# ALASKAN AVIATION SAFETY FOUNDATION



Taxiing out of Fairbanks a few years ago for another flight downriver in the Navajo. photo courtesy Ward Rosadiuk.

### What the safety foundation has learned about flying

By Harry Kieling, Chairman I have been hosting "Hangar Flying" for almost eight years. Almost to a person I will ask my guests "What one thing do you think would have the biggest impact on improving flying safety in Alaska?" The answers I receive are amazingly simple, incredibly straightforward, and astoundingly repetitive. We know how to make flying safer. There are no new ways to crash airplanes and hurt people. The only thing that changes is the tail number and the pilot and passengers' names.

So maybe that should be the underlying mission of the Safety Foundation: to repeat over and over and over the procedures, techniques, and good ideas that have been developed in the past century of manned flight. Without the benefit of notes let me recall what you my guests have said. See if any are a surprise to you:

Make sure you are properly trained for the mission you are about to fly.

Go up with a CFI to help you become a better pilot.

BFRs (or Flight Reviews) don't have to be only every two years.

Make sure you are proficient. Proficiency comes with practice.

Ask the CFI to challenge you to work on areas you are weak on. Flying out to your favorite fishing hole and calling it a Flight Review is not what this means. Get a good weather briefing, check for NOTAMs and TFRs on every flight.

Make sure you are mentally and physically ready for any flight (IMSAFE).

Give yourself plenty of time to preflight.

Use a check list for your preflight and regular airborne ops checks regardless of how simple or basic your airplane is.

Complete a risk assessment before you go. Use a written template to score each risk factor.

Set your personal minimums (ceiling/visibility, risk assessment score) before you fly and stick to them.

continued on page 2

Do a weight and balance for every flight. If the loaded aircraft weight or CG is out of limits don't go until you can get it back within limits.

Wear personal protective gear (particularly for more hazardous missions like low level and off airport.) PPE saves lives. Helmets and shoulder harnesses save lives. Nomex flight suits, gloves and boots may reduce injury if there is a post-crash fire.

Most GA accidents occur on takeoff and landing. Most fatal accidents occur when the aircraft departs controlled flight. Install an Angle of Attack system and learn how to use it.

AOA also can save your life when you lose situational awareness trying to spot that moose.

Make crisp focused radio calls especially on congested frequencies.

Use all the equipment available to increase "Situational Awareness'. This would include but not be limited to Transponder (Always ON); talking to ATC for flight following when you can; filing and activating a flight plan for every flight.

Invest in a 406 beacon. 121.5 doesn't hack it anymore.

Invest in and utilize "bread crumb technology" for active flight following: AFF/Spydertracks/DeLorme InReach/Spot or like devices.

Make sure the details on this equipment are on your Master Flight Plan.

File a Master Flight Plan and update it at least annually.

Know the right frequency (often CTAF) to be on for the area you are flying in.

Mid Air Collision avoidance: look outside, develop an effective scan; know that **you** can be the target; use all the resources available (other crew or passengers, Approach Control), make accurate position calls.

Special missions (floats, skis, off airport) require special techniques. Know what you are doing before you start flying them. Be proficient and err on the side of good judgement.

There are countless other lessons learned. I will touch on them in future newsletters.

One of my personal wishes is that we, the Board of Directors, got more feedback from you, the members. I have asked on Hangar Flying to let me know if ever while you were flying you remembered something specific that you heard on Hangar Flying or read in the newsletter or heard at a seminar. If you did remember something specific or you simply hesitated before making a bad decision I would really like to know that. That one fact would make all of this worthwhile. If anything we said or wrote or discussed help make you a better and safer pilot the efforts of the Foundation would be more than worthwhile.

Fly Safe

Harry

The AASF would like to thank the estate of Bob and Margaret Eskridge for their bequeath to the foundation. The board will report in a future newsletter as to the details of this generous and unexpected

gíft.

### How pilots are susceptible to pressure

by Mark E. Madden, MA, ATP, MCFI Professor of Aviation Technology

Pilots are very results oriented—we tend to be mission driven and take pride in a job well done. We enjoy accomplishing goals and not only pleasing others but also pleasing ourselves with activities and tasks that are visible examples of our abilities.

Some of these accomplishments include the attainment of advanced FAA pilot certifications and ratings as well as industry training and accreditation, all of which help us to become better at what we do, i.e., fly aircraft.

All of these should be very positive things, right? Not necessarily. Please don't misunderstand, the advanced certifications and additional training are in fact very positive because they help us to achieve a higher level of the most important thing for any aviator is safety. But when the issue of pressures placed on pilots is discussed, we typically think of external pressures, not pressures we allow within ourselves. We have control over the pressures within.

