

The

Safety

Wire

August 2016

Perspective is not something that can be obtained from one point of view. This is why I appreciate members who share information with me to be published in the newsletter. Here is one of those stories, sent in by Charles Angle of the Anderson County (SC) Sheriff's Office. Thanks for taking the time to share this, Charles:



Helicopter flying is and always will be dangerous because of many factors. As members of the Aviation Community, we must always be aware of these risk factors and actively work toward reducing the potential exposure to them.

We are what we are. What goes into what we are? If we look at the end product, the line pilot, the first issue that comes to mind is the training. We give the instructor a lot of credit and sometimes the blame. However, learning is a multiphase process. It takes instructing and someone who wants to learn. Notice that I did not say learn to fly. There is more to being in the helicopter flying business than being a “good stick”. During the Viet Nam war era, the US Army provided what, in my

opinion, was the best aviation helicopter training ever conducted on a mass scale. They turned out a great number of “good sticks” as well. Many were weeded out of the Army Aviation business in

the Army's post graduate program, Viet Nam. Sadly, it was often attrition that did the garden work; but often, it was leadership. This is a story about leadership.

As a brand new WO1 and after being "in country" for two months, I became the armament maintenance officer for an Air Cav troop. That is a story that I don't tell without beer bribes at the bar in the Moose Lodge. An Air Cav troop has five platoons: The Maintenance Platoon, the Scout Platoon with nine OH-6As, the Lift Platoon with nine UH-1Hs, the Blue Platoon with infantry men, and the Gun Platoon with nine AH-1Gs. I was in the Gun Platoon. Initially, the armament section worked on the AH-1G's weapons system only. That changed when I started carrying spare parts out to the AO (Area of Operations). The scouts had the same minigun as the AH-1Gs. It often had bolt failures, which I could repair on the spot as I carried spare ones in my helmet bag. One of the scout pilots, "John", a newbie WO1 like me, was curious about the minigun and, like me, wanted to learn more in order to work on it safely. We didn't want to take it apart in the AO because when you are on the ground, you have to be able to take off immediately if the other team finds something. So, we decided that on the next maintenance down day he would come out to the flight line where the armament section was. We would take one apart so he could see how it worked, and be able to safely clear it when it jammed out in the AO.

The next maintenance down day, I am eating lunch in the mess hall and John comes up to me in civilian clothes wanting to go out to the flight line armament section. I told him to not wear good clothes, as it's a dirty job taking the guns apart, cleaning them and reassembling them. Nomex was still a relatively new item.

More often than not, we flew in jungle fatigues and jungle boots. We were lucky if we had Nomex gloves. None of us had more than one pair and we regularly flew 15 to 20 days in a row. John arrives as I am dumping minigun parts into a barrel of cleaning solvent. John has his jungle fatigues on and proceeds to help me clean the parts.



Enter Captain Jackson, the Scout Platoon leader. Captain Jackson is a legend. He is smart, calm under fire, brave, tactically innovative and respected by everyone. And he has rules. He has rules about the way our scouts conducted combat reconnaissance that saved lives; no doubt in anybody's mind. One of his rules is about the flight uniform. The scouts WOULD fly in full Nomex with leather boots, not jungle boots. That meant sleeves rolled down, Nomex gloves, collar up and around your neck, visor down. He was known to fly the slot in the diamond formation the scouts used to and from the AO. He would drop back to sneak up along the other scouts to make sure they were in the right uniform. So to prevent having someone on the flight line having to launch due to an emergency and not be in Nomex, Captain Jackson has a rule; if you go to the flight line, you will be in Nomex. To put it mildly, he is not happy with John and I.

