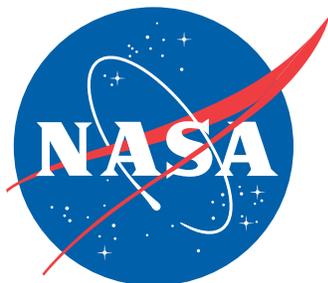


**Quick Response No. 331**

***An Analysis of EMS Helicopter  
Incidents***

**Prepared for  
National Transportation Safety Board  
(NTSB)**

**February 12, 2009**



Aviation Safety Reporting System  
385 Moffet Park Dr. Suite 200 Sunnyvale California 94089



# **Synoptic Analysis**



# Aviation Safety Reporting System Helicopter Related Incidents Data and Analysis for the National Transportation Safety Board (NTSB)



---

## Introduction

At the request of the National Transportation Safety Board (NTSB), ASRS conducted a review of ASRS Database reports involving Emergency Medical Service (EMS) helicopter operations. This review was completed in support of NTSB's recent public hearing on the safety of helicopter EMS operations, held on February 3-6, 2009.

---

## ASRS FINDINGS

Review of the data set was conducted by ASRS Expert Pilot and Controller Analysts.

### Report Selection Criteria & Analysis Methodology

The analysis set was limited to EMS helicopter incidents that occurred between January 1, 1993 and December 31, 2008 and are in the ASRS Database that received full-form analysis. Findings cited in this synoptic analysis were based on the full-form processing of the analysis set by operationally qualified ASRS analysts.

### Data Summary

Since the implementation of the Aviation Safety Reporting System (ASRS) in 1976, the ASRS Database has 1,786 helicopter reports. Helicopter reports comprise approximately 1.2% of all reports that have been entered in the ASRS Database. The set of EMS reports used for this analysis consists of a total of 266 reports found in the ASRS Database for the time frame referenced above.

The findings of this review are displayed in several charts concerning different topics. Some charts may depict data that are not mutually exclusive (i.e., the analysis has captured more than one variable in the coding field for a single incident). In some cases the coding of an event is limited due to the information provided by the reporter.

---

The following information is based on data derived from 266 Emergency Medical Service (EMS) helicopter reports.

- Pilots reported that they experienced a near mid-air collision in 26 (9.7%) incidents.
- Eighty-six (32.3%) incidents were analyzed as non adherence to a published procedure.
- In 22 (8.2%) incidents, the pilot indicated that they entered an airspace without clearance.
- Visual Flight Rules (VFR) flight in Instrument Meteorological Conditions (IMC) were determined to have occurred in 32 (12%) reported incidents.
- The most common flight phase for these incidents was the cruise phase with 161 (60.5%).
- Flight Crew non-adherence to a Federal Aviation Regulation (FAR) was determined to have occurred in 134 (50.3%) incidents.
- The majority of incidents occurred in visual meteorological conditions (182) (84.9%) and daylight conditions (144) (59%).
- Single pilot operations were involved in 217 (85.7%) incidents.
- In 92 (34.5%) incidents, the anomaly was detected after the fact and no resolution was taken.
- In 28 (10.5%) incidents, the pilot took evasive action to resolve the incident.
- An aircraft equipment problem was analyzed to have occurred in 52 (19.5%) total incidents.
- Aircraft damage occurred during 17 (6.3%) incidents and 30 (11.2%) incidents resulted in maintenance action.
- One hundred and twelve (45.9%) of the reporters stated having between 5,001 and 10,000 total flight hours, followed by 102 (42%) of reporters stating they had between 2,001 and 5,000 total flight hours.

The report citations below detail the nature of some of the EMS helicopter reports reviewed by ASRS analysts.

### **NMAC**

With over 8000 hours, a commercial air taxi pilot describes an NMAC while simultaneously approaching a helipad from a different direction and unable to establish contact with the other aircraft.

"During final approach, approximately 40 feet from the pad, company dispatch called and wanted to know if we were aware that we had almost had a midair. At this time I caught glimpse of company in my 3 o'clock position above me approximately 200 feet in a clockwise turn. This was the first transmission that we received from them." (ACN# 683642)

ATP rated EMS pilot on departure from hospital abruptly stops his takeoff.

"As I began to climb out of the helipad to the south, at an alt of approximately 20-30 feet, person sitting on the left side called out 'aircraft coming fast, 9 o'clock position.' I looked left and saw a Bell Jet ranger approaching at a very high rate of speed and heading directly for the helipad where it appeared to be setting up for a landing to the north." (ACN# 592516)

### **Maintenance**

An ATP rated air ambulance pilot stated "...mechanics working for company X informed me that they were being pressured by their supervisor to install a generator on the BK117B2 that did not have an approved part number. In refusing to do so, one mechanic told me that he 'felt' that he was going to be fired."

Our analyst further discovered in a callback conversation with this reporter, "...even pilots and nurses who are part of the emergency medical service (EMS) flight crews, whose company has contracted with reporter's Fixed Base Operator (FBO) to maintain the EMS aircraft, have raised concerns about the inadequate maintenance on their aircraft and the lack of any response regarding those concerns." (ACN# 786773)

### **VFR in IMC**

While on an EMS flight, an Airline Transport (ATP) rated single pilot states "... I encountered limited visibility with ground references. The flight was flying from a hospital with a patient on board. The rain had picked up and the visibility was less than reported. At 1,000 feet MSL, we started to lose ground reference.

To provide a bit more detail to the nature of this incident, the pilot continues... "the problem is having a patient onboard and feeling the pressure to try and continue the flight in less than reported conditions. The ship was IFR capable, but they had disconnected the autopilot so it was INOP. I am ATP rated but not current IFR." (ACN #635667)

---

## **Sample Reports**

This report includes a total of 25 EMS helicopter sample reports.

**Directline Issue No. 6  
(EMS Section)**

Available Online at

<http://asrs.arc.nasa.gov/docs/dl/DL6.pdf>

# ASRS

# Directline



❖ <b>Ground Jet Blast Hazard</b> (by Rowena Morrison) .....	<b>4</b>
❖ <b>Emergency 911</b> (by Linda Connell & Marcia Patten) .....	<b>12</b>
<u>Plus</u> <b>Lifeguard and Priority Handling</b> .....	<b>17</b>
❖ <b>Lost Com</b> (by Charles Drew, Andrew Scott, & Bob Matchette) .....	<b>19</b>
❖ <b>ASRS Database Statistics</b> (by Loren Rosenthal) .....	<b>26</b>

## Issue Number 6

The Aviation Safety Reporting System is a cooperative program established by the Federal Aviation Administration's Office of The Associate Administrator for Aviation Safety, and administered by the National Aeronautics and Space Administration.

Here is issue six of **ASRS Directline**. Our previous issue of **Directline** featured two articles that were adaptations of research papers that were presented at the Ohio State University (OSU) 7<sup>th</sup> International Symposium on Aviation Psychology. This issue contains two more: “*Emergency 911—The Story of EMS Helicopter Operations*,” and “*Lost Com*,” an investigation of the factors involved in loss of communication. We also have an excellent examination of jet blast problems, and, for the second time, a review of ASRS Database Statistics. Don’t forget—we like to hear from you; if you have suggestions or comments, kindly drop us a line. Here are the articles in this issue:

**Ground JET BLAST Hazard** by Rowena Morrison ..... **4**

Rowena Morrison, Editor of ASRS’ award-winning **CALLBACK** publication, takes a look at ground jet blast hazards. Although the aviation industry has made great strides in reducing these hazards, Rowena finds that jet blast remains a safety concern. Read along as she takes a fresh look at ground jet blast hazards and passes along some time-tested and new suggestions for dealing with the problem.



**Emergency 911—EMS Helicopter Operations** by Linda Connell and Marcia Patten ..... **12**

Do you, or someone you know, owe your lives to the pilots and medical team of an Emergency Medical Service (EMS) helicopter crew? The pressures that EMS crews face, and the conditions under which they must operate, are examined in this excellent adaptation of the paper presented at OSU by Linda Connell. Even if you fly a 747, you will have a heightened appreciation of the men and women in EMS operations the next time that you hear the callsign “Lifeguard” on the radio.



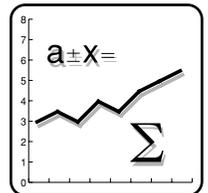
**Lost Com** by Charles Drew, Andrew Scott, and Bob Matchette ..... **19**

Ever since we started relying on radios for communication and control in aviation, we have had loss-of-communication problems. This article examines the how and why of loss-of-communication events, then takes a further look at why there is often a delay in pilot recognition in lost com. The article sums up with some advice from our pilot and controller analyst staff on how to prevent, or recover from “*Lost Com*.”



**ASRS Database Statistical Information** compiled by Loren Rosenthal ..... **26**

We first published a summary of ASRS Database statistics in Issue Number 4 of **ASRS Directline** (June 1993). Here is an updated version that includes data through the end of 1993; we intend to provide these data on a yearly basis. Who reports to the ASRS, and what kind of events are they experiencing? After you take a look at this section, drop us a line and let us know how you use this information, and what statistical data you might like to see in future issues.



You are encouraged to reproduce and redistribute any of the articles and information contained in **ASRS Directline**. We do ask that you give credit to the authors of each article and, of course, to the ASRS. Comments or questions about **Directline** may be directed to the ASRS at P.O. Box 189, Moffett Field, CA 94035-0189.

..... **Charles Drew, ASRS Directline Editor**

# Emergency 911 EMS Helicopter Operations

by  
Linda Connell  
and  
Marcia Patten



“**W**e were on an air ambulance

flight...picked up a team of organ removal surgeons in XYZ...and flew them to ABC to remove the heart from a donor. The weather was clear and forecast to remain so. We understood... [that] the heart has a very short lifetime between removal from the donor and installation in the recipient, so when the recovery team arrived back at the ABC airport it would be necessary to expedite as much as possible...The F/O...[and I] readied the aircraft for the return leg and then went into the FBO to wait...Shortly before the medical team’s departure from the airport...the fog began to roll into the area. Upon [their] arrival, the visibility was down to 4000 RVR...[but] our operations specifications call for minimum 5000 RVR for departure. I felt it was necessary to depart below minimums based on our medical emergency...I felt the decision to depart below minimums was the only one available to me under the circumstances. If we had waited for improved visibility, the heart would have been ruined, and the receiving patient may have died.” (ACN 221023)

## Welcome to EMS Operations

The flight described above is hardly the sort a pilot wants to face everyday. Fortunately, most helicopter Emergency Medical Service (EMS) calls are not nearly so dramatic. However, the operational aspects of EMS calls can be the ultimate test of a helicopter pilot’s skills. The “scene” calls that may have contributed to the victim’s injuries—a vehicle accident, a near-drowning or serious fall at a rocky beach, a backwoods hunting accident, or an aircraft forced-landing in mountainous terrain—also contribute to the risk associated with the EMS flight. Yet these are precisely the situations in which a helicopter may be the most expeditious, or even the only, means of getting medical assistance to the victim and getting the victim to a medical facility.

The first hour following a serious injury is the most time-critical period, during which the patient mortality rate can be reduced by as much as 50 percent if immediate and appropriate medical care can be provided. The benefits of immediate treatment by medical personnel at an on-scene emergency and rapid transport of the patient, especially within this “golden hour,” have been well-documented. Hospitals and medical centers have recognized the value of pairing medical crews and helicopters for reaching critically-injured or seriously-ill patients. As a result, the number of hospital helicopter programs has increased dramatically over the last ten to fifteen years.



During the years 1978-1986, this increased use of helicopters for emergency medical and air ambulance services came at a high price. In a study of 59 EMS accidents during this period, the NTSB found that the accident rates for EMS helicopter operations were approximately 3.5 times higher than for other non-scheduled Part 135 Air Taxi helicopter operations. Human error, directly or indirectly, was attributed as the cause of the majority of these accidents. To the credit of the EMS industry, these accident rates decreased significantly following the NTSB report and recommendations.

A recent study undertaken by NASA and the Aviation Safety Reporting System (ASRS) looked at 81 incident reports submitted from 1986 to 1991 involving EMS helicopters. The purpose was to identify and describe the operational aspects of these incidents, and to assess the contribution of human factors to these occurrences.

This article will focus on the human factors most commonly cited: communication interactions, time pressure, distraction, and workload.

### Can We Talk...?

Communication and information transfer difficulties were pervasive, and repeatedly emerged as a major contributor to the chain of events leading to the reported incident (78 percent). The most common difficulties were reported as miscommunication during pilot contact with ATC and unsuccessful attempts by a pilot to contact ATC. Further, pilot communications with other pilots, hospital dispatchers, and ground personnel (i.e., police, firefighters, paramedics, park rangers, etc.) were also cited as additional interactions which sometimes interfered with ATC communication:

✍️ “I was coordinating with dispatcher, medic command (flight following/status reports), and emergency vehicle on scene, and broadcasting position reports and intentions on Unicom. Approach advised (me) that I entered his airspace and did not properly coordinate with his controller... I was working four frequencies and receiving conflicting coordinates from the ground while searching for the landing zone.” (ACN 181754)

Communications problems played a major role in reports of both airspace violations and near mid-air collisions (NMACs), which occurred most frequently in Class D airspace during early- to mid-afternoon (1201-1800 hours). This is a reflection of the complex, controlled-airspace environment found in the areas that can support major medical centers, and also the time of day when air traffic is generally heavy and inter-facility patient transfers are most likely to take place.

In 50 percent of airspace violations and 59 percent of NMACs, the EMS pilot was in radio communication with at least one ATC facility at the time of the incident. Frequency congestion, misunderstanding of ATC instructions or clearances, busy ATC personnel, and lack of common understanding of the “Lifeguard” call sign priority were cited as problems affecting the information transfer process, and contributing to the reported incident. (See sidebar).

Airspace violations frequently occurred during the take-off phase of flight and were often due to poor radio reception or transmission associated with the low altitudes used by helicopters. In some instances, poor radio communications were attributed to landing sites surrounded by obstructions, usually the hospital or other buildings:

✍️ “After takeoff from local hospital, which is out of radio contact with Tower but near their control zone, (I attempted to contact Tower). By the time contact was made, the airspace had been entered. A procedure needs to be established for helicopter operators to take off from areas within an ARSA where radio contact is not possible until after takeoff.” (ACN 126017)

✍️ “I was unable to contact Tower or Approach from the hospital helipad. It [helipad] is down in a hole surrounded by buildings. I departed without clearance into ARSA/Control Zone and immediately contacted Approach...He told me to stay clear of the ARSA until radar contact (had been) established. The problem is that I was already in the ARSA/Control Zone on the pad at the hospital.” (ACN 142201)

NMACs occurred frequently in airspace that requires radio communication, specifically, in Class B, C, and D airspace. However, many NMACs were also reported in uncontrolled (Class G) airspace. Helicopters often fly in uncontrolled airspace, usually at low altitude. Several reporters indicated that due to frequent communication problems and delays encountered in Class B, C, and D airspace, they, and apparently many other small GA aircraft (which were usually the other parties in the reported NMACs), remained low-level in uncontrolled airspace, not talking to ATC.

The NTSB found that in-flight encounters with weather at low altitude were the single most common factor in fatal EMS accidents, with most accidents occurring at night. All 15 in-flight weather-related accidents occurred at low-altitude and in uncontrolled airspace, and 10 of those occurred at cruise speed. In the ASRS study, in-flight weather encounters were cited in 14 percent of the reports. Pre-flight weather briefings had been obtained in 80 percent of these incidents, but 75 percent of the briefings did not match the actual weather conditions the pilots encountered. The captain of a 2-pilot crew, both IFR-rated and current, flying an IFR-certified aircraft, described, the potential hazards of inaccurate weather forecasts:

✍️ “The biggest safety problem I see is lack of accurate weather forecasting from a facility with weather reporting. This is the third time I have been inbound with a patient and have been caught by unforecast weather conditions—not just a little off, but all the way from VFR to low IFR. The last time this happened they reported clear and 10 (miles visibility) when in fact they were 300 (ft ceiling) and 1/2 (mile visibility), and went to 0-0 within an hour. Unexpected IFR or IMC can cause confusion and possibly even an accident with an experienced crew, much less an inexperienced pilot in a VFR small aircraft.” (ACN 138253)

### Time Trap

Time pressure was cited as a frequent contributor to incidents—the patient’s critical condition led to a sense of urgency about the flight, which often resulted in inadequate pre-flight planning. Reporters cited such oversights as not stopping for refueling; failure to obtain or review correct charts; overflying scheduled aircraft maintenance; inadequate or less-than-thorough weather briefings; and inadequate evaluation of weather briefings preceding the go/no-go decision. Patient criticality was reported as a major contributor to time pressure in 44 percent of the reports. Time pressure associated with the patient’s condition seemed to be present regardless of whether the patient was already on-board the aircraft or the pilot was en-route for patient pick-up.

Recommendations have been made to try to isolate the EMS pilot from the overall medical situation and the patient’s condition. However, the pilot is well-aware that his or her services would not have been requested unless a serious medical situation existed. It is a normal human emotion to respond to an emergency. Given the sense of urgency that seems to be inherent in an EMS operation, and the potential for both verbal and non-verbal expressions of the necessity for speed, that attempt at isolation may be unrealistic or impossible to achieve. In numerous reports of airspace violations and inadvertent IMC encounters, pilots belatedly recognized their lack of separation from the medical circumstances.

✍️ “[This is] another exercise in getting involved in the medical situation at the scene and how it can affect a pilot’s judgment. We can never let the medical necessity override our good judgment and prevent us from being safe.” (ACN 141232)

✍️ “I was involved in patient care when I should have been totally involved in flying.” (ACN 146594)

✍️ “...High risk delivery, mother in distress. I allowed patient’s condition to influence my decisions. Got above layer, had to descend IFR in a non-certified but well-equipped aircraft.” (ACN 58837)



In crystal-clear 20/20 hindsight, many pilots seem to have come to similar conclusions:

✍️ “Pilots, especially those in my line of work, should never let the circumstances around them dictate the way they would normally fly. If a flight has to be delayed in order to safely fly that mission, then so be it. No flight is so important that the lives of the flight crew should be jeopardized due to incomplete or inaccurate pre-flight planning.” (ACN 100727)

✍️ “...Quick EMS helicopter responses, numerous interruptions during start-up, added pressure of a dying person, causing pilot to make emotional decisions instead of safe ones and the pilot allowing this to happen. Most likely a pilot would not fly unless under excessive pressure to do so— not by anyone (else), but self-imposed.” (ACN 118240)

### **Distraction**

Distraction from the primary task of flying the aircraft was reported in many incidents. Distraction was often cited in terms of external influences—noise interference from medical equipment, aircraft equipment problems or malfunctions, traffic avoidance in high-density traffic areas, interruptions, monitoring of multiple radio frequencies, radio frequency congestion, poor visibility, marginal weather, and impending low-fuel situation. There were also a number of internal sources of distraction, including personal and family concerns, lack of familiarity with the area, involvement in patient condition, confusion about procedure, and misunderstandings about duty delegation.

### **Up to Your Empennage in Alligators**

Workload as such was not cited as a major contributor to EMS incidents. However, workload is a complex concept and is subject to a variety of influences that can lead to activity overload, shedding of tasks, fatigue, and ultimately to incidents such as those reported. An unexpected finding was that cruise flight, when cockpit activity might be expected to be low, appeared to be a magnet for EMS safety incidents. Both airspace violations and NMACs were reported as most frequently occurring in cruise flight and in VFR weather. In-flight weather encounters were also reported as occurring most often in cruise flight. Although cruise is not usually a time of intense aircraft-handling activity (as might be during takeoff or approach), it is a time when the EMS pilot might be attending to tasks inside the cockpit—providing position reports to dispatch, coordi-

nating with the medical center, programming nav aids, or communicating with other EMS personnel—rather than specifically watching for conflicting traffic, a cloud layer, or airspace boundaries.

Aircraft equipment can also play a vital role in pilot workload. Although many EMS helicopters are not IFR-certified, most come very well-equipped. This is a double-edged sword for many pilots. The abundance and quality of equipment provides a level of confidence about the pilot's ability to handle inadvertent IMC. However, the complexity of some modern IFR-equipped aircraft can require more than one set of hands and eyes to be used to maximum advantage. A few EMS helicopters are equipped with autopilots. Even 2-pilot crews who might comfortably handle such a well-equipped aircraft may find themselves defeated in legally completing their missions because their aircraft is not IFR-certified.

✍️ “It is frustrating to have an aircraft that is so well equipped with twin engine reliability and can't even legally depart to VFR on top or to make a simple ILS or LOC/DME approach to conservative minimums.” (ACN 58837)

Several accounts indicated that having an IFR rating with currency and following pre-arranged procedures can be literal lifesavers when encountering inadvertent IMC. One fortunate reporter had everything in his favor when he encountered unforeseen weather conditions.

✍️ “On climbout, I lost all ground references at 400 feet....Landed in farm field about 1/2 mile from airport. Although fully equipped, aircraft was not IFR certified. This situation had been previously addressed and rehearsed. An instrument rating, planning for inadvertent IFR, and current approach plates kept a bad situation from ending in disaster.” (ACN 169746)

### Summary and Recommendations

Many of the human factors considerations cited in the EMS incident reports are known to have a significant impact in other aviation environments, and are ongoing topics of human factors research. The pilots themselves recognized some of these considerations and often had suggestions for resolving the problems they encountered.

- There appears to be a need for more concise, less frequent communication between EMS pilots and ATC. Some pilots have recommended that EMS aircraft be assigned discrete transponder codes while operating in airspace requiring ATC communication. In theory, this would allow a pilot to make the initial ATC contact and state his or her intentions, then be tracked on radar with minimal additional radio calls. Other pilots seem to feel that standardization of the “Lifeguard” callsign (see sidebar on “Priority Handling” and “Lifeguard”) would go a long way in facilitating EMS flights through some types of airspace. One approach might be for EMS pilots to arrange a friendly discussion with the Tower supervisors in the areas where Lifeguard flights frequently occur. This might provide a mutual understanding of the responsibilities and expectations of both pilots and controllers in Lifeguard radio communications. Another recommendation is to obtain Letters of Agreement (LOAs) with the local ATC facilities most frequently contacted. Many pilots find that an LOA can define routes, altitudes, reporting points, and other operational information that helps to streamline the communication process for both pilots and controllers. This can be especially helpful when a hospital helipad is located within controlled airspace.
- Associated with improvements in ATC communication are improvements in crew communication. Crew Resource Management (CRM) is not just for major airlines or big companies. Clear, assertive communications among all EMS team members—pilots, flight nurses, paramedics, doctors, administrators, dispatchers, and on-scene personnel—are vital if the EMS flight team is to perform its duties efficiently and successfully.
- Another aspect of CRM and Aeronautical Decision Making (ADM) is the concept of task management and delegation. Many incidents were reported as occurring when and where they were least expected—in day VFR, during cruise flight. In two-pilot operations, tasks need to be delegated such that one pilot is always “outside” the aircraft, looking for that potential NMAC or IMC encounter. In single-pilot operations, on-board personnel may need to take an active role in all phases of the EMS operation.
- A recommendation that is often repeated by both EMS pilots and human factors researchers is the need for the pilot to be isolated as much as possible from the patient’s condition. There have been many attempts to do this, and the situation continues to improve. Pilots are rarely greeted anymore with a heart-wrenching request to “save a dying child.” Typically, the question is simply put to the pilot: “Can we get there and back?” with no mention made as to the nature of the emergency or the patient’s condition. This helps remove some of the emotional pressure, and encourage the pilot to make an objective decision about whether the flight can reasonably be completed safely.
- Finally, many of the pilot reporters indicated that an instrument rating and currency were very helpful, if not invaluable, in encounters with unforecast weather. Since most EMS helicopters are IFR-equipped even if they are not IFR-certified, an instrument rating and currency at least provide a pilot with options in case of an in-flight weather encounter.

