



# Aviation Investigation Final Report

|                                |                                      |                         |             |
|--------------------------------|--------------------------------------|-------------------------|-------------|
| <b>Location:</b>               | LAKE CITY, Florida                   | <b>Accident Number:</b> | MIA93LA166  |
| <b>Date &amp; Time:</b>        | July 29, 1993, 22:02 Local           | <b>Registration:</b>    | N4232C      |
| <b>Aircraft:</b>               | CESSNA 414                           | <b>Aircraft Damage:</b> | Substantial |
| <b>Defining Event:</b>         |                                      | <b>Injuries:</b>        | 3 None      |
| <b>Flight Conducted Under:</b> | Part 91: General aviation - Personal |                         |             |

## Analysis

THE PILOT OF THE TWIN ENGINE AIRPLANE ELECTED TO EXECUTE A PRECAUTIONARY LANDING SHORT OF HIS DESTINATION DUE TO AN ENGINE SURGE. HE LANDED FAST, LONG, AND HARD. THE TIRES BLEW ON LANDING AND THE AIRPLANE SWERVED OFF THE RUNWAY AND STRUCK A DITCH.

## Probable Cause and Findings

The National Transportation Safety Board determines the probable cause(s) of this accident to be: THE FAILURE OF THE PILOT-IN-COMMAND TO PROPERLY FLARE BEFORE TOUCHDOWN AND THE PILOT'S DECISION TO LAND WITH EXCESSIVE AIRSPEED. A CONTRIBUTING FACTOR WAS THE APREHENSION/ANXIETY OF THE PILOT DURING THE PRECAUTIONARY LANDING.

## Findings

Occurrence #1: HARD LANDING  
Phase of Operation: LANDING - FLARE/TOUCHDOWN

- Findings
1. LANDING GEAR, TIRE - BURST
  2. (C) FLARE - IMPROPER - PILOT IN COMMAND
  3. (F) ANXIETY/APPREHENSION - PILOT IN COMMAND
  4. (C) AIRSPEED - EXCESSIVE - PILOT IN COMMAND
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Occurrence #2: LOSS OF CONTROL - ON GROUND/WATER  
Phase of Operation: LANDING - ROLL

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Occurrence #3: ON GROUND/WATER ENCOUNTER WITH TERRAIN/WATER  
Phase of Operation: LANDING - ROLL

Findings

5. TERRAIN CONDITION - DITCH

## Factual Information

On July 29, 1994, about 2202 eastern daylight time, N4232C, a Cessna 414, registered to the pilot, Rocco Amuso, landed hard and collided with terrain, at Lake City, Florida, while on a 14 CFR Part 91 personal flight. Visual meteorological conditions prevailed at the time and an IFR flight plan was filed. The airplane was substantially damaged and the pilot and two passengers were not injured. The flight originated from Jacksonville, Florida, about 45 minutes earlier.

The pilot stated he was deviating around weather at 10,000 feet when he noticed his right engine surging. He elected to execute a precautionary landing at Lake City, Florida. He landed fast, long and hard. The tires blew on impact and the airplane swerved off the runway striking a runway light, and collided with a ditch. Both wing spars, skin and main landing gears were damaged. Examination of the engines was conducted by a mechanic who stated that he could not locate any condition that would have caused the right engine to surge.

### Pilot Information

|                                  |   |  |                 |
|----------------------------------|---|--|-----------------|
| <b>Certificate:</b>              | Commercial  | <b>Age:</b>                              | 42,U            |
| <b>Airplane Rating(s):</b>       | Single-engine land; Multi-engine land   | <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>             | No              |
| <b>Instructor Rating(s):</b>     | None  | <b>Toxicology Performed:</b>             | No              |
| <b>Medical Certification:</b>    | Class 2 Valid Medical-w/<br>waivers/lim   | <b>Last FAA Medical Exam:</b>            | August 24, 1992 |
| <b>Occupational Pilot:</b>       | No  | <b>Last Flight Review or Equivalent:</b> |                 |
| <b>Flight Time:</b>              | 1880 hours (Total, all aircraft), 70 hours (Total, this make and model), 1343 hours (Pilot In Command, all aircraft), 70 hours (Last 90 days, all aircraft), 38 hours (Last 30 days, all aircraft), 1 hours (Last 24 hours, all aircraft) |  |                 |