Captain Jackson was a leader. He didn't care about being popular. He cared about getting the mission done and his people being safe. He proceeded to make an angry, vocal, on-the-spot correction. I foolishly tried to explain that it was my fault and why John was in jungle fatigues. That was a mistake, and more verbal correction was quick to follow. Of course, the CO hears about the event and calls my platoon leader and me into his office. He listens to my explanation, tells me I wasn't wrong to not wear Nomex, but that I did handle it incorrectly. The CO then puts out a troop rule. If you go to the flight line, you will be in Nomex. If you are doing maintenance work, as I was, you can change into jungle fatigues, but your Nomex must be with you.

About a month later, the wisdom of Captain Jackson would bear fruit. The four scouts were on their way back from the AO in formation. One of the scout observers was repositioning a white phosphorus hand grenade in the cockpit. He dropped it and somehow the fuse was cracked letting



air in. In his desperate attempt to get rid of it, he knocked it forward past the pedals, where it dropped down to the bottom of the chin bubble. It was as terrifying as you can imagine. A ball of fire erupted out both sides of the aircraft followed by the dense white smoke. Captain Pond, if I remember correctly, got behind WO1 Tameitie and was able to talk him down to the

ground in a rice paddy. Even more fortunately, we had a medic from the Blue Platoon who would

often fly on the C&C aircraft. Once on the ground, they dragged the crew out and immediately applied a special jelly that stops air from sustaining the burning phosphorous. They were flown to a combat support hospital within 20 minutes. About a month later month, WO1 Tamietie returned to duty! The only places he had scars was the area between his helmet and the flipped up collar and somewhere on his elbow and knee.

Fortunately for all of us “pilots”, other lieutenants and captains were quick studies. They saw the wisdom of Captain Jackson’s methods and were quick to apply it in their own. There is no doubt in my mind that missions were successful and lives saved because of that. Over the years, I have had the good fortune to be in units with leaders, real leaders. I hope you will be also.

“No man is a leader until his appointment is ratified in the minds and hearts of his men”

~ The Infantry Journal

Practical SMS

We can create the perfect machine for running our Safety Management Systems; the best reporting systems, robust safety committee, powerful software, etc. And yet, if our unit members do not submit hazard reports, the machine will never work. People fail to submit hazard reports for many reasons. Some fear retribution, others may think safety reporting is only for ‘major’ issues or actual incidents. People may simply not have the ‘eyes’ for seeing hazards around the workplace due to a lack of training, experience or interest. Recently, the US Helicopter Safety Team requested those of us in the SMS workgroup to collect some of the best hazard reports received by safety officers. I am asking for your help. I know in the world of public safety aviation, we have some good ones to share. Please, take the time to send me your best hazard report, such as:



1. Funny, amazing or absurd.
2. A ‘small’ item that led to an important, significant change.

3. A 'safety blind spot' being uncovered, such as a report that resulted in a procedure that had been done the same way for a long time being changed.

ALEA Online Meetings

The schedule for upcoming ALEA online meetings is below. Please email me if you would like to be added to the participant list. Meetings are conducted through an online conference call you can join using your computer or phone. They are open to any ALEA member.



Maintenance:

Tuesday, Sept 6, 2016

1:00 PM - 2:00 PM EDT (1700 UTC)

If you use contract maintenance, please pass on this invite and my contact information to them.

Safety Officers:

Monday, Sept 26, 2016

1:00 PM - 2:00 PM EDT (1700 UTC)

UAS:

Friday, Sept 30, 2016

1:00 PM - 2:00 PM EDT (1700 UTC)

To receive meeting information and be added to the mailing list, send an email to: safety@alea.org

"Advanced skills are the basics mastered."