All efforts need to proceed towards developing solutions and preventive mechanisms within the National Airspace System and the EMS team. Each individual involved in these important emergency operations needs to become a part of the larger effort to improve communication, decrease distraction, decrease time pressure to realistic levels, and assist in workload management.

# Lifeguard & Priority Handling



In our survey of the 81 EMS incidents reported to the ASRS, it became evident that “Lifeguard” and “Priority Handling” are phrases in need of clarification. Some EMS pilots seem unclear about the degree of preferential treatment provided by the “Lifeguard” call sign and how this situation compares to “Priority Handling.” Similarly, some controllers seem unaware of pilots’ operational expectations when “Lifeguard” is used. An ASRS report illustrates the expectation by a pilot that “Lifeguard” call sign will provide immediate priority, and also suggests that the controller had difficulty prioritizing this “Lifeguard” flight:

✎ “When requesting departure clearance and using ‘Lifeguard’ call sign, the controller ignored my transmissions for nearly 4 minutes. I could have departed safely and expeditiously in several directions completely away from the flow of fixed wing traffic.” (ACN 159931)

## FAA Air Traffic Control Handbook

The FAA Air Traffic Control handbook, Order 7110.65J, provides for “operational priority” for civilian air ambulance flights. It states in paragraph 2-4, Operational Priority:

“Provide air traffic control service to aircraft on a ‘first come, first served’ basis as circumstance permit, except the following...

a.) Provide priority to civilian air ambulance flight (LIFEGUARD). When verbally requested, provide priority to military air evacuation flight (AIR EVAC, MED EVAC) and scheduled air carrier/air taxi flight. Assist the pilot of air ambulance/evacuation aircraft to avoid areas of significant weather and turbulence conditions. When requested by a pilot, provide notifications to expedite ground handling or patients, vital organs, or urgently needed medical materials. 2-4a) Note—Air carrier/taxi usage of “LIFEGUARD” call sign, indicates that operational priority is requested.”

## Airman’s Information Manual

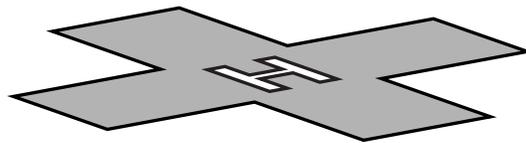
In contrast, the *Airman’s Information Manual* offers no guidance as to the nature or degree of “priority” afforded the “Lifeguard” flight. This lack of information, and the possibility of variable controller interpretations of FAA Order 7110.65J when faced with different situations, may create unrealistic expectations for both pilots and controllers.

## FAA Air Traffic Procedures Division

In a response to an inquiry from ASRS, the FAA Air Traffic Procedures Division offered the following expanded interpretation of “Lifeguard” and “Priority Handling” terminology.

“The use of the term ‘Lifeguard’...provide[s] priority...Even the expeditious movement of Presidential aircraft or other special air operations are listed behind air ambulance priority in Order 7110.65...”

# Lifeguard & Priority Handling



“It is a fine line between normal operations and emergency operations, both for the medical personnel as well as for the controllers. While an emergency in the air traffic control world generally means that an aircraft (and therefore its occupants) are endangered, this distinction blurs significantly in air ambulance operations, in which the aircraft is fine but the occupant(s) may be endangered.

“Order 7110.65 requires the controller to “...give first priority to separating aircraft and issuing safety alerts as required in this order. Good judgment shall be used in prioritizing all other provision of this order...In conjunction with paragraph 2-4, therefore, any aircraft that identifies itself as a ‘Lifeguard’ flight...will and in fact, does, receive a very high priority in the air traffic system.”

“Lifeguard” can be confused with another commonly used aviation term, “Priority Handling,” which is further explained by FAA Air Traffic Procedures Division:

“The term and usage of ‘Lifeguard’ must be contrasted sharply with the term and usage of ‘Priority Handling.’ ‘Priority Handling’ means that the pilot requests priority handling, and has no other connotation. Unless the pilot further specifies or clarifies that request, it means nothing more than any other request...Given the ambiguity inherent in the term ‘priority handling’ and with no other indication or rationale for the request, it is unlikely that the controller would provide service reserved for air ambulance flights.

“Good communications between pilot and controller provides a safer and more efficient operation for all concerned. Awareness of an emergency or near-emergency situation provides the latitude for both the pilot and controller to effectively perform the task at hand...Controllers share with emergency medical personnel a high degree of awareness of the value of human life: it is a natural alliance.”

The following table summarizes the information provided concerning the terms “Lifeguard” and “Priority Handling”:

## Lifeguard

- Is indicated by including the term “Lifeguard” in the aircraft call sign (e.g., “Lifeguard Medic Flight 246”).\*
- Indicates that *human life is endangered* to some degree, regardless of other wording in the aircraft call sign.
- Air ambulance aircraft will receive very high priority when they are identified in the air traffic system.

## Priority Handling

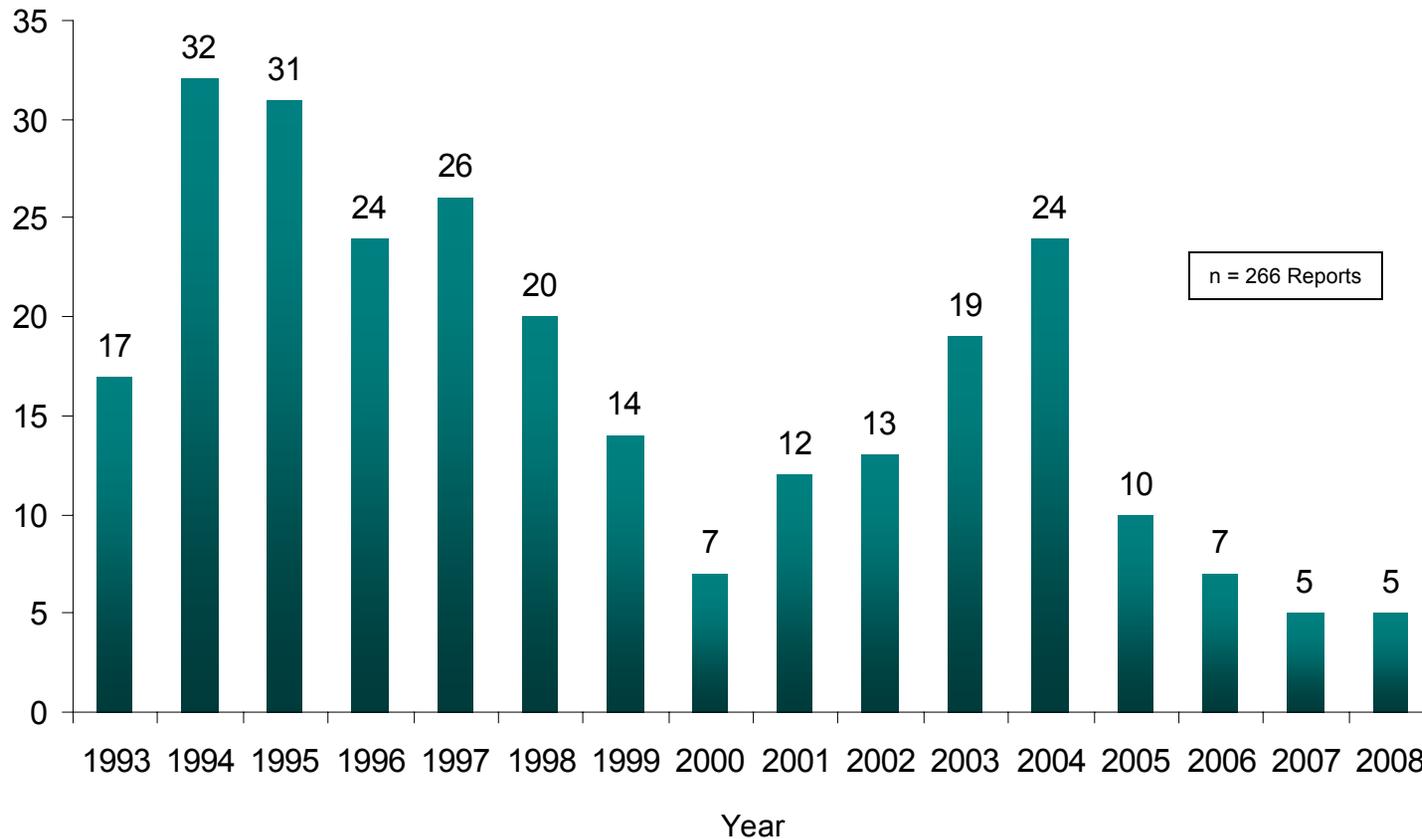
- Is a request, usually following the aircraft call sign (e.g., “Medic Flight 246, requesting priority handling”).
- Is treated like any other request until the pilot states the reason for the priority, at which time the controller can provide appropriate assistance.
- Is not, in itself, justification for an aircraft to receive special handling from the air traffic system.

\*As noted by the FAA Procedures Division, “In many locations the actual call sign of air ambulance aircraft can vary widely. Examples are ‘DUSTOFF,’ ‘LIFE FLIGHT,’ or ‘MEDIC’ and often with an associated number such as ‘Dustoff one.’ These kinds of call signs and air ambulance operations are normally accompanied by excellent communication between the operators and air traffic control, both in the form of recurrent visits/briefings, and Letters of Agreement.”

**EMS Helicopter Reports (266)**  
**Data Charts**  
January 1993 – December 2008

# EMS Helicopter Reports – Year Break

January 1993 to December 2008



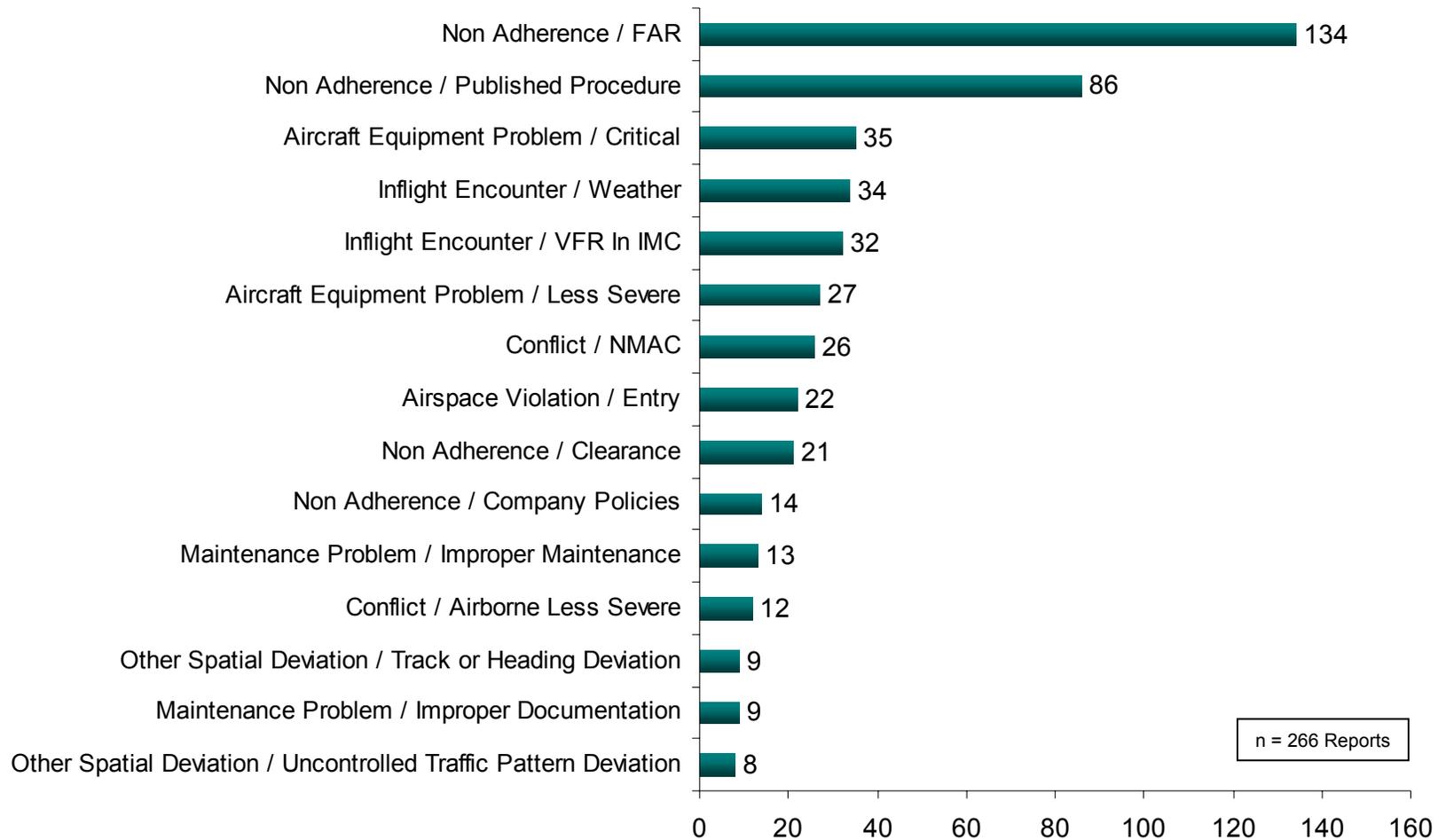
Data references ASRS reports that have received full-form analysis and include the reporters' narrative.



Source: NASA Aviation Safety Reporting System

# EMS Helicopter Reports – Top 15 Reported Anomalies

January 1993 to December 2008



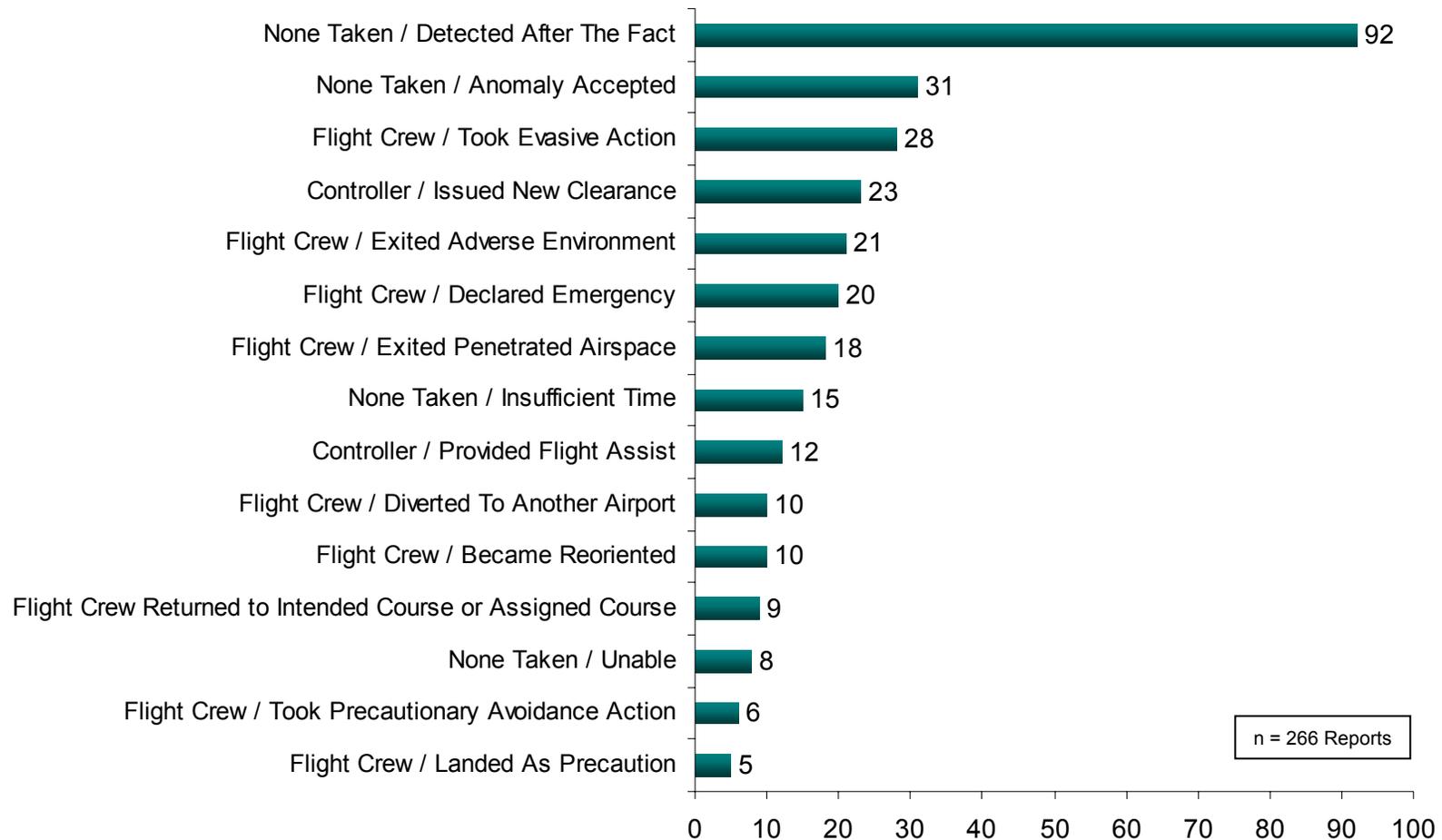
Categories are not mutually exclusive. Therefore, a single incident may be coded by ASRS analysts as involving more than one anomaly. Data references ASRS reports that have received full-form analysis and include the reporters' narrative.



Source: NASA Aviation Safety Reporting System

# EMS Helicopter Reports – Top 15 Anomaly Resolutions

January 1993 to December 2008



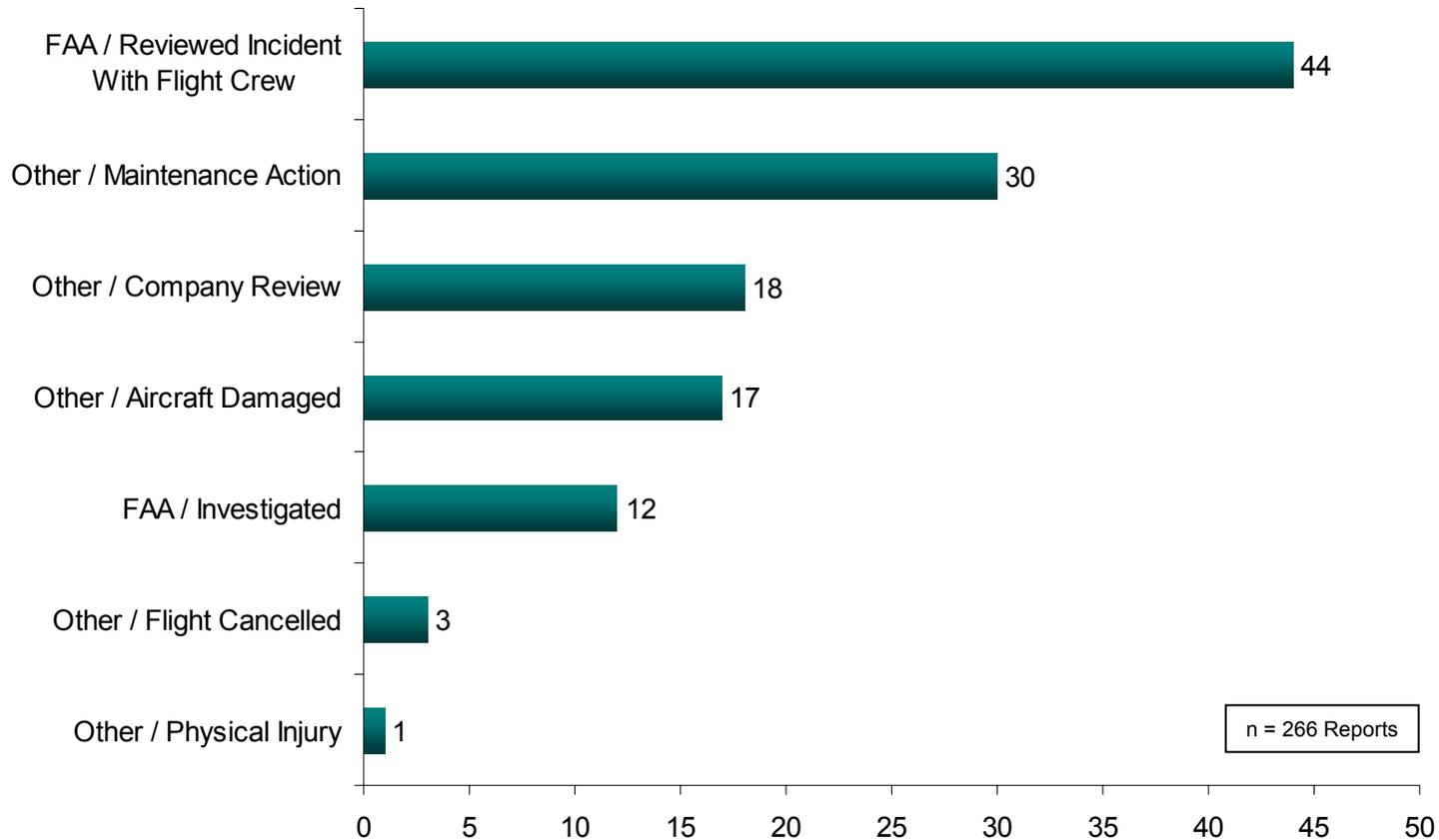
Categories are not mutually exclusive. Therefore, a single incident may be coded by ASRS analysts as involving more than one resolution. Data references ASRS reports that have received full-form analysis and include the reporters' narrative.