One of the pressures that may get us in trouble is when we allow our internal nature to be results oriented and overshadow and influence our decision-making. We need to be constantly aware of the pitfalls of the desire to accomplish the mission at hand. An overwhelming and unrealistic desire to complete a flight is known as "pressing" and it's one of the hazardous attitudes the FAA did not tell you about in your required pilot training.

> "Pressing" is defined as an unwarranted and occasionally obsessive - drive to accomplish flight objectives. It has also been called "get-home-itis," "get-there-itis," or "mission-itis" (Kern\*, 1999).

Pressing occurs when a pilot gets his or her priorities turned around. By this I mean the pilot's desire to accomplish the flight becomes more important than following safety limitations and good operating practices established by the FAA, the aircraft manufacturer, the NTSB, and many other safety experts.

Most of us are familiar with the common external pressures that try to influence our judgement. You know the ones: pushing the weather, exceeding weight and balance limitations, not bothering to do the weight and balance calculations in the first place.

Are you kidding me? Not bothering to do the weight and balance calculations in the first place? Seriously? With all of the high tech smart phone and tablet applications now available for this task, there's no excuse for not doing your weight and balance calculations. Doing your calculations the old fashioned low tech way with pencil and paper won't take you much longer than the new high tech methods. Plus with the old fashioned paper method you'll have created an actual paper trail. Keep the paper copy and if you've done your part correctly, the NTSB will never need that copy. Using a weight scale to weigh cargo takes the guess work out of total weight to be carried. There are some very nice digital scales available these days that fit easily into a flight bag. If it's obvious your passenger(s) are not being forthcoming with their actual weight, tell them you'll need to check their driver's license for their weight. Hopefully that request will encourage them to give you a more accurate answer for their weight at the actual time of the flight, not what it was three years ago or what they'd like to weigh.

Quite often pilots are "caught in the middle" between trying to please someone else, like your passengers or perhaps your boss if you're a commercial pilot, and doing what you know is best and safe. Doing the right thing requires selfdiscipline and having the courage of your convictions.

Another external pressure we need to be able to recognize and dismiss is peer pressure. Just because someone else takes off VFR into marginal conditions is not a justification to do the same.

#### continued on page 4

#### continued from page 3

An internal condition we need to know and recognize is "Optimism". Yes, that's right, optimism. Optimism is another hazardous attitude

the FAA didn't tell you about during your required training. Optimism is a wonderful human character trait but not when we are exercising our responsibilities as a pilot. When conducting ourselves as pilots we need to become the biggest pessimist that's every lived. We need to assume Murphy's Law is alive and well and if there's something that can go wrong, it's our responsibility as a pilot to see to it that the "something" that can go wrong, doesn't. We need to ensure we've checked all of the many things we need to check before we start that engine and thereafter until the aircraft is safely shut down and parked at its destination. Simply assuming everything will turn out okay is a sure fire receipt for ensuring your name and actions end up being recorded by the NTSB.

emphasize here is that the most important types of pressures on a pilot are actually internal pressures, not external pressures. It's primarily a matter of self-discipline. In the words of the late General Norman Schwarzkopf, "The fact of the matter is, you always know the right thing to do. The hard part is doing it." Making the tough but correct decisions is a matter of knowledge, skill and most importantly, self-discipline.

Don't be concerned about letting someone down because you've determined the requested load for the airplane exceeds the aircraft's design capabilities. Don't be concerned about letting someone down because the weather is unacceptable to launch. Instead, be concerned about letting someone down because you knowingly are willing to take unnecessary chances.

We keep seeing the same type of general aviation accidents over and over again. Accidents that never should have happened. It's up to the pilot to make the right decisions. The pilot knows the right thing to do; the hard part is doing it.

It's important to understand that what I'm trying to

\*Kern, T (1999), *Darker shades of blue, the rogue pilot*, McGraw-Hill.

### Fall Safety Seminar scheduled for November

The Alaskan Aviation Safety Foundation, along with our partners in safety will be hosting the Fall Safety Seminar on Saturday, November 21st. This year the seminar will be held at the Coast International Inn at 3450 Aviation Avenue in Anchorage. Registration will start at 8:00 am, the program will begin at 8:30 am.

This year we are excited to have Dr. Melchor Antuñano, MD as our guest speaker. He is the Director of the FAA's Civil Aerospace Medical Institute (CAMI) and is responsible for oversight of the Office of Aerospace Medicine's programs in Medical Certification, Medical Education, Medical Research, Human Factors Research, and Occupational Health Services. Dr. Antuñano will be presenting with Dr. Marcel Dionne, MD, our Alaska Regional Flight Surgeon, to bring attendees up to date on the latest news on medical issues, as well as Alaska-specific information to help keep pilots healthy and safe.

