




| | | | | | |
|--|--|------------------------------------|----------------------------------|-------------------------------------|------------------|
|  National Transportation Safety Board FACTUAL REPORT AVIATION | | NTSB ID: IAD01LA109 | | Aircraft Registration Number: N25GR | |
| | | Occurrence Date: 09/30/2001 | | Most Critical Injury: None | |
| | | Occurrence Type: Accident | | Investigated By: NTSB | |
| Location/Time | | | | | |
| Nearest City/Place Whitehouse | | State OH | Zip Code 43571 | Local Time 1750 | Time Zone EDT |
| Airport Proximity: On Airport/Airstrip | | Distance From Landing Facility: | | | |
| Aircraft Information Summary | | | | | |
| Aircraft Manufacturer Rhoades | | Model/Series Rotorway Exec 162F | | Type of Aircraft Helicopter | |
| Revenue Sightseeing Flight: No | | | Air Medical Transport Flight: No | | |
| Narrative | | | | | |
| <p>Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:</p> <p>On September 30, 2001, at 1750 eastern daylight time, a homebuilt Rotorway Exec 162F helicopter, N25GR, was substantially damaged during a forced landing in Whitehouse, Ohio. The certificated airline transport pilot was not injured. Visual meteorological conditions prevailed for the local personal flight that originated at the pilot/owner's home in Whitehouse. No flight plan was filed for the flight conducted under 14 CFR Part 91.</p> <p>According to the pilot, he conducted a 20-minute flight over his farm and was on final approach for his landing pad at the time of the occurrence. The engine started "missing and backfiring" and losing power at approximately 400 feet altitude. The pilot performed an autorotation to a soybean field, and as the helicopter touched down, it slid forward a few feet, then rolled over on its left side.</p> <p>The pilot also stated:</p> <p>"As far as controllability during the autorotation, everything worked the way it's supposed to. It wasn't until I got into the soybeans that the skid sunk in. Speed-wise it was all but stopped. The skid sunk in and the helicopter rolled onto its left side."</p> <p>The pilot reported 11,500 hours of flight experience, 65 hours of which were in helicopters. The pilot reported 20 hours of flight experience in the Rotorway Exec 162F. The pilot's most recent biennial flight review was completed June 29, 2001.</p> <p>The pilot's most recent first class medical certificate was issued on February 2, 2001.</p> <p>The helicopter was examined at the scene by a Federal Aviation Administration (FAA) inspector. According to the inspector's statement, the helicopter came to rest on its left side with the tailboom severed. The aft portion of the tailboom, with the tail rotor and tail rotor gearbox attached, was located about 25 feet from the main wreckage.</p> <p>The helicopter was equipped with a Rotorway International Fully Automatic Digital Engine Control (FADEC) system.</p> <p>According to the FAA inspector, the FADEC unit indicated an ignition failure code. The FADEC system was removed from the helicopter, and shipped to the manufacturer for examination under the supervision of another FAA inspector. According to the inspector's report, data downloaded from the FADEC revealed that for a 40-second period near the end of the accident flight, the engine temperature increased to 123 degrees centigrade, 22 degrees above the redline limit, before the engine stopped producing power.</p> <p>The FADEC system consisted of a primary and secondary Engine Control Unit (ECU). The FADEC was</p> | | | | | |
| FACTUAL REPORT - AVIATION | | | | | |
| Page 1 | | | | | |


| | | |
|---|-----------------------------|--|
|  National Transportation Safety Board FACTUAL REPORT AVIATION | NTSB ID: IAD01LA109 | |
| | Occurrence Date: 09/30/2001 | |
| | Occurrence Type: Accident | |

Narrative (Continued)

installed on an engine in a test cell, and the #1 and #2 ECUs operated the engine through its full operational range independently and together without an engine malfunction.

