



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

South Florida Flight Standards District Office 19  
2895SW 145<sup>th</sup> Avenue Suite 120  
Miramar, FL 33027

**Juan C Garcia - Inspectors Statement – Accident Investigation**

**NTSB Accident No.:** ERA23FA239

**ATQA:** A-SO-19-23-123

**SAS PTRS No.:** [REDACTED]

**Task ID:** [REDACTED]

**Registration:** N147JL

**Make:** 2004 LINDBERG JAMES

**Model:** EDGE-X

**Serial Number:** 001

**Engine:** Rotax 2 Cycle

**Engine Model:** 582DCDI

**Engine Serial Number:** 6025198

**When:** July 4, 2023

**Where:** Coral Gables Golf Course 25° 38' 22"N 80° 17'26"W

**What:** Part 91 operation, Experimental 2004 Lindberg James with one pilot and one passenger crashed on the Coral Gables Golf Course (25° 38' 22"N 80° 17'26"W) pond. Aircraft destroyed impacting ground, bouncing and into pond aircraft submerged under 5 feet of water, pilot and passenger sustain minor injuries. Pilot reported engine power surging from idle to full power. Aircraft departed Homestead Airport.

**PIC Pilot:**

Marco Aurelio Zamora

[REDACTED]  
Miami Beach, FL 33140-2719

Student Pilot Certificate No. [REDACTED]

Medical Exam Date: None

**PIC Statement:**

After a thorough pre-flight, the flight originated out of Homestead General Aviation Airport (X51) in a weight shift Ultralight "Trike" around 8:30 AM under clear and calm conditions, nearly ideal. The fuel tank and 2-cycle engine oil tank were both full prior to takeoff, allowing almost three (3) hours of flight time. I launched uneventfully and eventually departed in a NE direction towards Biscayne Bay at an altitude of 500-700 feet. Upon reaching the Bay, I turned northward to follow the coastline towards Miami.

Around 9 AM, after 30 minutes of blissful serene flying, upon reaching the Coral Gables area (directly above Matheson Hammock (MH) Park & marina), without warning, the engine began to sputter and almost stall, and then race up to over 6,000 rpm for a few

seconds, then repeat this deacceleration-acceleration cycle over and over again. This caused the trike to rapidly lose altitude with deacceleration, and rapidly gain altitude with the racing/acceleration, resulting in a porpoising effect on the altitude. At this point, I checked the usual things: the choke (not on), the throttle cables (both the foot throttle and hand throttle were functional), and the magneto's (both were in the "on" position).

Thinking that the problem might be water or air in the fuel line, or contaminated fuel, I continued to circle above MH Park hoping that the engine performance would stabilize; it did not. There were no accessible landing fields at MH Park or in the immediate vicinity; if the engine had stalled out here, I would have been forced into a water landing. After close to 10 minutes of circling the MH Park, approximately 9:10 AM, with the engine still sputtering and threatening to stall, I decided to fly south along the coastline and try to reach a golf course approximately 3-4 miles away.

By the grace of God, the engine continued to run (albeit erratically) until I arrived at the north end of the nearest fairway of the golf course. As I cleared the final line of trees before the fairway, I took my foot off the throttle (to start my descent) and the engine immediately stalled. I brought down the trike quickly onto the fairway but had too much speed at the far end of the fairway; there was small low lying "marsh" area at the end of the fairway, so to avoid crashing into the marshy area, I raised the nose and glided over the marsh and touched down twice on the grass on the far side of the marsh, just before a pond. Unfortunately, the pond was surrounded by some rather large rocks, and the trike underside & landing gear struck these rocks forcefully before landing inverted in the water at the edge of the pond; time approximately 9:15 AM.

Having replayed this approach and landing in my head several thousand times now, I was clearly "too high" to make the "direct" landing that I attempted onto the fairway. In hindsight, I should have:

- a) "burned off some altitude" with some quick S turns or a 360 turn, OR,
- b) flown down towards the south end of the field and attempted a 180 degree turn, landing in the opposite (northly) direction, OR,
- c) kept my foot on the throttle to (hopefully) keep the engine running, and attempt to overfly the golf course so as survey my landing options and to pick out the best field and best approach under the circumstances.

