The Safety Wire

August 2012

"Do you see that?" was one of many well placed rhetorical questions Gainesville Police Officer and Chief TFO Mike Barnes placed between me and a poor decision during my initial years as a new public safety pilot when I worked with him in northern Florida. There is no shortage of more momentous examples of professionalism and skill defining Mike's 12-year TFO career. It is the countless little things he has done over the years, however, that have kept his pilots, new TFOs and ground units consistently returning home safely. He always exhibited a constant awareness of what everyone around him was doing and utilized the fearless communication skills that define good crew resource management (CRM). I was extremely pleased to see him awarded the 2012 ALEA Robert L. Cormier Award.

One summer afternoon in Florida, Mike and I were sitting at our desks when the red Bat-phone rang. Detectives had a car they wanted us to follow. The briefing from the weather-window showed sunshine and blue skies, so we headed to the door. As I jumped on the tractor to pull out the helicopter, Mike paused next to me, looking out the hangar door with an inquisitive squint in his eyes, "Do you see that?" I turned around and saw he was pointing to the faint tops of dark clouds along the horizon…along the entire horizon, like a distant mountain range. Mike, unlike me, had been born and raised in Florida and knew the weather. "If you want, I'll pull the helicopter out and you can check the radar again." I agreed and walked back to the office, not fully convinced there was that significant of an issue. After all, I'd checked the radar less than an hour ago.

A few minutes later, I walked back out and caught Mike's attention as he sat on the tractor in the hot August Florida sun. "Push it back in," I said as I shook my head 'no' to confirm we were scrubbing the flight. The radar picture showed a ring of red cells around our airport, and they were growing fast. It was a textbook 'sucker hole' and this green sucker of a pilot almost took the bait. Mike pushed the aircraft back in with no hint of giving an 'I-told-you-so' comment. To him, it was not about him being right versus me, it was about us working

together to be collectively right, as a crew. Within fifteen minutes, the entire area was engulfed in severe thunderstorms.

Such an event does not evolve into a big, flashy CRM presentation complete with dozens of PowerPoint slides, lists of casualties, computer generated re-creations and all the bells and whistles we've come to expect from such classes. I think we often miss the point of CRM when we only focus on these landmark cases. CRM is something that should be an ingredient in everything we do, not just during the big events. The strength of CRM is in the details, not the headlines. If we have not made CRM part of our daily, normal operational culture, it will not suddenly be there when we need it to save our lives. We all need to regularly take a look at our own operation on a typical, otherwise unmemorable day, and see if CRM is present and working. Is CRM a 'normal' way of conducting business? If not, we need to fix it before our lives depend on it.

Mike and I had many other 'Hollywood' moments that make for better war stories. However, I owe my life to his consistent professional manner, present day-to-day, no matter how exciting or 'routine' the shift might be. He was smart enough to know he had to tell me whatever I needed to know, even if I wouldn't be happy to hear it. And he had the character to do so not for the purpose of being 'right', but to be safe. For that, I am eternally grateful. Congratulations Mike!

We are what we repeatedly do.
Excellence, then, is not an act,
but a habit.

~Aristotle

Mike (left) and I

ALEA Webpage Safety Forum Question of the Month:

Rapidly changing weather, as mentioned above, is a constant challenge for those of us who launch aircraft on an 'alert' status without the benefit of hours of preflight planning that scheduled flights allow for. How do you stay on top of the weather? What internet, government, TV or commercial weather services do you use to keep you and your crew safe during operations?

A few years ago, I found a fantastic, FREE, internet weather source. Go to the Safety Forum for more information and to post your comments.

FREE STUFF!!

Those of you who make a posting on the August Safety Forum Question of the Month through Friday, September 7th, will be entered into a drawing for an ALEA Reno 2012 T-shirt.
(Yes, International Shipping is included if need be!)

The **Safety Forum** can be found at:
http://www.alea.org/forum/forum.aspx?c=General+Discussions&f=Safety

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During the Safety Symposium at the annual conference, one of our members said that he had experienced a mechanical issue with his aircraft earlier in the year and wanted to contact other public safety operators who fly the same type of aircraft to get more input and offer a heads-up of the problem. He requested the ALEA website add the capability to search for members flying the same type of aircraft so they could ask questions or pass on information specific to that aircraft make and model.

Well, this turned out to be an easy request to fulfill, because the capability is already on the website! Not only can you search aircraft types, but dozens of other criteria. Go to:

http://alea.org/unitdb/query/index.asp

If the link doesn't work for you, mouse over *Research and Resources* under the Member Section of the alea.org homepage. When the window pops up next to *Research and Resources,* click on *Searchable Databases*. On the next page, scroll down and click on *ALEA's Unit Operations Database*.

Calling all cars...

As promised, here are some more numbers from the recent Safety Survey.

Percent of respondents reporting:

At least one bird strike in the previous year:	34%
Performing a precautionary landing:	50%
Non-flight related injury (on ground):	9%
Non-flight related incident with damage:	30%

From the Trenches

In response to the story about preflight techniques in the May newsletter, I received the following story from one of our members. It was relayed to him first hand from a public safety (non-law enforcement) operator.