Winners of spidertracks units from the Dale Carlson Memorial Foundation will also be announced – if you haven't submitted an application yet, please go to <u>www.aasfonline.org</u> and submit an application to receive a spidertracks satellite tracking device. Door prizes from our generous supporters will be available, and as always, parking and attendance are free!

If anyone is planning to fly to Anchorage to attend the seminar and will need a ride from the airport (Lake Hood or Merrill) please contact us for carpooling options. Call <u>907-243-7237</u> or <u>907-229-6885</u> for more information.

# How Aeronautical Decision Making combats the influence of pressure

### by John Mahany

Aeronautical Decision Making (ADM) can be a complex process, depending on circumstances and what is being decided. Obviously, some decisions are more critical than others. Why do some pilots make better decisions than others? Are they better able to think objectively under pressure and not succumb to emotions that wrongly influence their decision-making? Are they better able to 'walk away' from a situation?

What pressures play a part in the process? It depends as much on the individual and what is at stake. For a recreational flyer, it might simply amount to 'get-there-itis', an emotional desire to 'press on' and get to the destination (home?), in spite of conditions that are unfavorable, or pressure from passengers.

At the professional level, this is not supposed to occur. But it still does, perhaps more so in smaller corporate flight operations, lacking a 'chain of command', with a 'boss' who wants to 'get there', regardless. There are any number of factors that can influence this decision.

The classic example of this type of pressure was the accident involving a Gulfstream 3 corporate jet that crashed while on final approach to a landing in Aspen, Colorado, on March 29, 2001. The crew had continued beyond the missed approach point, on a non-precision approach, with no runway in sight, descending below MDA, in darkness with snow showers, and impacted the terrain. There were no survivors. The crew had been forced to wait for some of the passengers' late arrival, before departing, as they were traveling to Aspen for an 'important dinner'. The crew was under a lot of pressure to get there, regardless of conditions. The dinner was so important that it ultimately cost 18 people their lives.

At the airline and charter level, there is a decisionmaking process in place, and it is a crew environment, with an aircraft dispatcher involved at the airline level, and possibly with charter operators, so procedures are spelled out. There are 'set in stone' approved procedures to follow. There are also management pilots (chief pilot and director of operations) to consult, if need be. Problems seem to be more evident at the singlepilot level, where the pilot is more likely to be influenced to takeoff when he or she would be better off waiting for improved conditions. Who or what can influence the pilot? Passengers can, as can 'the boss' (owner or chief pilot), especially those with strong, assertive personalities who are used to getting their way. It can take a pilot with an equally strong personality to stand up to such passengers or the boss, telling them firmly but with diplomacy and tact, that the flight is delayed or cancelled and we can't go, due to weather, legalities, maintenance problems, or whatever. They need to respect you, the pilot, your experience and limitations, and your decisionmaking process.

Or, similarly and perhaps more commonly, informing passengers who know, they cannot take all of their baggage, or know the unexpected extra passenger(s) can't go, because of weight and balance issues and required fuel, for example. Passengers and 'the boss' typically don't understand nor do they care about things they cannot see, like the weight and balance, and resulting aircraft performance.

ADM addresses this with the 'E' for External pressures that is part of the PAVE (Personal, Aircraft, enVironment and External pressures) checklist. Under External pressures, several factors are listed. The Pilots Handbook of Aeronautical Knowledge addresses this and states on p. 17-9, "Management of external pressure is the single most important key to risk management because it is the one risk factor that can cause a pilot to ignore all the other risk factors. External pressures put time-related pressure on the pilot and figure into a majority of accidents."

Some passengers have little regard for rules and safety. They have a sense of invulnerability. 'It won't happen to them,' they think. They just want to 'get there'. They never see behind the scenes in airline and charter operations where these decisions are made, and cargo is left behind, for example, to carry more fuel for en route deviations and a diversion to an alternate airport.

Passengers may not appreciate nor understand that *every* pilot and *every* airplane, jet or propeller

#### continued from page 5

driven, has limitations. They also don't understand how this will affect the airplane's handling and climb capability, especially on a hot day. Having bought or chartered an airplane and hired a pilot to fly them somewhere, they sometimes unreasonably expect to be able to 'go' when they want. This is not always possible. They need to be educated, and this can take time. But it is part of your job as pilot-incommand. Follow your gut, the regulations, established procedures, and do the right thing. Be safe and conservative. Just say 'no' and don't succumb to the pressure to go, when it's appropriate. Live to fly another day!

Fly safely!

# Alaskan Aviation Safety Foundation

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If you have an aviation related photo we can run in upcoming newsletter, please contact Colleen at <u>colleen@chasingray.com</u>. We would really like to showcase some of the unique operations and locations that Alaska aviation has to offer!