It should be noted that the fairway I touched down on was fairly narrow and lined with tall trees on three sides, making maneuvering both challenging and dangerous. The grass on the fairway was like astroturf, very short, and did not cause much, if any, friction to the wheels. The wind direction was slightly north-to-south, resulting in a light tailwind. The fairway itself was sloped downward towards the marshy area & pond. Lastly there were other tall obstacles around the golf course besides trees, including very high netting (used to catch errantly flying golf balls) as well as three high rise condominiums (around 20 stories high).

I always use a gas/water separator whenever I fill the tank.

I also have a drain valve at the lowest portion of the gas tank, which collects water, if present, which I check before and after each flight.

During pre-flight, I always check the carburetors for proper fit and function.

I do not know what else I could have done to “prevent” this from happening.

### **Examination of the aircraft and maintenance issue:**

Pilot stated flying for 30 minutes approaching Coral Gables Matheson Hammock (MH) Park & Marina, without warning, the engine began to sputter and almost stall, and then race up to over 6,000 rpm for a few seconds, then repeat this deacceleration-acceleration cycle over and over again, causing the aircraft to rapidly lose altitude with deacceleration, and rapidly gain altitude with the racing/acceleration, resulting in a proposing effect on the altitude. Pilot started checking the choke, throttle cables both the foot throttle and hand throttle were functional, and the magnetos with no change.

Pilot started thinking that the problem might be water or air in the fuel line, or contaminated fuel, he continued to circle above MH Park hoping that the engine performance would stabilize; it did not with no accessible landing fields at MH Park or in the immediate vicinity; if the engine had stalled out here, he would have been forced into a water landing.

Pilot stated 10 minutes of circling the MH Park with the engine still sputtering and threatening to stall, he decided to fly south along the coastline and try to reach a golf course approximately 3-4 miles away. Pilot stated clearing the final line of trees before the fairway, he took his foot off the throttle and the engine immediately stalled, landing quickly onto the fairway but had too much speed at the far end of the fairway; there was small low lying “marsh” area at the end of the fairway, so to avoid crashing into the marshy area, he raised the nose and glided over the marsh and touched down twice on the grass on the far side of the marsh, just before a pond. Pilot stated the pond was surrounded by some rather large rocks, and the aircraft underside & landing gear struck these rocks forcefully before landing inverted in the water at the edge of the pond.

Inspection of aircraft found cockpit and engine submerged under 4-6 feet of water, wing section found with minor damage. Aircraft engine section found with sustain significant damage during recovery due impact with rocks lining the pond. Sample of fuel not possible due fuel tank sustain impact damage; the fuel cap is a venting cap and fuel tank filled with pond water contaminating fuel. Engine inspection found four bladed fiberglass propeller tips damaged, dual carburetor detached from engine during removal from pond and engine internals contaminated with pond water.

Inspection of engine spark plugs found all found dark and oily indicating rich mixture, gap inspection found the following, cylinder 1 spark plug .22, cylinder 2 spark plug .22, cylinder 3 spark plug .20 and cylinder 4 spark plug .22, Rotax Engines recommends .18 to .21. Inspection of exhaust found extensive corrosion from pond water contamination.

Inspection of both carburetors found internal contamination from pond water with white powder substance and white clay substance. Disassembly of both carburetors inspecting fuel jets, floats springs and other internal parts found nothing substantiating a malfunction or failure of the carburetors. Carburetors found operating mechanical with all levelers and operating with no issues. Internal jet filters found contaminated with white powdery substance.

Inspection and disassembly of fuel metering distribution system found with 10-12 drops of fuel with no form of contamination, clear diaphragm seals found with no ruptures or tears, plastic fuel distribution seals found with no damage, and under compression. Fuel system hoses found clear of any obstruction. The in-line fuel filter located between fuel metering distribution system and fuel tank found with no fuel but contaminated with white moldy substance.



A handwritten signature in blue ink, partially obscured by a black rectangular redaction box.

Juan C Garcia  
Aviation Safety Inspector /FAA IIC