Source: NASA Aviation Safety Reporting System

# EMS Helicopter Reports – Anomaly Consequence

January 1993 to December 2008



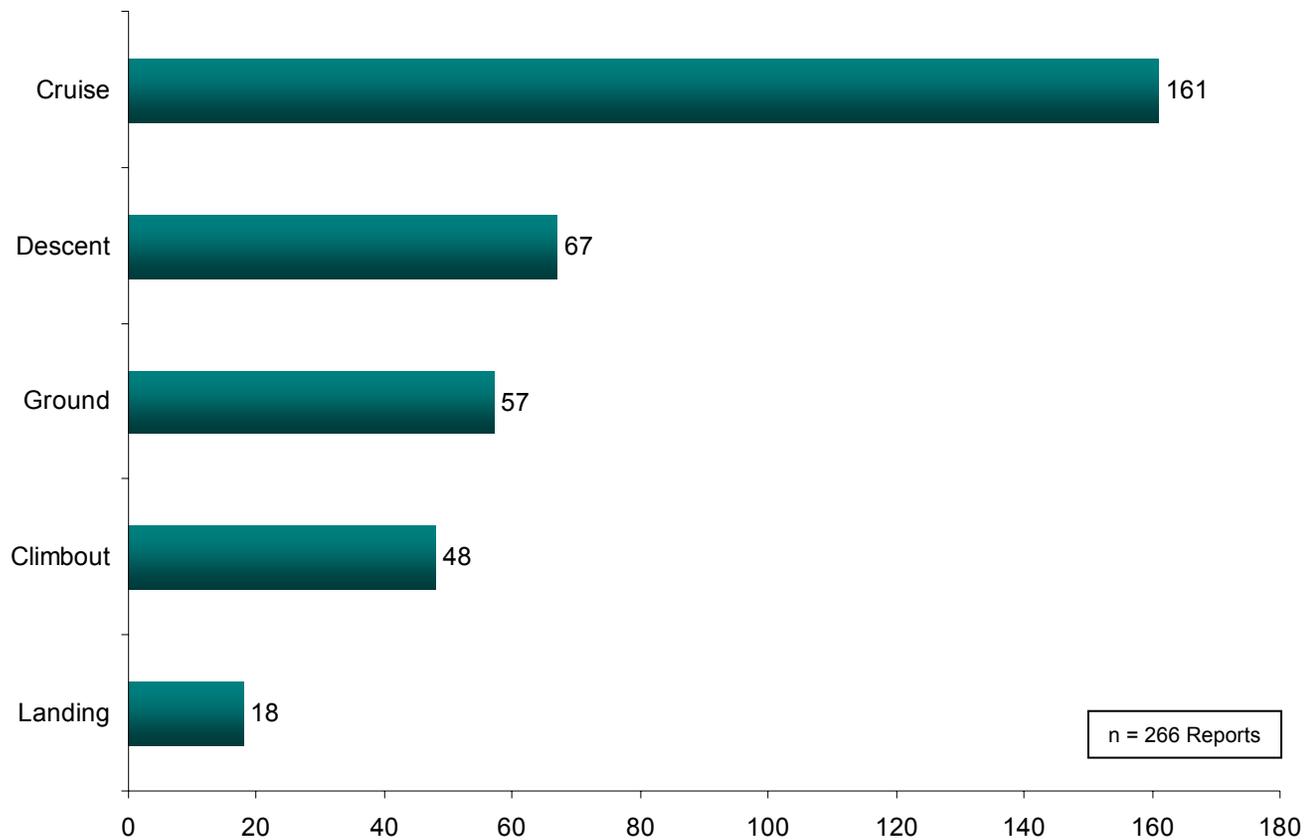
Categories are not mutually exclusive. Therefore, a single incident may be coded by ASRS analysts as involving more than one consequence. Data references ASRS reports that have received full-form analysis and include the reporters' narrative.



Source: NASA Aviation Safety Reporting System

# EMS Helicopter Reports – Flight Phase

January 1993 to December 2008



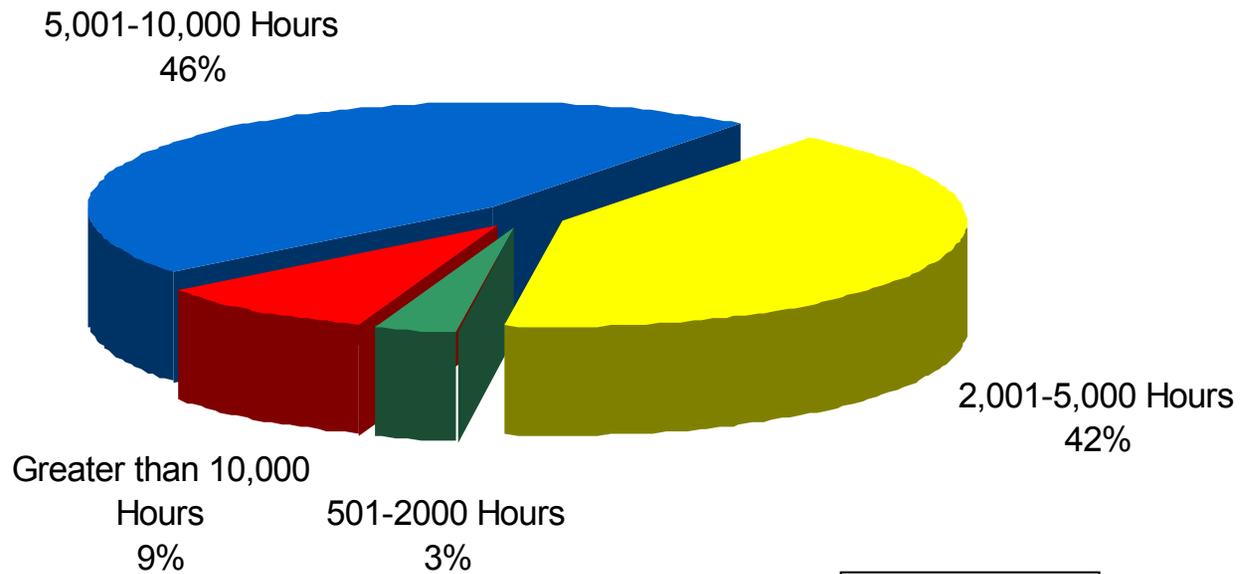
Categories are not mutually exclusive. Therefore, a single incident may be coded by ASRS analysts as involving more than one flight of phase. Data references ASRS reports that have received full-form analysis and include the reporters' narrative.



Source: NASA Aviation Safety Reporting System

# EMS Helicopter Reports – Total Flight Time

January 1993 to December 2008



n = 244 of 266 Reports



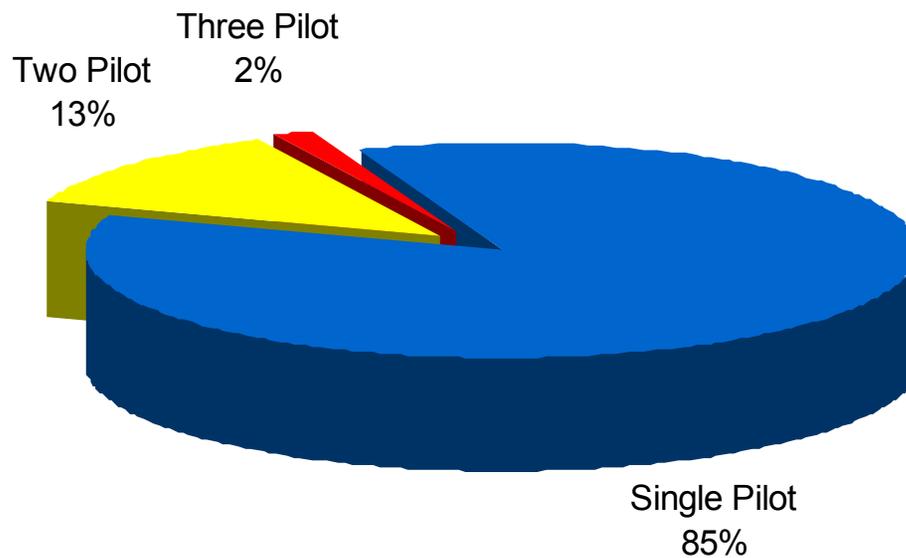
Data references ASRS reports that have received full-form analysis and include the reporters' narrative.



Source: NASA Aviation Safety Reporting System

# EMS Helicopter Reports – Crew Size

January 1993 to December 2008



n = 253 of 266 Reports



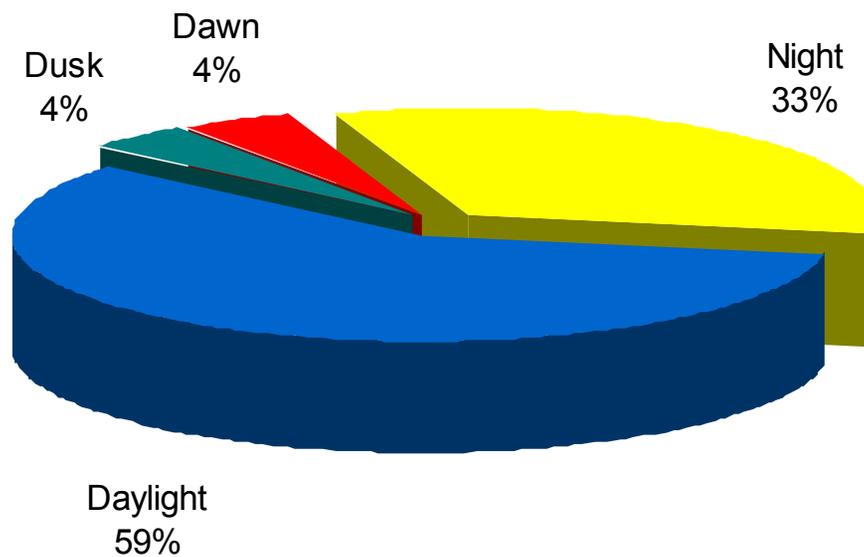
Data references ASRS reports that have received full-form analysis and include the reporters' narrative.



Source: NASA Aviation Safety Reporting System

# EMS Helicopter Reports – Lighting Conditions

January 1993 to December 2008



n = 247 of 266 Reports



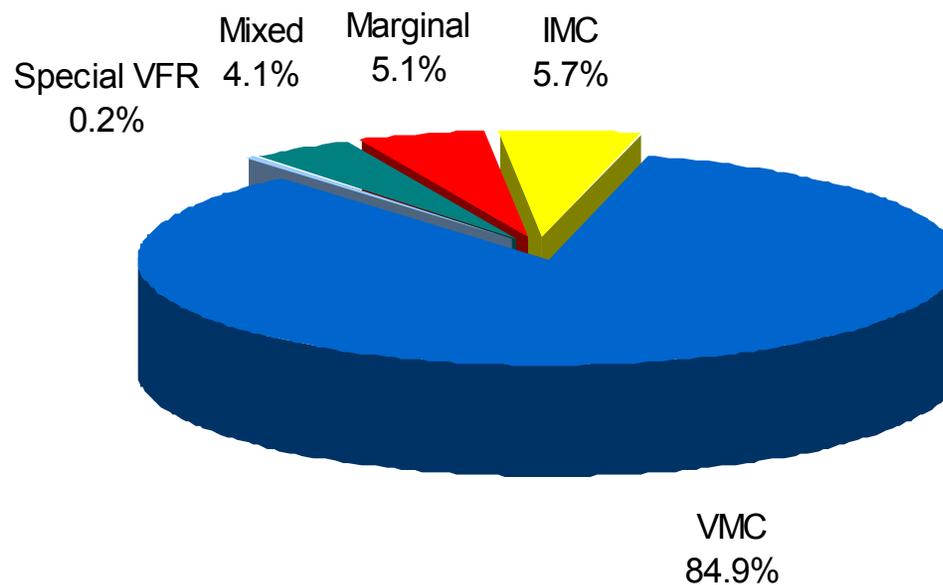
Data references ASRS reports that have received full-form analysis and include the reporters' narrative.



Source: NASA Aviation Safety Reporting System

# EMS Helicopter Reports – Flight Conditions

January 1993 to December 2008



n = 240 of 266 Reports



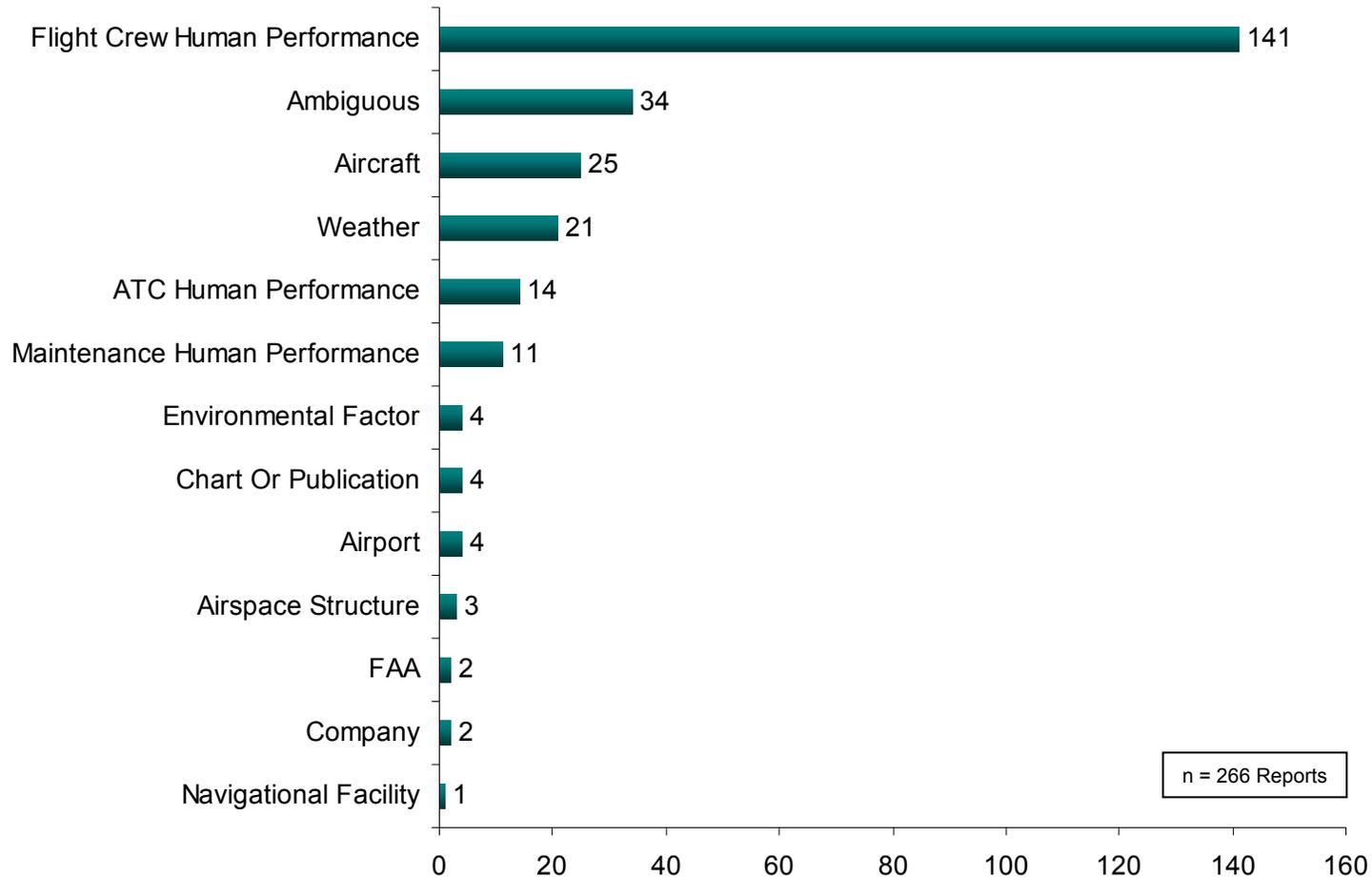
Data references ASRS reports that have received full-form analysis and include the reporters' narrative.



Source: NASA Aviation Safety Reporting System

# EMS Helicopter Reports – Primary Problem

January 1993 to December 2008



Data references ASRS reports that have received full-form analysis and include the reporters' narrative.



Source: NASA Aviation Safety Reporting System

# Sampling of EMS Helicopter Reports (25 Recent Reports)

# **Report Synopses**

**ACN: 814866** (1 of 25)

**Synopsis**

ALTHOUGH SPECIFICALLY REQUESTED, FSS BRIEFER FAILS TO PROVIDE RELEVANT NOTAMS FOR HELI PILOT'S IFR DESTINATION AIRPORT.

**ACN: 798655** (2 of 25)

**Synopsis**

MECHANIC WORKING FOR AN EMERGENCY MEDIVAC SERVICE (EMS) OPERATOR, IS INFORMED THE MBB-B0-105 HELICOPTER HE SERVICED REQUIRED AN EMERGENCY LANDING. SHOP RAG WAS FOUND INGESTED IN #1 ENG INTAKE AND COMPRESSOR.

**ACN: 798017** (3 of 25)

**Synopsis**

AN EMS HELICOPTER PILOT REPORTS HOSPITALS DESIGNATING AIR-TO-GND CTAF FREQ 123.050 INSTEAD OF USING THE FAA DESIGNATED AIR-TO-AIR 123.025 FOR GA HELICOPTERS.

**ACN: 786773** (4 of 25)

**Synopsis**

MECHANICS WORKING FOR AN FBO MAINT FACILITY, INFORM ONE OF THEIR PILOTS OF BEING PRESSURED BY THEIR SUPERVISOR TO INSTALL A GENERATOR ON THEIR HELICOPTER WITHOUT AN APPROVED PART NUMBER.

**ACN: 785747** (5 of 25)

**Synopsis**

BELL 206 DRIFTED INTO TFR. CONTACT WITH APCH CONTROL HAD BEEN ATTEMPTED, BUT THE PLT LATER REALIZED THAT THE RADIO WAS INOP.

**ACN: 760191** (6 of 25)

**Synopsis**

A109 PLT WAS FLYING AT NIGHT IN DETERIORATING WX. CEILINGS BECAME LOWER AND PLT DECLARED EMER TO CLIMB THROUGH OVERCAST AND OBTAIN VFR ON TOP CLRNC.

**ACN: 754875** (7 of 25)

**Synopsis**

AS 350 PLT WAS MAKING A CONTROLLED, OFF-ARPT LNDG WHEN THE TAIL ROTOR PULLED AN OBJECT INTO THE ROTOR ASSEMBLY, CAUSING ROTOR DAMAGE.

**ACN: 752926** (8 of 25)

**Synopsis**

AN A109 HELI PLT, FLYING VFR, EXPERIENCES NMAC WITH ANOTHER AIRCRAFT.

**ACN: 748135** (9 of 25)

**Synopsis**

BELL 430 INSTRUCTOR RPTS ROTOR DAMAGE AFTER SIMULATED ENG OUT LNDG WHEN CYCLIC IS RELEASED WITH AUTOPLT ENGAGED.

**ACN: 728043** (10 of 25)

**Synopsis**

A HELICOPTER AIR AMBULANCE DESCENDED AND STRUCK THE GND IN VMC WITH LIGHT FOG. NO DAMAGE TO ACFT BUT THE PILOT DID NOT HEAR ALERTING RADIO ALTIMETER.

**ACN: 706701** (11 of 25)

**Synopsis**

A109 PLT RPTS MISUNDERSTANDING WITH ZZZ TWR CTLR WHILE TRANSITING ZZZ1 CLASS B AIRSPACE.

**ACN: 701930** (12 of 25)

**Synopsis**

AGUSTA 109 PLT FLIES BELOW FAR REQUIRED CLRNC ALT IN MOUNTAINOUS AREA.

**ACN: 698926** (13 of 25)

**Synopsis**

SA365 DAUPHIN PLT HAS AN NMAC.

**ACN: 696327** (14 of 25)

**Synopsis**

EMS HELI PLT, WHILE MONITORING TWR FREQ AT HIS DEST, HEARS ANOTHER PLT INQUIRE 'IS THE TFR ACTIVE?' RPTR WAS CONFUSED AS TO WHAT TFR IS ACTIVE AS HE CHKED ALL THE NOTAMS AND RECEIVED A BRIEF PRIOR TO DEPARTING FOR THE FLT AND NO TFR'S WERE BRIEFED.

**ACN: 695596** (15 of 25)

**Synopsis**

AN AS350-B2 HELICOPTER ENGINE WAS OPERATED 1% IN EXCEEDANCE OF THE ENGINE OPERATING MANUAL. DOCUMENTATION TO ALLOW OPERATION NOT DELIVERED BY THE MANUFACTURER.

**ACN: 694733** (16 of 25)

**Synopsis**

AN AS350B2 RETURNED TO THE BASE DUE TO AN ENG BLEED VALVE FAILING TO CLOSE. FOUND A LOOSE B NUT ON THE BLEED VALVE AIRLINE.

**ACN: 683642** (17 of 25)

**Synopsis**

2 HELIS LNDG AT A DOWNTOWN HELIPORT EXPERIENCE NMAC.

**ACN: 678136** (18 of 25)

**Synopsis**

AN EMS HELI PLT RPTS LNDG IN CLOSE PROX TO VEHICLES AT AN AUTO ACCIDENT SCENE AFTER FAILING TO LOCATE THE CORRECT LNDG SITE.

**ACN: 674908** (19 of 25)

**Synopsis**

THE PLT OF AN EMS VFR HELI EXPERIENCED IMC CONDITIONS AND REQUESTED VECTORS ABOVE THE CLOUD DECK TO VMC.

**ACN: 671298** (20 of 25)

**Synopsis**

EMS HELI PLT FORCED TO ENTER STADIUM TFR WITHOUT CONTACTING APPROPRIATE ATC CTL.

**ACN: 659595** (21 of 25)

**Synopsis**

HELI PLT VFR ENRTE TO ZZZ INADVERTENTLY ENTERS IMC. DECLARED EMER, OBTAINS IFR CLRNC UNTIL ONCE AGAIN IN VMC AND CONTINUES TO DEST.

**ACN: 651217** (22 of 25)

**Synopsis**

A HELI NOT IFR CERTIFIED AND A PLT NOT INST CURRENT ENCOUNTERED IMC, DECLARED AN EMER AND RECEIVED VECTORS FOR AN ILS AT ANOTHER ARPT.

**ACN: 650855** (23 of 25)

**Synopsis**

A B407 HELI PLT FORGOT TO SECURE THE FUEL CAP.

**ACN: 643648** *(24 of 25)*

**Synopsis**

A BK117 HELI HAD A TIME LIMITED PART EXCEED OVERHAUL TIME BY 67 HRS. CONTRIBUTING FACTORS CITED INCLUDE MANPOWER SHORTAGE AND CHANGE IN RECORD KEEPING PERSONNEL.

**ACN: 642919** *(25 of 25)*

**Synopsis**

A MEDICAL TRANSPORT HELI BECAME IMC ON A VFR FLT PLAN AND CONTINUED TO HIS DEST.

# **Report Narratives**

**ACN: 814866**

## Time / Day

Date : 200812  
Local Time Of Day : 0001 To 0600

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US

## Environment

Flight Conditions : VMC  
Light : Night

## Aircraft : 1

Operator.Common Carrier : Air Taxi  
Make Model Name : Jet Ranger Undifferentiated or Other Model  
Operating Under FAR Part : Part 135  
Mission : Ambulance  
Flight Phase.Descent : Approach

## Person : 1

Affiliation.Company : Air Taxi  
Function.Flight Crew : Captain  
Function.Oversight : PIC  
Qualification.Pilot : ATP  
Experience.Flight Time.Last 90 Days : 85  
Experience.Flight Time.Total : 6350  
Experience.Flight Time.Type : 800  
ASRS Report : 814866

## Events

Anomaly.Non Adherence : Published Procedure  
Anomaly.Non Adherence.Other  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.None Taken : Detected After The Fact

## Assessments

Problem Areas : FAA

## Narrative

I RECEIVED A REQUEST TO TRANSPORT A PAX FROM A FACILITY 50 MILES TO THE NORTHWEST. THE WEATHER WAS FORECAST TO BE IFR AND I ELECTED TO FILE AN IFR FLIGHT PLAN WITH FLIGHT SERVICE. DURING THE BRIEFING, I SPECIFICALLY REQUESTED ANY PERTINENT NOTAMS RELATED TO GPS APPROACHES AT MY DESTINATION. THE BRIEFER GAVE NO INDICATION THERE WERE ANY RELEVANT GPS NOTAMS AND RAIM AVAILABILITY SHOULD BE ADEQUATE FOR MY ROUTE. UPON ARRIVING IN THE VICINITY OF THE AIRPORT,

THE WEATHER WAS BETTER THAN FORECAST AND DID NOT REQUIRE AN APPROACH. I DID REMAIN ON MY IFR FLIGHT PLAN AND REQUESTED THE RNAV (GPS) RWY XX FOR PRACTICE. I WAS CLEARED FOR THE APPROACH BY CENTER, AND THE ENTIRE APPROACH WAS CONDUCTED IN VFR CONDITIONS. LATER, I WAS INFORMED THE APPROACH HAD A NOTAM ISSUED STATING, 'THE ORIGINAL PROCEDURE N/A UNTIL FURTHER NOTICE.' MY MAIN CONCERN IS THE FACT I DID NOT RECEIVE THE RELEVANT NOTAMS, ALTHOUGH I MADE A REQUEST FOR SUCH. HAD I TRULY BEEN IN IMC CONDITIONS, THIS COULD HAVE BEEN A REAL ISSUE. I TYPICALLY CROSS CHECK NOTAMS DURING BRIEFINGS USING ON-LINE PRODUCTS, HOWEVER, IT'S NOT ALWAYS AVAILABLE.

