



# National Transportation Safety Board Aviation Accident Final Report

|                                |                                      |                         |             |
|--------------------------------|--------------------------------------|-------------------------|-------------|
| <b>Location:</b>               | Key West, FL                         | <b>Accident Number:</b> | NYC08LA116  |
| <b>Date &amp; Time:</b>        | 03/01/2008, 1515 EST                 | <b>Registration:</b>    | N859MS      |
| <b>Aircraft:</b>               | Diamond Aircraft Industries DA 20    | <b>Aircraft Damage:</b> | Substantial |
| <b>Defining Event:</b>         | Loss of engine power (total)         | <b>Injuries:</b>        | 1 None      |
| <b>Flight Conducted Under:</b> | Part 91: General Aviation - Personal |                         |             |

## Analysis

After maneuvering in the local area for approximately 15 minutes, the pilot initiated a descent, at idle power, to return to the airport. As he leveled the airplane in the traffic pattern (over water), he advanced the throttle to increase power; however, the engine did not respond. The pilot attempted, unsuccessfully, to restart the engine, and then prepared for a forced landing to the water, approximately 6 miles off shore. After the airplane came to rest, the pilot egressed and entered the life raft he had in the airplane. The airplane sank after about 5 minutes and was not recovered. The pilot purchased the airplane new approximately 2 years prior to the accident and no recent maintenance had been performed. Fuel records indicated the airplane was last refueled approximately 1 month prior with 13.8 gallons of fuel. According to the pilot, he last flew the airplane approximately 2 to 3 weeks prior to the accident, and prior to the accident flight, he departed with "just under full fuel," approximately 20 gallons.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: A loss of engine power for undetermined reasons.

## Findings

|                |   |
|----------------|---|
| Not determined | Not determined - Unknown/Not determined (Cause) |
|----------------|---|

## Factual Information

On March 1, 2008, at 1515 eastern standard time, a Diamond DA 20, N859MS, was presumed to be substantially damaged during a ditching in the Atlantic Ocean, near Key West, Florida. The certificated private pilot was not injured. Visual meteorological conditions prevailed, and no flight plan was filed for the flight, which originated at the Florida Keys Marathon Airport (MTH), Marathon, Florida, at 1500. The personal flight was destined for the Key West International Airport (EYW), Key West, Florida, and was conducted under the provisions of 14 Code of Federal Regulations Part 91.

According to the pilot, after departure he climbed the airplane to an altitude of 8,000 feet and practiced steep turns. He then flew toward EYW, where he intended to practice touch-and-go landings. The pilot reduced the power to idle, and initiated a descent. When the airplane reached the traffic pattern altitude of 850 feet, the pilot leveled-off the airplane. He advanced the throttle to increase the power; however, the engine did not respond. The propeller continued to turn momentarily and then stopped completely. The pilot completed the emergency checklist; however, he could not restart the engine. He reported a "mayday" to air traffic control and gave his position, which was approximately 6 miles south of the Big Pine Key shoreline.

The pilot performed a forced landing to the water, and after the airplane came to rest, the pilot opened the canopy and inflated the life raft he had in the airplane. He entered the life raft and watched the airplane float for approximately 5 minutes, before sinking.

Approximately 90 minutes later, a fisherman picked up the pilot and brought him to shore.

The pilot purchased the airplane new in April 2006. He reported the airplane and engine logbooks were in the airplane at the time of the accident. The next annual inspection was due in May 2008, and no recent maintenance had been performed on the airplane.

The pilot reported he last flown the airplane approximately 2 to 3 weeks prior to the accident. He estimated the airplane had "just under full fuel," (approximately 20 gallons), prior to departure.

According to fuel records provided by the Fixed Base Operator (FBO) where the airplane was based, the airplane was last refueled on February 6, 2008, with 13.8 gallons of fuel.

As of the date of this report, there were no plans to recover the airplane from the Atlantic Ocean.

## History of Flight

|                   |   |
|-------------------|---|
| Enroute-descent   | Loss of engine power (total) (Defining event) |
| Emergency descent | Ditching                                      |

