July 2018

ALASKAN AVIATION SAFETY FOUNDATION

Photo courtesy Pierce Rosadiuk

In this Issue:

* John Mahany unveils a new column: *Crosswinds and more*!

* Editor's Letter: Yet another mid-air collision

* Why all weather briefings are not created equal

* Consider a flight helmet for Alaskan flying

* The GA surveys are out - please submit your answers

FLY SAFE THIS SUMMER

So It Happens Again: Mid-Air Collision

By Harry Kieling, Chairman

Of all the mishaps that occur in aviation, mid-air collision is one of the most preventable. People unfamiliar with the flying environment might say, "how can you have two planes run into each other in the giant blue sky? Aren't people looking around and why wouldn't they see the other airplane?" These are questions we find ourselves asking over and over again.

Let's look at some of the steps that have been taken or could be taken to prevent mid-airs:

- All pilots are continuously reminded in training of the importance of visual look out. It is a special emphasis item on Practical Exams and should be stressed during Flight Reviews. Maybe it is time to really talk about why & how we do visual lookout and ways to improve it.
- Crew Resource Management (CRM). Do we brief our passengers (pilots or not) on how to help us with visual look out?
- Alaska pilots have benefited from efforts by a CTAF working group that developed a useful map of CTAF frequencies to be used by everyone in a given geographical section of the Anchorage VFR airspace. Does everyone use these discreet frequencies? Does everyone even know about this effort? Sometimes, sad to say, pilots might make confusing calls about landmarks they think they are over, when in fact they are not.
- Many of the landmarks that funnel aircraft into Part 93 airports create potential choke points (i.e. the boat hull, Point MacKenzie). Even more reason to have your head on a swivel.
- Do we use the electronic aids that can add another "set of eyeballs"? Have we installed ADS-B out and **IN**? Do we use our transponder on every flight and ask for VFR flight following with departure and arrival?
- On the other hand, are we so mesmerized with GPS and other tech tools that we spend too much time with our heads in the cockpit?

None of these ideas are new, but it is useful take stock of our own techniques and procedures. At the end of the day, do we really believe that we could be the pilot involved in a mid-air? If we don't, we better think twice. Remember, it takes two planes to have a mid-air collision; do what you can to see & avoid other aircraft, communicate your position and maintain good situational awareness.

Fly safe,

Harry

Crosswinds and More: Transition Training

by John Mahany

In this Summer 2018 issue, I am going to borrow the theme from the FAA's June 2018 Topic of the Month: Transition Training. Most of us have transitioned to another aircraft make and model at least once in the course of our flying, sometimes several times. Either during or after completing primary training, we find another airplane that better suits our needs or meets our 'mission' requirements. (A rating or endorsement may be required, see FAR 61.31.)

A transition is typically called on for some combination of bigger, faster, and more payload, or a more capable (IFR) panel, or, in Alaska, it could also be a transition to floats in summer or skis in winter. (I've been fortunate to fly both floats and skis!) And in our modern hi-tech world, it could also be stepping up to a glass cockpit, and advanced avionics, whether it be the now slightly older Garmin G1000 or the newer GTN 500/600 series. (Or Avidyne. Or Dynon. And the list goes on…)

Yet, you could also be transitioning down to a simpler airplane (J-3 or PA-22?), from say, a Pilatus PC-12 NG, or an Airbus, just for fun! So yes, there are many ways to transition. In either case, transition training is not something to be taken lightly. Depending on what you are transitioning 'from-to', the transition might be relatively easy, or it might take several hours or longer and include completing online training, in the case of avionics. It all depends on the circumstance and also, what your insurance requires.

Here is a quote from the FAA's General Aviation Joint Steering Committee about Transition Training: *"The lack of transition training has been cited as a causal factor in many GA accidents. Although pilots think of transition training as necessary when stepping up to a high performance or complex airplane; or from single-engine to multi-engine; or from tricycle gear to tail wheel, it is also beneficial to pilots who are moving from traditional aircraft to amateur built or light sport flying machines…"*

So, how to best go about this? First, regardless of your experience and what you are transitioning 'from-to', put on your 'student pilot' hat, again. Don't let your ego *get in the way*! Don't assume that because of 'x' hours, 'y' experience, or 'various ratings', that you 'already know' this or that. This gets pilots in trouble again and again. Each airplane has its own personality and its 'gotchas' that you need to find out about *before* something bad happens. You might be going from a jet with a highly automated 'smart cockpit' and crew environment, down to a simple single-engine Citabria (for fun) that requires good stick 'n rudder skills. Don't ignore the fact that it's quite a transition!