### **Synopsis**

ALTHOUGH SPECIFICALLY REQUESTED, FSS BRIEFER FAILS TO PROVIDE RELEVANT NOTAMS FOR HELI PILOT'S IFR DESTINATION AIRPORT.

**ACN: 798655**

## **Time / Day**

Date : 200807  
Local Time Of Day : 0001 To 0600

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.AGL.Single Value : 0

## **Environment**

Light : Night

## **Aircraft : 1**

Operator.Common Carrier : Air Taxi  
Make Model Name : BO105  
Operating Under FAR Part : Part 135  
Mission : Ambulance  
Flight Phase.Cruise : Enroute Altitude Change  
Flight Phase.Ground : Maintenance  
Flight Phase.Ground : Parked

## **Component : 1**

Aircraft Component : Compressor

## **Person : 1**

Affiliation.Company : Air Taxi  
Function.Maintenance : Technician  
Qualification.Technician : Airframe  
Qualification.Technician : Inspection Authority  
Qualification.Technician : Powerplant  
Experience.Maintenance.Technician : 18  
ASRS Report : 798655

## **Events**

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Maintenance Problem : Improper Maintenance  
Anomaly.Non Adherence : FAR  
Anomaly.Non Adherence : Published Procedure  
Resolatory Action.Flight Crew : Landed In Emergency Condition  
Resolatory Action.None Taken : Detected After The Fact  
Consequence.Other : Aircraft Damaged  
Consequence.Other

## **Maintenance Factors**

Maintenance.Contributing Factor : Lighting

## Assessments

Problem Areas : Aircraft

Problem Areas : Maintenance Human Performance

## Narrative

I WAS CALLED AT XA30 FOR A MAINT ISSUE ON THE HYD FLT CTL SYS OF THE ACFT. THE PROB WAS DISCOVERED DURING A PREFLT OPS CHK PRIOR TO A PATIENT TRANSPORT FROM ONE HOSPITAL TO ANOTHER. THE FLT WAS ABORTED AND ANOTHER HELI WAS SENT FOR THE MISSION. WHEN I ARRIVED AT THE HOSPITAL HELIPAD AT XB30, THE PLT DISCUSSED THE PROB WITH THE HYD SYS CHK WITH ME. I INSPECTED THE HYD POWER PACKS AND DISCOVERED A MICROSWITCH STICKING, THEREFORE, NOT ALLOWING THE HYD SYS SWITCH SWITCHOVER CHK TO PERFORM PROPERLY. AFTER PERFORMING THE CLEANING AND LUBRICATING OF THE SWITCH, I INSTRUCTED THE PLT TO CHK THE SYS WHILE I WATCH THE CTLS MOVE AND LISTEN FOR THE CLICKING ACTION OF THE MICROSWITCHES. THIS CHK IS PERFORMED WHILE THE ACFT IS NOT RUNNING, SO I STOOD ON THE SKIDS OBSERVING THE HYD SYS AND THE PLT PERFORMED THE SYS CHK AND EVERYTHING WAS FUNCTIONING CORRECTLY. I WAS ABLE TO HEAR THE SWITCH ACTUATION AND THE PLT STATED THAT THE FUNCTIONAL TEST WAS PERFORMING PROPERLY ACCORDING TO THE ANNUNCIATOR PANEL IN THE COCKPIT. THIS PROB WAS NOW CORRECTED AND THE HELI COULD BE RETURNED TO SVC AFTER THE PAPERWORK WAS COMPLETED. THE TIME WAS NOW APPROX XC00. I HAD TAKEN A LIGHT, 1 SPRAY CAN OF CLEANER, 1 SPRAY CAN OF LUBRICANT, AND 3 WASHCLOTH SIZE SHOP RAGS UP TO THE HELI. I LOOKED THE HYD SYS OVER AND CLOSED THE ACCESS DOOR. I TOLD THE PLT EVERYTHING WAS GOOD AND I FILLED OUT THE PAPERWORK SO THAT THE HELI COULD RETURN TO SVC. THIS IS WHERE I MADE THE FIRST MISTAKE. WHEN I LOOKED EVERYTHING OVER, I WAS FOCUSING ON THE HYD POWER PACK AND DID NOT LOOK BACK JUST BEHIND THE POWER PACK ON THE DECK TO SEE THAT I HAD LEFT MY SHOP RAGS SITTING ON THE DECK. THE SECOND MISTAKE WAS MADE WHEN I DID NOT INSIST THAT THE PLT EXAMINE THE ENTIRE AREA AND TELL HIM WHAT EQUIP I HAD TAKEN TO THE JOB LOCATION. THE THIRD MISTAKE WAS WHEN I RETURNED TO MY VEHICLE WITH MY SUPPLIES AND DID NOT PAY ATTN TO THE FACT OF WHAT I HAD TAKEN WITH ME AND WHAT I WAS RETURNING WITH. I HAD ACCOUNTED FOR MY 2 CANS THAT I RETURNED TO MY TOOL BOX AND THE LIGHT, BUT DID NOT REMEMBER MY SHOP RAGS. THE 2 MEDICAL CREW MEMBERS AND PLT LOADED INTO THE HELI AND STARTED THE HELI TO RETURN BACK TO ZZZ1 ARPT. APPROX 3 MI FROM ZZZ1, THERE WAS A LOUD BANG AND THE PLT NOTICED THE #1 ENG INDICATIONS DROPPING OFF. HE SECURED THE DEAD ENG, CONTACTED TWR AND MADE AN EMER LNDG APCH INTO ZZZ1. AFTER HE LANDED SAFELY, I WAS CALLED AND REQUESTED TO COME TO ZZZ1. UPON INVESTIGATION, A SHOP RAG WHICH I HAD LEFT ON THE DECK WAS INGESTED INTO THE #1 ENG INTAKE AND COMPRESSOR ASSEMBLY. I HAD BEEN COMPLACENT ABOUT ONE OF THE MOST BASIC THINGS THAT I WAS TAUGHT AND TRAINED ON WHILE WORKING AROUND ACFT -- THAT ALL TOOLS AND EQUIP MUST BE ACCOUNTED FOR PRIOR TO FLT. THE FACTORS INVOLVED IN THIS INCIDENT ARE MANY THAT ARE FACED ON A REGULAR BASIS IN THE EMS INDUSTRY. I WAS CALLED AT XA30 IN THE MORNING, WOKE UP AND DROVE TO A LOCATION 45 MINS AWAY. THE LIGHTING ON THE HELIPAD WAS DEFINITELY A FACTOR. A SHOP WORK LIGHT WAS THE PRIMARY SOURCE OF LIGHT AND THERE WAS LITTLE OVERHEAD LIGHTING REFLECTING FROM THE HOSPITAL. THE FACT THAT I DID NOT INFORM THE PLT OF WHAT I HAD TAKEN WITH ME AS FAR AS

EQUIP. THIS INCIDENT COULD EASILY HAVE BEEN AVOIDED BY JUST FOLLOWING BASIC PROCS AND CHKS. THE INCIDENT HAS DEFINITELY CAUSED THE CREW I WORK WITH TO REALIZE THE IMPORTANCE OF SAFETY AND WHY IT IS NECESSARY TO PAY ATTN TO ALL OF THE TOOLS AND EQUIP AND ASSURE THAT EVERYTHING IS ACCOUNTED FOR. CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING INFO: REPORTER STATED THE HYD POWER PACK MICROSWITCHES ARE SUSCEPTIBLE TO STICKING, PREVENTING THE SWITCHING FROM ONE HYD POWER PACK (SYS-1) TO SYSTEM-2. THERE ARE MICROSWITCHES FOR EACH CONTROL SYSTEM FOR THE LATERAL, VERTICAL AND LONGITUDINAL CONTROLS.

## **Synopsis**

MECHANIC WORKING FOR AN EMERGENCY MEDIVAC SERVICE (EMS) OPERATOR, IS INFORMED THE MBB-B0-105 HELICOPTER HE SERVICED REQUIRED AN EMERGENCY LANDING. SHOP RAG WAS FOUND INGESTED IN #1 ENG INTAKE AND COMPRESSOR.

**ACN: 798017**

## **Time / Day**

Date : 200808

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US

## **Aircraft : 1**

Make Model Name : Helicopter  
Operating Under FAR Part : Part 135  
Mission : Ambulance

## **Person : 1**

Affiliation.Company.Other  
Function.Flight Crew : Single Pilot  
ASRS Report : 798017

## **Events**

Anomaly.Non Adherence : FAR  
Anomaly.Non Adherence : Published Procedure  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.None Taken : Unable

## **Assessments**

Problem Areas : FAA  
Problem Areas : Flight Crew Human Performance

## **Narrative**

I AM WRITING TO RELAY TO YOU WHAT SEEMS TO ME A POTENTIAL PROBLEM IN EMS HELICOPTER RADIO FREQUENCY PROCS. I HAVE BEEN FLYING EMS HELICOPTER OPERATIONS 14 YEARS. I HAVE FLOWN IN VARIOUS STATES IN THE SAME CAPACITY. THE PROBLEM I HAVE OBSERVED OVER THE YEARS ARE THE DIFFERENT BELIEFS OF THE COMMON 'AIR-TO-AIR' FREQUENCY FOR HELICOPTERS. FAR/AIM TABLE 4-1-3 STATES THAT AIR-TO-AIR GENERAL AVIATION HELICOPTERS FREQUENCY IS 123.025. MOST COM RADIOS ONLY INDICATE TWO DIGITS TO THE RIGHT OF THE DECIMAL POINT. BY CONFESSION I WILL ADMIT THAT EARLY IN MY CAREER I BELIEVED THAT YOU NEEDED SOME 'SPECIAL' RADIO TO GET THIS FREQUENCY. I LATER LEARNED FROM A BETTER PLT THAT 123.025 WAS IN EVERY COM RADIO. IT IS VIEWED ONLY AS 123.02 AND YOU MAY HAVE TO 'PULL UP' ON A SELECTOR KNOB TO GET THE .025 INTERVALS. THE PROBLEM HAS EXISTED FOR YEARS. I HAVE JUST READ TWO LETTERS THIS WEEK WHERE THE AGENCIES ARE SPECIFICALLY ASKING ARRIVING HELICOPTERS TO USE 123.050. THIS IS NOT GOOD. THIS IS NOT WHAT THE FAR/AIM HAS ESTABLISHED OR AUTHORIZED. I LIKE THE IDEA THAT HELICOPTERS HAVE THEIR OWN PRIVATE FREQUENCY BUT THE MEDICAL FACILITIES ARE NOT AWARE OF THIS AS A GENERAL RULE. INSTEAD THE CHAIN OF EVENTS ARE BEING SET FOR

ANOTHER ACCIDENT. PLTS ARE TASKED TO POTENTIALLY RESPOND TO OVER 75 DIFFERENT HOSPITALS AND LNDG ZONES. ISN'T IT FUTILE TO EXPECT EVERY PLT TO BE AWARE OF EVERY HOSPITAL'S CHANGING POLICIES FOR USING 123.050 OR 123.025? I BELIEVE THAT ONE FREQUENCY ONLY, 123.025, SHOULD BE USED AT EVERY HOSPITAL AND LNDG ZONE. ACCIDENT SCENES AND HOSPITALS HAVE ONE TO FIVE EMS HELICOPTERS ARRIVING SIMULTANEOUSLY! HOW DO ACFT KEEP ON THE SAME PAGE? THOSE FLTS WERE ORIGINATING FROM HUNDREDS OF MILES AWAY, USING DIFFERENT VENDORS, AND COMING FROM DIFFERENT STATES! WE NEED TO USE ONE FREQUENCY ONLY FOR 'AIR-TO-AIR.' ANSWER: 1. I BELIEVE A REMINDER TO ALL EMS OPERATORS ABOUT 123.025 WOULD HELP. 2. I BELIEVE A REMINDER OF 123.025 TO ALL HOSPITALS USING HELICOPTERS WOULD SIMPLIFY AND HELP ELIMINATE A POTENTIAL ACCIDENT. I KNOW THAT ARRIVING ACFT MISS OUT ON OTHER NEARBY TFC. I REGRET THAT SAFETY MAY ONLY BE .025 FREQUENCY DIFFERENCE AWAY. CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING INFO: THE REPORTER HAS FLOWN EMS HELICOPTERS FOR SEVERAL YEARS. HE BELIEVES SOME HOSPITALS HAVE RECENTLY BEEN DESIGNATING AN FAA AIR TO GND CTAF VHF FREQUENCY 123.050 FOR THEIR OPERATIONS. THIS PROCEDURE IS NOT IN ACCORDANCE WITH THE FAA/AIM SUGGESTED 123.025. THE POTENTIAL PROBLEMS ARISE BECAUSE PILOTS MAY BE MONITORING OTHER FREQUENCIES FOR NEARBY AIRPORTS AND FORGET THE FACILITY SPECIFIC FREQUENCY. ONE HOSPITAL IN HIS AREA HAS FOUR LANDING PADS AND IT IS NOT UNCOMMON FOR A HELICOPTER TO HOLD FOR A LANDING SPOT WITH OTHER HELICOPTER TRAFFIC IN THE AREA. HOSPITALS WITH THIS AMOUNT OF TRAFFIC MUST HAVE A COMMUNICATION DISCIPLINE THAT INVOLVES A COMMONLY RECOGNIZED PROCEDURE. HOSPITAL PROCEDURES ARE COMMONLY NOT WRITTEN BY PEOPLE FAMILIAR WITH AVIATION STANDARDS AND SO CONFLICT CAN ARISE. A UNIQUE EMS HELICOPTER FREQUENCY WOULD NOT BE A BAD IDEA AND WOULD BE ESPECIALLY HELPFUL IN AREAS WHERE HEAVY GA HELICOPTER TRAFFIC IS ALSO PRESENT. THAT TRAFFIC MAY BE COVERING SPECIAL EVENTS, CONDUCTING TRAINING, PHOTOGRAPHING BUILDINGS OR LANDSCAPES, ETC. GENERALLY NOT ENOUGH HELICOPTERS ARE SIMULTANEOUSLY ACTIVE IN AN AREA TO CREATE CONFLICT BUT IT DOES HAPPEN. THE REPORTER HAS ALSO SEEN AGGRESSIVE COMPETING EMS OPERATORS ARRIVE AT AN ACCIDENT SCENE TO WHICH THAT OPERATOR HAS NOT BEEN SUMMONED AND NOT ON A COMMON FREQUENCY AFTER HEARING ABOUT THE EVENT ON A POLICE SCANNER. AGGRESSIVE PILOTS NOT ON A COMMON FREQUENCY ARE ALWAYS A HAZARD IN EMS OPERATIONS.

## **Synopsis**

AN EMS HELICOPTER PILOT REPORTS HOSPITALS DESIGNATING AIR-TO-GND CTAF FREQ 123.050 INSTEAD OF USING THE FAA DESIGNATED AIR-TO-AIR 123.025 FOR GA HELICOPTERS.

**ACN: 786773**

## **Time / Day**

Date : 200805  
Local Time Of Day : 0601 To 1200

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.AGL.Single Value : 0

## **Environment**

Light : Daylight

## **Aircraft : 1**

Operator.Common Carrier : Air Taxi  
Make Model Name : MBB-BK 117A-1  
Operating Under FAR Part : Part 135  
Mission : Ambulance  
Flight Phase.Ground : Maintenance  
Flight Phase.Ground : Preflight

## **Component : 1**

Aircraft Component : AC Generator/Alternator

## **Person : 1**

Affiliation.Company : Air Taxi  
Function.Flight Crew : Captain  
Function.Oversight : PIC  
Qualification.Pilot : ATP  
Experience.Flight Time.Last 90 Days : 50  
Experience.Flight Time.Total : 8000  
Experience.Flight Time.Type : 250  
ASRS Report : 786773

## **Person : 2**

Affiliation.Company : Air Taxi  
Function.Maintenance : Technician

## **Events**

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Maintenance Problem : Improper Maintenance  
Anomaly.Non Adherence : Company Policies  
Anomaly.Non Adherence : FAR  
Anomaly.Non Adherence : Published Procedure  
Resolatory Action.None Taken : Detected After The Fact

## **Maintenance Factors**

Maintenance.Contributing Factor : Schedule Pressure  
Maintenance.Performance Deficiency : Non Compliance With Legal Requirements  
Maintenance.Performance Deficiency : Repair

## **Assessments**

Problem Areas : Aircraft  
Problem Areas : Company  
Problem Areas : Environmental Factor  
Problem Areas : Maintenance Human Performance

## **Narrative**

MECHS WORKING FOR COMPANY X INFORMED ME THAT THEY WERE BEING PRESSURED BY THEIR SUPVR TO INSTALL A GENERATOR ON THE BK117B2 THAT DID NOT HAVE AN APPROVED PART NUMBER. IN REFUSING TO DO SO, 1 MECH TOLD ME THAT HE 'FELT' THAT HE WAS GOING TO BE FIRED. SOMETIME LATER IN THIS IMPASSE COMPANY X MAINT DIRECTOR CALLED TO SAY THAT THE LCL MECHS WERE CORRECT (THAT THE ENG MANUFACTURER DID NOT ALLOW THAT GENERATOR TO BE INSTALLED), AND ARRANGED FOR A SUITABLE ONE TO BE SHIPPED. THIS INCIDENT IS ILLUSTRATIVE OF A MANIFESTLY HOSTILE WORK ENVIRONMENT THAT HAS BEEN IMPOSED BY COMPANY X ON THE LCL MAINT STAFF. I COULD RECOUNT MANY SIMILAR AND EVEN MORE EGREGIOUS EXAMPLES. THESE AMT PROFESSIONALS HAVE FOR THE 8 YRS THAT I HAVE KNOWN THEM EMBODIED THE CHARACTERISTICS OF COMPETENCE, CTL AND COMMITMENT TO SAFETY OF FLT. THEY HAVE DEMONSTRATED WILLINGNESS TO TAKE RESPONSIBILITY FOR THEIR BEHAVIOR, TO MAKE JUDGEMENTS BASED ON INDUSTRY STANDARDS, AND TO ASSERTIVELY ENCOURAGE OTHERS TO BE INVOLVED IN FLT SAFETY. PRESENTLY THEY ARE FUNCTIONING UNDER HOSTILE SUPERVISION THAT HAS SYSTEMATICALLY REMOVED FROM THEM ALL CTL OVER DECISION MAKING, VERBALLY DEMEANING THEIR COMPETENCE, AND PROHIBITING (UNDER THREAT OF BEING FIRED) THEIR DISCUSSION OF THEIR WORK SITUATION WITH OTHERS IN THE ORGANIZATION. THE LCL AMT'S HAVE NO TRUST IN THEIR SUPVR, AND THEY FUNCTION CHRONICALLY UNDER THE DISTR OF FRUSTRATION AND STRESS. I AM OBSERVING THE EFFECTS OF THIS STRESS IN WORK QUALITY, AND A PREVAILING ATTITUDE OF CYNICISM. I HAVE NOT BEEN SILENT IN WITNESSING THE DEATH OF A SAFETY CULTURE HERE. TRAGICALLY, THE PERSON IN A SUPERVISORY ROLE OVER THE LCL MECHS HAS THE FULL FAITH AND CONFIDENCE OF THE COMPANY X LEADERSHIP. THE EMS ORGANIZATION THAT OWNS THE ACFT, AND FOR WHOM COMPANY X VENDS, IS UNWILLING TO ENGAGE THE SITUATION. THE AMT'S ARE ALL LOOKING FOR OTHER WORK, BUT THAT BEGS THE ISSUE SINCE WHOEVER REPLACES THEM WILL BE EXPECTED TO FUNCTION IN THE SAME ENVIRONMENT. CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING INFO: REPORTER STATED EVEN PILOTS AND NURSES WHO ARE PART OF THE EMERGENCY MEDICAL SERVICE (EMS) FLIGHT CREWS, WHOSE COMPANY HAS CONTRACTED WITH REPORTER'S FBO TO MAINTAIN THE EMS ACFT, HAVE RAISED CONCERNS ABOUT THE INADEQUATE MAINT ON THEIR ACFT AND THE LACK OF ANY RESPONSE REGARDING THOSE CONCERNS.

## **Synopsis**

MECHANICS WORKING FOR AN FBO MAINT FACILITY, INFORM ONE OF THEIR PILOTS OF BEING PRESSURED BY THEIR SUPERVISOR TO INSTALL A GENERATOR ON THEIR HELICOPTER WITHOUT AN APPROVED PART NUMBER.