The weather at Toledo, Ohio, 4 miles north of the accident site was clear skies with winds from 060 degrees at 3 knots.

| | | | | | | |
|--|--|------------------------------------|---|---------------------------------|---------------|--------------|
|  National Transportation Safety Board FACTUAL REPORT AVIATION | | NTSB ID: IAD01LA109 | | | | |
| | | Occurrence Date: 09/30/2001 | | | | |
| | | Occurrence Type: Accident | | | | |
| Landing Facility/Approach Information | | | | | | |
| Airport Name Private | | Airport ID: NONE | Airport Elevation 640 Ft. MSL | Runway Used | Runway Length | Runway Width |
| Runway Surface Type: Grass/turf | | | | | | |
| Runway Surface Condition: Dry | | | | | | |
| Approach/Arrival Flown: NONE | | | | | | |
| VFR Approach/Landing: Straight-in | | | | | | |
| Aircraft Information | | | | | | |
| Aircraft Manufacturer Rhoades | | Model/Series Rotorway Exec 162F | | Serial Number 6134 | | |
| Airworthiness Certificate(s): Experimental (Special) | | | | | | |
| Landing Gear Type: Skid | | | | | | |
| Amateur Built Acft? Yes | | Number of Seats: 2 | Certified Max Gross Wt. 1500 LBS | Number of Engines: 1 | | |
| Engine Type: Reciprocating | | Engine Manufacturer: Rotorway | Model/Series: 162F | Rated Power: 150 HP | | |
| - Aircraft Inspection Information | | | | | | |
| Type of Last Inspection | | Date of Last Inspection 08/2001 | Time Since Last Inspection 10 Hours | Airframe Total Time 10 Hours | | |
| - Emergency Locator Transmitter (ELT) Information | | | | | | |
| ELT Installed?/Type No | | ELT Operated? No | ELT Aided in Locating Accident Site? No | | | |
| Owner/Operator Information | | | | | | |
| Registered Aircraft Owner Gordon L. Rhoades | | Street Address | | | | |
| | | City Whitehouse | State OH | Zip Code 43571 | | |
| Operator of Aircraft Gordon L. Rhoades | | Street Address | | | | |
| | | City Whitehouse | State OH | Zip Code 43571 | | |
| Operator Does Business As: | | | Operator Designator Code: | | | |
| - Type of U.S. Certificate(s) Held: None | | | | | | |
| Air Carrier Operating Certificate(s): | | | | | | |
| Operating Certificate: | | | Operator Certificate: | | | |
| Regulation Flight Conducted Under: Part 91: General Aviation | | | | | | |
| Type of Flight Operation Conducted: Personal | | | | | | |
| FACTUAL REPORT - AVIATION | | | | | | |

| | |
|--|-----------------------------|
|  <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p> | NTSB ID: IAD01LA109 |
| | Occurrence Date: 09/30/2001 |
| | Occurrence Type: Accident |

First Pilot Information

| | | | | |
|-----------------|-----------------|------------------|--------------------------|-----------|
| Name On File | City On File | State On File | Date of Birth On File | Age 52 |
|-----------------|-----------------|------------------|--------------------------|-----------|

| | | | |
|--------|---------------------|------------------------------------|-----------------------------|
| Sex: M | Seat Occupied: Left | Occupational Pilot? Civilian Pilot | Certificate Number: On File |
|--------|---------------------|------------------------------------|-----------------------------|

Certificate(s): Airline Transport; Flight Instructor; Private

Airplane Rating(s): Multi-engine Land; Single-engine Land

Rotorcraft/Glider/LTA: Helicopter

Instrument Rating(s): Airplane

Instructor Rating(s): Airplane Multi-engine; Airplane Single-engine

Current Biennial Flight Review? 06/2001

| | | |
|------------------------|--|------------------------------------|
| Medical Cert.: Class 1 | Medical Cert. Status: Valid Medical--w/ waivers/lim. | Date of Last Medical Exam: 02/2001 |
|------------------------|--|------------------------------------|

