



The

Safety

Wire

September 2015

Fewer Hazard Reports = Increased Safety???

Usually, this is false assumption.

Twice in the last month, I have had it suggested to me that an agency is 'safe' because they have so few hazard reports being submitted. The assumption is that if there are fewer reports of safety issues being turned in, it is because there are no incidents or safety issues to report. At the extreme end of this argument are those that calculate zero reports equals a program with zero safety issues.

No operation is perfect, and we should accept that there are always things that can be done better. A low number of hazard reports (a.k.a. safety reports) is a red flag in any Safety Management System (SMS) audit for a number of reasons. First, without safety information from unit members about hazards in an operation, the SMS is forced to rely on information from outside sources and assumption. Neither one of these sources of information are suitable fuel for an effective safety engine. The safety officer may be actively looking for safety issues within the unit, but this is a single source of information from a single point of view. A single source of



© GulfBird Photography 2012

hazard input will be incomplete and regarded as subjective opinion, instead of objective fact.

The lack of hazard reports also puts the unit's safety culture in question. Why are people not participating in the program? There are a number of possible reasons that the safety officer and management need to explore, and fix, if they hope to keep unit personnel as safe, and effective, as possible. Is there a fear of reporting? Perhaps Just Culture needs to be addressed. Is there a lack of confidence in the SMS? Maybe the safety officer needs to step up the safety assurance portion of the program and show everyone exactly how existing safety initiatives are performing. Are unit members confused on how or when to fill out a hazard report? If you ask them where to go to fill out a report, do you get the deer in headlights look or shrugging shoulders? Some SMS training or refresher instruction might be in order. The forms may need to be more accessible or easier to fill out.

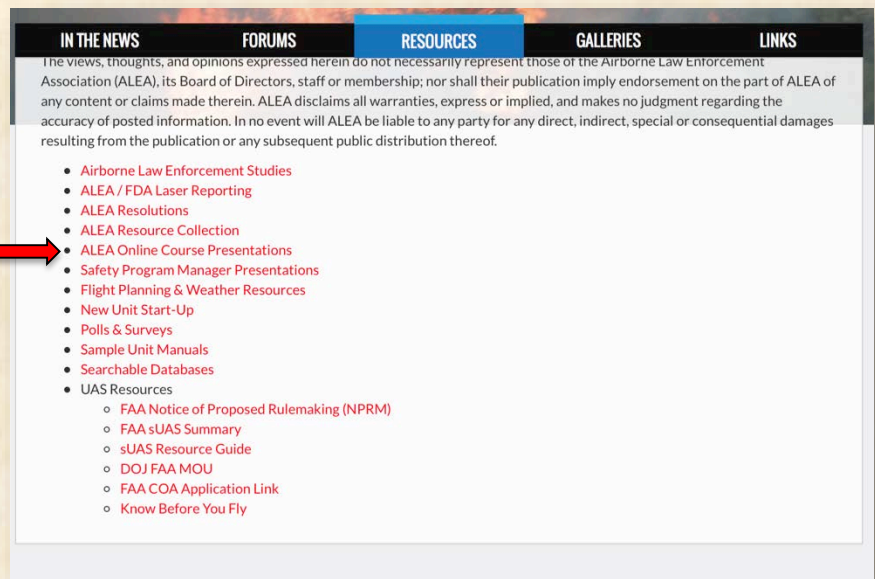
If your unit once received stacks of serious, jaw dropping hazard and incident reports...yes, it may be a good thing to be receiving less of them. For the rest of us, a lack of reporting from the unit members is a serious problem that needs to be addressed. Otherwise, getting your SMS going will be like trying to start an engine completely leaned out, or the fuel cut off. No matter how good the rest of the safety program is, it will ever produce full power, if it gets started at all.

"Errors made by skilled experts are not root causes of accidents but symptoms of the flaws and inherent limitations of the overall sociotechnical system in which these experts work."