**ACN: 785747**

## **Time / Day**

Date : 200805  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.AGL.Single Value : 1000

## **Environment**

Flight Conditions : VMC  
Light : Daylight

## **Aircraft : 1**

Operator.Common Carrier : Air Taxi  
Make Model Name : Jet Ranger/Kiowa/206  
Operating Under FAR Part : Part 135  
Mission : Ambulance  
Flight Phase.Descent : Approach

## **Component : 1**

Aircraft Component : VHF

## **Person : 1**

Affiliation.Company : Air Taxi  
Function.Flight Crew : Captain  
Function.Oversight : PIC  
Qualification.Pilot : Commercial  
Experience.Flight Time.Last 90 Days : 60  
Experience.Flight Time.Total : 7000  
Experience.Flight Time.Type : 6000  
ASRS Report : 785747

## **Events**

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Airspace Violation : Entry  
Anomaly.Non Adherence : FAR  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.Flight Crew : Exited Penetrated Airspace  
Consequence.FAA : Reviewed Incident With Flight Crew

## **Assessments**

Problem Areas : Aircraft  
Problem Areas : Airspace Structure  
Problem Areas : Flight Crew Human Performance

## **Narrative**

THE MISSION WAS TO RELOCATE A NEWLY REFURBISHED EMS ACFT TO OUR COMPANY MAINT FACILITY TO HAVE RADIOS AND GPS'S PROGRAMMED WITH UPDATED FREQS AND DATA. THE 2 GPS'S ON BOARD WERE A GARMIN 430 AND A GARMIN 396. ALL FLT PLANS AND FLT FOLLOWING WERE TO BE CONDUCTED THROUGH THE COMPANY COMS CTR. I DEPARTED AT XA34 WITH THE FIRST FUEL STOP AT ZZZ1. THE SECOND LEG WAS TO ZZZ2. I DEPARTED ZZZ2 AT XF31 WITH A DEST OF ZZZ3. THIS STRAIGHT LINE LEG WOULD HAVE TAKEN ME THROUGH THE SE CORNER OF A TFR. APPROX 10 MINS AFTER DEPARTING, I ATTEMPTED TO CONTACT ZZZ APCH ON MY COM #2 RADIO NUMEROUS TIMES. BOTH GPS'S WERE NOT SHOWING TFR AND I WANTED TO GET CLRNC THROUGH THE EXTREME SE CORNER OF THE TFR. WHEN IT WAS APPARENT THAT I HAD NO COM WITH ZZZ APCH, I STARTED DRIFTING MORE S TO AVOID THE TFR WHILE NAVING OFF THE VFR SECTIONAL AND CONTINUING TO TRY TO CONTACT APCH. WHILE SWITCHING RADIO FREQS, RADIOS AND NAVING OFF THE VFR SECTIONAL, I RECOGNIZED THE INTERSTATE OFF MY NOSE AND KNEW I HAD ACCIDENTALLY PENETRATED THE TFR WHILE IN THIS HVY PLT WORKLOAD. I IMMEDIATELY STARTED A L TURN TO THE SE, WITH AN APPROX HDG OF 150 DEGS TO EXIT THE TFR WHILE STILL TRYING TO CONTACT ZZZ OR ZZZ4 APCH. ONCE OUTSIDE AND S OF THE TFR, I WAS ABLE TO CONTACT ZZZ4 APCH THROUGH COM #1 RADIO. THIS IS ALSO WHEN I REALIZED THAT MY COM #2 RADIO WAS NO LONGER OPERATIONAL. ZZZ4 ACCEPTED MY FLT FOLLOWING TO MY DEST OF ZZZ3 AND ADVISED ME TO CONTACT ZZZ APCH, ON THE GIVEN PHONE NUMBER, UPON MY ARR. I CONTACTED ZZZ AND GAVE THEM THE REQUESTED INFO. THEY ALSO SAID THEY TRIED TO CONTACT ME ON THE GUARD FREQ. I THEN DEPARTED ZZZ3 FOR THE COMPANY MAINT FACILITY AT XH17 AND ARRIVED AT XI05 TO FIND THAT MY COM #2 RADIO WAS NOT OPERATIONAL DUE TO THE ANTENNA COAXIAL CABLE BEING CUT BY CHAFING THE TAIL ROTOR DRIVE SHAFT. THE DRIVE SHAFT WAS CONDEMNED AND REPLACED AND THE RADIO COAXIAL CABLE WAS ALSO REPLACED. IT WAS AT THIS TIME THAT I LEARNED THAT THE GPS'S HAD NOT BEEN UPDATED SINCE OCT/07 AND THAT THE COM RADIOS HAD NO GUARD CAPABILITY. I BELIEVE THAT THE RADIO MALFUNCTION, GPS'S NOT SHOWING THE TFR, PLT WORKLOAD, AND NO VHF GUARD CAPABILITY WERE ALL CONTRIBUTING FACTORS IN MY ACCIDENTAL PENETRATION OF THE TFR.

## **Synopsis**

BELL 206 DRIFTED INTO TFR. CONTACT WITH APCH CONTROL HAD BEEN ATTEMPTED, BUT THE PLT LATER REALIZED THAT THE RADIO WAS INOP.

**ACN: 760191**

## Time / Day

Date : 200711  
Local Time Of Day : 1801 To 2400

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.AGL.Single Value : 650

## Environment

Flight Conditions : Mixed  
Weather Elements : Rain  
Light : Night

## Aircraft : 1

Controlling Facilities.TRACON : ZZZ.TRACON  
Operator.Common Carrier : Air Taxi  
Make Model Name : A109  
Operating Under FAR Part : Part 135  
Mission : Ambulance  
Flight Phase.Cruise : Level

## Person : 1

Affiliation.Company : Air Taxi  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
ASRS Report : 760191

## Events

Anomaly.Inflight Encounter : VFR In IMC  
Anomaly.Inflight Encounter : Weather  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.Controller : Issued New Clearance  
Resolatory Action.Flight Crew : Declared Emergency

## Assessments

Problem Areas : Flight Crew Human Performance  
Problem Areas : Weather

## Narrative

FORECAST WX WAS TO BE VFR FOR DURATION OF THE MEDICAL TRANSPORT FLT. OUTBOUND LEG WAS UNEVENTFUL. VISIBILITY AND CEILINGS MATCHED THE REPORTED VMC WX CONDITIONS. AFTER 1 HR DELAY ON THE DECK AT HOSPITAL HELIPAD, ACFT DEPARTED VFR ON A COMPANY FLT PLAN USING NIGHT VISION

GOGGLE DEVICES. ARPTS ALONG THE RTE OF FLT REPORTED VISIBILITY 10 MI WITH VARIABLE CLOUD COVERAGE (SCT 014 OVC 050 TO THE W, SCT 040 OVC 100 TO THE N, BKN 011 BKN 095 TO THE E, AND OVC 014 TO THE SE). PATIENTS GAIN IMPROVED OXYGEN SATURATION WHEN FLYING AT LOWER ALTS. GIVEN THE REPORTED WX, I CHOSE TO HUG THE SHORELINE AND FLY BELOW THE CLOUDS IN VMC CONDITIONS. THE NIGHT VISION GOGGLES PROVIDED GOOD VISUAL CONTACT WITH THE ADJACENT SHORELINE AND DISTANT SHORELINES TO THE E. ONBOARD AVIONICS PROVIDED OUTSTANDING POSITIONAL AND TERRAIN SITUATIONAL AWARENESS. FLYING OVER THE WATER AT 1000 FT AGL THE ACFT BEGAN TO ENCOUNTER SCATTERED CLOUDS AT OR ABOVE ALT WITH A REDUCTION IN VISIBILITY DUE TO LIGHT RAIN (TYPICAL CONVERGENCE ZONE ACTIVITY). I BEGAN A DSCNT BELOW 700 FT AGL AND RECHKD ENRTE WX USING LCL ATIS/ASOS AND FOUND THAT THE SURFACE DEW POINT SPREAD HAD CLOSED TO LESS THAN 3 DEGS. FREQUENCY OF CLOUDS AT ALT WORSENER. DESPITE MY GOOD SITUATIONAL AWARENESS AND GND REFS, I FELT THE TIME FOR MANEUVERING IN VMC HAD EXPIRED. REVERSING COURSE MEANT TURNING OUT TO SEA WHERE THERE WAS NO GND REF. TURNING INLAND WOULD RESULT IN REDUCED TERRAIN CLRNC. I CONTACTED THE AREA APCH CTL FACILITY, DECLARED AN EMER DUE TO IMC AND REQUESTED IMMEDIATE CLB AND VECTORS FOR VFR ON TOP WITH FOLLOW ON ILS APCH SO AS TO FACILITATE COMPLETION OF THE MEDICAL TRANSPORT. SUPPORT FROM THE AGENCY WAS TIMELY AND ACCURATE. UPON REFLECTION, I REALIZE IT WOULD HAVE BEEN MUCH WISER TO OBTAIN AN ENRTE CLRNC AT THE TIME OF DEP. I AM COMMON WITH THE PROC AND HAVE EMPLOYED IT BEFORE AS A TOOL IN MY PLT'S IFR 'BAG OF TRICKS' WHEN ENCOUNTERING UNREPORTED WX. IN THIS PARTICULAR CASE, I WAS COMFORTABLE IN CONTINUING UNDER VFR, DRAWING FROM MY MANY YRS OF MIL EXPERIENCE WITH 'AIDED' FLT. THE GOGGLES ALLOWED ME TO SEE CLOUDS AND SURFACE LIGHTING THAT WAS WELL BEYOND THE UNAIDED VISUAL RANGE. HAD I NOT BEEN WEARING THE DEVICES, I MOST LIKELY WOULD NOT HAVE CONTINUED TO PROCEED IN THE DIRECTION I WAS GOING WITHOUT AN IFR CLRNC DUE TO MY INABILITY TO 'SEE' THE WX AND LIGHTS AHEAD. COULD I HAVE SAFELY PUSHED AHEAD AND FLOWN BEYOND THE CONVERGENCE ZONE WX PHENOMENA TO THE REPORTED VMC E OF MY POS? YES, I BELIEVE SO, BUT NOT LEGALLY. INTEGRITY AND PROFESSIONALISM WAS THE MOTIVATION TO OFFICIALLY DECLARE IIMC AND RECEIVE ASSISTANCE. IN THE FUTURE I WILL ASK FOR THAT ASSISTANCE SOONER ALLOWING FOR A GREATER MARGIN OF SAFETY. MY ADVICE FOR THOSE THAT EMPLOY NIGHT VISION DEVICES IS TO LEAVE THEM OUT OF YOUR PREFLT WX DECISION MAKING PROCESS, TAKE AN OCCASIONAL LOOK BENEATH THEM DURING CRUISE FLT TO ASSESS THE SITUATION, KNOW YOUR GOGGLES' LIMITATIONS AND USE IT TO MAKE INFORMED WX DECISIONS TO AVOID YOUR OWN INADVERTENT IMC EMER.

## **Synopsis**

A109 PLT WAS FLYING AT NIGHT IN DETERIORATING WX. CEILINGS BECAME LOWER AND PLT DECLARED EMER TO CLIMB THROUGH OVERCAST AND OBTAIN VFR ON TOP CLRNC.

**ACN: 754875**

## **Time / Day**

Date : 200709  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.AGL.Single Value : 10

## **Environment**

Flight Conditions : VMC  
Light : Daylight

## **Aircraft : 1**

Operator.Common Carrier : Air Taxi  
Make Model Name : AS 350 Astar/Ecureuil  
Operating Under FAR Part : Part 135  
Mission : Ambulance  
Flight Phase.Descent : Approach  
Route In Use.Approach : Visual

## **Person : 1**

Affiliation.Company : Air Taxi  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
Experience.Flight Time.Last 90 Days : 82  
Experience.Flight Time.Total : 4890  
Experience.Flight Time.Type : 980  
ASRS Report : 754875

## **Events**

Anomaly.Ground Encounters : FOD  
Independent Detector.Other.Flight CrewA : 1  
Resolutive Action.Flight Crew : Landed As Precaution  
Consequence.Other : Aircraft Damaged

## **Assessments**

Problem Areas : Environmental Factor  
Problem Areas : Flight Crew Human Performance

## **Narrative**

I WAS ACFT 1 OF 2 ACFT RESPONDING TO A VEHICLE ACCIDENT LOCATED ON THE INTERSTATE. THE SECOND ACFT WAS APPROX 1/2 MI BEHIND ME. APPROX 4-5 MI FROM THE ACCIDENT SCENE, I ESTABLISHED RADIO CONTACT WITH THE INCIDENT COMMANDER ON SCENE. HE DESCRIBED THE LNDG AREA AND RELAYED

INSTRUCTIONS. I ORBITED THE AREA CONDUCTING MY AERIAL RECONNAISSANCE OF THE AREA, BRIEFED THE MEDICAL CREW, AND ESTABLISHED MYSELF ON FINAL LNDG TO THE W. MY LNDG AREA WAS ON THE HWY BTWN THE AMBULANCE, TO THE W, AND A POLICE SQUAD CAR TO THE E. OVER THE LNDG AREA, APPROX 10 FT AGL, I INFORMED THE MEDICAL CREW THAT I WAS GOING TO TURN THE ACFT 90 DEGS TO THE R THEREBY BEING ABLE TO OBSERVE BOTH LANES OF TFC AND OBSERVE THE INBOUND SECOND ACFT. ONCE I COMPLETED MY TURN, THE MEDICAL CREW MEMBER ON THE L SIDE OF THE ACFT INFORMED ME I NEEDED TO SLIDE FURTHER L AS THERE WAS A SNOW MARKER, APPROX 5 FT, CLOSE TO THE ACFT TAIL AREA. I SLID ANOTHER 2-3 FT TO THE L AND BEGAN TO LAND WHEN I FELT A MOMENTARY 'ABRUPT' VIBRATION IN THE PEDALS. I LANDED THE ACFT WITHOUT FURTHER INCIDENT AND SHUT THE ACFT DOWN NORMALLY. POSTFLT INSPECTION REVEALED A BENT TAIL ROTOR STRIKE TAB ON ONE END OF THE TAIL ROTOR. THE ON-SCENE GND PERSONNEL NOTED THAT WHEN I GOT CLOSE TO THE GND THE SNOW MARKER BEGAN TO WIGGLE AND WAS PULLED INTO THE TAIL ROTOR. ANOTHER ACFT WAS CALLED TO TRANSPORT THE PATIENT AND THE ACFT WAS NOT FLOWN UNTIL THE TAIL ROTOR GEAR BOX AND TAIL ROTOR WERE REPLACED.

### **Synopsis**

AS 350 PLT WAS MAKING A CONTROLLED, OFF-ARPT LNDG WHEN THE TAIL ROTOR PULLED AN OBJECT INTO THE ROTOR ASSEMBLY, CAUSING ROTOR DAMAGE.

**ACN: 752926**

## **Time / Day**

Date : 200709  
Local Time Of Day : 0601 To 1200

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 1800

## **Environment**

Flight Conditions : VMC  
Light : Daylight

## **Aircraft : 1**

Operator.Common Carrier : Air Taxi  
Make Model Name : A109  
Operating Under FAR Part : Part 135  
Mission : Ambulance  
Flight Phase.Cruise : Level

## **Aircraft : 2**

Make Model Name : Bonanza 35  
Flight Phase.Cruise : Level

## **Person : 1**

Affiliation.Company : Air Taxi  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : ATP  
Experience.Flight Time.Last 90 Days : 60  
Experience.Flight Time.Total : 4250  
Experience.Flight Time.Type : 60  
ASRS Report : 752926

## **Assessments**

Problem Areas : Airspace Structure  
Problem Areas : Flight Crew Human Performance

## **Narrative**

WHILE FLYING ON A HDG OF NE (APPROX 060 DEGS MAGNETIC) TO THE MEDICAL CTR HELI LNDG PADS, A BEECHCRAFT BONANZA WAS FLYING ON A CONVERGING COURSE AND SIGHTED BY ME FROM MY ACFT AT ABOUT 4 O'CLOCK LOW POS AND ABOUT A COMBINED DISTANCE OF 600 FT. THE RATE OF CONVERGENCE WAS SO QUICK THAT THERE WAS NO TIME TO TAKE ACTION AS THE BONANZA PASSED BELOW ME WITHIN 300 FT AND APPEARED AGAIN ON THE L SIDE PROBABLY FLYING TOWARD ZZZ. THE BONANZA WAS LIKELY ON A HDG OF NW TO N. I WAS NOT ON A FLT PLAN, BUT WAS LISTENING TO THE NEAREST CTL TWR. THE OTHER

ACFT MAY HAVE BEEN TUNED TO ANOTHER FREQ. I WAS IN ON THE MEDICAL XFER LEG OF A CRITICALLY ILL PATIENT AND WAS GOING TO BE ENTERING THE CTLED AIRSPACE OF ZZZ SO I HAD NO TIME TO VERIFY THE IDENTITY OF THE OTHER ACFT. I BELIEVE THE OTHER ACFT WAS PROBABLY FLYING AT AN MSL ALT OF ABOUT 1500 FT.

### **Synopsis**

AN A109 HELI PLT, FLYING VFR, EXPERIENCES NMAC WITH ANOTHER AIRCRAFT.

**ACN: 748135**

## **Time / Day**

Date : 200708  
Local Time Of Day : 1801 To 2400

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.AGL.Single Value : 0

## **Environment**

Flight Conditions : VMC  
Light : Dusk

## **Aircraft : 1**

Operator.Common Carrier : Air Taxi  
Make Model Name : Jet Ranger Undifferentiated or Other Model  
Operating Under FAR Part : Part 135  
Mission : Ambulance  
Flight Phase.Ground : Parked

## **Person : 1**

Affiliation.Company : Air Taxi  
Function.Flight Crew : Captain  
Function.Instruction : Instructor  
Function.Oversight : PIC  
Qualification.Pilot : ATP  
Qualification.Pilot : CFI  
Experience.Flight Time.Last 90 Days : 80  
Experience.Flight Time.Total : 8566  
Experience.Flight Time.Type : 475  
ASRS Report : 748135

## **Person : 2**

Affiliation.Company : Air Taxi  
Function.Flight Crew : First Officer  
Function.Instruction : Trainee

## **Events**

Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.None Taken : Detected After The Fact  
Consequence.Other : Aircraft Damaged

## **Assessments**

Problem Areas : Flight Crew Human Performance

## **Narrative**

I WAS TRAINING A PLT (CAPT) FOR A 2 PLT EMS HELI OP ON THE BELL 430. WE HAD JUST COMPLETED A SIMULATED SINGLE ENG LNDG AND HAD MOVED OFF THE RWY TO THE GRASS JUST OFF A TXWY. THE CAPT TRAINEE WAS ON THE CTLS AND HE DID NOT CALL FOR THE AFTER LNDG CHKLIST, NOR DID I AS THE TRAINING CAPT REMIND HIM TO DO SO. WHILE REPOSITIONING TO THE GRASS I GLANCED AT THE AUTOMATED FLT CTL SYS MODE SELECT PANEL TO SEE IF THE AUTOMATED FLT CTL SYS WAS IN STABILITY AUGMENTATION OR AUTOPLT. I SAW THE GREEN STABILITY AUGMENTATION LIGHT ON. WHILE I FUNCTIONED AS THE SIC THE CAPT DIRECTED ME TO SET UP THE RADIOS FOR OUR DEP AND NEXT ARR. WHILE DOING SO, HE (STILL IN COMMAND OF THE FLT CTLS) WAS VERIFYING WHAT I HAD DONE. HE MUST HAVE LET GO OF THE CTLS. NEXT THING I KNEW I HEARD LOUD POUNDING AND GRABBED FOR THE FLT CTLS. I FOUND THE CYCLIC CTL TO BE NEARLY FULL FORWARD. I SUSPECTED THE ROTOR SYS HAD COME IN CONTACT WITH THE UPPER WIRE CUTTER ASSEMBLY. UPON SHUTDOWN AND INSPECTION I CONFIRMED THIS. AS IS ALWAYS THE CASE, SEVERAL THINGS LED TO THIS INCIDENT: 1) WHEN I LOOKED AT THE AUTOMATED FLT CTL SYS MODE PANEL AND SAW THE GREEN STABILITY AUGMENTATION LIGHT ON, I ASSUMED THE PLT HAD TURNED THE AUTOPLT OFF AND ENGAGED STABILITY AUGMENTATION. HE HAD NOT. HE WAS HOLDING THE CYCLIC FORCE TRIM BUTTON DOWN. THIS CAUSES THE AUTOMATED FLT CTL SYS TO REVERT TO STABILITY AUGMENTATION FROM AUTOPLT ONLY WHILE THE BUTTON IS BEING HELD DOWN. 2) THE AUTOPLT, STILL BEING ENGAGED DROVE THE CYCLIC FORWARD IN AN ATTEMPT TO FOLLOW THE LAST ASSIGNED DUTY, A DSCNT. 3) I DIDN'T FOLLOW UP ON THE 'CAPT' TO ENSURE HE CALLED FOR THE AFTER LNDG CHKLIST. 4) EVEN THOUGH WE HAD BRIEFED A 3-WAY FLT CTL EXCHANGE, THE CAPT LET GO OF THE CTLS WITHOUT TELLING ME. IN THE DARK COCKPIT, I DIDN'T NOTICE THIS. 5) THE HOSPITAL BASED EMS PROGRAM ACFT WAS OTS, SO I WAS UNDER (SELF-IMPOSED) PRESSURE TO TRAIN SEVERAL REPLACEMENTS TO GET THE PROGRAM BACK IN SVC QUICKLY. 6) UNDER THIS SELF-IMPOSED PRESSURE, I HAD BEEN WORKING 6 DAYS WITH EACH DAY BEING MORE THAN 11 HRS, AND IN SOME CASES, 14 HR DUTY DAYS WHILE CONDUCTING GND AND FLT TRAINING. BTWN THE 2 DAYS PRIOR TO THE INCIDENT AND THE DAY OF THE INCIDENT, I HAD FLOWN 18.3 HRS. 7) TEMPS HAD BEEN MID 80'S TO MID 90'S WITH HIGH HUMIDITY. 8) THE NIGHT BEFORE THE INCIDENT, I HAD DEVELOPED A SORE THROAT AND SOUR STOMACH RESULTING IN A FITFUL NIGHT'S SLEEP. THERE ARE ENOUGH LINKS IN THIS CHAIN TO BUILD 2 MISHAPS MUCH LESS THE ONE THAT HAPPENED.

## **Synopsis**

BELL 430 INSTRUCTOR RPTS ROTOR DAMAGE AFTER SIMULATED ENG OUT LNDG WHEN CYCLIC IS RELEASED WITH AUTOPLT ENGAGED.

**ACN: 728043**

## **Time / Day**

Date : 200702  
Day : Wed  
Local Time Of Day : 1801 To 2400

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.AGL.Single Value : 300

## **Environment**

Flight Conditions : Marginal  
Weather Elements : Fog  
Light : Night

## **Aircraft : 1**

Operator.Common Carrier : Air Taxi  
Make Model Name : Helicopter  
Operating Under FAR Part : Part 135  
Mission : Ambulance  
Flight Phase.Climbout : Takeoff

## **Component : 1**

Aircraft Component : Radio Altimeter

## **Person : 1**

Affiliation.Company : Air Taxi  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
Experience.Flight Time.Last 90 Days : 45  
Experience.Flight Time.Total : 11300  
Experience.Flight Time.Type : 120  
ASRS Report : 728043

## **Events**

Anomaly.Other Spatial Deviation  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.None Taken : Detected After The Fact

## **Assessments**

Problem Areas : Flight Crew Human Performance  
Problem Areas : Weather

## **Narrative**

UPON DEP FROM HOSPITAL AT XA52 LCL TIME, I ENCOUNTERED SOME VERY THIN SCATTERED LAYERS OF FORMING FOG AT APPROX 300 FT AGL. I COULD MAINTAIN VISUAL CONTACT WITH LIGHTS AHEAD OF MY HELI AND OFF TO THE R FRONT SEVERAL MI AWAY. WHILE MANEUVERING TO REMAIN CLR OF THE FORMING FOG LAYERS, I INADVERTENTLY LET THE ACFT DSND AND CONTACTED SOFT GND RESULTING IN DAMAGE TO THE R SIDE SKID LIGHTS ON THE AFT CROSS TUBE. AT THE TIME OF THE INCIDENT, I INITIALLY THOUGHT THAT I HAD HAD A BIRD STRIKE SINCE ALL I SAW WAS A WHITE FLASH AND FELT A THUMP AND THOUGHT THAT I WAS STILL AT 300 FT. THE RADAR ALTIMETER WAS SET TO ALARM WHEN DSNDING BELOW 200 FT. I DO NOT RECALL HEARING THE WARNING SOUND FROM IT. NO OTHER DAMAGE TO THE ACFT WAS NOTED UPON POSTFLT INSPECTION. THERE WAS NO PRESSURE TO TAKE THIS FLT FROM THE HOSPITAL OR MY PEERS. THE WX WAS ABOVE MINIMUMS FOR OUR OP AND WAS FORECAST TO REMAIN SO FOR THE DURATION OF THE FLT. THE FOG FORMING WAS NOT EXPECTED UNTIL AFTER XC00 HRS, BUT THIS FOG BEGAN FORMING SEVERAL HRS EARLIER THAN EXPECTED. RAIN SHOWERS AND TSTMS ALSO FORMED THAT WERE NOT FORECAST, HOWEVER, THEY WERE NOT A CONTRIBUTING FACTOR TO THIS INCIDENT.

