



# Aviation Investigation Final Report

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|                                |                                      |                         |             |
|--------------------------------|--------------------------------------|-------------------------|-------------|
| <b>Location:</b>               | Duluth, Minnesota                    | <b>Accident Number:</b> | CEN20LA207  |
| <b>Date &amp; Time:</b>        | June 3, 2020, 16:30 Local            | <b>Registration:</b>    | N838BA      |
| <b>Aircraft:</b>               | Icon A5                              | <b>Aircraft Damage:</b> | Substantial |
| <b>Defining Event:</b>         | Aircraft inspection event            | <b>Injuries:</b>        | 2 None      |
| <b>Flight Conducted Under:</b> | Part 91: General aviation - Personal |                         |             |

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## Analysis

The pilot taxied the amphibian airplane downwind on the water for takeoff. When facing into the wind, he applied full power; about 5 seconds later, he heard a "loud bang." The propeller blades separated and penetrated the fuselage, resulting in substantial damage to the airplane's fuselage.

The pilot reported that, immediately before the accident flight, he had placed a portable speaker on the top of the airplane and did not recall removing the speaker before departure. The pilot stated, "the speaker must have rolled over the engine compartment and into the propellers." It is likely that the audio speaker, which was left on the airplane, struck the propeller blades, which resulted in the propeller blades separating from the propeller and penetrating the fuselage.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be:

The pilot's failure to remove an object from the airplane's exterior, which impacted the propeller blades when he applied full power, causing them to fracture and damage the airplane.

## Findings

|                             |   |
|-----------------------------|---|
| <b>Personnel issues</b>     | Forgotten action/omission - Pilot                   |
| <b>Environmental issues</b> | Debris/dirt/foreign object - Contributed to outcome |
| <b>Aircraft</b>             | Propeller blade section - Damaged/degraded          |
| <b>Environmental issues</b> | Debris/dirt/foreign object - Effect on equipment    |

## Factual Information

### History of Flight

|                        |  |
|------------------------|--|
| <b>Prior to flight</b> | Aircraft inspection event (Defining event) |
| <b>Takeoff</b>         | Part(s) separation from AC                 |

On June 3, 2020, about 1630 central daylight time, an ICON A5 amphibian airplane, N838BA, was substantially damaged when it was involved in an accident near the Sky Harbor Airport (DYT), Duluth, Minnesota. The pilot and passenger were not injured. The airplane was operated as a Title 14 *Code of Federal Regulations* Part 91 personal flight.

According to the pilot, he taxied downwind on the water for takeoff. When facing into the wind, he applied full power and about 5 seconds later, heard a "loud bang". He shut down the engine, climbed out, looked back, and saw that all 3 propeller blades were missing. At this point, the airplane started to sink. He and his passenger donned life jackets and evacuated the airplane.

Substantial damage was noted to the airplane's fuselage, including holes in the hull.

Several days later, the pilot recalled that before he taxied out, they washed the airplane. During the wash, he had placed a portable speaker on the top of the airplane to listen to some music while they worked. He did not recall putting the speaker away before departure. The pilot added, "that the speaker must have rolled over the engine compartment and into the propellers ..."

During a telephone conversation with the National Transportation Safety Board Investigator In Charge, the pilot stated that he has not since located the speaker.

## Pilot Information

|                                  |                                       |  |             |
|----------------------------------|---------------------------------------|--|-------------|
| <b>Certificate:</b>              | Private; Sport Pilot                  | <b>Age:</b>                              | 45          |
| <b>Airplane Rating(s):</b>       | Single-engine land; Single-engine sea | <b>Seat Occupied:</b>                    | Left        |
| <b>Other Aircraft Rating(s):</b> | None                                  | <b>Restraint Used:</b>                   |             |
| <b>Instrument Rating(s):</b>     | Airplane                              | <b>Second Pilot Present:</b>             |             |
| <b>Instructor Rating(s):</b>     | None                                  | <b>Toxicology Performed:</b>             | No          |
| <b>Medical Certification:</b>    | Class 3 Without waivers/limitations   | <b>Last FAA Medical Exam:</b>            | May 1, 2020 |
| <b>Occupational Pilot:</b>       | No                                    | <b>Last Flight Review or Equivalent:</b> |             |
| <b>Flight Time:</b>              |                                       |  |             |

## Aircraft and Owner/Operator Information

|                                      |                               |                                       |               |
|--------------------------------------|-------------------------------|---------------------------------------|---------------|
| <b>Aircraft Make:</b>                | Icon                          | <b>Registration:</b>                  | N838BA        |
| <b>Model/Series:</b>                 | A5                            | <b>Aircraft Category:</b>             | Airplane      |
| <b>Year of Manufacture:</b>          | 2019                          | <b>Amateur Built:</b>                 |               |
| <b>Airworthiness Certificate:</b>    | Special light-sport (Special) | <b>Serial Number:</b>                 | 00114         |
| <b>Landing Gear Type:</b>            | Amphibian                     | <b>Seats:</b>                         | 2             |
| <b>Date/Type of Last Inspection:</b> | January 30, 2020 Condition    | <b>Certified Max Gross Wt.:</b>       |               |
| <b>Time Since Last Inspection:</b>   |                               | <b>Engines:</b>                       | Reciprocating |
| <b>Airframe Total Time:</b>          | 125.6 Hrs at time of accident | <b>Engine Manufacturer:</b>           | Rotax         |
| <b>ELT:</b>                          | C126 installed, not activated | <b>Engine Model/Series:</b>           | 912 IS        |
| <b>Registered Owner:</b>             | On file                       | <b>Rated Power:</b>                   | 100           |
| <b>Operator:</b>                     | On file                       | <b>Operating Certificate(s) Held:</b> | None          |

