and Rescue Fire Fighting for expediting the response of rescue vehicles to the scene of a potential or actual aircraft accident during the hours when the St Augustine Control Tower is operational.

4.0 Emergency Response Summary

To better understand the sequence of events surrounding the pilot's fatality, the NTSB requested records, audio files, ATC communications, and written statements from first responders. A sequence of events summary was created using information from those sources. The summary begins approximately 8-10 minutes prior to the accident on March 2, 2022, and ends with the

approximate time the pilot was transported to the local hospital. The summary does not contain all communications during this period. Rather, it includes selected transmissions and information to provide the reader with a basic understanding of what was happening during the time in question. As expected, when obtaining time data from different entities, there are differences in the clock settings of systems used to record the data as well some sources had no time settings at all. No effort was made to reconcile the times.

At approximately 1652, the flying partner of the accident pilot contacted Air Traffic Control (ATC) and stated his wingman needed to land due to smoke trailing the airplane and she reported a loss of RPM. The pilot declared an emergency with the St. Augustine (SGJ) tower and requested to land. The tower cleared her to land at around 1700 and advised dispatch of an alert 2, trailing smoke approximately 1 mile out. St John's County Fire Rescue was dispatched to the airport and onscene within minutes. At 1703, dispatch was advised the aircraft overran the runway and was in the marsh on the southeast side of the airport.

At about 1704 additional emergency personnel were onscene and staged at the end of the runway. Emergency personnel attempted to get a visual of the aircraft using binoculars and standing on fire engines and trucks.

A few minutes later, the pilot made contact with the tower questioning, "can anyone hear me". The tower responded, "the tower hears you and we are sending help". Around 1710 the tower made contact with the pilot again and the pilot she had "too much speed". The tower informed the pilot that emergency personnel were on their way. There was another communication from the tower to the pilot a few minutes later at approximately 1713.

At 1715 a witness stated the aircraft went off of the left of the runway about ¼ mile down. There was still no visual at this time. A few minutes later, around 1717, the pilot told the tower she was completely wedged between the ground of mud and the canopy of the aircraft.

River Boat 9 (RB9) was dispatched with a crew to launch at the boat ramp. Upon arriving, RB9 was advised to attempt to make access into the marsh and locate the aircraft. RB9 attempted to make way into the creek that would lead to the approximate location of the downed aircraft, just south of the runway, but immediately began to hit bottom due to low tide and multiple oyster beds in the area. RB9 tried to make entry again at a different creek entrance but again struck bottom. RB9 tried to gain access again at the original creek mouth and was able to make some progress due to incoming tide with the motor tilted up as far as it could but the water depth was too low coupled with other natural obstructions to get passed the entrance.

The tower communicated again with the pilot around 1721. There was no other communication with the tower after that, although multiple attempts were made.

At approximately 1726, the St. Johns County Sheriff's office arrived onscene with their airboat and an operator for the fire rescue airboat that was kept at the airport. Both airboats were launched at the sea plane ramp however there was still no definitive location. There were firefighters with extrication equipment on both of these airboats. The first airboat was launched and had attempted to make access into the same creek as RB9. Both RB9 and the airboat were advised to back out and try to make access into a different creek, "Indian creek" located to the south. While the first airboat was

making way, RB9 continued to try to make progress through the marsh to the aircraft. No part of the aircraft was yet visible to RB9 or the airboat. RB9 found the entrance into Indian creek and began to navigate through the shallow creek. At approximately 1736, a drone was used to aid in the location of the wreckage site and the second airboat had launched.

There was a good Samaritan on scene with a shallow water fishing boat who attempted to make it to the approximate location of the downed aircraft but was unable to find a deep enough channel. Eventually, the good Samaritan found the aircraft and provided visual directions as to the location of the aircraft to the other emergency boats and waited for them to approach the site. When the good Samaritans arrived at the location of the aircraft, they stated the aircraft was upside down in the marsh area and the only thing visible of the pilot was part of her face that the good Samaritan was trying to hold out of the water through a very small hole on the aircraft. At the time, the pilot was still breathing.

By about 1743 both airboats were able to reach the aircraft wreckage. The aircraft was submerged in the water. The crew stated it was extremely difficult to move about as the water was waist high and the mud made it extremely difficult to move in. The firefighters stated the aircraft was stuck in the mud and the pilot was trapped upside down in the mud and still restrained in the pilot seat. The crews began the extrication process using an angle grinder to cut access holes for the cutters and spreaders to be able to cut the plane from around her. While crews were cutting the tide was rising fast and they were no longer able to see the pilot. At about 1752 the pilot was extricated and placed on an airboat and taken to the ramp where CPR was performed. The pilot was transported via emergency services to the local hospital at about 1808 and later died.



Figure 2 – end of runway looking into marsh



Figure 3- aircraft inverted in the marsh

5.0 List of Attachments

- Attachment 1: Emergency Services Statements
- Attachment 2: Airport LOA with Emergency Services
- Attachment 3: CAD Incident Report Log