### **Synopsis**

A HELICOPTER AIR AMBULANCE DESCENDED AND STRUCK THE GND IN VMC WITH LIGHT FOG. NO DAMAGE TO ACFT BUT THE PILOT DID NOT HEAR ALERTING RADIO ALTIMETER.

**ACN: 706701**

## **Time / Day**

Date : 200608  
Day : Sun  
Local Time Of Day : 1801 To 2400

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 1200

## **Environment**

Flight Conditions : VMC  
Light : Night

## **Aircraft : 1**

Controlling Facilities.Tower : ZZZ.Tower  
Operator.Common Carrier : Air Taxi  
Make Model Name : A109  
Operating Under FAR Part : Part 135  
Mission : Ambulance

## **Aircraft : 2**

Controlling Facilities.Tower : ZZZ.Tower  
Operator.Common Carrier : Air Carrier  
Make Model Name : B737 Undifferentiated or Other Model  
Operating Under FAR Part : Part 121  
Mission : Passenger  
Navigation In Use.Other : Pilotage  
Flight Phase.Cruise : Level  
Flight Phase.Descent : Approach

## **Person : 1**

Affiliation.Company : Air Taxi  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Commercial  
Experience.Flight Time.Last 90 Days : 45  
Experience.Flight Time.Total : 10000  
Experience.Flight Time.Type : 500  
ASRS Report : 706701

## **Person : 2**

Affiliation.Company : Air Carrier  
Function.Flight Crew : Captain  
Function.Oversight : PIC

## **Person : 3**

Affiliation.Government : FAA  
Function.Controller : Local

## Events

Anomaly.Conflict : Airborne Less Severe  
Anomaly.Non Adherence : Clearance  
Anomaly.Other Spatial Deviation  
Independent Detector.Other.ControllerA : 3  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.Flight Crew : Returned To Original Clearance  
Resolatory Action.Flight Crew : Took Precautionary Avoidance Action  
Miss Distance.Horizontal : 3500  
Miss Distance.Vertical : 200

## Assessments

Problem Areas : ATC Human Performance  
Problem Areas : Airport  
Problem Areas : Airspace Structure  
Problem Areas : Flight Crew Human Performance

## Narrative

I HAD BEEN CLRED BY THE LCL (TWR) CTLR AT ZZZ TO TRANSITION THE CLASS B AIRSPACE FROM THE MEDICAL CENTER, JUST S OF DOWNTOWN ZZZ, VIA THE FREEWAY NBOUND TO DEST. WHILE ON THIS TRANSITION, ABOUT 1-2 MI W OF ZZZ ARPT, I NOTICED AN ACFT AT MY 1 O'CLOCK POS THAT APPEARED TO BE ON A CONVERGING FLT PATH THAT WAS HEADED APPROX SBOUND. AT THIS TIME I WASN'T SURE IF THE TFC WAS INBOUND TO ZZZ, OR ON A TRANSITION SOMEWHERE ELSE. SOMEWHERE DURING THIS TIME, AN ACFT CALLED TWR AND ASKED IF THEY WERE CLRED TO LAND. THERE WAS NO RESPONSE FROM TWR. I DETERMINED IF I CONTINUED ON MY CURRENT COURSE ALONG THE FREEWAY I WOULD PASS DIRECTLY IN FRONT OF THIS TFC, SO I BEGAN A R TURN TO PASS BEHIND THEM. THIS TFC TURNED OUT TO BE B737 INBOUND TO ZZZ. I DON'T KNOW WHICH RWY, AND AS I TURNED R HE BEGAN HIS L TURN TO FINAL. AGAIN THERE WAS A CALL FROM ANOTHER ACFT (I BELIEVE THE B737) TO TWR ASKING IF THEY WERE CLRED TO LAND. DURING THIS CALL I REALIZED THE ACFT HAD TURNED FINAL TO THE ARPT, AND I BEGAN A L TURN BACK TO THE FREEWAY, AGAIN, TO PASS BEHIND THE ACFT. ABOUT THAT TIME THE TWR CTLR CAME ON THE RADIO CHASTISING ME BECAUSE I WASN'T DIRECTLY OVER THE FREEWAY. SHE TOLD ME SHE NEEDED ME W OF THE FREEWAY AND THAT I WAS E OF IT. (SHE HAD NOT TOLD ME THAT BEFORE). THE B737 ACFT AT ABOUT THIS SAME TIME INITIATED A GAR, AND NOTIFIED THE TWR CTLR THAT HE WAS GOING AROUND. I FELT I NEVER DID HAVE A CHANCE TO ASK THE TWR CTLR ABOUT THE TFC, WHICH HAD NOT BEEN CALLED OUT TO ME, BECAUSE OF THE OTHER ACFT ASKING ABOUT THEIR LNDG CLRNC. I BELIEVE HAD I NOT TURNED R IN THE FIRST PLACE TO AVOID FLT PATH OF THE B737, THERE WOULD PROBABLY HAVE BEEN NO CONFLICT, BUT I HAD NO WAY TO KNOW THAT, AND FELT I HAD TO EXERCISE MY VFR SEE AND AVOID RESPONSIBILITY. ALSO, IF THE TWR CTLR HAD ADVISED ME THAT SHE HAD TFC INBOUND FOR THE RWY EARLIER, I WOULD NOT HAVE HAD TO GUESS AS TO THE INTENTIONS OF THE TFC I OBSERVED ON WHAT APPEARED TO BE A CONFLICTING FLT PATH. IN WAITING FOR THE ACFT ASKING ABOUT THEIR LNDG CLRNC TO GET AN ANSWER, I MISSED THE ONLY CHANCE I HAD TO INQUIRE ABOUT THE OTHER ACFT. I SHOULD HAVE SPOKEN UP

IMMEDIATELY. I BELIEVE THE LCL TWR CTLR HAD A CLR PICTURE OF WHERE EVERYONE WAS, AND WHERE THEY WERE GOING AT THE TIME, AND THAT SHE KNEW IF I STAYED DIRECTLY OVER THE FREEWAY I WOULD PASS BEHIND THE B737, BUT SINCE SHE DIDN'T CALL OUT THIS TFC TO ME, I HAD NO WAY OF KNOWING THIS PLAN. BETTER COMS ALL AROUND WOULD HAVE PREVENTED THIS SITUATION FROM DEVELOPING. I DO NOT BELIEVE AN UNSAFE SITUATION EVER DEVELOPED, HOWEVER, I BELIEVE THE B737 HAD TO NEEDLESSLY DO A GAR BECAUSE OF A LACK OF COM. I AM NOT SURE IF HE DID A GAR BECAUSE OF ME OR NOT, BUT I BELIEVE IT WAS BECAUSE HE NEVER DID RECEIVE HIS LNDG CLRNC. ALSO, ABOUT 10-11 HRS LATER, I HAD OCCASION TO FLY THIS EXACT RTE AGAIN, AND THIS TIME, THE CTLR TOLD ME TO REMAIN E OF THE FREEWAY. APPARENTLY, THE FIRST CTLR EXPECTED ME TO REMAIN W OF THE FREEWAY, BUT NEVER COMMUNICATED THAT TO ME. IN THE FUTURE, I WILL BE MORE PROACTIVE ABOUT ASKING FOR INFO WITH REGARDS TO TFC.

### **Synopsis**

A109 PLT RPTS MISUNDERSTANDING WITH ZZZ TWR CTLR WHILE TRANSITING ZZZ1 CLASS B AIRSPACE.

**ACN: 701930**

## **Time / Day**

Date : 200607  
Day : Sat  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Navaid : ZZZ.VOR  
State Reference : US  
Altitude.MSL.Single Value : 11000

## **Environment**

Flight Conditions : VMC  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.TRACON : ZZZ.TRACON  
Operator.Common Carrier : Air Taxi  
Make Model Name : A109  
Operating Under FAR Part : Part 135  
Mission : Ambulance  
Flight Phase.Climbout : Intermediate Altitude

## **Person : 1**

Affiliation.Company : Corporate  
Function.Flight Crew : Captain  
Function.Oversight : PIC  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
Experience.Flight Time.Last 90 Days : 50  
Experience.Flight Time.Total : 10500  
Experience.Flight Time.Type : 150  
ASRS Report : 701930

## **Events**

Anomaly.Non Adherence : FAR  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.None Taken : Insufficient Time

## **Assessments**

Problem Areas : Flight Crew Human Performance

## **Narrative**

WE HAD STARTED OUR WORK DAY EARLY WITH A BODY RECOVERY. RETURNING LATER THAT AFTERNOON, WITH NO PATIENTS ON BOARD THE ACFT, WE (THE CREW) WANTED TO LOOK AT THE MORNING RECOVERY AREA FROM ALT. THE RECOVERY HAD TAKEN PLACE NEAR 8700 FT LEVEL, SO WE FLEW OVER THE AREA

CLOSE TO 10000 FT. UPON LEAVING THE AREA WE CLBED TO ABOUT 11000 FT TO CLEAR THE W RIDGELINE. I DID NOT KNOW ABOUT A HIKING TRAIL TRAVERSING THAT WESTERN RIDGE. IT RUNS NEARLY THE COMPLETE RIDGELINE, A DISTANCE OF 2-3 MI. AS WE WERE NEARING THE RIDGE, WE NOTICED A NUMBER OF HIKERS ALONG THE RIDGELINE TRAIL, BUT WITH OUR FAST CLOSURE RATE IT WAS UNAVOIDABLE THAT WE FLEW NEAR A COUPLE HIKERS AS WE CLEARED THE RIDGE.

### **Synopsis**

AGUSTA 109 PLT FLIES BELOW FAR REQUIRED CLRNC ALT IN MOUNTAINOUS AREA.

**ACN: 698926**

## **Time / Day**

Date : 200605  
Day : Wed  
Local Time Of Day : 1201 To 1800

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 1000

## **Environment**

Flight Conditions : VMC  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.TRACON : ZZZ1.TRACON  
Controlling Facilities.Tower : ZZZ.Tower  
Operator.Other : Government  
Make Model Name : SA 365 Dauphin 2  
Operating Under FAR Part : Part 135  
Mission : Ambulance  
Flight Phase.Cruise : Level

## **Aircraft : 2**

Operator.General Aviation : Personal  
Make Model Name : Cessna Single Piston Undifferentiated or Other Model  
Operating Under FAR Part : Part 91

## **Person : 1**

Affiliation.Government.Other  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : ATP  
Qualification.Pilot : CFI  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
Experience.Flight Time.Last 90 Days : 80  
Experience.Flight Time.Total : 10000  
Experience.Flight Time.Type : 3000  
ASRS Report : 698926

## **Person : 2**

Affiliation.Other : Personal  
Function.Flight Crew : Single Pilot

## **Person : 3**

Function.Controller : Approach

## Events

Anomaly.Conflict : NMAC

Anomaly.Non Adherence : Required Legal Separation

Anomaly.Other Spatial Deviation

Independent Detector.Other.Flight CrewA : 1

Resolatory Action.Flight Crew : Took Evasive Action

Miss Distance.Horizontal : 175

Miss Distance.Vertical : 0

## Assessments

Problem Areas : Airspace Structure

Problem Areas : Flight Crew Human Performance

## Narrative

I WAS ON A MISSION NE OF HOME BASE ZZZ2 AND WAS CANCELLED WHILE IN ZZZ1 CLASS B AIRSPACE. I NOTIFIED TWR OF CANCELLATION OF MISSION AND TOLD THEM I WOULD EXIT CLASS B TO THE S AND RETURN TO ZZZ2 GETTING MY OWN CLRNC. I SWITCHED TO ZZZ2 TWR AND RECEIVED CLRNC INTO CLASS B AIRSPACE. I WAS MONITORING FREEWAY (ZZZ) UNICOM, BUT NOT ANNOUNCING MY PRESENCE. ON THIS OCCASION THERE WERE 3 ACFT IN THE LCL PATTERN (RWY WAS 18L TFC). I WAS E OF THE ARPT HDG ABOUT 200 DEGS APPROX 7 MI FROM ZZZ2 WHEN WE WERE ASSIGNED ANOTHER MISSION WITH AN APPROX HDG OF 310 DEGS. I CHKED OUT WITH ZZZ2 AND SWITCHED TO TRACON TO LET THEM KNOW I WAS NOW A PRIORITY ACFT. I HAD SWITCHED OFF ZZZ UNICOM IN PREPARATION FOR LNDG AT ZZZ2. WHILE CHKING OUT WITH ZZZ2 AND CHKING IN WITH TRACON, I WAS MAKING A R TURN APPROX 3 DEGS PER SECOND. DURING THIS TURN, I PLACED MY ACFT INTO THE PATTERN AREA OF ZZZ. I STARTED THE TURN AND THE RADIO SWITCHES WITHOUT CLRING MYSELF. I SAW THE C172/182(?) IN MY 11:30 O'CLOCK POS, APPROX 150-200 FT AWAY AT MY ALT. I DID NOT HAVE TO TAKE EVASIVE ACTION BECAUSE I BELIEVE THEY ALREADY HAD. I WENT BTWN THE EVADING ACFT AND ANOTHER ACFT CLBING OUT AFTER TKOF. INITIALLY, I ERRONEOUSLY FIGURED I WAS FAR ENOUGH FROM THE PATTERN TO NOT IMPACT IT. I FAILED TO CONSIDER THAT 3 ACFT WOULD EXPAND THE PATTERN. ADDITIONALLY, I STARTED MY TURN FOR THE NEW MISSION WITHOUT FIRST CLRING MYSELF. IN THE FUTURE I WILL ALWAYS ANNOUNCE MY PRESENCE, EVEN TO AN EMPTY PATTERN, AND I WILL GO BACK TO ONE OF THE BASICS THAT EVERY NEW PLT PRACTICES, CLR YOUR AIRSPACE! BOTH ZZZ2 AND TRACON ADVISED ME OF ACFT IN THE ZZZ PATTERN.

## Synopsis

SA365 DAUPHIN PLT HAS AN NMAC.

**ACN: 696327**

## Time / Day

Date : 200605  
Day : Thu  
Local Time Of Day : 1201 To 1800

## Place

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.AGL.Single Value : 500

## Environment

Flight Conditions : VMC  
Light : Daylight

## Aircraft : 1

Controlling Facilities.Tower : ZZZ.Tower  
Operator.Common Carrier : Air Taxi  
Make Model Name : Helicopter  
Operating Under FAR Part : Part 135  
Mission : Ambulance  
Flight Phase.Cruise : Level

## Person : 1

Affiliation.Company : Air Taxi  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : ATP  
Qualification.Pilot : CFI  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
Qualification.Technician : Airframe  
Qualification.Technician : Powerplant  
Experience.Flight Time.Last 90 Days : 70  
Experience.Flight Time.Total : 16700  
Experience.Flight Time.Type : 950  
ASRS Report : 696327

## Events

Anomaly.Non Adherence : Published Procedure  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.None Taken : Detected After The Fact

## Assessments

Problem Areas : ATC Human Performance  
Problem Areas : Airspace Structure  
Problem Areas : Flight Crew Human Performance

## **Narrative**

FLEW 75 NM FROM ZZZ2 HOSPITAL TO ZZZ1 HOSPITAL. HAD A DUAT BRIEF BEFORE FLT. BECAUSE OF THE EARLY FIRE SEASON, I ALSO CHKD TFR'S ABOUT 15 MINS BEFORE TKOF. NO TFR'S WERE LISTED FOR THE RTE. AFTER LNDG AT ZZZ1, HEARD ANOTHER ACFT ASK ZZZ TWR, 'IS THE TFR IN EFFECT YET?' TFR? WHAT TFR? 40 MINS LATER I CALLED FSS TO CHK NOTAMS AND TFR BEFORE TKOF. 1-800-WX-BRIEF CONNECTED TO FSS, WHOSE SPECIALIST SAID NO TFR WAS LISTED FOR MY RTE HOME. ASKED ABOUT THE OVERHEARD CONVERSATION, HAD THE TFR BEEN CANCELLED? SPECIALIST REPLIED NONE HAD BEEN LISTED, WAS IT THE GENERAL BLANKET TFR FOR SPORTING EVENTS? WAS THE LOCAL TEAM PLAYING? HOW WOULD I KNOW? I'M NOT FROM ZZZ, EITHER! IF A TFR IS IN EFFECT, IT IS THE FSS'S RESPONSIBILITY TO BRIEF IT. SPECIALIST SAID MAYBE IT WAS SOME SPORTING EVENT OR SOMETHING. OR SOMETHING? MAYBE? WHAT? WHERE? WHEN? THE CLASS B CHART HAS NO SPORTS VENUES EXCEPT RACEWAY. HOW CAN I AVOID A TFR THAT FSS DOESN'T KNOW ABOUT BEING HELD WHEN WE DON'T KNOW, WHERE WE DON'T KNOW, THAT ISN'T CHARTED? CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING INFO: RPTR STATED THAT HE HAD RECEIVED A THOROUGH BRIEF REGARDING HIS RTE OF FLT AND HAD CHKD THE NOTAMS. HE WAS CONCERNED THAT A TFR WAS ACTIVE AND HE WAS NOT BRIEFED OR AWARE OF IT. HE IS AN EMS PLT AND FLIES AT LOW ALT AND VFR OVER AREAS THAT MAY HAVE A TFR ACTIVE AND IS CONCERNED THAT THE FSS BRIEFER MAY NOT BE AWARE OF THE TFR. HE WAS CONCERNED THAT HE MAY GET VIOLATED DUE TO A LACK OF PROPER BRIEFING.

## **Synopsis**

EMS HELI PLT, WHILE MONITORING TWR FREQ AT HIS DEST, HEARS ANOTHER PLT INQUIRE 'IS THE TFR ACTIVE?' RPTR WAS CONFUSED AS TO WHAT TFR IS ACTIVE AS HE CHKD ALL THE NOTAMS AND RECEIVED A BRIEF PRIOR TO DEPARTING FOR THE FLT AND NO TFR'S WERE BRIEFED.

**ACN: 695596**

### **Time / Day**

Date : 200604  
Day : Mon  
Local Time Of Day : 0001 To 0600

### **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US

### **Environment**

Flight Conditions : VMC  
Light : Night

### **Aircraft : 1**

Make Model Name : AS 350 Astar/Ecureuil  
Operating Under FAR Part : Part 135  
Mission : Ambulance  
Flight Phase.Climbout : Takeoff

### **Component : 1**

Aircraft Component : Compressor Bleed Valve

### **Person : 1**

Affiliation.Company : Air Carrier  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
Qualification.Technician : Airframe  
Qualification.Technician : Powerplant  
Experience.Flight Time.Last 90 Days : 50  
Experience.Flight Time.Total : 4000  
Experience.Flight Time.Type : 250  
ASRS Report : 695596

### **Person : 2**

Affiliation.Company : Air Carrier  
Function.Other Personnel.Other

### **Events**

Anomaly.Aircraft Equipment Problem : Less Severe  
Anomaly.Maintenance Problem : Improper Documentation  
Anomaly.Non Adherence : FAR  
Anomaly.Non Adherence : Published Procedure  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.None Taken : Detected After The Fact  
Consequence.Other

## Maintenance Factors

Maintenance.Performance Deficiency : Logbook Entry

Maintenance.Performance Deficiency : Non Compliance With Legal Requirements

## Assessments

Problem Areas : Aircraft

Problem Areas : Company

Problem Areas : Flight Crew Human Performance

Problem Areas : Maintenance Human Performance

## Narrative

I WAS THE NIGHT DUTY PLT. WE WERE DISPATCHED FOR AN INTERHOSPITAL TRANSPORT AT ABOUT XXXX. DURING TKOF I NOTICED NG AND T4 WERE RELATIVELY HIGH FOR THE TORQUE SETTING AND THE BLEED VALVE HAD FAILED TO CLOSE. WE NOTIFIED DISPATCH WE WOULD BE ABORTING THE MISSION AND RETURNED TO THE HELIPAD WITHOUT INCIDENT. FLT TIME WAS SEVEN MINS. I CONTACTED THE ON CALL MECH, WHO HAPPENED TO BE THE COMPANY DIRECTOR OF MAINT. HE TOLD ME THE BLEED VALVE HAD BEEN REMOVED FOR MAINT TWO DAYS BEFORE. AND TO CHECK IT FOR LOOSE AIR LINES. I AM ALSO AN A&P MECH. I LOCATED A LOOSE AIR LINE FITTING ON THE BLEED VALVE AND TIGHTENED IT. I PERFORMED A FLT CHECK AND FOUND THE BLEED VALVE TO BE OPERATING 1% NG OUTSIDE THE LIMITS ALLOWED BY THE ENG MANUAL. I RECORDED THE POWER CHECK AND BLEED VALVE NUMBERS IN THE LOG BOOK AND NOTIFIED THE DIRECTOR OF MAINT THAT THEY WERE OUTSIDE THE LIMITS. THE DIRECTOR OF MAINT SAID THAT HE WOULD COME IN TO LOOK AT THE SHIP, AND THE DAY DUTY PLT REPLACED ME AFTER A BRIEF ON THE SITUATION. WHEN I RETURNED TO WORK THAT NIGHT, THE ACFT WAS ON A FLT. THE DAY PLT BRIEFED ME THAT THE DIRECTOR OF MAINT HAD SPOKEN WITH A REPRESENTATIVE FROM MANUFACTURER AND THE ACFT HAD BEEN APPROVED FOR RETURN TO SERVICE WITH THE BLEED VALVE OPERATION 1% OUT OF LIMITS. THIS WAS VALIDATED BY LOGBOOK ENTRIES. IN WAS DISPATCHED FOR AN INTERHOSPITAL TRANSFER AND DEPARTED. WE RETURNED FROM THE FLT TO LAND AT OUR BASE WITHOUT INCIDENT. THE ACFT WAS SCHEDULED TO BE MOVED WHILE MAINT WAS BEING PERFORMED ON THE COMPANY'S OTHER SHIP. SCHEDULES HAD BEEN ADJUSTED TO ACCOMMODATE MAINT OPS AND I WAS SCHEDULED TO BE THE DAY PLT. WHEN I REPORTED FOR WORK, I WAS TOLD THAT THE SHIP HAD BEEN GROUNDED DUE TO THE OUT OF TOLERANCE BLEED VALVE. MANUFACTURER DID NOT PRODUCE A LETTER ALLOWING CONTINUED OPS. THROUGH SOME MISCOM OR MISUNDERSTANDING THE ACFT WAS KEPT IN SERVICE AND USED TO CONDUCT PART 135 OPS WITH A DISCREPANT ENG COMPONENT.

## Synopsis

AN AS350-B2 HELICOPTER ENGINE WAS OPERATED 1% IN EXCEEDANCE OF THE ENGINE OPERATING MANUAL. DOCUMENTATION TO ALLOW OPERATION NOT DELIVERED BY THE MANUFACTURER.