## Meteorological Information and Flight Plan

|   |                                  |   |            |
|---|----------------------------------|---|------------|
| <b>Conditions at Accident Site:</b>     | Visual (VMC)                     | <b>Condition of Light:</b>                  | Day        |
| <b>Observation Facility, Elevation:</b> | KDYT                             | <b>Distance from Accident Site:</b>         |            |
| <b>Observation Time:</b>                | 16:35 Local                      | <b>Direction from Accident Site:</b>        |            |
| <b>Lowest Cloud Condition:</b>          | Clear                            | <b>Visibility</b>                           | 7 miles    |
| <b>Lowest Ceiling:</b>                  |                                  | <b>Visibility (RVR):</b>                    |            |
| <b>Wind Speed/Gusts:</b>                | 3 knots /                        | <b>Turbulence Type Forecast/Actual:</b>     | /          |
| <b>Wind Direction:</b>                  | 50°                              | <b>Turbulence Severity Forecast/Actual:</b> | /          |
| <b>Altimeter Setting:</b>               | 29.79 inches Hg                  | <b>Temperature/Dew Point:</b>               | 23°C / 4°C |
| <b>Precipitation and Obscuration:</b>   | No Obscuration; No Precipitation |   |            |
| <b>Departure Point:</b>                 | Duluth, MN (KDYT)                | <b>Type of Flight Plan Filed:</b>           | None       |
| <b>Destination:</b>                     | Duluth, MN (KDYT)                | <b>Type of Clearance:</b>                   | None       |
| <b>Departure Time:</b>                  |                                  | <b>Type of Airspace:</b>                    |            |

## Airport Information

|                             |                         |                                  |         |
|-----------------------------|-------------------------|----------------------------------|---------|
| <b>Airport:</b>             | Sky Harbor Airport KDYT | <b>Runway Surface Type:</b>      |         |
| <b>Airport Elevation:</b>   | 610 ft msl              | <b>Runway Surface Condition:</b> | Unknown |
| <b>Runway Used:</b>         |                         | <b>IFR Approach:</b>             | None    |
| <b>Runway Length/Width:</b> |                         | <b>VFR Approach/Landing:</b>     | None    |

## Wreckage and Impact Information

|                            |        |                             |                           |
|----------------------------|--------|-----------------------------|---------------------------|
| <b>Crew Injuries:</b>      | 1 None | <b>Aircraft Damage:</b>     | Substantial               |
| <b>Passenger Injuries:</b> | 1 None | <b>Aircraft Fire:</b>       | None                      |
| <b>Ground Injuries:</b>    | N/A    | <b>Aircraft Explosion:</b>  | None                      |
| <b>Total Injuries:</b>     | 2 None | <b>Latitude, Longitude:</b> | 46.725276,-92.048057(est) |

## Administrative Information

|  |   |
|--|---|
| <b>Investigator In Charge (IIC):</b>     | Hatch, Craig  |
| <b>Additional Participating Persons:</b> | Edward Martin; FAA FSDO; Minneapolis, MN  |
| <b>Original Publish Date:</b>            | May 5, 2021   |
| <b>Last Revision Date:</b>               |   |
| <b>Investigation Class:</b>              | <a href="#">Class 3</a>   |
| <b>Note:</b>                             | The NTSB did not travel to the scene of this accident.  |
| <b>Investigation Docket:</b>             | <a href="https://data.nts.gov/Docket?ProjectID=101380">https://data.nts.gov/Docket?ProjectID=101380</a> |

The National Transportation Safety Board (NTSB) is an independent federal agency charged by Congress with investigating every civil aviation accident in the United States and significant events in other modes of transportation—railroad, transit, highway, marine, pipeline, and commercial space. We determine the probable causes of the accidents and events we investigate, and issue safety recommendations aimed at preventing future occurrences. In addition, we conduct transportation safety research studies and offer information and other assistance to family members and survivors for each accident or event we investigate. We also serve as the appellate authority for enforcement actions involving aviation and mariner certificates issued by the Federal Aviation Administration (FAA) and US Coast Guard, and we adjudicate appeals of civil penalty actions taken by the FAA.

The NTSB does not assign fault or blame for an accident or incident; rather, as specified by NTSB regulation, “accident/incident investigations are fact-finding proceedings with no formal issues and no adverse parties ... and are not conducted for the purpose of determining the rights or liabilities of any person” (Title 49 *Code of Federal Regulations* section 831.4). Assignment of fault or legal liability is not relevant to the NTSB’s statutory mission to improve transportation safety by investigating accidents and incidents and issuing safety recommendations. In addition, statutory language prohibits the admission into evidence or use of any part of an NTSB report related to an accident in a civil action for damages resulting from a matter mentioned in the report (Title 49 *United States Code* section 1154(b)). A factual report that may be admissible under 49 *United States Code* section 1154(b) is available [here](#).