AIRBORNE LAW ENFORCEMENT ASSOCIATION

The Safety Wire

January 2016

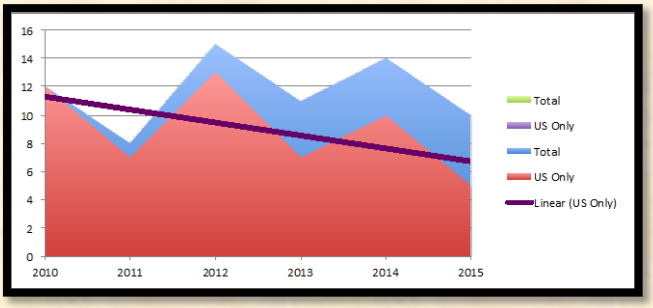
Annual Reports are an important part of the Safety Management System (SMS) process. They help to complete the loop by summarizing the very important, and often forgotten, Safety Assurance pillar of your SMS. Throughout the year, a safety officer does quite a bit of work, along with (hopefully) the safety committee. Much of that activity may go unnoticed, and the results of the program's efforts may not be plainly obvious. The importance of reporting is no less important for the ALEA safety program.

In 2015, we had the following 10 accidents:

- Hoisting accidents – 2 (1 fatal, 1 serious injury)
- Training accidents – 3 (2 autorotation training, 1 simulated hydraulics)
- Mid-air collision – 1 (No fatalities due to use of helmet and ballistic vest)
- Loss of control on landing – 1 (Post maintenance flight, cause unknown)
- Loss of control – 1 (Helicopter, 4 fatal)
- Engine Fire – 1 (AS355 – in flight)
- Foreign Object Debris – 1 (Rope entered rotor system during SAR work)

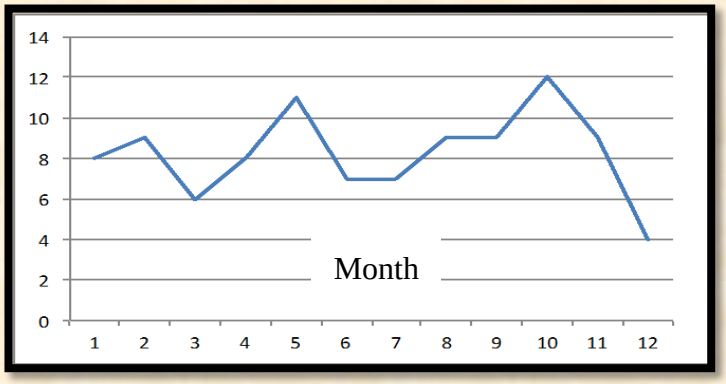
These accidents occurred throughout the world:

- North America – 5 (1 fatality)
- South America – 3 (4 fatalities)
- Europe – 1
- Africa - 1



While these numbers are higher than we would like, they are lower than they have been in five years. There were three cases of aircraft being hit by gunfire that, thankfully, did not result in accidents or injuries. I'm sure there were more than three occurrences of this type in 2015.

Of note are the seasonal spikes in public safety accidents that continue to occur.



More promising is the fact that there were no law enforcement accidents attributed to inadvertent entry into instrument meteorological conditions (IIMC) or wire strikes in 2015. Naturally, I expect that there were some incidents that I am not aware of for various reasons. If I have missed something, please let me know.

Of course, the best thing you can do to help ALEA improve safety in this industry is filling out the ALEA Safety Survey. It is really the only way we will get an accurate picture of the risks involved in public safety aviation. Without your help, we are left trying to interpret what information we find ourselves, and using the more generalized data from the rest of the industry. Your assistance is critical.

In 2015, the ALEA safety and training programs expanded the resources available to you in addition to those provided at the regional safety seminars and annual expo. We recognize that it is sometimes difficult to make it to our events in person. Some of these ALEA efforts in 2015 were:

1. Release of SMS Installation Guide: 51-page manual and 16 additional resources to guide members through the process of installing a modern safety management system.
2. First 2 webinars of a 6-part series on the SMS Installation Guide.
3. Seven new online presentations available on the ALEA website, recorded live with accompanying presentation slides.
4. Monthly safety officer online meetings.

"The experienced fighting pilot does not take unnecessary risks."

~ Capt. Edward "Eddie" Rickenbacker

2016 Safety Survey

ALEA is conducting a safety survey during the month of January 2016.

Your input will help the Association understand your safety needs. We will use this information to direct our safety program in 2016 and beyond in order to best serve the needs of ALEA members.

All responses are **completely anonymous** and will be retained only by ALEA. If you have any questions, please contact Bryan Smith (safety@alea.org).

