Accident Prevention is a Combat Multiplier

Flightfax

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Accident review: Incorrect weather forecast

Synopsis

An OV-1D was returning to home base after a night mission. The pilot could not land because of bad weather. After two attempts to land at other airfields, the aircraft ran out of fuel. The pilot and technical observer ejected successfully.

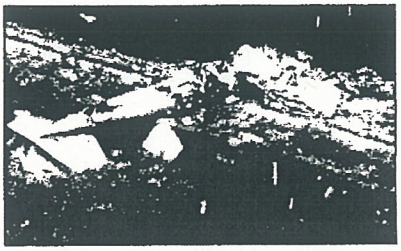
History of flight

As an OV-1 pilot was getting his weather briefing before a night mission, he asked about possible fog formation because of the temperature/dew point spread. The forecaster stated that fog formation was not anticipated.

The aircraft, with the pilot and technical observer on board, departed the airfield on an IFR flight clearance issued through air traffic control (ATC). During the flight, the pilot was told that the weather at home base was clear with 7 miles visibility. When the mission was completed and the pilot was preparing to land, he was issued the following weather advisory for his airfield: "Wind calm, sky clear with 7 miles visibility." The actual weather was: "Sky partially obscured, ceiling estimated at 500 feet overcast and 2 miles visibility due to fog."

The pilot reported the field in sight and asked for a visual approach. The tower operator issued an advisory clearance to land. About 500 feet above the ground, the aircraft entered fog. The pilot executed a missed approach and asked for another visual approach. The pilot and technical observer saw the runway lights, but the aircraft was not in a position to complete a safe landing. The tower issued another advisory clearance to land and the following weather: "Sky partially obscured, ceiling estimated 500 feet, visibility one-quarter mile with fog." The pilot acknowledged the weather and continued a visual approach to a point about 500 feet above the runway where he made another missed approach.

The pilot then asked for a frequency change to air traffic control to obtain an instrument approach elsewhere. He told ATC that he had about 500 pounds of fuel remaining. ATC acknowledged the fuel status and transmitted the weather for another airfield (hereafter referred to as airfield No. 1) as "seven-eighths sky coverage at 1,200 feet, visibility 3 miles with fog." The pilot asked for an approach to airfield No. 1, which was 16 nautical miles north of his home airfield. During the approach, as the pilot descended to the minimum descent altitude at the missed approach point, no lights associated with a runway could be seen. The approach and runway lights were off.



After making a missed approach, the pilot asked for clearance to another airfield (hereafter called airfield No. 2). ATC handed off the aircraft to approach control after telling the controller on duty that the aircraft had only 15 minutes of fuel remaining. Approach control acknowledged and accepted the handoff. During initial contact with approach control, the pilot asked for radar vectors "as short as you can get it" for an ILS at airfield No. 2.

Twenty seconds later, the pilot declared an emergency, citing zero fuel. Approach control acknowledged the situation but did not realize it was an emergency. During the radar vectoring sequence, the pilot made repeated emergency calls citing zero fuel and twice asked for a recommended heading to turn the aircraft away from built-up areas if he had to abandon it.

Immediately after being vectored onto the final approach course to airfield No. 2, the aircraft surged, followed by a gradual decrease in power and engine temperature readings. The pilot diagnosed the simultaneous flameout of both engines and transmitted to approach control that he was ejecting. As the aircraft slowed to about 100 knots airspeed, the pilot ordered the technical observer to eject and then ejected himself.

The pilot sustained a bruised elbow and a mild back strain. The technical observer sustained a bruised elbow. The aircraft crashed in a sparsely populated area 3.2 nautical miles from the end of a runway at airfield No. 2.

Crewmember experience

The 45-year-old pilot had more than 1,500 fixed wing flight hours, with almost 600 in the OV-1D.

Commentary

The rapid onset of low stratus ceilings and dense fog at the pilot's home field at the time of arrival did not favorably compare to the forecast weather of clear skies with 7 miles visibility. The phenomenon was not localized, was present throughout the local flying area, and commenced before the first approach to the airfield was attempted.

Failure of the weather detachment to

(continued on back page)

Accident review:
Incorrect weather forecast

pass along a special weather observation taken about 20 minutes before the aircraft was vectored to a point 16 miles northwest of the airfield or failure of tower personnel to record and disseminate the observation contributed to the accident.

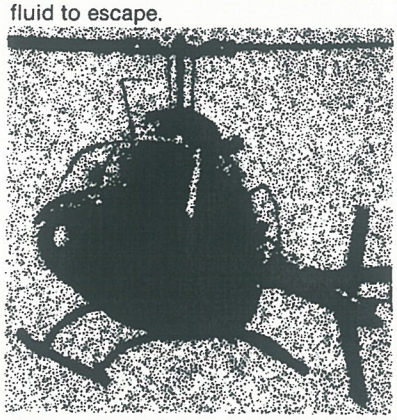
Fogging of the glass in the temporary tower facility at the pilot's home airfield restricted visibility of the tower operators. Because of the high temperature and humidity, the air conditioner in the temporary tower was operated continuously on the night of the accident. Tower personnel said they had to manually clean the window repeatedly throughout the night to see out of the facility. Failure to keep the glass cleared caused the personnel to not notice the rapid weather deterioration.

A communication breakdown occurred between ATC and the tower controller at airfield No. 1. The controller thought the pilot was making a low approach when, in fact, he was trying to land. Approach lights and runway lights were off because of energy conservation reasons, and the controller did not turn them on. Had they been turned on, the aircraft could have landed. ■

Mishap briefs

CH-47 Class E mishap ☐ (C series) Crew smelled fuel and crew chief saw fuel leaking from No. 2 engine area. Hole had been chafed in start fuel line.

OH-58 Class E mishap ☐ (A series) Feedback was felt through cyclic and collective. A few seconds later, master caution and hydraulic lights came on. Running landing was made. Incorrect torque on hose from hydraulic pump drain to pressure relief valve connection allowed hose to back off and fluid to escape.



Messages received

- Safety-of-flight maintenance mandatory message concerning one-time inspection of UH-60 main rotor spindle assembly pitch control arm attaching bolts (UH-60A-84-12, 301420Z Jul 84). Summary: Examination of prior maintenance actions reveals that earlier attempts to remove these bolts, P/N SS 5110-06-045, from service have not been fully successful. The modification team which replaced these bolts did not keep complete records of spindles which were modified. These bolts, which have a limited fatigue life, were originally installed on the first 26 aircraft plus 3 spares. The spindle assembly numbers are P/N 70102-08100-041/-045. A one-time inspection of the main rotor spindle assemblies will be done to locate and remove any remaining P/N SS 5110-06-045 bolts which might still be in service.
- Maintenance information message concerning OH-58A and C improper seal assembly installation on main rotor hub assembly (MIM-OH-58-84-MEM-04, 022300Z Aug 84).

For more information on selected mishap briefs, call AUTOVON 558-4198/4202.

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