~ Bruce Lee

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: Piper PA-31T
Injuries: 4 Fatal
NTSB#: WPR16FA153

http://www.nts.gov/ layouts/nts.aviation/brief.aspx?ev_id=20160729X31455&key=1

On July 29, 2016, about 0105 Pacific daylight time, a twin-engine, turbine-powered, Piper PA-31T Cheyenne II airplane, N661TC, reported smoke in the cockpit and subsequently sustained an in-flight breakup and collision with tree-covered terrain near Arcata/Eureka Airport, McKinleyville, California. The accident airplane was being operated by Cal-Ore Life Flight as an instrument flight rules (IFR) air transport medical flight under the provisions of Title 14, CFR Part 135. The airline transport pilot, two medical personnel, and one patient were fatally injured; the airplane sustained substantial damage. Dark night, instrument meteorological conditions prevailed. The flight departed Crescent City, California, at 0045, destined for Oakland International Airport, Oakland, California

A preliminary review of archived radar and voice communication data from the Federal Aviation Administration (FAA) revealed that at 0058:12, as the airplane reached an altitude of about 15,000 feet msl, the accident pilot contacted Seattle air route traffic control center (ARTCC) and stated that he was going to turn back to Crescent City due to a smell of smoke in the cockpit.

At 0058:26, the ARTCC specialist on duty cleared the accident airplane direct to the Crescent City Airport, issued him a descent clearance to 9,000 feet, and told him to let her know if he needed anything else.

At 0058:41, the accident pilot said "okay," and he stated that it looked like he was going to lose some power shortly, and said he would keep her posted as long as he could.

At 0058:52, the ARTCC specialist issued the Crescent City altimeter of 29.98, and then requested the total number of occupants on board, and how much fuel was remaining.

At 0059:07, the accident pilot stated that he had smoke in the cockpit, declared an emergency, said he was depressurizing and was heading back to Crescent City.

At 0059:21, the accident pilot asked the ARTCC specialist to call the fire department to have them standing by upon arrival.

At 0059:25, the ARTCC specialist then acknowledged that crash rescue would be standing by at the Crescent City Airport, and she again asked how many people were on board.

At 0059:27, the accident pilot stated that he had three on board. There were no further communications received from the accident airplane despite multiple attempts by the ARTCC specialist on duty.

During a telephone conversation with an National Transportation Safety Board (NTSB) investigator, a witness located near Cookson Camp, Arcata, California, reported that in the early morning hours of July 29, she heard an airplane circling overhead before it eventually flew westward, which was followed by about 15 seconds of silence. While looking out the window of her tent, she saw a large dome shaped flash to the west, followed by another flash and a loud rumble.

The NTSB IIC, along with another NTSB investigator, two Federal Aviation Administration safety inspectors from the Oakland Flight Standards District Office (FSDO), two representatives from the Humboldt County Sheriff's Office, representatives from Cal-Ore Life Flight, and a Piper Aircraft air safety investigator reached the accident site on the afternoon of July 30. The accident site was located in an area of brush and heavily forested terrain. Large portions of the burned and fragmented airplane were scattered along a debris path oriented along a magnetic heading of 354 degrees, which measured about 2,400 feet in length. The fuselage, inboard and outboard sections of the wings, vertical tail, and portions of one horizontal stabilizer, were located in separate locations and exhibited minimal impact damage. Both inboard sections of the wings exhibited postcrash fire damage.

The fuselage and empennage came to rest on its left side and facing the direction of travel. The instrument panel and cockpit exhibited extensive impact damage. The cabin area of the fuselage was largely intact. Evidence of thermal damage was present in the forward section of the fuselage. A section of the forward fuselage, wiring, and associated components were removed and sent to the NTSB Materials Laboratory in Washington, D.C., for further examination.

Both engines separated from their respective engine firewalls and sustained impact damage, however; neither engine exhibited any sign of thermal damage.

Control continuity could not be established due to numerous fractures in the system, missing cabling and flight control surfaces; however, all the fractures that were identified exhibited features consistent with tension overload.

The closest weather reporting facility is Arcata/Eureka Airport (KACV), McKinleyville, located approximately 6 miles southwest of the accident site. At 0107, an aviation routine weather report (METAR) at KACV, reported wind 180 degrees at 4 knots; visibility 1/2 statute miles, mist; runway 32 visual range 4,500 feet variable to greater than 6,000 feet, overcast clouds 200 feet; temperature 55 degrees F; dew point 54 degrees F; altimeter 29.85 inHg.