**ACN: 694733**

### **Time / Day**

Date : 200604  
Day : Fri  
Local Time Of Day : 1201 To 1800

### **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US

### **Environment**

Light : Daylight

### **Aircraft : 1**

Operator.Common Carrier : Air Taxi  
Make Model Name : AS 350 Astar/Ecureuil  
Operating Under FAR Part : Part 135  
Mission : Ambulance

### **Component : 1**

Aircraft Component : Pneumatic Ducting  
Aircraft Component : Pneumatic Ducting

### **Person : 1**

Affiliation.Company : Air Taxi  
Function.Instruction : Instructor  
Qualification.Technician : Airframe  
Qualification.Technician : Inspection Authority  
Qualification.Technician : Powerplant  
Experience.Maintenance.Lead Technician : 21  
ASRS Report : 694733

### **Person : 2**

Affiliation.Company : Air Taxi  
Function.Instruction : Trainee  
Function.Maintenance : Technician

### **Person : 3**

Affiliation.Company : Air Taxi  
Function.Flight Crew : Single Pilot

### **Events**

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Maintenance Problem : Improper Documentation  
Anomaly.Maintenance Problem : Improper Maintenance  
Anomaly.Non Adherence : FAR  
Anomaly.Non Adherence : Published Procedure

Independent Detector.Aircraft Equipment.Other Aircraft Equipment : Temp T4 High  
Independent Detector.Other.Flight CrewA : 3  
Resolatory Action.Other  
Consequence.Other

## **Maintenance Factors**

Maintenance.Contributing Factor : Schedule Pressure  
Maintenance.Performance Deficiency : Inspection  
Maintenance.Performance Deficiency : Non Compliance With Legal Requirements  
Maintenance.Performance Deficiency : Repair  
Maintenance.Performance Deficiency : Scheduled Maintenance  
Maintenance.Performance Deficiency : Testing

## **Assessments**

Problem Areas : Aircraft  
Problem Areas : Environmental Factor  
Problem Areas : Maintenance Human Performance

## **Narrative**

WHILE TRAINING AND SUPERVISING A NEW HIRE ON CHANGING A TAIL ROTOR GEAR BOX, I WAS ALSO CHKING THE BLEED VALVE ORIFICE FOR CLEANLINESS/CLOGGING OF THE 1.9 MM ORIFICE. THE NEW HIRE AND I FINISHED THE TAIL ROTOR INSTALLATION AND INSTALLED THE VIBRATION ANALYZING EQUIP. THE NEW HIRE STATED HE MADE THE LOGBOOK ENTRY FOR GND CHK APPROVAL. WE STARTED THE HELI, VISUALLY CHKD THE BLEED VALVE ORIFICE AREA FOR LEAKS AND BALANCED THE TAIL ROTOR. ON APR/SUN/06 WHILE RESPONDING TO AN EMS MISSION, THE PLT NOTICED THE BLEED VALVE DIDN'T CLOSE AND THE T4 TEMP WAS HIGH. HE RETURNED TO BASE AND FOUND AN AIRLINER 'B' NUT LOOSE. 1) INADEQUATE STAFFING LEVELS AND CONSTANTLY BEING ON CALL. 2) THE INSPECTOR SAWS THE ENG WORK BEING PERFORMED BUT DIDN'T ASSURE PROPER SIGNOFF OR AFTER-WORK CHK. 3) DOING MULTIPLE TASKS AT THE SAME TIME. 4) NOT CHKING THE NEW HIRE'S SIGNOFF BECAUSE IT HAS ALWAYS BEEN CORRECT AND COMPLETE.

## **Synopsis**

AN AS350B2 RETURNED TO THE BASE DUE TO AN ENG BLEED VALVE FAILING TO CLOSE. FOUND A LOOSE B NUT ON THE BLEED VALVE AIRLINE.

**ACN: 683642**

## **Time / Day**

Date : 200512  
Day : Fri  
Local Time Of Day : 1801 To 2400

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 1300

## **Environment**

Flight Conditions : VMC  
Light : Night

## **Aircraft : 1**

Controlling Facilities.TRACON : ZZZ.TRACON  
Operator.Common Carrier : Air Taxi  
Make Model Name : AS 350 Astar/Ecureuil  
Operating Under FAR Part : Part 135  
Mission : Ambulance  
Flight Phase.Descent : Approach

## **Aircraft : 2**

Controlling Facilities.TRACON : ZZZ.TRACON  
Operator.Common Carrier : Air Taxi  
Make Model Name : AS 350 Astar/Ecureuil  
Operating Under FAR Part : Part 135  
Mission : Ambulance  
Flight Phase.Descent : Approach

## **Person : 1**

Affiliation.Company : Air Taxi  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
Experience.Flight Time.Last 90 Days : 70  
Experience.Flight Time.Total : 8000  
Experience.Flight Time.Type : 300  
ASRS Report : 683642

## **Person : 2**

Affiliation.Company : Air Taxi  
Function.Flight Crew : Single Pilot

## **Events**

Anomaly.Conflict : NMAC  
Anomaly.Non Adherence : Company Policies  
Anomaly.Non Adherence : Published Procedure  
Anomaly.Other Spatial Deviation  
Independent Detector.Other.Flight CrewA : 2  
Resolatory Action.None Taken : Detected After The Fact  
Consequence.Other : Company Review  
Miss Distance.Horizontal : 100  
Miss Distance.Vertical : 50

## Assessments

Problem Areas : Airport  
Problem Areas : Airspace Structure  
Problem Areas : Company  
Problem Areas : Flight Crew Human Performance

## Narrative

OUR INSTRUCTIONS WERE TO PROCEED TO THE DOWNTOWN HOSPITAL, SET XPONDER, MAINTAIN BELOW 1400 FT, REMAIN E OF THE ARPT AND OBSERVE LNDG ACFT. WHILE INSIDE ZZZ AIRSPACE, THE COMPANY RADIO WAS CUT OFF TO THE PLT SO THAT I COULD STAY ALERT FOR DIRECTIONS FROM TWR. AT APPROX 2 MI S, ZZZ TWR CLRED ME FROM THEIR AIRSPACE. I RESET THE XPONDER TO 1200, TURNED THE COMPANY RADIO BACK ON FOR THE PLT. AT THIS POINT I HEARD OUR NURSE CALLING OUR OTHER ACFT. SHE ATTEMPTED SEVERAL MORE TIMES TO REACH THEM BUT DID NOT GET ANY RESPONSE. I THEN ASKED THE CREW WHAT I HAD MISSED AND TO UPDATE ME. OUR NURSE ADVISED THAT COMPANY WAS INBOUND ALSO TO THE HOSPITAL BUT COULD NOT ESTABLISH ANY CONTACT WITH THEM TO GET AN UPDATE ON THEIR ARR. I CALLED DISPATCH AND ASKED HOW MANY HELIS WERE COMING TO HOSPITAL. HE ADVISED ME THAT COMPANY AND I SHOULD BE THERE AT APPROX THE SAME TIME AND THAT HE ALSO HAD NOT BEEN ABLE TO ESTABLISH ANY CONTACT WITH THEM AND ASKED IF I WOULD TRY TO CONTACT THEM. BY THIS TIME WE WERE AT THE HOSPITAL AND DID NOT SEE OR HEAR ANY ACFT IN THE AREA. I SET UP TO LAND FROM THE N TO THE S. DURING FINAL APCH, APPROX 40 FT FROM THE PAD, COMPANY DISPATCH CALLED AND WANTED TO KNOW IF WE WERE AWARE THAT WE HAD ALMOST HAD A MIDAIR. AT THIS TIME I CAUGHT A GLIMPSE OF COMPANY IN MY 3 O'CLOCK POS ABOVE ME APPROX 200 FT IN A CLOCKWISE TURN. THIS WAS THE FIRST XMISSION THAT WE RECEIVED FROM THEM. WE LANDED TO THE S END OF THE PAD AND ADVISED DISPATCH THAT WE WERE DOWN. THE PLT WALKED OVER TO ME AND WANTED TO KNOW IF I KNEW HOW CLOSE WE HAD COME TO A MIDAIR. I RELATED TO HIM I WAS NOT AWARE OF ANY MIDAIR AND DIDN'T KNOW HE WAS IN THE AREA UNTIL HE CALLED DISPATCH AND INFORMED THEM OF THE NMAC. I STATED TO HIM THAT I HAD NOT SEEN HIM NOR HAD I HEARD ANY XMISSIONS FROM HIM AND THAT DISPATCH ALSO HAD BEEN TRYING TO REACH HIM BUT HAD BEEN UNSUCCESSFUL. HE STATED THAT HE HAD NOT HEARD ANY RADIO XMISSIONS FROM US ON FREQ OR ANY XMISSIONS FROM US OR DISPATCH ON THE COMPANY RADIO. AFTER WE RETURNED TO THE PAD WE HAD A VERY SERIOUS MEETING ABOUT WHAT HAD HAPPENED AND TRIED TO UNDERSTAND WHAT WENT WRONG AND HOW THIS WILL NEVER HAPPEN AGAIN.

## Synopsis

2 HELIS LNDG AT A DOWNTOWN HELIPORT EXPERIENCE NMAC.

**ACN: 678136**

## **Time / Day**

Date : 200511  
Day : Tue  
Local Time Of Day : 1801 To 2400

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.AGL.Single Value : 0

## **Environment**

Flight Conditions : VMC  
Light : Night

## **Aircraft : 1**

Operator.Common Carrier : Air Taxi  
Make Model Name : Jet Ranger/Kiowa/206  
Operating Under FAR Part : Part 135  
Mission : Ambulance  
Flight Phase.Ground : Parked

## **Person : 1**

Affiliation.Company : Air Taxi  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
ASRS Report : 678136

## **Person : 2**

Affiliation.Company : Air Taxi  
Function.Flight Crew : Single Pilot

## **Events**

Anomaly.Conflict : Ground Less Severe  
Anomaly.Ground Encounters : Vehicle  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.None Taken : Detected After The Fact

## **Assessments**

Problem Areas : Environmental Factor  
Problem Areas : Flight Crew Human Performance

## **Narrative**

MULTIPLE VEHICLE ACCIDENT SCENE FLT. MY ACFT WAS THE SECOND TO ARRIVE AT THE SCENE. THE FIRST ACFT HAD JUST LIFTED AS I ARRIVED AT THE SCENE. I WAS TOLD BY GND UNIT TO LAND S OF THE TWO AMBULANCE UNITS. I THOUGHT

I HAD GOOD LOCATION IN SIGHT FROM WHERE THE FIRST ACFT LIFTED. LNDG WAS TO BE MADE ON HWY. OTHER ACFT ADVISED ME TO LAND ON THE ROAD, S OF THE GND UNITS AND TO WATCH FOR WIRES NEAR THE ROAD, BUT NOT A FACTOR. I FLEW OVER, LOCATED WHAT I THOUGHT WAS THE LNDG AREA AND SET UP AN APCH TO THE NW. I SPOTTED THE WIRES W OF THE ROAD AND ALSO XING JUST S OF THE GND UNITS, WHICH WERE PARKED UNDER THE WIRES. I LANDED ON THE ROAD IN THE L LANE OF THE HWY. APPARENTLY, I FIXATED ON THE GND UNITS AND THE WIRES, WITHOUT THINKING ABOUT IT I LANDED CLOSE OVER A LINE OF STOPPED VEHICLES AND SET DOWN IN THE ADJACENT LANE NEXT TO THE FRONT OF THAT LINE. WE MADE THE PATIENT PICKUP, I TOOK OFF AND COMPLETED THE FLT TO THE HOSPITAL AND RETURNED TO BASE. ON THE TRIP HOME I WAS DISCUSSING THE FLT WITH THE CREW. ONE OF THEM MENTIONED THAT HE WAS TOLD THAT WE HAD LANDED IN THE WRONG LOCATION. THERE WERE ABOUT 6 AMBULANCES ON THE GND COVERING A LARGE AREA AND I HAD PICKED THE WRONG ONES. I DON'T REMEMBER ANY RADIO TFC POINTING OUT MY ERROR. AT THAT POINT I HAD ONE OF THOSE BLINDING FLASHES OF INSIGHT AND I REALIZED HOW DANGEROUS THAT LNDG HAD BEEN. BEFORE THAT POINT IT JUST HADN'T CROSSED MY MIND. I WAS IN THE NEXT LANE, PARALLEL TO THE STOPPED TFC AND MY MAIN ROTOR WAS OVERLAPPING THE CARS! MY TAIL ROTOR WAS IN CLOSE PROX TO THE CARS BEHIND ME! REALLY STUPID! I CAN'T OFFER ANY EXCUSES, I JUST DIDN'T THINK. FORTUNATELY, NO ONE WAS INJURED AND NO DAMAGE WAS DONE. WE WERE ONLY ON THE GND 7 MINS. IT WAS LATE, I WAS AT THE END OF MY SHIFT APCHING 14 HRS AND I GUESS I WASN'T AT MY BEST MENTALLY. WE SOMETIMES HAVE TO LAND IN SOME VERY TIGHT AREAS AND IT IS EASY TO FIXATE ON AVOIDING THE OBSTACLES, BUT ONE MUST ALSO REALIZE WHAT THESE OBSTACLES ARE. INTERESTINGLY, NEITHER OF MY MEDICAL CREW CONSIDERED THE CLOSE VEHICLES AND THEY ASSISTED ME LNDG. I GUESS THEY WERE FIXATED ON GETTING TO THE PATIENT. I DEFINITELY WON'T DO THIS AGAIN. I WILL VERIFY LNDG AREAS WITH GND UNITS AND POSITIVELY IDENT THEM BEFORE LNDG AND NEVER LAND IN CLOSE PROX TO NEARBY NON-EMER VEHICLES. I CAN'T FIND ANY SPECIFIC REG THAT I BROKE, BUT THIS WAS DEFINITELY A SAFETY PROB.

## **Synopsis**

AN EMS HELI PLT RPTS LNDG IN CLOSE PROX TO VEHICLES AT AN AUTO ACCIDENT SCENE AFTER FAILING TO LOCATE THE CORRECT LNDG SITE.

**ACN: 674908**

## **Time / Day**

Date : 200510  
Day : Fri  
Local Time Of Day : 1801 To 2400

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 3500

## **Environment**

Flight Conditions : VMC  
Light : Daylight

## **Aircraft : 1**

Controlling Facilities.TRACON : ZZZ.TRACON  
Operator.Common Carrier : Air Taxi  
Make Model Name : AS 350 Astar/Ecureuil  
Operating Under FAR Part : Part 135  
Mission : Ambulance

## **Aircraft : 2**

Flight Phase.Cruise : Level

## **Person : 1**

Affiliation.Company : Air Taxi  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : ATP  
Qualification.Pilot : Instrument  
Experience.Flight Time.Last 90 Days : 60  
Experience.Flight Time.Total : 11000  
Experience.Flight Time.Type : 5000  
ASRS Report : 674908

## **Person : 2**

Affiliation.Government : FAA

## **Events**

Anomaly.Inflight Encounter : VFR In IMC  
Anomaly.Inflight Encounter : Weather  
Anomaly.Non Adherence : FAR  
Independent Detector.Other.Flight CrewA : 1  
Resolutive Action.Controller : Issued New Clearance  
Resolutive Action.Controller : Provided Flight Assist  
Resolutive Action.Flight Crew : Exited Adverse Environment

## Assessments

Problem Areas : Aircraft  
Problem Areas : Flight Crew Human Performance  
Problem Areas : Weather

## Narrative

WHILE ON AN EMS FLT TO ZZZ1 TO DROP OFF THE PATIENT AND TRANSPORT TO ABC HOSPITAL I CONTACTED APCH FOR APPROVAL TO FLY INTO THE CLASS B AIRSPACE. I WAS GIVEN A CODE AND WAS IN CONTACT WITH APCH WITH HEADING AND ALT RPTING. WHILE APCHING THE BRIDGE I NOTICED THAT THE WX THAT WAS BEING RPTED WAS NOT WHAT I WAS ENCOUNTERING. WX RPTED WAS 1300 FT SCATTERED, 1800 FT SCATTERED, 2200 FT OVERCAST WITH 10 MI, BOTH AT ZZZ1 AND ZZZ2. THERE WAS THIS LINE OF CLOUDS JUST PRIOR TO THE BRIDGE. I DSNDED TO ATTEMPT TO FLY UNDERNEATH THE LAYER OF CLOUDS TO STAY VFR. AT 500 FT MSL I ENTERED THE CLOUD BANK AND WAS IMC. I TRANSITION TO THE INSTRUMENTS AND CONTINUED TO FLY STRAIGHT AHEAD ON A HEADING OF 170 DEGS. I CONTACTED APCH AND INFORMED THEM THAT I JUST WENT IMC AND I NEEDED RADAR VECTOR TO VFR CONDITIONS. APCH SAID MAINTAIN HDG AND CONTINUE TO CLB TO VFR CONDITIONS OR DO I WANT AN ILS APCH TO ZZZ1. I INFORMED APCH THAT I'M A VFR HELI IN IMC AND THAT I WOULD LIKE VECTORS TO KNOWN VFR CONDITIONS. APCH SAID CONTINUE TO CLB AND RPT VFR ON TOP. AT 1650 FT MSL, APCH ASKED ME TO TURN TO A HDG OF 270 DEGS FOR JET TFC OFF OF ZZZ2. I REQUESTED TO MAINTAIN MY HDG OF 170 DEGS UNTIL I WAS VFR. THE CTLR TURNED THE TFC AWAY FROM US AND WE CONTINUED TO CLB TO 2500 FT MSL WHERE WE WERE VFR ON TOP. I CONTINUED TO CLB TO 3500 FT MSL WITH THE APPROVAL OF APCH. THE FLT CONTINUED IN VFR CONDITION TO ZZZ1 WHERE I LANDED WITHOUT ANY FURTHER PROBS. CALLBACK CONVERSATION WITH RPTR REVEALED THE FOLLOWING INFO: PLT RPTED THAT HE IS AN INSTRUMENT RATED ATP PLT.

## Synopsis

THE PLT OF AN EMS VFR HELI EXPERIENCED IMC CONDITIONS AND REQUESTED VECTORS ABOVE THE CLOUD DECK TO VMC.

**ACN: 671298**

## **Time / Day**

Date : 200509  
Day : Thu

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 500

## **Environment**

Flight Conditions : VMC  
Light : Night

## **Aircraft : 1**

Controlling Facilities.TRACON : ZZZ.TRACON  
Operator.Common Carrier : Air Taxi  
Make Model Name : S-76/S-76 Mark II  
Operating Under FAR Part : Part 135  
Mission : Ambulance  
Flight Phase.Descent : Approach

## **Person : 1**

Affiliation.Company : Air Taxi  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
Experience.Flight Time.Last 90 Days : 50  
Experience.Flight Time.Total : 3550  
Experience.Flight Time.Type : 270  
ASRS Report : 671298

## **Person : 2**

Affiliation.Government : FAA  
Function.Controller : Approach

## **Person : 3**

Function.Observation : Passenger

## **Events**

Anomaly.Airspace Violation : Entry  
Anomaly.Non Adherence : Published Procedure  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.None Taken : Anomaly Accepted

## **Assessments**

Problem Areas : Airport  
Problem Areas : Airspace Structure  
Problem Areas : Flight Crew Human Performance

## **Narrative**

WHILE FLYING AN EMS HELI, I CONTACTED APCH CTL AND WAS GRANTED PERMISSION TO ENTER THE ACTIVE STADIUM TFR TO LAND TO PICK UP A PATIENT AT THE HOSPITAL ROOFTOP HELIPAD. THE HOSPITAL HELIPAD IS ABOUT 3 NM FROM THE STADIUM AND THE TFR MUST BE ENTERED IN ORDER TO CONDUCT A SAFE APCH INTO THE WIND AND LAND. UPON MY DEP I WAS UNABLE TO CONTACT APCH CTL FROM THE HOSPITAL ROOFTOP (WHICH IS QUITE NORMAL), SO I LIFTED OFF THE HELIPAD IN LIFEGUARD STATUS AND ATTEMPTED TO CONTACT THEM IN THE AIR TO INFORM THEM THAT I WAS DEPARTING THE TFR. AFTER SEVERAL ATTEMPTS, I WAS FINALLY ABLE TO MAKE POSITIVE COM WITH APCH WHEN I REACHED AN ALT OF APPROX 1500 FT MSL. THE ATC CTRLR WAS VERY NICE AND APOLOGIZED FOR THE DELAYED COMS AND EXPLAINED THAT RADIO COMS ARE MANY TIMES UNREADABLE AT THOSE LOWER ALTS. LATER THAT EVENING I WAS RETURNING TO THE HOSPITAL WITH ANOTHER PATIENT ON BOARD AND ONCE AGAIN IN LIFEGUARD STATUS. MY FLT WAS EXTREMELY SHORT, ONLY 8 MINS OF ENRTE FLT TIME AND I REMAINED AT ALTS OF 800-1000 FT MSL FOR THE ENTIRE RTE IN REGARD TO THE SAFETY OF THE PATIENT ON BOARD, WHO WAS SENSITIVE TO PRESSURE AND OXYGEN CHANGES. AFTER ABOUT 3 ATTEMPTS, I WAS UNABLE TO CONTACT APCH TO ENTER AND LAND WITHIN THE STADIUM TFR. CLBING TO ALT WOULD DELAY MY FLT AND ALSO ADD PRESSURE TO MY PATIENT'S LUNGS, MAKING THE FLT NOT ONLY LONGER, BUT ALSO MAKING IT MORE DIFFICULT FOR THE PATIENT TO BREATHE. I CONTINUED ON MY FLT PATH FOR THE SAFETY OF MY PATIENT, MADE A BLIND RADIO CALL OF MY INTENTIONS TO ENTER THE TFR AND LAND AT THE HOSPITAL WITHIN THE TFR, THEN DSNDED FOR MY APCH TO THE HELIPAD. I ENTERED AND LANDED WITHIN THE STADIUM TFR WITHOUT MAKING POSITIVE COMS WITH APCH. I WAS IN LIFEGUARD STATUS. THE SAFETY AND SURVIVAL OF MY PATIENT DEPENDED ON A QUICK ARR. I DO KNOW OF MANY OTHER OCCASIONS THAT OTHER LIFEGUARD FLTS HAVE HAD DIFFICULTY MAKING RADIO COMS AT THOSE LOW ALTS ESPECIALLY WHEN WX IS INVOLVED AND THE HELIS ARE VFR AND REMAINING BENEATH THE CLOUD CEILING. THIS IS DEFINITELY AN ISSUE BEING THAT THERE ARE SEVERAL HOSPITALS WITHIN THE STADIUM TFR. THE ONLY FIX TO THIS DILEMMA MIGHT BE TO GIVE LIFEGUARD STATUS ACFT AN AUTOMATIC CLRNC THROUGH THIS PARTICULAR STADIUM TFR WHILE TALKING ON THE COMMON AIR-TO-AIR FREQ. OR, TO ALLOW EMS OR EMER HELIS AT THESE LOW ALTS TO CALL APCH FROM CELL OR SATELLITE PHONES WHILE INFLT TO GAIN PERMISSION TO ENTER THE TFR (IF THIS WERE A LEGAL OPTION WHILE IN LOW FLT, MANY WOULD UTILIZE IT). CELL PHONES HAVE GOOD RECEPTION IN AREAS WHERE RADIOS DO NOT.

