



# Interagency Aviation Safety Alert



No. IA 06-02

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**Subject:** Flights Conducted with Maintenance Deficiencies

**Area of Concern:** Aviation Operations

**Distribution:** All Fire and Aviation Personnel, including: Fixed Wing Flight Managers, Helicopter Managers, Air Attack Group Supervisors, and Unit Aviation Officers

**Discussion:** A trend has developed where a number of helicopter managers, fixed wing flight managers, and air attacks have made judgment calls to continue flights with known mechanical problems. Each decision to continue flight operations with a known problem was made after discussions with the pilot. The common missing link in the communications was an agency Aircraft Maintenance Inspector (AMI). Continuing to fly with a known maintenance problem, regardless of how minor it may seem, may present unnecessary and unknown risks.

Consider these definitions when encountering a maintenance problem:

Maintenance Deficiency: An equipment defect or failure which affects or could affect the safety of operations, or which causes an interruption to the services being performed.

Aviation Hazard: Any condition, act, or set of circumstances that exposes an individual to unnecessary risk or harm during aviation operations.

The Forest Service Flight Operations Handbook (FSH 5709.16, Chap. 10, Paragraph 17.2) requires nonscheduled maintenance or repairs to be reported to an AMI. For Department of the Interior operations, Maintenance Requirements language contained in DOI contracts requires the contractor to contact the Contracting Officer (CO). Depending on the nature of the deficiency, the aircraft may need to be removed from availability or the agency AMI may determine that the aircraft may continue. The point is; the agency AMI must make the decision if the aircraft is available for use, not the pilot or aviation user.

A number of factors play into the decision whether to continue a flight with a known problem; the pilot may be compelled to continue because of lost revenue issues, the problem is perceived to not pose an imminent threat, or “home” is just over the next ridge. The agency representative (helicopter manager, fixed wing flight manager) may be compelled to get the last load of firefighters off the mountain, or is confident the pilot knows the aircraft’s limitations.

Following are examples of flights that were continued despite maintenance issues that exposed individuals to unnecessary risk or harm:

***SAFECOM 06-0307 - Generator Failure***

*While doing a training mission the aircraft had a generator failure. Upon landing, the pilot notified the helicopter manager of the failure but the pilot thought they had enough battery power to run the radios while flying back to the airport. The helicopter manager and 1 passenger elected to fly with the pilot back to the airport. While en-route to the airport the aircraft was unable to flight follow with dispatch due to a lack of battery power. Additional radios began to fail making communications difficult while entering the airport area. The maintenance inspector was called after the aircraft was released.*

***SAFECOM 05-0725 - Flight without a Transponder***

*Aircraft departed Medford Airport (MFR) en-route to Lakeview (LKV) for fuel. ATC instructed pilot to squawk 1200 but when the pilot switched transponder to 1200 ATC immediately informed the pilot he was squawking 1100. The pilot then dialed transponder squawk to 1300; ATC notified the pilot that they were not squawking. Aircraft proceeded to LKV without a transponder and upon landing the manager notified the maintenance inspector of the situation. There were a number of active MOA's and TFR's in the area so aircraft was grounded until the problem could be fixed or a new transponder unit installed.*

***SAFECOM 05-0153 - Engine Starting and Landing Gear Problems***

*Left engine had trouble starting in Pendleton with three on board. The pilot indicated the engine had just been replaced and had 5-6 hours on it. After landing in Walla Walla to pick up two employees the left engine would not start. The engine was uncovered and adjusted, the engine started and the plane proceeded to Baker City and landed without incident. Later that day on the return flight, the pilot was required to pump a lever to lower the landing gear manually. On the ground in Walla Walla the pilot confirmed what he was doing. They decided to fly to Pendleton with the gear down; landing in Pendleton without incident.*

***SAFECOM FS-02-0248 – Aircraft Fire***

*Ten minutes into a repositioning flight from SVC to AEG the mechanic asked the pilot about an acrid smell and asked if all systems were good. At the same time we were flying near mining operations and thought the smell might be coming from smelters. The smell persisted, the pilot continued to check gauges and a generator malfunction light began to flicker. He turned the aircraft back towards SVC and the manager contacted Gila dispatch to inform about the change in course. Within a minute or two the pilot announced a fire indicator was lit and we landed immediately. The mechanic exited the aircraft extinguished a small fire, inspected for damage, informed the pilot to shut down the generator and that we would be ok to fly back to SVC. I asked the pilot if it would safe to fly back. He indicated it would be ok. I determined that myself and the two helitack would stay onboard given the remoteness of landing, lack of communication from the ground and information from pilot and mechanic. The flight resumed with no further incident. I updated dispatch as soon as communication could be established. Regional Safety Manager and Regional Maintenance Inspector were contacted shortly after landing at SVC.*

These are a few examples of incidents that have occurred related to continued flight in an aircraft with a known maintenance discrepancy. Additionally, each of these flights occurred prior to contact with an agency AMI.

Risk Management dictates that it is advisable to stop the mission at the earliest opportunity, so that the maintenance discrepancy can be scrutinized by an agency AMI. Not only is it prudent, but it is also FS policy and required by both FS and DOI contract language. Once you are out of the aircraft the operator/pilot may not continue the mission, but may elect to fly the aircraft to an airport or base to conduct maintenance. That is the contractor's prerogative. However, agency personnel are not authorized to fly on board an aircraft with a known maintenance problem.

/s/ Robert Galloway  
Robert Galloway  
Aviation Safety Manager

/s/ Ron Hanks  
Ron Hanks  
National Aviation Safety  
and Training Manager