## Pilot Information

|                                  |  |  |                            |
|----------------------------------|--|--|----------------------------|
| <b>Certificate:</b>              | Private  | <b>Age:</b>                              | 48, Male                   |
| <b>Airplane Rating(s):</b>       | Single-engine Land   | <b>Seat Occupied:</b>                    | Rear                       |
| <b>Other Aircraft Rating(s):</b> | None   | <b>Restraint Used:</b>                   | Seatbelt, Shoulder harness |
| <b>Instrument Rating(s):</b>     | None   | <b>Second Pilot Present:</b>             | No                         |
| <b>Instructor Rating(s):</b>     | None   | <b>Toxicology Performed:</b>             | No                         |
| <b>Medical Certification:</b>    | Class 3 Without Waivers/Limitations  | <b>Last Medical Exam:</b>                | 02/01/2007                 |
| <b>Occupational Pilot:</b>       | No   | <b>Last Flight Review or Equivalent:</b> | 02/01/2007                 |
| <b>Flight Time:</b>              | 570 hours (Total, all aircraft), 120 hours (Total, this make and model), 540 hours (Pilot In Command, all aircraft), 10 hours (Last 90 days, all aircraft), 1 hours (Last 30 days, all aircraft) |  |                            |

## Aircraft and Owner/Operator Information

|                                      |  |   |                 |
|--------------------------------------|--|---|-----------------|
| <b>Aircraft Manufacturer:</b>        | Diamond Aircraft Industries                            | <b>Registration:</b>                      | N859MS          |
| <b>Model/Series:</b>                 | DA 20  | <b>Aircraft Category:</b>                 | Airplane        |
| <b>Year of Manufacture:</b>          |  | <b>Amateur Built:</b>                     | No              |
| <b>Airworthiness Certificate:</b>    | Utility  | <b>Serial Number:</b>                     | C0366           |
| <b>Landing Gear Type:</b>            | Tricycle   | <b>Seats:</b>                             | 2               |
| <b>Date/Type of Last Inspection:</b> | 04/01/2007, Annual                                     | <b>Certified Max Gross Wt.:</b>           | 1764 lbs        |
| <b>Time Since Last Inspection:</b>   |  | <b>Engines:</b>                           | 1 Reciprocating |
| <b>Airframe Total Time:</b>          | 88 Hours   | <b>Engine Manufacturer:</b>               | Continental     |
| <b>ELT:</b>                          | Installed, activated, did not aid in locating accident | <b>Engine Model/Series:</b>               | IO-240-B        |
| <b>Registered Owner:</b>             | Robert Snider  | <b>Rated Power:</b>                       | 125 hp          |
| <b>Operator:</b>                     | Robert Snider  | <b>Air Carrier Operating Certificate:</b> | None            |

## Meteorological Information and Flight Plan

|                                  |                                  |                              |                   |
|----------------------------------|----------------------------------|------------------------------|-------------------|
| Observation Facility, Elevation: | EYW, 3 ft msl                    | Observation Time:            | 1453 EDT          |
| Distance from Accident Site:     | 15 Nautical Miles                | Condition of Light:          | Day               |
| Direction from Accident Site:    | 270°                             | Conditions at Accident Site: | Visual Conditions |
| Lowest Cloud Condition:          | Clear                            | Temperature/Dew Point:       | 26° C / 15° C     |
| Lowest Ceiling:                  | None                             | Visibility                   | 10 Miles          |
| Wind Speed/Gusts, Direction:     | 13 knots, 30°                    | Visibility (RVR):            |                   |
| Altimeter Setting:               | 30.16 inches Hg                  | Visibility (RVV):            |                   |
| Precipitation and Obscuration:   | No Obscuration; No Precipitation |                              |                   |
| Departure Point:                 | Marathon, FL (MTH)               | Type of Flight Plan Filed:   | None              |
| Destination:                     | Key West, FL (EYW)               | Type of Clearance:           | Traffic Advisory  |
| Departure Time:                  | 1445 EDT                         | Type of Airspace:            |                   |

## Wreckage and Impact Information

|                     |        |                     |             |
|---------------------|--------|---------------------|-------------|
| Crew Injuries:      | 1 None | Aircraft Damage:    | Substantial |
| Passenger Injuries: | N/A    | Aircraft Fire:      | None        |
| Ground Injuries:    | N/A    | Aircraft Explosion: | None        |
| Total Injuries:     | 1 None |                     |             |

## Administrative Information

|                                   |  |               |            |
|-----------------------------------|--|---------------|------------|
| Investigator In Charge (IIC):     | Jill M Andrews   | Adopted Date: | 12/24/2008 |
| Additional Participating Persons: | Armando Lopez; FAA/FSDO; Miami, FL   |               |            |
| Publish Date:                     | 12/24/2008   |               |            |
| Investigation Docket:             | NTSB accident and incident dockets serve as permanent archival information for the NTSB's investigations. Dockets released prior to June 1, 2009 are publicly available from the NTSB's Record Management Division at <a href="mailto:pubinq@ntsb.gov">pubinq@ntsb.gov</a> , or at 800-877-6799. Dockets released after this date are available at <a href="http://dms.nts.gov/pubdms/">http://dms.nts.gov/pubdms/</a> . |               |            |

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