| - Flight Time Matrix | All A/C | This Make and Model | Airplane Single Engine | Airplane Multi-Engine | Night | Instrument | | Rotorcraft | Glider | Lighter Than Air |
|-----------------------|---------|---------------------|------------------------|-----------------------|-------|------------|-----------|------------|--------|------------------|
| | | | | | | Actual | Simulated | | | |
| Total Time | 11500 | 20 | 2500 | 9000 | 2800 | 1050 | 340 | 65 | | |
| Pilot In Command(PIC) | 8000 | 10 | 2000 | 7500 | 2400 | 800 | | 15 | | |
| Instructor | 1800 | | 1500 | | | | | | | |
| Instruction Received | | | | | | | | | | |
| Last 90 Days | 150 | 10 | | 150 | | | | 11 | | |
| Last 30 Days | 45 | 10 | | 45 | | | | 10 | | |
| Last 24 Hours | 1 | | | | | | | 1 | | |

| | | | |
|--------------------|----------------------------|--------------------------|------------------|
| Seatbelt Used? Yes | Shoulder Harness Used? Yes | Toxicology Performed? No | Second Pilot? No |
|--------------------|----------------------------|--------------------------|------------------|

Flight Plan/Itinerary

Type of Flight Plan Filed: None

| | | | | |
|---|-------|----------------------------|------------------------|------------------|
| Departure Point Same as Accident/Incident Location | State | Airport Identifier NONE | Departure Time 1730 | Time Zone EDT |
|---|-------|----------------------------|------------------------|------------------|

| | | | |
|-----------------------------|-------|--------------------|--|
| Destination Local Flight | State | Airport Identifier | |
|-----------------------------|-------|--------------------|--|


Type of Clearance: None

Type of Airspace: Class G

Weather Information

Source of Wx Information:

No record of briefing

| | |
|--|-----------------------------|
|  <p>National Transportation Safety Board FACTUAL REPORT AVIATION</p> | NTSB ID: IAD01LA109 |
| | Occurrence Date: 09/30/2001 |
| | Occurrence Type: Accident |

Weather Information

| | | | | | |
|-----------------------------------|---------------------|--|---------------|---------------------------------|------------------------------|
| WOF ID | Observation Time | Time Zone | WOF Elevation | WOF Distance From Accident Site | Direction From Accident Site |
| KTDZ | 1753 | EDT | 622 Ft. MSL | 4 NM | 360 Deg. Mag. |
| Sky/Lowest Cloud Condition: Clear | | | Ft. AGL | Condition of Light: Day | |
| Lowest Ceiling: None | | | Ft. AGL | Visibility: 10 SM | Altimeter: 30.21 "Hg |
| Temperature: 22 °C | Dew Point: 9 °C | Weather Conditions at Accident Site: Visual Conditions | | | |
| Wind Direction: 70 | Wind Speed: 3 | Wind Gusts: | | | |
| Visibility (RVR): Ft. | Visibility (RVV) SM | | | | |
| Precip and/or Obscuration: | | | | | |

Accident Information

| | | |
|------------------------------|---------------------|--------------------------|
| Aircraft Damage: Substantial | Aircraft Fire: None | Aircraft Explosion: None |
|------------------------------|---------------------|--------------------------|

| - Injury Summary Matrix | Fatal | Serious | Minor | None | TOTAL |
|-------------------------|-------|---------|-------|------|-------|
| First Pilot | | | | 1 | 1 |
| Second Pilot | | | | | |
| Student Pilot | | | | | |
| Flight Instructor | | | | | |
| Check Pilot | | | | | |
| Flight Engineer | | | | | |
| Cabin Attendants | | | | | |
| Other Crew | | | | | |
| Passengers | | | | | |
| - TOTAL ABOARD - | | | | 1 | 1 |
| Other Ground | | | | | |
| - GRAND TOTAL - | | | | 1 | 1 |

National Transportation Safety Board

FACTUAL REPORT
AVIATION



NTSB ID: IAD01LA109

Occurrence Date: 09/30/2001

Occurrence Type: Accident

Administrative Information

Investigator-In-Charge (IIC)

Brian C. Rayner

Additional Persons Participating in This Accident/Incident Investigation:

Dave Pesarchick
FAA/FSDO
Cleveland, OH