~ James Reason

Free Online Training

There are several presentations available on the ALEA website for



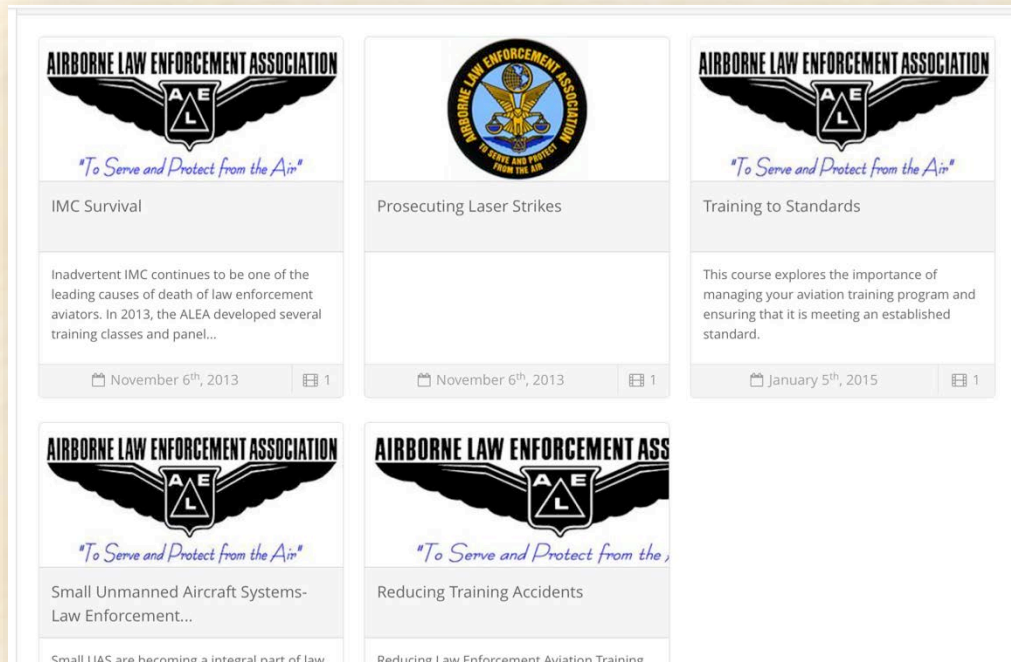
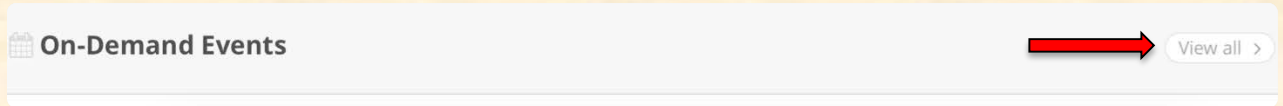
The screenshot shows the ALEA website navigation menu with the following tabs: IN THE NEWS, FORUMS, RESOURCES, GALLERIES, and LINKS. The RESOURCES tab is selected. Below the navigation is a disclaimer: "The views, thoughts, and opinions expressed herein do not necessarily represent those of the Airborne Law Enforcement Association (ALEA), its Board of Directors, staff or membership; nor shall their publication imply endorsement on the part of ALEA of any content or claims made therein. ALEA disclaims all warranties, express or implied, and makes no judgment regarding the accuracy of posted information. In no event will ALEA be liable to any party for any direct, indirect, special or consequential damages resulting from the publication or any subsequent public distribution thereof."

- Airborne Law Enforcement Studies
- ALEA / FDA Laser Reporting
- ALEA Resolutions
- ALEA Resource Collection
- ALEA Online Course Presentations
- Safety Program Manager Presentations
- Flight Planning & Weather Resources
- New Unit Start-Up
- Polls & Surveys
- Sample Unit Manuals
- Searchable Databases
- UAS Resources
 - FAA Notice of Proposed Rulemaking (NPRM)
 - FAA sUAS Summary
 - sUAS Resource Guide
 - DOJ FAA MOU
 - FAA COA Application Link
 - Know Before You Fly

our members, covering IIMC, training, laser strikes and UAS.

If you are not familiar, go to www.alea.org, click on the ‘Resources’ tab and look for ‘Online Course Presentations’:

On the next page, be sure to click the ‘View all’ button to bring up all available courses:

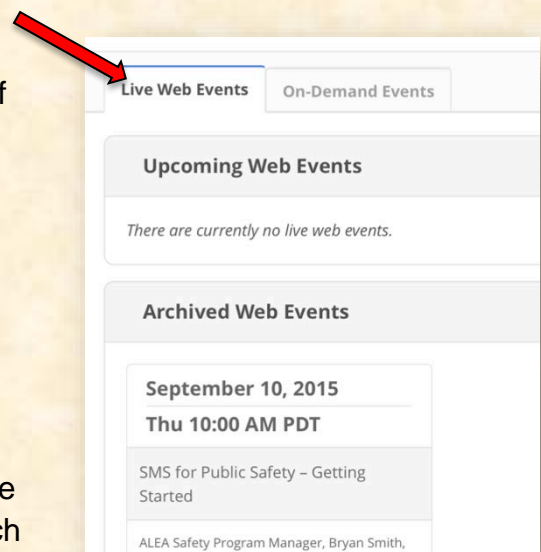


If you missed the first ALEA SMS webinar on SMS Installation, it is now available on this page of the website:

UPCOMING SMS WEBINAR

The next webinar will be on October 27, 1:00 ET (1700 UTC). You will be able to sign up on this same page.