Find a competent instructor with recent experience in the make and model airplane you are transitioning into, who *knows the airplane,* how it handles and what to watch out for. Spend time on the ground, first. Get the book(s) and read through them. Also are there any good youtube.com videos of this airplane and how to fly it, to get a better idea? If possible, spend time in the cockpit and get familiar with the panel and instrumentation (glass or steam gauges). Look at various switches, knobs, levers, etc. What's new and different? Are any in different locations than what you are used to? What about the seats and baggage compartments? How about fuel capacity? And so forth. What's different? How does this affect flight planning and what you want to do? There are many questions to consider and doing this is part of the process. The idea is to avoid being surprised!

Where will you be flying this new equipment? In a familiar area or a different environment from what you are used to, such as near high-density Bravo or Charlie airspace compared to non-radar or Golf airspace? Or possibly you will be going in the mountains and back-country to off-pavement gravel airstrips. This is another added challenge to your transition and it all makes a difference. There are mountain flying courses that you will want to consider taking *before* flying into the mountains yourself. Mountain flying IS different.

continued on page 4

continued from page 3

As mentioned, get together with a competent instructor and plan a transition training syllabus. Cover all pertinent tasks, maneuvers, normal, abnormal and emergency procedures, whatever is appropriate. Depending on the specifics, including your own proficiency, recency of experience, and the insurance requirements, try to gauge how much time or how many lessons might be required before you are able to demonstrate *competence and proficiency with the airplane*. Depending on the specific aircraft make and model, there might already be a recommended training syllabus to follow. You might check with any of the several 'type' clubs or 'owners groups' for more on this on their websites.

In fact, the FAA has several transition training courses that qualify for the Wings Program, for both advanced training (PA-46 Malibu) and LSA training listed on its FAA Safety website, www.faasafety.gov They include Beechcraft's Pilot Proficiency Program (BPPP), covering both flight and ground training. It consists of Basic, Advanced and Master Wings Flight and Knowledge Topics 1, 2 and 3. Mooney Aircraft also has its own Pilot Proficiency Program, as does Cirrus.

Whatever aircraft you are transitioning from, to whatever aircraft you are transitioning to, plan a thorough training program that addresses all aspects of flying safely from A to B.

Finally, have fun!

John

John Mahany is an ATP/CE-500, as well as a Master CFI and has been flying for 40-years this summer. He has 'transitioned' into many different aircraft in 40 years of flying. He is currently a Citation Instructor at a Part 142 school in Southern California. He flies a 1953 Cessna 180 for fun!

Alaskan Aviation Safety Foundation

C/O Aviation Technology Division UAA
2811 Merrill Field Dr.
Anchorage, AK 99501

Phone: (907) 243-7237
Email: aasfonline@gmail.com

Brief, Heed and File

By Jim Robinson

Yes, as always, any safety article has to start with an FAR reminder. FAR 91.103 requires that pilots become familiar with "all available information regarding the flight". So how does one obtain all the "available" weather information? On your personal computer or from the FAA? With Personal Electronic Devices (PEDs) the amount of information available at your fingertips today was unthinkable as little as 10 years ago. Essentially, a pilot has all the same information available as the FAA briefer. Taking it a step further, one could imply that FAA weather briefings are now obsolete. However before we get that extreme, there are several points to consider. First, the advantage of talking with an FAA briefer is they can bring all available resources to the briefing. The FAA briefer has access to all the standard weather products, in addition to aviation weather cameras, PIREPS and NOTAMS. An FAA briefing can highlight items that you might overlook. Even if one is extremely proficient at obtaining their own weather, it's still a good idea to get an FAA briefing occasionally, just to highlight areas or subjects that you might not think about. In essence the FAA is one stop "weather" shopping.

However you get a weather report, information overload can be a problem. How to decipher all the data that's available? It is well beyond the purview of this short article to discuss the various commercial weather vendors or how to use them, but keep in mind that the advantage of the "old fashioned" weather briefing is that it can be tailored to your particular flight.

If the weather is "clear and a million" why get a briefing at all? Notwithstanding FAR 91.103, you might miss some important information. For instance, the weather is beautiful, no need for a brief. Load up the out-of-town guests and go to Lake George for a VFR sightseeing trip. Returning to Merrill Field, tower states "we have a number for you to call"—yikes! That's not good. By failing to obtain a proper briefing you flew through TFR 2088-9286-1, located at the toe of Colony Glacier. It's easy to miss TFRs which can pop up at anytime and anyplace, such as sudden aerial firefighting activity. You wouldn't be surprised by it if you had a weather briefing.