## **Synopsis**

EMS HELI PLT FORCED TO ENTER STADIUM TFR WITHOUT CONTACTING APPROPRIATE ATC CTL.

**ACN: 659595**

## **Time / Day**

Date : 200505  
Day : Mon  
Local Time Of Day : 0001 To 0600

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.AGL.Single Value : 10000

## **Environment**

Flight Conditions : IMC  
Weather Elements : Fog  
Weather Elements : Rain  
Weather Elements : Thunderstorm  
Light : Night

## **Aircraft : 1**

Controlling Facilities.TRACON : ZZZ.TRACON  
Operator.Common Carrier : Air Taxi  
Make Model Name : A109  
Operating Under FAR Part : Part 135  
Mission : Ambulance  
Flight Phase.Cruise : Level

## **Person : 1**

Affiliation.Company : Air Taxi  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : ATP  
Qualification.Pilot : CFI  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
Experience.Flight Time.Last 90 Days : 70  
Experience.Flight Time.Total : 6000  
Experience.Flight Time.Type : 325  
ASRS Report : 659595

## **Person : 2**

Affiliation.Government : FAA  
Function.Controller : Approach

## **Events**

Anomaly.Inflight Encounter : VFR In IMC  
Anomaly.Inflight Encounter : Weather  
Anomaly.Non Adherence : FAR

Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.Controller : Issued New Clearance  
Resolatory Action.Controller : Provided Flight Assist  
Resolatory Action.Flight Crew : Declared Emergency  
Resolatory Action.Flight Crew : Exited Adverse Environment

## **Assessments**

Problem Areas : Flight Crew Human Performance  
Problem Areas : Weather

## **Narrative**

FLT TO ZZZ DEPARTED XA27 ON 05/MON/05. AFTER CHKING WX AT FBO USING WX RADAR AND METAR/TAF INFO DECIDED TO DEPART FOR ZZZ WITH SOME STORM ACTIVITY S OF MY DEP AREA AND SW OF MY PLANNED RTE OF FLT. APPROX 15 NM NW OF ZZZZZ INTERSECTION I ENCOUNTERED SOME LOWERING VISIBILITY SO I ADJUSTED COURSE MORE WESTERLY, STARTED TO SLOW AIRSPEED WITH LOWERING VISIBILITY. AFTER A FEW MINS DECIDED VFR CONDITIONS COULD NOT BE HELD AND DUE TO THE DARK (LOW SURFACE LIGHTING) CONDITIONS THAT A 180 DEG TURN WOULD NOT BE THE BEST COURSE OF ACTION. ENTERED IMC IN A CLB STRAIGHT AHEAD TO A SAFE ALT 4000 FT. CONTACTED APCH AND DECLARED AN EMER. FOLLOWED DIRECTIONS AND CLRNCS GIVEN. CONTINUED IFR TO ZZZ RWY 31R ILS. CANCELLED IFR ON FINAL APCH IN VFR CONDITIONS, CONTINUED TO HOSPITAL VFR. LANDED AT ZZZ XB17. CONTACTED MY OPS MGMNT.

## **Synopsis**

HELI PLT VFR ENRTE TO ZZZ INADVERTENTLY ENTERS IMC. DECLARED EMER, OBTAINS IFR CLRNC UNTIL ONCE AGAIN IN VMC AND CONTINUES TO DEST.

**ACN: 651217**

## **Time / Day**

Date : 200503  
Day : Mon  
Local Time Of Day : 1801 To 2400

## **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.MSL.Single Value : 1800

## **Environment**

Flight Conditions : IMC

## **Aircraft : 1**

Controlling Facilities.ARTCC : ZZZ.ARTCC  
Operator.Common Carrier : Air Taxi  
Make Model Name : Helicopter  
Operating Under FAR Part : Part 135  
Mission : Ambulance  
Flight Phase.Cruise : Level

## **Person : 1**

Affiliation.Company : Charter  
Function.Flight Crew : Single Pilot  
Qualification.Pilot : CFI  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
Experience.Flight Time.Last 90 Days : 24  
Experience.Flight Time.Total : 1875  
Experience.Flight Time.Type : 400  
ASRS Report : 651217

## **Person : 2**

Affiliation.Government : FAA  
Function.Controller : Radar

## **Events**

Anomaly.Inflight Encounter : VFR In IMC  
Anomaly.Inflight Encounter : Weather  
Anomaly.Non Adherence : FAR  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.Controller : Provided Flight Assist  
Resolatory Action.Flight Crew : Declared Emergency  
Resolatory Action.Flight Crew : Exited Adverse Environment  
Consequence.FAA : Reviewed Incident With Flight Crew

## **Assessments**

Problem Areas : Aircraft  
Problem Areas : Flight Crew Human Performance  
Problem Areas : Weather

## **Narrative**

RETURNING FROM PATIENT XFER FROM ZZZ, ENCOUNTERED LOW CLOUD LAYER. DECLARED EMER DUE TO ACFT NOT IFR CERTIFIED AND PLT NOT IFR CURRENT. REQUESTED VECTORS FOR ILS INTO ZZZ1. COMPLETED ILS AND CLOSED FLT PLAN ON THE GND.

## **Synopsis**

A HELI NOT IFR CERTIFIED AND A PLT NOT INST CURRENT ENCOUNTERED IMC, DECLARED AN EMER AND RECEIVED VECTORS FOR AN ILS AT ANOTHER ARPT.

**ACN: 650855**

### **Time / Day**

Date : 200503  
Day : Tue

### **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.AGL.Single Value : 0

### **Environment**

Flight Conditions : VMC  
Light : Night

### **Aircraft : 1**

Operator.Common Carrier : Air Taxi  
Make Model Name : Jet/Long Ranger  
Operating Under FAR Part : Part 135  
Mission : Ambulance  
Flight Phase.Ground : Preflight

### **Component : 1**

Aircraft Component : Fuel Tank Cap  
Aircraft Component : Fuel Tank Cap

### **Person : 1**

Affiliation.Company : Air Taxi  
Function.Flight Crew : Single Pilot  
Qualification.Controller : Radar  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
Experience.Controller.Military : 8  
Experience.Controller.Non Radar : 10  
Experience.Controller.Radar : 10  
Experience.Controller.Supervisory : 2  
Experience.Flight Time.Last 90 Days : 25  
Experience.Flight Time.Total : 2050  
Experience.Flight Time.Type : 1200  
ASRS Report : 650855

### **Person : 2**

Affiliation.Company : Air Taxi  
Function.Other Personnel.Other

### **Person : 3**

Affiliation.Company : Air Taxi  
Function.Other Personnel.Other

## Events

Resolutory Action.None Taken : Detected After The Fact  
Consequence.Other : Company Review  
Consequence.Other

## Assessments

Problem Areas : Aircraft  
Problem Areas : Environmental Factor  
Problem Areas : Flight Crew Human Performance

## Narrative

ON MAR/SUN/05, I HAD JUST LANDED AND AFTER FINISHING MY POSTFLT, I BEGAN TO REFUEL MY ACFT. WHILE REFUELING, I GOT A CALL FOR ANOTHER FLT. I FINISHED REFUELING THE ACFT, CLOSED THE DOOR TO THE FUEL CAP ON THE ACFT, AND RETURNED THE FUEL HOSE TO A SAFE AREA AWAY FROM THE ACFT. I THEN WALKED UP TO THE COCKPIT TO RETRIEVE MY FLASHLIGHT TO DO A QUICK PREFLT LOOKING OVER THE ACFT. FROM THE FRONT OF THE ACFT, I SHINED THE LIGHT ABOVE, BELOW, AND TO BOTH SIDES OF THE ACFT TO LOOK FOR ANYTHING OUT OF THE ORDINARY. I DID NOT PERFORM A USUAL WALKAROUND BECAUSE I HAD PERFORMED A POSTFLT BEFORE REFUELING THE ACFT, JUST MINS EARLIER. AFTER MY CHK WITH THE LIGHT, I HOPPED BACK IN THE ACFT AND PERFORMED A NORMAL STARTUP AND HEADED OVER TO A NEARBY LOCATION TO PICK UP THE FLT CREW. AFTER SIGNALING THEM TOWARD THE ACFT, ONE CREW MEMBER CLBED IN AND SAID THAT THE FUEL CAP WAS OPEN. I ASKED IF IT WAS STILL UNSECURE AND WAS TOLD THAT IT WAS NOW OK AND SAFE TO GO. WE TOOK OFF AND LANDED SHORTLY AFTERWARDS. UPON LNDG, I DEBRIEFED THE CREW, FIRST ASKING THEM IF THEY FELT UNSAFE DURING THE FLT BECAUSE OF THE FUEL CAP BEING LOOSE. THIS KIND OF CAP HAS TO BE LATCHED AND TURNED ABOUT 45 DEGS BEFORE IT COMPLETELY CLOSES. I ALSO ASKED IF ANYONE WANTED TO RPT THIS, SINCE THERE WAS NO DAMAGE, AND IT DID NOT HINDER OUR MISSION. WE AGREED TO NOT RPT THE SIT BECAUSE AFTER INSPECTION, I NOTICED THAT THE CAP WAS IN OPERABLE CONDITION, AND NO DAMAGE DONE.

## Synopsis

A B407 HELI PLT FORGOT TO SECURE THE FUEL CAP.

**ACN: 643648**

### **Time / Day**

Date : 200501  
Day : Mon  
Local Time Of Day : 0601 To 1200

### **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.AGL.Single Value : 0

### **Aircraft : 1**

Operator.Common Carrier : Air Taxi  
Make Model Name : MBB-BK 117A-1  
Operating Under FAR Part : Part 135  
Mission : Ambulance  
Flight Phase.Ground : Maintenance

### **Component : 1**

Aircraft Component : Powerplant Fuel Control Unit

### **Person : 1**

Affiliation.Company : Air Taxi  
Function.Maintenance : Lead Technician  
Qualification.Technician : Airframe  
Qualification.Technician : Powerplant  
Experience.Maintenance.Lead Technician : 0.5  
Experience.Maintenance.Technician : 7  
ASRS Report : 643648

### **Person : 2**

Affiliation.Company : Air Taxi  
Function.Maintenance : Technician

### **Person : 3**

Affiliation.Company : Air Taxi  
Function.Maintenance : Inspector

### **Events**

Anomaly.Aircraft Equipment Problem : Critical  
Anomaly.Maintenance Problem : Improper Documentation  
Anomaly.Maintenance Problem : Improper Maintenance  
Anomaly.Non Adherence : FAR  
Anomaly.Non Adherence : Published Procedure  
Resolatory Action.None Taken : Detected After The Fact  
Consequence.Other : Company Review  
Consequence.Other

## Maintenance Factors

Maintenance.Contributing Factor : Schedule Pressure  
Maintenance.Performance Deficiency : Non Compliance With Legal Requirements  
Maintenance.Performance Deficiency : Scheduled Maintenance

## Assessments

Problem Areas : Aircraft  
Problem Areas : Chart Or Publication  
Problem Areas : Company  
Problem Areas : Environmental Factor  
Problem Areas : Maintenance Human Performance

## Situations

### Narrative

ON JAN/MON/05, WHILE REVIEWING COMPONENTS TIME LIMITS AND INSPECTIONS ON ACFT X STATUS RPT, I FOUND THAT ENG #1 HAD THE FLOW FENCE ACTUATOR OVERFLOWN BY 67.3 HRS. THE ENG TOTAL TIME AND CYCLES AT THAT TIME WAS (ACTT.7728.3) (NG.15610.95) (NP.20223.80). THE FLOW FENCE ACTUATOR WAS DUE OVERHAUL AT ENG.TT.7661.0. AT THE MOMENT I DISCOVERED THIS IRREGULARITY, I PROCEEDED TO NOTIFY THE PLT TO GND THE ACFT. AT THAT MOMENT THE ACFT WAS AT ZZZ HOSPITAL. AFTER THAT, NOTIFYING THE PLT, I CONTACTED MY FIELD MAINT SUPVR OF THE SIT. DURING THE SAME TIME I ORDERED THE COMPONENT INVOLVED. COMPANY MAINT SUPVR IMMEDIATELY STARTED PROCESSING THE ORDER FOR THE FLOW FENCE ACTUATOR, GOING BACK IN THE RECORDS THIS COMPONENTS DUE DATE WAS 22 DAYS PRIOR. THE SVCABLE FLOW FENCE ACTUATOR ARRIVED JAN/TUE/05. AT THIS TIME I PROCEEDED TO ZZZ1 TO REMOVE FLOW FENCE ACTUATOR. INSTALLED A SVCABLE PART AND MADE ADJUSTMENT IN ACCORDANCE WITH THE RESPECTIVE PROCS. CONTRIBUTING FACTORS TO THE OVERFLT, IN MY OPINION, ARE AS FOLLOWS: COMPANY HAS BEEN BEING UNDERSTAFFED WITH MECHS FOR THE LAST 6 MONTHS I HAVE BEEN HERE. (THE CONTRACT SAYS THERE WOULD BE 3 MECHS OR 1 MECH PER ENG.) IN THE PAST 6 MONTHS, THE FLT TIME AND NUMBER OF FLTS HAVE STEADILY INCREASED TO RECORD LEVELS FOR THIS CONTRACT. ALSO, WE HAVE GONE FROM ONE 24 HRS AND ONE 12 HRS TO 2 24 HRS ACFT DUE TO THE INCREASE IN FLT HRS. NUMEROUS INSPECTIONS ALL FELL DUE AT THE SAME TIME WITH DIFFERENCE DISCREPANCIES ON THE OTHER ACFT SUCH AS RADIO PROBS, SEVERE OIL LEAKS DUE TO DROP IN WX TEMP HAVE TO BE ADDRESSED ON BOTH ACFT ON AN ONGOING BASIS. PLUS, WE HAD A CHANGE IN ZZZ2 PERSONNEL THAT WERE TAKING CARE OF OUR STATUS SHEET, THAT WERE OVER 2 MONTHS OLD. ALL OF THIS FALLING AT A TIME WHEN I AS A NEW LEAD TRYING TO BRING MY BASE, PAPERWORK, PARTS ROOM AND GENERAL ORGANIZATION TO A PLACE THAT WE COULD STAY AHEAD OF THE MAINT.

### Synopsis

A BK117 HELI HAD A TIME LIMITED PART EXCEED OVERHAUL TIME BY 67 HRS. CONTRIBUTING FACTORS CITED INCLUDE MANPOWER SHORTAGE AND CHANGE IN RECORD KEEPING PERSONNEL.

**ACN: 642919**

### **Time / Day**

Date : 200501  
Day : Fri  
Local Time Of Day : 1201 To 1800

### **Place**

Locale Reference.Airport : ZZZ.Airport  
State Reference : US  
Altitude.AGL.Bound Lower : 500  
Altitude.MSL.Bound Upper : 3500

### **Environment**

Flight Conditions : Marginal  
Weather Elements : Fog  
Weather Elements : Rain  
Light : Daylight

### **Aircraft : 1**

Controlling Facilities.TRACON : ZZZ.TRACON  
Operator.Common Carrier : Air Taxi  
Make Model Name : Jet Ranger/Kiowa/206  
Operating Under FAR Part : Part 135  
Mission : Ambulance  
Flight Phase.Cruise : Level  
Flight Phase.Descent : Approach  
Route In Use.Arrival : On Vectors  
Route In Use.Enroute : On Vectors

### **Person : 1**

Affiliation.Company : Air Taxi  
Function.Flight Crew : Single Pilot  
Function.Oversight : PIC  
Qualification.Pilot : CFI  
Qualification.Pilot : Commercial  
Qualification.Pilot : Instrument  
Qualification.Pilot : Multi Engine  
Experience.Flight Time.Last 90 Days : 50  
Experience.Flight Time.Total : 3700  
Experience.Flight Time.Type : 1700  
ASRS Report : 642919

### **Person : 2**

Affiliation.Company : Air Taxi

### **Person : 3**

Function.Other Personnel : Dispatcher

## Person : 4

Affiliation.Government : FAA  
Function.Controller : Radar

## Person : 5

Affiliation.Government : FAA  
Function.Controller : Approach

## Events

Anomaly.Inflight Encounter : VFR In IMC  
Anomaly.Non Adherence : Company Policies  
Anomaly.Non Adherence : FAR  
Independent Detector.Other.Flight CrewA : 1  
Resolatory Action.Controller : Provided Flight Assist  
Resolatory Action.Flight Crew : Exited Adverse Environment

## Assessments

Problem Areas : Flight Crew Human Performance  
Problem Areas : Weather

## Narrative

I ENTERED IMC DURING A PATIENT TRANSPORT FROM ZZZ TO ZZZ1. WEATHER AT ALL RPTING POINTS ALONG THE RTE WAS ABOVE COMPANY DAY, CROSS-COUNTRY MINIMUMS. IN FACT, THE LOWEST CONDITIONS RPTED WERE CEILINGS OF 2600 FT OVERCAST AND 5 MI VISIBILITY IN LIGHT RAIN AT ZZZ2. THE FLT WAS RELATIVELY UNEVENTFUL FROM INITIAL LAUNCH FROM BASE THROUGH PICKUP AT ZZZ AND MOST OF THE FLT WITH THE PATIENT ABOARD. THE PLT OF ANOTHER COMPANY ACFT WHO HAD HEARD OUR LAST VOICE RPT TO OUR COMPANY DISPATCHER, CONTACTED US ON THE COMPANY FREQUENCY AND INFORMED US THAT THE FARTHER N WE GOT THE BETTER THE WX CONDITIONS WOULD BE. ABOUT 2/3 OF THE WAY THROUGH OUR LEG FROM ZZZ TO ZZZ2 WE ENCOUNTERED CEILINGS LOWER THAN RPTED AND WISPY MIST AT 500 FT AGL AND BELOW. THE MIST INTENSIFIED TO THE POINT WHERE I WAS BECOMING CONCERNED, SO WE TURNED SW, PLANNING TO LAND BACK AT ZZZ AND CONTINUE THE PATIENT TRANSPORT BY GND FROM THERE. AS WE PROGRESSED TOWARD ZZZ2, CONDITIONS GRADUALLY IMPROVED THE FURTHER W WE GOT. THE IMPROVED CONDITIONS WE FOUND NEAR ZZZ2 LASTED ONLY ABOUT 7 TO 8 MI AND AGAIN BEGAN TO DETERIORATE SIMILAR TO THE WISPY MIST WE HAD ENCOUNTERED EARLIER TO THE E, HOWEVER, AT 500 FT AGL, WE COULD STILL SEE SEVERAL MI UP THE INTERSTATE. GIVEN THOSE CONDITIONS, I BELIEVED CEILINGS AND VISIBILITY WOULD BE IMPROVING VERY SOON, HOWEVER, I STILL HAD NOT MENTALLY DISCARDED THE IDEA OF TURNING BACK IF CONDITIONS WORSENER. ABOUT THE SAME TIME, I PASSED A TOWER ON MY R AND SAW ANOTHER, PERHAPS A MI AHEAD, AT THE 10 O'CLOCK POS AND CONSULTED MY SECTIONAL CHART IN AN ATTEMPT TO PRECISELY FIX MY POS IN RELATION TO ANY OTHER OBSTACLES I MIGHT NEED TO AVOID IF I DID INDEED CHOOSE TO TURN AROUND. WHILE CONSULTING MY CHART, I HEARD THE RADAR ALTIMETER TONE, I HAD SET THE WARNING FLAG AT 400 FT AGL BECAUSE THE TALLEST TOWER I NOTED NEAR MY INTENDED RTE WAS 361 FT AGL. I GLANCED UP FROM THE CHART, NOTED THE NEEDLE GENTLY OSCILLATING AT THE 400 FT MARK, CONFIRMED MY ALT AND HDG WITH A BRIEF GLANCE OUTSIDE AND APPLIED

GENTLE AFT PRESSURE TO THE CYCLIC TO INITIATE A GRADUAL CLB BACK TO 500 FT AGL. I THEN CONTACTED CTR, HE TOLD ME I WAS IN 'RADAR CONTACT,' AND ALMOST IMMEDIATELY TOLD ME TO RE-CONTACT APCH. I SWITCHED BACK TO APCH, WHO GAVE ME AN ASSIGNED HDG AND ALT. THE CTLR ASKED IF THE ACFT AND PLT WERE INSTRUMENT RATED. I REPLIED 'THE PLT IS, THE ACFT IS NOT' AND TOLD HIM THAT I WAS TRAPPED BETWEEN LAYERS. HE WENT ON TO TELL ME THE WX CONDITIONS SHOULD BE IMPROVING AS WE PROGRESSED TOWARD ZZZ2. GIVEN THESE FACTORS, I WAS CONVINCED THAT THE SAFER AND BETTER CHOICE WAS TO CONTINUE TOWARD ZZZ2. I WILL ADMIT THAT I ALSO REALIZED THAT CONTINUING TOWARD ZZZ2 WOULD PUT THE PATIENT FAR CLOSER TO -- PERHAPS AT -- HIS DEST, HOWEVER, I CONSIDERED THAT 'ICING ON THE CAKE,' AND IT WAS NEVER A FACTOR IN MY DECISION TO CONTINUE. AS THE CTLR WAS COOPERATING WITH ME AND DID NO SOUND ANNOYED OR FLUSTERED, CONTRARY TO COMPANY POLICY, I CHOSE NOT TO SQUAWK 7700 AND CONTINUED ON INSTRUMENTS TOWARD ZZZ2 INTENDING TO BREAK OFF TO ZZZ1 AFTER I BECAME VMC AGAIN. ABOUT 2 MI S OF THE ABC VORTAC, I REACQUIRED CONTINUOUS VISUAL CONTACT WITH THE GND, NOTIFIED APCH AND REQUESTED VFR DIRECT TO ZZZ1. THE CTLR APPROVED MY REQUEST, WE DELIVERED THE PATIENT, AND DEPARTED TO ZZZ2 FOR FUEL. LOOKING BACK, I DON'T SEE MUCH THAT I COULD DO DIFFERENTLY. WHILE, ADMITTEDLY, MY BASIC AIRWORK COULD HAVE BEEN BETTER, I BELIEVE I MADE PRUDENT DECISIONS AT ALL POINTS ALONG THE TIMELINE, AND WE DELIVERED THE PATIENT SAFELY. DURING THIS FLT, AS I HAVE IN NUMEROUS OTHERS, I WAS DEALING WITH MY FLT ENVIRONMENT IN THE BEST WAY I KNEW HOW. UNFORTUNATELY, DEALING WITH THIS SIT REQUIRED MORE HEADS DOWN TIME WITH THE CHART THAN ON AN AVERAGE FLT, BOTH IN ORDER TO ACCURATELY FIX MY POS IF THINGS 'WENT SOUTH' AND TO DETERMINE FREQUENCIES REQUIRED AT POSSIBLE ALTERNATES. IN THE FUTURE, I WILL APPLY EVEN MORE CONSERVATIVE DECISION-MAKING CRITERIA DURING FLTS IN WX CLOSE TO COMPANY MINIMUMS, AND I WILL WORK TO REDUCE HEADS DOWN TIME IN MY FLYING.

## **Synopsis**

A MEDICAL TRANSPORT HELI BECAME IMC ON A VFR FLT PLAN AND CONTINUED TO HIS DEST.