> While the aircraft was reportedly on approach to landing, the pilot reported he felt a shudder in the airframe for a second, then all was normal. He landed, picked up a passenger and then flew back to base uneventfully. He shut down the helicopter and during a post flight walk around, found that the engine cowling had been damaged by the main rotor system. It was apparently not latched after an inspection by the previous pilot and came open during deceleration for landing. The cowling latches were no longer present due to contact with the main rotor blades. All rotor blades were damaged by the cowling, which was destroyed in the process.
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> Pilots changed shifts early on the morning of the event. The previous night shift pilot reported that he was distracted by something during his preflight and was not completely certain that he had properly latched the cowling latches. The event pilot was in a hurry before he departed and did not perform a complete preflight.

Reality Check...

The following excerpts are directly from NTSB reports. The intent is not to judge, but to use the harsh lessons experienced by some to increase safety for everyone.

Aircraft: AS 355F1
Injuries: None

A similar accident on the NTSB database from several years ago: The helicopter was substantially damaged during cruise flight when the left engine cowling door opened in flight. The commercial pilot and six passengers were not injured. The pilot reported that the morning of the accident, he was late to work due to unforeseen traffic and local events within the area.

The pilot stated he was about 40 minutes late to work and upon his arrival, he started his preflight inspection. As the pilot was inspecting the area of the left engine, the fuel truck arrived to refuel the helicopter. The pilot "lowered the cowling door [and] walked around to the pilot seat to get the gas cap keys." After the helicopter was refueled, the pilot "continued the preflight, not realizing that I left the engine cowling unlatched." The pilot further reported that his passengers were dropped off on the ramp and he proceeded to board them, "still not realizing that I left the cowling door unlatched."

The pilot departed the airport and while en route to his destination, he heard a "pop", followed by "shake feed" within the cyclic control. The pilot contacted a second company helicopter to have them visually inspect the helicopter in flight. The pilot of the second helicopter informed the pilot that the left engine cowling appeared to be open and partially separated. The pilot initiated a precautionary landing to the desert surface and landed without further incident.

Examination of the helicopter by a Federal Aviation Administration (FAA) inspector revealed that two of the three main rotor blades were damaged. One main rotor blade exhibited a one-inch long gouge about one-quarter of an inch in depth near the blade root. A portion of the left engine cowling was separated and not located.

Aircraft: Cirrus SR20
Injuries: 2 fatal

The airplane collided with terrain while maneuvering in dark night visual meteorological conditions while on the third leg of a 1,665 nautical mile (nm) cross-country flight. The crew of two had departed the east coast in the morning and had been en route for about 16 hours. These heading changes were most likely due to a decision by the pilots to divert to an alternate airport after realizing that the destination airport could possibly be beyond the current range of the airplane. The last radar return was about 0.1 nm south of the accident site, which was located in a remote, sparsely populated area. Examination of the accident site revealed signatures consistent with controlled flight into terrain. Post-accident examination of the engine and airframe revealed no evidence of mechanical malfunctions or failures that would have precluded normal operation. It is likely that the pilots lost situational awareness and failed to maintain terrain clearance. Conditions conducive to controlled flight into terrain included fatigue due to the pilots' long duty day, the dark night light condition, the lack of ground lighting in the region, and the fact that neither pilot was instrument rated.

The National Transportation Safety Board determined the probable cause(s) of this accident as follows: The non-instrument rated pilots' loss of situational awareness during a dark night flight over a remote area, resulted in their failure to maintain an altitude sufficient to ensure adequate terrain clearance. Contributing to the accident was the pilots' fatigue due to their long duty day.

Note that the report lists the fact that neither pilot was instrument rated as probable cause for a CFIT accident in nighttime conditions that would normally be classified as Visual Flight Rules (VFR). Instrument Flight Conditions are not solely limited to weather conditions. I would also argue that the issue wasn't that they were not instrument rated, but that they were not instrument proficient…two things that are unfortunately not the same thing.

Aircraft: EC120B
Injuries: 3 fatal

On July 20, 2012, a Eurocopter EC120B ditched into the Batang Lupar River, near Triso, Malaysia. The commercial pilot was not injured, and three passengers, who **survived the ditching,** subsequently **drowned in the river**.

Aircraft: Bell 407
Injuries: None

On August 5, 2012, a Bell 407 helicopter sustained minor damage when it struck a tower while it was on approach to a helipad. The left landing skid was damaged by the impact, so the pilot declared an emergency and diverted. The pilot, flight nurse, flight paramedic, and patient were not injured. Night visual meteorological conditions prevailed for the flight, which was on a company VFR flight plan.

There is a little more to this accident than the preliminary report shows. The 'minor damage' was reportedly half of the skid gear getting nearly ripped off. The emergency landing was conducted using a stack of mattresses. The news story below has a few pictures.

http://www.mysanantonio.com/news/local_news/article/Helicopter-lands-safely-on-mattresses-with-3764153.php

As always…
If you would like to be a part of this process, please contact me.
If you have a story to tell or a lesson to pass on, send it to me.
If you like what you see happening with the program, I would like to hear from you.
If you want to see something different, or additional…I NEED to hear from you!

Until the next flight,

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