



Department of the Interior

Lessons Learned

DOI LL 24-01

April 4, 2024

Page 1 of 3

Subject: In-Flight Emergencies and Passenger/Crew Responsibilities

Area of Focus: Aircraft Return to Contract Availability

Distribution: All Aviation Operations.

Discussion: On October 31, 2023, an exclusive-use contracted Dassault Falcon-50 aircraft, carrying six passengers, experienced a loss of cabin pressure while departing Henderson Field, Midway Atoll. The crew performed an emergency descent and returned to Midway, where the pilot-in-command (PIC) determined that the mechanical malfunction was intermittent, and the flight would be attempted again. The Office of Aviation Services (OAS) was not notified. The passengers refused the second flight, and the flight crew departed again, only to experience another cabin pressurization malfunction, which resulted in another return to Midway. The aircraft was not damaged, and there were no injuries.



Figure 1 Dassault Falcon-50 and Henderson Field

Mishap Flight: On October 31, 2023, at 2152 Hawaii Standard Time, the mishap aircraft departed Midway with six passengers onboard, and while climbing through 25,000 feet mean sea level (MSL), the cabin altitude began to increase abnormally. The cabin altitude visual and aural warning systems were activated, and the flight crew performed the procedures for cabin loss of pressure, which included donning oxygen masks, activating passenger oxygen masks and an emergency descent to 10,000 feet MSL. The emergency descent procedures included extending the airbrakes and attaining maximum maneuvering airspeed to expedite the descent to a safe pressure altitude for breathing. This configuration resulted in airframe vibrations and shaking that frightened the passengers, who were not informed of the emergency until 10 minutes after the event began. Some of the passengers thought the aircraft was out of control and landing in the ocean. Only a few of the passenger's oxygen masks dropped from the overhead panels and none of the passengers donned them. After a successful return to Midway, the passengers retired to billeting.

The PIC determined that the malfunction was likely an intermittent sticking outflow valve and another attempt at flight was made. *The passengers refused the flight* due to their discomfort with the in-flight

emergency. Neither the mechanical pressurization nor the passenger oxygen system discrepancies were properly corrected or signed off in the aircraft logbook. After the aircraft departed again, the cabin pressurization system failed while climbing through 30,000 feet MSL, and the flight returned to Midway. Later that day, an OAS Maintenance Aviation Safety Inspector was notified, and the mechanical discrepancies were properly deferred by the contractor. The aircraft was removed from contract availability for four weeks while maintenance was performed. There were no other contract aircraft or vendors available for the mission. Midway passengers and contractors were transported from the atoll by a U.S. Coast Guard (USCG) C-130 aircraft 11 days later.

Lessons Learned:

- 1. **Kudos to the passengers for refusing the flight!** All agency personnel are empowered to refuse a flight if an unsafe condition exists. Had the passengers accepted the second flight, they could have been exposed to hypoxia injuries, especially without an operable oxygen system. **OAS-161, Twelve Standard Aviation Questions That Shout “Watch Out!” (Blue Card)** [IAT Library—Handbooks, Guides, Standards & Booklets](#)

Twelve Standard Aviation Questions That Shout "Watch Out!"

1. Is this flight necessary?
2. Who is in charge?
3. Are all hazards identified and have you made them known?
4. Should you stop the operation on the flight due to change in conditions?
 Communications Weather Confusion
 Turbulence Personnel Conflicting Priorities
5. Is there a better way to do it?
6. Are you driven by an overwhelming sense of urgency?

OAS-161 (07/18)

7. Can you justify your actions?
8. Are there other aircraft in the area?
9. Do you have an escape route?
10. Are any rules being broken?
11. Are communications getting tense?
12. Are you deviating from the assigned operations of the flight?

Anyone can refuse or curtail a flight when an unsafe condition may exist. Never let undue pressure (expressed or implied) influence your judgment or decisions. Avoid mistakes, don't hurry!

Figure 2 Twelve Standard Aviation Questions That Shout "Watch Out!"

- 2. **Pre-flight emergency briefs are a vital part of every flight.** Passengers stated that they were confused about how to use the oxygen masks and weren't sure if they had to pry open overhead panels. They wished that they had listened to the pre-flight brief more closely. The information provided in those briefs may save your life in the event of an emergency. **OAS-103 Five Steps to a Safe Flight** [Orange Card](#).

Five Steps to a Safe Flight

1. Pilot/Aircraft Data Card - Approved & Current
2. Flight Plan/Flight Following Initiated
3. PPE in Use When Required
4. Pilot Briefed on Mission & Flight Hazards
5. Crew & Passenger Briefing to include:
 - Aircraft Hazards
 - Fire Extinguisher
 - Seat Belt & Harness
 - Fuel & Electrical Shutoff
 - ELT & Survival Kit
 - Oxygen Equipment
 - First Aid Kit
 - Emergency Egress
 - Gear & Cargo Security (Not Under Seats)
 - Smoking

OAS-103/FIS 5700-16 (07/18)

Remember!

To report an aircraft accident call:
1-888-4MISHAP (1-888-464-7427)

File a SAFECOM to report any condition, observance, act, maintenance problem, or circumstance which has potential to cause an aviation-related accident.

Anyone can refuse or curtail a flight when an unsafe condition may exist.

Never let undue pressure (expressed or implied) influence your judgment or decisions. **Avoid mistakes, don't hurry!**

Figure 3 Five Steps to a Safe Flight.

- 3. **Aircraft “Return to Contract Availability” processes must be followed after a mechanical system failure (maintenance deficiency) and/or certain unscheduled maintenance is performed.** Refer to the contract provisions or contact the Contracting Officer’s Representative for specific

information. An OAS Maintenance Aviation Safety Inspector must be part of the return to aircraft availability process or be consulted if the airworthiness of an aircraft is in doubt.

- 4. Roles and Responsibilities.** Before passengers or aircrew board a flight, it is important to know who is responsible for supervising the flight and what to do if an abnormal event occurs. Contracting Officers, Managers, Supervisors and Contractor's employees should be fully aware of all safe flight processes, such as contract requirements, flight following, overdue aircraft, mishap, and post mishap notification procedures.



/s/ Keith C. Raley

Keith C. Raley
Chief, Aviation Safety, Training, Program
Evaluation, and Quality Management
DOI, Office of Aviation Services