

SAFECOM SUMMARY

October 2015 – March 2016



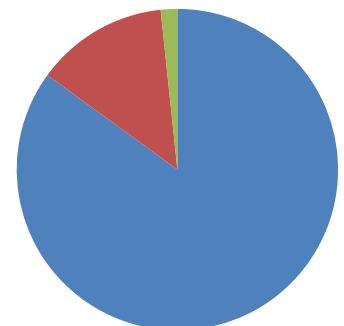
The first six months of FY16 there were 60 Bureau of Safety and Environmental Enforcement SAFECOMs submitted. This is a great indication of a strong reporting culture. The majority of these SAFECOMs reported maintenance discrepancies (85 percent) followed by human factors (13 percent) and then environmental factors (2 percent) (fig.1). A general breakdown of the maintenance-related issues indicates electrical (10) and instruments (10) issues occur most frequently, which isn't surprising given the humid and salty environment in which we fly. Hydraulics (six) and transmission (six) issues are the next most common problems. General mechanical issues make up the remaining 17 maintenance SAFECOMs (fig 2).

During the first week of October BSEE saw three consecutive issues with hydraulic systems, two of these issues involved the same AS-350 from Lake Jackson. In the October-November timeframe an A-119 supporting Lafayette also experienced two hydraulics issues. BSEE monitored the vendor's corrective actions and since that time neither aircraft has reported an issue with the hydraulic system.

One of the most potentially serious mechanical issues to be reported during this six-month reporting cycle, occurred when the right rear wheel assembly separated from an A-109 as it flew to an offshore facility. The pilot was able to land smoothly to the helideck without even realizing that the wheel had fallen off. Testing determined that hydrogen embrittlement, probably during manufacture, caused the failure of the main landing gear spindle. The vendor has elected to inspect these spindles more frequently than required in order to spot problems sooner.

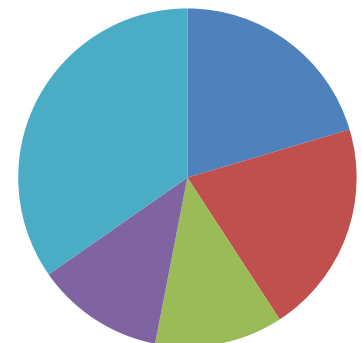
Another potential incident was averted on October 19, 2015 when a BSEE inspector noticed a faint wisp of smoke coming from the engine compartment as the engine was being shut-down and immediately notified the pilot. It was later determined that oil was seeping from a seal on the engine's rear bearing fitting. The inspector received the DOI Airward for his alertness and great crew coordination.

FIG 1



■ Maintenance - 51
■ Human Factors - 8
■ Environmental - 1

FIG 2



■ Electrical - 10
■ Instruments - 10
■ Hydraulics - 6
■ Transmission - 6
■ General maintenance - 17

LESSONS PUT INTO PRACTICE

BSEE recently applied the information from our SAFECOMs to initiate two procedural changes to eliminate hazards and reduce risks. The changes in BSEE policy are:

- Passengers sitting in the front seat and next to the passenger compartment exits must be qualified and current in their Helicopter Underwater Egress Training (HUET) and Interagency Aviation Training (IAT). District Managers may waive this requirement on a case-by-case basis for specific mission purposes (SAFECOM 16-0068).
- Cell phone use is prohibited when the aircraft is in flight (SAFECOM 15-0836).

CASE STUDY

Near Mid-Air Collision



OVERVIEW

On the afternoon of December 9, 2015, a BSEE contracted Agusta A119 helicopter was inbound to the Lafayette Regional Airport from a routine offshore mission. The weather was good with no ceilings and visibility greater than six miles. Onboard were the pilot and three BSEE passengers. When the BSEE helicopter was approximately 4 miles east of the Abbeville airport the pilot and the front-seat passenger spotted an unidentified helicopter, possibly an S-76, on a collision course a quarter mile to their front at the same altitude.



Both the pilot and the BSEE inspector had been actively scanning for traffic, and the inspector had just glanced down to check the TCAS before returning to search outside. Before the inspector could shout a warning the pilot was already taking evasive action by banking to the left and climbing. The inspector estimated that the intruder aircraft flew 200-300 feet below and to the right of their aircraft. Given their speeds, the combined rate of closure was in excess of 200 knots (338 feet/second) and the time to impact was less than four seconds. (SAFECOM 16-0068).

DISCUSSION

As the BSEE aircraft approached Abbeville's traffic area, the pilot announced his location and intended route of flight over Abbeville's Common Traffic Advisory Frequency (CTAF). The pilot heard no other traffic on the CTAF frequency and proceeded to transition north towards Lafayette at 1100 feet MSL.

While the BSEE aircraft's TCAS, transponder, position lights, pulse lights, and anti-collision lights were on and operational the BSEE crew did not see the intruder's lights and the TCAS did not pick up the intruder's transponder.

The BSEE crew did not hear any radio calls from the intruder aircraft and did not see the aircraft make any evasive maneuvers which suggests that the pilot of the intruder aircraft never saw the BSEE aircraft.

The investigation was unable to identify the intruder aircraft despite contacting the major helicopter operators in that area and briefing this incident at the Helicopter Safety Advisory Conference's (HSAC) meeting in January.

LESSONS PUT INTO PRACTICE

BSEE frequently operates in high density traffic areas where other aircraft may not be equipped with traffic avoidance aids such as TCAS or use available devices such as transponders.

- The general risk of an airspace conflict has increased from low to medium.
- All BSEE contracts require safety equipment (pulse lights, TCAS, etc.) must be operational and used.
- Pilots and all passengers must actively scan for traffic and other hazards and actively communicate those hazards to the pilot. Good CRM saved the day!

KUDOS

BSEE and the Department of Interior would like to recognize the pilot and front seat inspector for their outstanding crew coordination and alertness. As a result, each received the Department of Interior Award for In-Flight Action.



For questions concerning this SAFECOM Summary, this accident, or the BSEE Aviation Safety Program contact your supervisor or the BSEE Aviation Safety Manager
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