Again, thank you for your time.
Please click the link below to begin the survey:

2016 ALEA SAFETY SURVEY

Maintenance Professionals

&

UAS Operators

ALEA will be hosting online meetings for those involved in, or interested in, aviation maintenance or UAS operations. The online workgroups will be similar to the safety officer group that has been meeting online for over a year. It will be a chance for ALEA members to get together and discuss issues

they are working through, lessons learned, news, and share ideas. The safety officer group has proven to be very useful for those involved. We are looking forward to extending this concept to our maintenance and UAS professionals. Please send me an email if you are interested in participating in any of these groups.

"If you're faced with a forced landing,
fly the thing as far into the crash as possible."

~ R.A. Bob Hoover

Practical *SMS*

It is a new year…what are you going to do to improve safety in 2016? As the safety officer, you need to make a plan for the rest of the year, and it should be a group effort. The safety committee is the driving force in using the information you have collected for them. Try not to make it 'your plan', because being a safety officer is difficult enough without your people misinterpreting the safety program as some self-serving platform based on personal opinion and self-serving interests.

You should have a safety committee meeting and decide what the safety objectives are going to be for 2016. They should be designed through two guiding factors:

1. The pathway to reaching your unit's safety goals – the safety 'horizon', i.e. "Zero Accidents", etc.
2. The hazard data your safety management system has generated.

SMS data will be composed of hazard reports, audits, inspections, observations and performance reports on the risk controls your unit previously put in place. Is that bird strike reduction plan, training improvement initiative or new piece of equipment working as planned? Find out, and bring the answer to the safety committee.

This is a perfect time for a safety survey. The information your own people provide is not only very valuable in understanding the risk factors at your unit, it also lets you know what your co-workers are concerned about and would like to see addressed. The concerns of your co-workers should be a driving factor in setting your safety objectives for the year.

Once you have collected all of this information, take it to the safety committee. If your unit has limited staff, make everyone the safety committee. From here you can, as a group, discuss the safety picture at the unit, look at the issues and make an educated and focused plan. Be sure to set specific goals that can be quantified in some way with a number. That will make your life much easier at the end of the year when this process comes back full circle.

SMS Installation

If you are working on setting up a safety management system at your agency, please look through the new SMS Installation Guide, which is available through the link below. It has references to the original SMS Toolkit, PSAAC Accreditation Standards and a series of sample documents and policies to get you started. If you have questions, comments or feedback, please let me know.

http://aleaprod.ungerboeck.com/sms-installation-guide

(Note: *You must be logged in to the website first*)

"This fellow Charles Lindbergh will never make it · He's doomed·"

~ Harry Guggenheim

Resources

NTSB 2016 Most Wanted List
http://www.ntsb.gov/safety/mwl/Documents/MWL2016_Brochure_web.pdf

NASA Aviation Safety Reporting System newsletter. Year end, "DOH!" reports (Different Or Humorous)
http://asrs.arc.nasa.gov/publications/callback/cb_432.html

Article from the Association of Air Medical Services on flight suits and undergarments:
http://aams.org/fashion-vs-function-just-how-necessary-is-fire-resistant-clothing-within-the-hems-industry-part-1/

Reality Check...

Note: *The following reports are taken directly from the reporting source and edited for length. The grammatical format and writing style of the reporting source has been retained. My comments are added in red where appropriate. The goal of publishing these reports is to learn from these tragic events and not to pass judgment on the persons involved.*

Aircraft: **Airbus AS350**
Injuries: **2 uninjured**
NTSB#: **GAA15CA258**

http://www.ntsb.gov/_layouts/ntsb.aviation/brief2.aspx?ev_id=20150915X30504&ntsbno=GAA15CA258&akey=1

The pilot reported that he and a tactical flight officer were conducting a high altitude rescue mission in "remote and nearly vertical" terrain with a public use helicopter, by doing a one-skid recovery. The purpose of this mission was to recover a fallen hiker.

A member of the three person ground recovery team had secured himself to a rescue rope that was anchored to the steep terrain above the plane-of-rotation of the main rotor system blades. Once the helicopter's right skid landed on a rock outcrop, the ground recovery team approached the helicopter to begin the loading process. During the approach to the helicopter, the rescue rope came in contact with a main rotor blade.

The pilot reported that the helicopter then, "rotated abruptly to the left and began to shake violently." The helicopter impacted terrain, the pilot regained control, and he then made an emergency landing at a lower altitude. He reported that upon applying power to land, the helicopter "began to shake violently again until touching down and reducing collective pitch." A postflight inspection revealed substantial damage to the main rotor system, the tail boom, and the empennage.