On May 25th, the *Anchorage Daily News* reported the pilot (and sole occupant) of a small private aircraft was killed on a VFR flight from Merrill to Valdez. (See the preliminary NTSB accident report for morel details.) While it is too early for an NTSB finding of probable cause, there are several items about the accident that are worth highlighting. The ADN article did not state if the pilot received a proper weather briefing but if so, it was not heeded. The aviation weather cameras at Whittier and Portage both showed low clouds and obscured mountains. Additionally, Search and Rescue was delayed getting to the location of the crash site due to weather. The ELT signal was picked up at 0940 yet the rescue process (via an FAA alert) did not start until 1516; almost 6 hours after the crash! Why was the rescue effort delayed? It would appear there was not a flight plan on file.

Quite often pilots "file a flight plan" with a friend. But will the "friend flight plan" work when absolutely needed? Will your friend remember the flight plan details? If you are overdue, who is your friend going to call? Does the friend know the aircraft type, fuel on board, color, occupants, route and time en-route? All of this is critical information needed for the search and rescue effort. The advantage of filing an FAA flight plan is it eliminates the middle man. If you are overdue by 30 minutes, the FAA starts the process to try and locate you and, most importantly, the FAA knows who to call.

Further, the 406 ELT is a wonderful piece of equipment. As with any mechanical device it can malfunction or, in the case of the recent fatality, be incorrectly programmed. In this accident the 406 ELT worked perfectly, however it was no registered to the accident aircraft. Because of this and because there was no flight plan to correlate to the erroneous ELT information, the rescue effort was delayed.