In the second webinar, we will cover Phase 2 of the SMS Installation Guide. Phase 2 covers topics such as surveys, data collection and inspections.



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://aleaproduct.ungerboeck.com/sms-installation-guide>

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

"The only excuse for aviation in any service is its usefulness in assisting the troops on the ground to successfully carry out their operations."

*~ Alfred A. Cunningham
US Marine Corps Gazette - 1920*

Resources

1. NASA Callback Newsletter:
http://asrs.arc.nasa.gov/publications/callback/cb_428.html
2. IHST Training Video – Performance Management Accidents
http://ihst.org/portals/54/training_videos/performance_management/story.html
3. ATSB Booklet for Law Enforcement Response to Accident Sites:
http://www.atsb.gov.au/publications/2014/hazards-at-accident-sites_v6.aspx



Safety Officer Mutual Aid

The next ALEA safety online meeting will be on October 22nd at 1:00 pm EDT (1700UTC). Please send me an email if you are not on the mailing list and would like to attend. The minutes from previous meetings are also available.

safety@alea.org

October 22, 2015
1:00pm EDT (1800UTC)

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: AS 332 L1
Injuries: 5 Minor
ATSB#: AO-2011-083

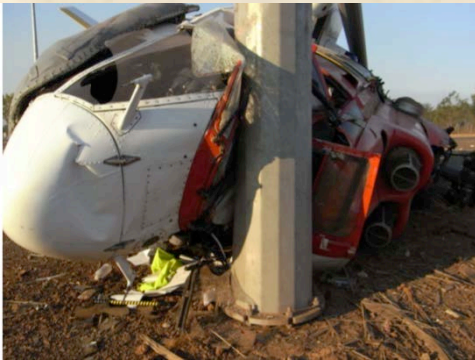
<http://www.atsb.gov.au/media/3546873/ab-2012-019.pdf#page=55>

On approach to land, the crew observed aircraft on the apron where they had intended to park. After landing, at about 1630, the crew noted that there were two Metroliner aircraft, parked one behind the other, on the right side of the apron. The forward aircraft appeared to be close to departure while there was ground handling activity around the other aircraft.

As the helicopter approached the parking area, there was some discussion between the pilots about how to maneuver the helicopter so that there would be sufficient clearance to allow the parked aircraft to depart. The PIC was not confident that there was sufficient room to taxi and park, but proceeded with the intention to taxi past the parked aircraft to the far corner of the apron and shut down in that location.



As the helicopter entered the parking area apron, the PIC was concerned about downwash from the main rotor affecting the forward aircraft. His focus was directed to maintaining adequate clearance from the aircraft wing tip on his right, while directing the copilot to ensure there was adequate clearance from a light pole to the left of the helicopter. The conversation between the pilots prior to the collision is reproduced below:



'Just check we are clear' - PIC.
'Yes' - copilot.
'Sure?' - PIC;
'yes' - copilot.
'Still clear?' - PIC;
'yes' - copilot.

Almost immediately there was a 'tick tick' sound then loud crunching sounds. The main rotor blades had struck the light pole (Figure 3) and started to break apart with debris flung about. The helicopter was rapidly propelled towards the light pole, toppling over onto its left side while vibrating vigorously and shedding blade debris in all directions.

The PIC's total flying experience was 8,200 hours, with 5,600 hours on helicopters including 4,500 hours on the Super Puma. The copilot's total flying experience was 5,300 hours on helicopters including 1,100 hours on the Super Puma.

ATSB comment

This occurrence highlights that it can be difficult to assess the clearance of main rotors from obstacles through observation from the cockpit. Following the blade tip path may not provide sufficiently accurate guidance to the actual plane of rotation of the rotor disc due to the following:

- Parallax error - resulting from the observers relative angle to the tip and obstacle

- Rotor tip visibility - easier to sight between the 9 and 12 o'clock positions,
- Sun height/angle and background terrain can prohibit accurate assessment of clearance distances

Aircraft: Cessna 182A

Injuries: 1 Fatal

ATSB#: AO-2012-170

http://www.atsb.gov.au/media/4902672/ao-2012-170_final.pdf

On 17 December 2012, a Cessna 182A impacted with electrical powerlines that ran alongside a parachute drop zone. The pilot was planning to attend a Christmas function at the drop zone and was flying to an airstrip located about 1.5 km to the north. After contacting the powerlines, the aircraft was seen to climb and continue to fly for approximately 500 m before the right wing separated from the aircraft. The aircraft subsequently impacted the ground and the pilot was fatally injured.