Aircraft: **Piper PA-18**
Injuries: **2 seriously injured**
NTSB#: **ANC15FA009A**

http://www.ntsb.gov/_layouts/ntsb.aviation/brief.aspx?ev_id=20150202X20456&key=1

A wheel/ski-equipped Piper PA-18 airplane, N82735, and a ski-equipped Piper PA-18 airplane, N78NR, collided midair near South Hollywood Airport, about 5 miles southwest of Wasilla, Alaska. N82735 was operated by the State of Alaska Department of Public Safety, Alaska State Troopers. The sole occupants of the airplanes, both certificated commercial pilots, sustained serious injuries. After the collision, both aircraft descended uncontrolled into an area of densely populated birch and spruce trees and sustained substantial damage. Visual meteorological conditions prevailed in the area at the time of the accident. N82735 departed Wasilla Airport about 1300 bound for Beluga, Alaska, and company flight following procedures were in effect.

The accident site for N82735 was located approximately 1,125 feet southwest of N78NR. Two large birch trees penetrated the cockpit, and pieces of the pilots fractured flight helmet were found near the base of the trees. All the primary flight control surfaces were identified at the accident site, and flight control continuity was verified from all of the primary flight control surfaces to the cockpit.

During on-scene interviews with the NTSB IIC on February 1, witnesses consistently reported that they observed one Piper PA-18 traveling in a southwesterly heading, and the other Piper PA-18 traveling in a northwesterly direction. One witness on the ground observed both airplanes converge at approximately a 90 degree, right angle. The witness said that as both airplanes converged, neither airplane changed altitude or direction as they approached each other, and the two subsequently collided.

During an interview with NTSB IIC on February 1, a pilot-rated witness that was standing on the east end of South Hollywood Airport, who observed the airplanes just after the collision, stated that he recognized the Alaska State Trooper airplane. He said that after the collision the state trooper's airplane entered a spin, and it began a nose low, spiraling descent. As the airplane reached approximately 400 feet above ground level, the airplane recovered from the spin, briefly leveled off, this was followed by an increase in engine noise. The nose of the airplane then pitched abruptly down, and then the engine noise decreased, which was followed by the sound of the airplane impacting the tree-covered terrain. He said that after the midair collision, the other Piper PA-18 appeared to snap roll to the right as the airplane traveled away from his location. He then observed a large portion of that airplane's right wing flutter to the ground, as it entered a near vertical, uncontrolled, spiraling descent.

During a hospital room interview with the NTSB IIC on February 2, the Alaska state trooper pilot of N82735 stated that after departure from the Wasilla Airport, he climbed the airplane to approximately 1,500 to 2,000 feet MSL, and configured the airplane for cruise flight. While in level cruise flight, traveling in a southwesterly heading, with the sun at his 1130 to 1200 o'clock position, he saw a momentary flash in the upper left corner of his windscreen, which was instantaneously followed by the collision. After the collision his airplane entered an uncontrollable dive, with no elevator control. In a final effort to regain control, he pushed the control stick forward, and he was able to regain limited elevator authority, but the airplane continued to descend, nose low, into the tree-covered terrain. The last thing the trooper pilot remembered was entering the trees.

Aircraft: **Cessna 210F**
Injuries: **1 fatal**
NTSB#: **WPR15FA166**

http://www.ntsb.gov/_layouts/ntsb.aviation/brief.aspx?ev_id=20150522X44142&key=1&queryId=54b2c313-1c1e-4178-b1c2-f107d30d7a15&pgsize=50

Before beginning the cross-county flight under visual flight rules (VFR), the pilot received a weather briefing that reported VFR conditions at the departure and destination airports but included an airmen's meteorological information notice for instrument flight rules (IFR) conditions along the route of flight. About 8 minutes after departure, recorded radar data showed the airplane's altitude varying between 321 and 635 ft above ground level (AGL) for about 1.5 minutes before the impact. Until about 30 seconds before impact, the airplane was tracking south on course along a valley, but it then began to deviate west toward rising terrain. The airplane then began a slow, descending right turn. The last recorded radar target showed the airplane about 0.2 miles from the accident site, at an altitude of about 410 ft AGL.

A postaccident examination of the airframe and engine revealed no evidence of pre-impact mechanical malfunctions or failures that would have precluded normal operation. A review of weather observations and satellite imagery indicated that IFR conditions prevailed in the vicinity of the accident site due to low clouds and restricted visibility. It is likely that the pilot was varying his altitude to remain clear of the clouds and subsequently entered an area where continued flight on course was not possible and initiated a right turn. During the turn, the airplane collided with rising terrain.