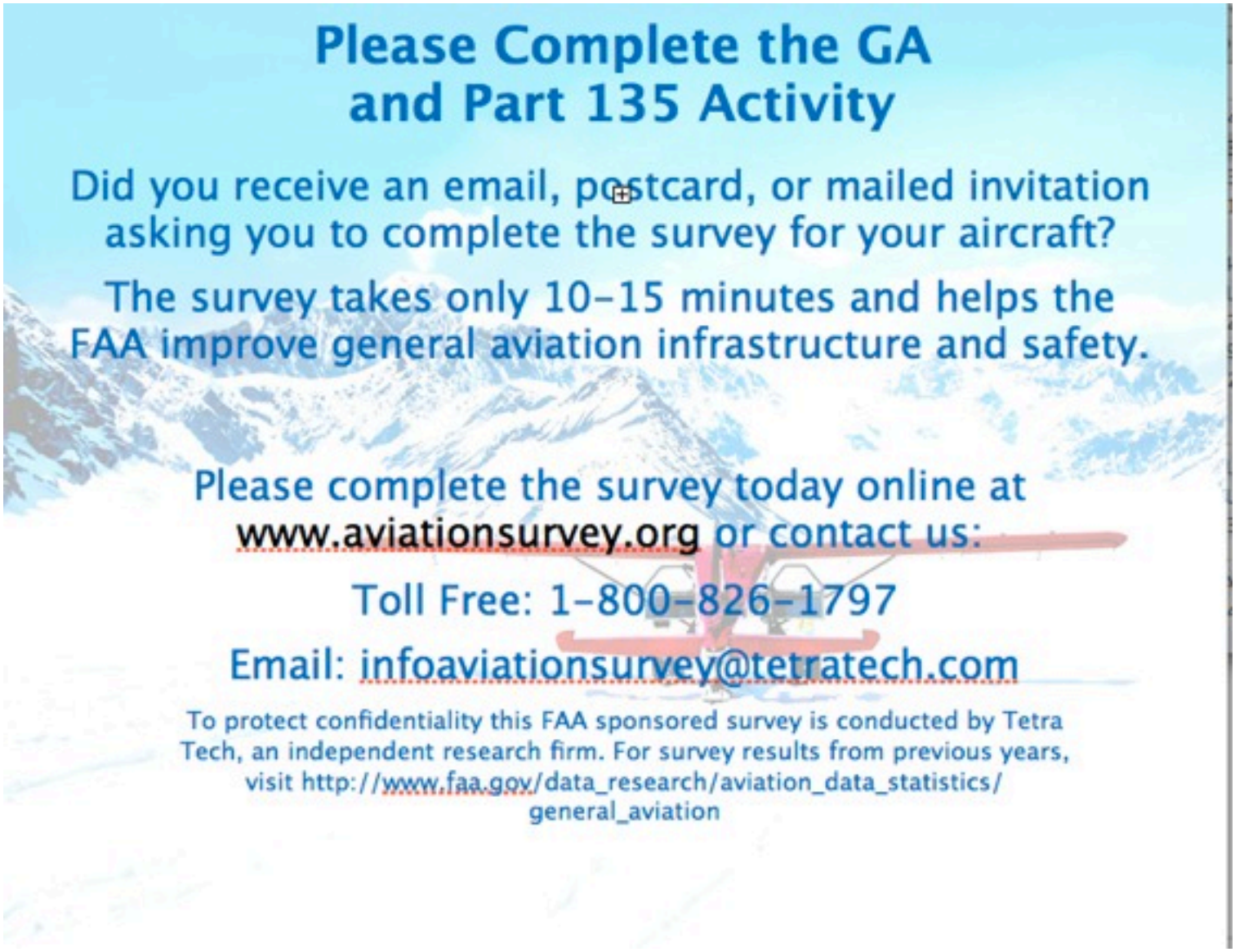
continued on page 6

continued from page 5

Beyond the circumstances of this particular flight and although it sounds like an oxymoron, there have been cases of a "soft" crash that does not activate the ELT. In addition, ELTs don't work under water or in deep snow so stay safe and just back up your ELT with a flight plan.

Accidents continue to happen in Alaska and rescues continue to be delayed for preventable reasons. The rules are not different here, nor should our habits be more casual or relaxed. Obtain a thorough weather briefing and file a flight plan with the FAA. More information is always better, both for you and for those who might one day have to find you.

Jim Robinson is a retired military aviator who has also flown corporate, airline and general aviation. He currently flies and maintains a Cessna and lives in Anchorage.



Flight Helmets - you should wear one!

Are you protecting the most valuable item in your aircraft? Without proper protection, occupants in aircraft can potentially sustain serious head injuries during an accident. Some flight profiles, such as off-airport operations, aerobatic flights, aerial application flights, warbird flights, public use flights, and helicopter flights are higher risk. Examples of occupant head and facial injury scenarios in an accident sequence include impacting the cockpit dashboard, impacting cockpit and cabin structures, unsecured items inside of the aircraft moving and impacting the head and face, and debris impacting the head and face. Flight helmets can provide an additional head and facial protective safety layer when flying in Alaska, and can aid in hearing protection from loud noises.

When selecting a flight helmet, be sure to select one designed for the appropriate aircraft you fly. Additionally, you'll want to thoroughly research which safety specification standards the flight helmet has been designed, manufactured, and tested to when you conduct your selection. Choose a flight helmet based on the amount of protection offered and the comfort level - not the "cool looking factor." You'll want to try it on and verify it is properly fitted to your head and adequately covers you on all sides. If you wear glasses, make sure you wear them during the fitting.

Before each flight, inspect the flight helmet for serviceability. Ensure it is worn correctly, secured to the head, and all straps are fastened. While conducting flight operations, an extended flight helmet visor can protect the face during an accident sequence and also protect the face from a bird strike. It is a good idea to carry a backup headset in the cockpit, just in case the flight helmet's internal communication system malfunctions or fails.

You should use an intermediate communication cord between the flight helmet cord and the airframe inter-communication systems receptacle to facilitate quick egress during an accident or emergency. Avoid direct-to-airframe connections with the flight helmet cord, which could cause delays when emergency egressing. (For more information on this topic, please see the NTSB link at the end of this article.)

Treat your flight helmet well, like an expensive electronic device and exercise gentle care when handling it. Make sure you have a padded bag for transporting it and if flying on a commercial airline, keep this bag as carry-on with you in the cabin. Be sure to follow the manufacturer's guidance on flight helmet inspection intervals, maintenance procedures, cleaning methods, and storage requirements.

Any damage or significant impact (such as being dropped or while worn in an accident sequence) can compromise the structural integrity of the flight helmet. If this occurs, have the helmet inspected and repaired if needed by the manufacturer or an authorized repair facility before using it again for flight operations.

If you're looking for additional information, please see:

The Department of Interior has published the *Flight Helmet User's Guide*, which shows the importance of utilizing a flight helmet through several accident scenarios.

The National Transportation Safety Board has published *Safety Alert 068 Flight Helmet Cords Can Impede Egress* discussing the hazard of direct-to-airframe flight helmet cord connections.

The U.S. Army Aeromedical Research Laboratory has published a report, *U.S. Army Aeromedical Research Laboratory Report 93-2, Flight Helmets: How They Work and Why You Should Wear One*, which discusses the benefits of wearing a flight helmet when conducting helicopter flight operations.

Have a safe flying season!