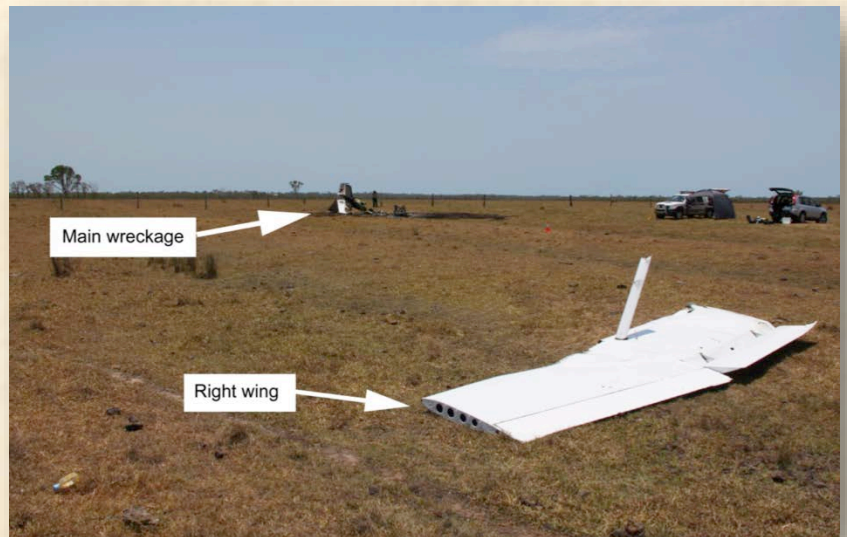


Figure 5 – Severed right wing strut



One witness located approximately 1 km north of the drop zone was able to describe the movements of the aircraft following the powerline impact. They reported the aircraft attempted to climb, turned slightly to the right, the right wing strut failed, immediately followed by both wings folding upwards, before one wing separated from the aircraft. The aircraft then nosedived behind trees.

What the ATSB found:

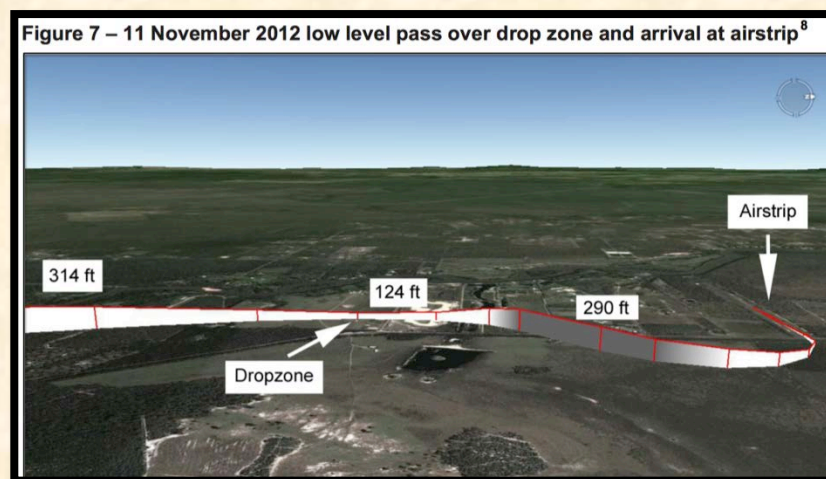
The powerlines that the aircraft impacted were at a height of approximately 9 m (30 ft) above ground level (AGL) and ran perpendicular to the aircraft's flight path. The relevant cable marking standards did not require the powerlines to be marked. Weather conditions

were fine, and there was no emergency broadcast from the pilot prior to the impact with the powerlines. No pre-existing defects with the aircraft could be identified. No operational reason for the pilot to fly at a height below 500 ft. AGL could be identified by the investigation.

Safety message

A minimum height of 500 ft AGL for flight over non-populated areas is promulgated for very long-standing safety reasons. Pilots who choose to fly below this height without an operational reason to do so are exposing themselves, and any passengers that may be on board, to an increased risk of striking powerlines, many of which are difficult to see from the cockpit of an aircraft in flight. The circumstances of this accident highlight that risk.

Accident investigations often reveal that the pilot was aware of the presence and location of a powerline and then subsequently flew into it. In this occurrence, the pilot had made parachute descents into the drop zone so it was probable that he was aware of the presence and location of the powerlines and the hazard posed to a parachutist landing at the drop zone.



[*Note the previous flights in the same area as the accident flight. It is likely that the pilot was aware of these wires]

There are no new ways to crash an aircraft...

...but there are new ways to keep them from crashing.

Safe hunting,

Bryan 'MuGu' Smith

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