Aircraft:	Hughes369D
Injuries:	1 Uninjured
NTSB#:	ERA12LA260

http://www.nts.gov/investigations/AccidentReports/_layouts/ntsb.aviation/brief.aspx?ev_id=20120331X10044&key=1

On March 30, 2012, at 1730 eastern daylight time, a Hughes 369D, N868W, made a hard landing in an open field after experiencing a total loss of engine power between 150 to 200 feet during initial climb in the vicinity of McCormick, South Carolina. The helicopter was registered to DAH Aircraft LLC and operated by Rotor Blade as a 14 Code of Federal Regulations Part 91 positioning flight. The helicopter sustained substantial damage to the airframe. Visual meteorological conditions prevailed and no flight plan was filed. The certificated commercial pilot sustained minor injuries. The flight originated next to a local area gasoline station in McCormick, South Carolina, at 1728.

The pilot stated he was en-route to his destination airport when he encountered a change in wind conditions and his groundspeed decreased. He inadvertently programmed the wrong airport in the global positioning system, which he thought had fuel. He landed at the airport and no Jet A fuel was available. He had about 50 to 75 pounds of fuel remaining. He observed a gas station and took off and landed in a grassy area near the gas station. He purchased about 20 gallons of automotive 87 octane fuel and placed it in the fuel tank. He completed a through preflight inspection and departed. The helicopter was about 150 to 200 feet at 70 knots when the engine quit.

The engine out audio sounded and the low rpm audio sounded. He initiated an autorotation by lowering the collective pitch as much as possible and maintained an attitude that would clear a power line towards an open field. Once clear of the power line, he lowered the collective to the full down position. The low rotor rpm was illuminated and the helicopter was in a vertical rate of descent. The helicopter touched down hard in a tail low attitude, the nose pitched down, the helicopter slid forward, and rolled over on its right side.

Aircraft: Bell OH-58A

Injuries: 1 Uninjured

ATSB#: AO-2014-071

http://www.atsb.gov.au/publications/investigation_reports/2014/ao/ao-2014-071.aspx

The previous day, the pilot, who was also a licensed aircraft maintenance engineer, completed a 50-hourly inspection on the helicopter and replaced the battery. During the inspection, the pilot noted that the engine oil level indicated slightly below full. However, to obtain an accurate oil quantity, the level needed to be checked within 45 minutes of shutting down the engine, so he planned to run the engine the next morning and recheck the oil level prior to departure.

At about 0700, the pilot conducted the pre-start checks and started the engine. He carried out the after-start checks and confirmed all engine indications were normal, and ran the engine for about 10 minutes to recharge the new battery following start-up. He then shut the helicopter down,



conducted the shut-down checks and the pilot and passenger exited the helicopter. The pilot added 0.5 L of oil. After a brief return to the terminal building, the pilot and passenger reboarded the helicopter.

The pilot selected the master switch on, confirmed all indications were normal and started the engine. The pilot lifted the helicopter off into the hover, climbed to about 35-50 ft. above ground level and commenced the transition to forward flight. He then heard the turbine engine wind down, the red engine out warning light illuminated and the helicopter

descended in an autorotation.

The pilot attempted to run the helicopter onto the ground, however, the helicopter touched down on soft grass and the landing skids detached. The main rotor blades chopped the tail boom and the helicopter landed heavily, resulting in substantial damage. The pilot observed that the fuel valve was selected to 'OFF'.

The pilot reported that this incident provided a reminder of the effect a change in routine can have, particularly on completing checklists.

The report, *Dangerous Distraction: An examination of accidents and incidents involving pilot distraction in Australia between 1997 and 2004* is available at:

www.atsb.gov.au/publications/2005/distraction_report.aspx

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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