## Aircraft and Owner/Operator Information

|                                      |                          |                                       |                 |
|--------------------------------------|--------------------------|---------------------------------------|-----------------|
| <b>Aircraft Make:</b>                | CESSNA                   | <b>Registration:</b>                  | N4232C          |
| <b>Model/Series:</b>                 | 414 414                  | <b>Aircraft Category:</b>             | Airplane        |
| <b>Year of Manufacture:</b>          |                          | <b>Amateur Built:</b>                 |                 |
| <b>Airworthiness Certificate:</b>    | Normal                   | <b>Serial Number:</b>                 | 0532            |
| <b>Landing Gear Type:</b>            | Retractable - Tricycle   | <b>Seats:</b>                         | 7               |
| <b>Date/Type of Last Inspection:</b> | April 5, 1993 Annual     | <b>Certified Max Gross Wt.:</b>       | 6350 lbs        |
| <b>Time Since Last Inspection:</b>   | 70 Hrs                   | <b>Engines:</b>                       | 2 Reciprocating |
| <b>Airframe Total Time:</b>          | 4022 Hrs                 | <b>Engine Manufacturer:</b>           | CONTINENTAL     |
| <b>ELT:</b>                          | Installed, not activated | <b>Engine Model/Series:</b>           | TSIO-520J       |
| <b>Registered Owner:</b>             | AIR STEWART INC.         | <b>Rated Power:</b>                   | 310 Horsepower  |
| <b>Operator:</b>                     | AMUSO, ROCCO             | <b>Operating Certificate(s) Held:</b> | None            |
| <b>Operator Does Business As:</b>    |                          | <b>Operator Designator Code:</b>      |                 |

## Meteorological Information and Flight Plan

|   |                                  |   |                   |
|---|----------------------------------|---|-------------------|
| <b>Conditions at Accident Site:</b>     | Visual (VMC)                     | <b>Condition of Light:</b>                  | Night/dark        |
| <b>Observation Facility, Elevation:</b> | GNV ,113 ft msl                  | <b>Distance from Accident Site:</b>         | 24 Nautical Miles |
| <b>Observation Time:</b>                | 21:58 Local                      | <b>Direction from Accident Site:</b>        | 165°              |
| <b>Lowest Cloud Condition:</b>          | Clear                            | <b>Visibility</b>                           | 7 miles           |
| <b>Lowest Ceiling:</b>                  | None                             | <b>Visibility (RVR):</b>                    |                   |
| <b>Wind Speed/Gusts:</b>                | 6 knots /                        | <b>Turbulence Type Forecast/Actual:</b>     | /                 |
| <b>Wind Direction:</b>                  | 200°                             | <b>Turbulence Severity Forecast/Actual:</b> | /                 |
| <b>Altimeter Setting:</b>               | 30 inches Hg                     | <b>Temperature/Dew Point:</b>               | 29°C / 24°C       |
| <b>Precipitation and Obscuration:</b>   | No Obscuration; No Precipitation |   |                   |
| <b>Departure Point:</b>                 | JACKSONVILLE , FL (JAX )         | <b>Type of Flight Plan Filed:</b>           | IFR               |
| <b>Destination:</b>                     | BUFFALO , NY (BUF )              | <b>Type of Clearance:</b>                   | IFR               |
| <b>Departure Time:</b>                  | 21:17 Local                      | <b>Type of Airspace:</b>                    | Class D           |

## Airport Information

|                             |                  |                                  |                       |
|-----------------------------|------------------|----------------------------------|-----------------------|
| <b>Airport:</b>             | LAKE CITY 31J    | <b>Runway Surface Type:</b>      | Asphalt               |
| <b>Airport Elevation:</b>   | 202 ft msl       | <b>Runway Surface Condition:</b> | Dry                   |
| <b>Runway Used:</b>         | 28               | <b>IFR Approach:</b>             | None                  |
| <b>Runway Length/Width:</b> | 8000 ft / 150 ft | <b>VFR Approach/Landing:</b>     | Precautionary landing |

## Wreckage and Impact Information

|                            |        |                             |             |
|----------------------------|--------|-----------------------------|-------------|
| <b>Crew Injuries:</b>      | 1 None | <b>Aircraft Damage:</b>     | Substantial |
| <b>Passenger Injuries:</b> | 2 None | <b>Aircraft Fire:</b>       | None        |
| <b>Ground Injuries:</b>    | N/A    | <b>Aircraft Explosion:</b>  | None        |
| <b>Total Injuries:</b>     | 3 None | <b>Latitude, Longitude:</b> |             |

## Administrative Information

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|--|---|
| <b>Investigator In Charge (IIC):</b>     | Alston, Andrew  |
| <b>Additional Participating Persons:</b> | GEORGE ERDEL; JACKSONVILLE , FL   |
| <b>Original Publish Date:</b>            | July 25, 1994   |
| <b>Last Revision Date:</b>               |   |
| <b>Investigation Class:</b>              | <a href="#">Class</a>   |
| <b>Note:</b>                             |   |
| <b>Investigation Docket:</b>             | <a href="https://data.ntsb.gov/Docket?ProjectID=37378">https://data.ntsb.gov/Docket?ProjectID=37378</a> |

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