



RVator's Log

Newsletter of the Twin Cities RV Builder's Group

Shop Notes

September 2017

In this issue...

North to Alaska	...3
Van's Safety Column	...4
RVs in Iceland	...8

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Upcoming Events

September 9th - Twin Cities RV Builders Fall Fly-in and Picnic. Webster, MN.

See page 9.

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**Minnesota Wing
Van's Air Force**

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Go with the flow....

From "The Checklist" by Atul Gawande, December 10, 2007 issue of *The New Yorker*....

"On October 30, 1935, at Wright Air Field in Dayton, Ohio, the U.S. Army Air Corps held a flight competition for airplane manufacturers vying to build its next-generation long-range bomber. It wasn't supposed to be much of a competition. In early evaluations, the Boeing Corporation's gleaming aluminum-alloy Model 299 had trounced the designs of Martin and Douglas. Boeing's plane could carry five times as many bombs as the Army had requested; it could fly faster than previous bombers, and almost twice as far. A Seattle newspaperman who had glimpsed the plane called it the "flying fortress," and the name stuck. The flight "competition," according to the military historian Phillip Meilinger, was regarded as a mere formality. The Army planned to order at least sixty-five of the aircraft.



A small crowd of Army brass and manufacturing executives watched as the Model 299 test plane taxied onto the runway. It was sleek and impressive, with a hundred-and-three-foot wingspan and four engines jutting out from the wings, rather than the usual two. The plane roared down the tarmac, lifted off smoothly, and climbed sharply



to three hundred feet. Then it stalled, turned on one wing, and crashed in a fiery explosion. Two of the five crew members died, including the pilot, Major Ployer P. Hill.

An investigation revealed that nothing mechanical had gone wrong. The crash had been due to "pilot error," the report said. Substantially more complex than previous aircraft, the new plane required the pilot to attend to the four engines, a retractable landing gear, new wing flaps, electric trim tabs that needed adjustment to maintain control at different airspeeds, and constant-speed propellers whose pitch had to be regulated with hydraulic controls, among other features. While doing all this, Hill had forgotten to release a new locking mechanism on the elevator and rudder controls. The Boeing model was deemed, as a newspaper put it, "too much airplane for one man to fly." The Army Air Corps declared Douglas's smaller design the winner. Boeing nearly went bankrupt. Still, the Army purchased a few aircraft from Boeing as test planes, and some insiders remained convinced that the aircraft was flyable. So a group of test pilots got together and considered what to do.

They could have required Model 299 pilots to undergo more training. But it was hard to imagine having more experience and expertise than Major Hill, who had been the U.S. Army Air Corps' chief of flight testing. Instead, they came up with an ingeniously simple approach: they created a pilot's checklist, with step-by-step checks for takeoff, flight, landing, and taxiing. Its mere existence indicated how far aeronautics had advanced. In the early years of flight, getting an aircraft into the air might have been nerve-racking, but it was hardly complex. Using a checklist for takeoff would no more have occurred to a pilot than to a driver backing a car out of the garage. But this new plane was too complicated to be left to the memory of any pilot, however expert.

With the checklist in hand, the pilots went on to fly the Model 299 a total of 1.8 million miles without one accident. The Army ultimately ordered almost thirteen thousand of the aircraft, which it dubbed the B-17. And, because flying the behemoth was now possible, the Army gained a decisive air advantage in the Second World War which enabled its devastating bombing campaign across Nazi Germany."



When I got hired as a pilot at Northwest Airlines in 1994, I was more than familiar with the use of a checklist. I had been flying a Westwind and a Sabreliner and the use of a checklist was as natural as you would imagine. Beginning pilots at NWA started out in the venerable Boeing 727 and were trained as flight engineers. Learning all of the systems of the "three-holer" was not an easy task. I could fly airplanes just fine, but memorizing all of the nuances of the fuel, pressurization, heating, cooling, and electrical systems taxed my meager brain. And one of the first oddities was learning "flow patterns." Frankly, I had never heard of the concept before. A flow pattern is part of a checklist procedure that started at a certain point on the engineer's panel, and "flowed" from one control or indicator to the next in a logical item-by-item manner. As one "flowed" along, you checked that indicator or control for its proper configuration and then you went on to the next. Eventually you ended up at the completion point and THEN, you got out the checklist and went through the challenge and response litany that we were all familiar with. So

in effect, you did the checklist twice: first by looking, touching, and "flowing" around the panel checking what you needed to check, and then double checking your check with the paper checklist. There were "prestart" flows, "pretaxi" flow, "preflight" flows, "takeoff" flows and so on. I went nuts trying to figure all of this out but soon it was second nature. In the airline environment where standardization and safety were essential, "flow patterns" worked quite well.

Today, most of our RVs have the capability to store a "written" checklist in an EFIS display. You can modify and edit them to come up with the ultimate checklist. It does not have to be a 100-item work of literary art. It should be logical, concise, and cover the items necessary for safe flight. BUT... be sure you have one and use it. There have been several high profile accidents over the past couple years that have involved attempted takeoffs with the controls locked just as the first B-17. Among them being a Gulfstream G-IV at Bedford, Massachusetts in 2014 and a Piper PA-12 this year on its first post-restoration test flight. At NWA, we always did a last minute "killer-items" flow pattern rolling on to the runway: controls free, trim set, flaps set. I have carried this over to myself and my students in RV aircraft. It is a final takeoff flow pattern done by memory *just* as we taxi into position. Mine goes like this: I start with controls free and correct. Then above my head to the canopy latch. Then left to right across my switch panel: fuel pump on, strobes on, landing light on. Then trim set for takeoff. Then down to check the fuel selector. Lastly, I review to myself... What do I do if the engine quits on takeoff??? Fly the airplane... dump the nose and land straight ahead. So it looks like this: Controls... Canopy... Fuel pump... Strobes... Landing light... Trim... Fuel selector... Emergency procedures. It's simple and quick and I do it every time rolling onto the runway. You can easily come up with a similar flow pattern for your RV.

* * * * *

North to Alaska

-John Field



I began my trip to Homer AK from New Richmond WI at 0930am July 20 and flew direct to Hawley MN for a quick 11 gallons. Customs into Canada is at the very quiet International Peace Gardens airport. The one small runway has a taxi way left for US and

right for Canada. I shut down in the only space available, a little turn around. There are no services available here and Canadian Customs cleared me in over the phone.

The next stop was Carlyle SK where fuel is on the honor system. Restroom is through the weeds and junk around the corner into the local hotel. Nothing fancy about anything here but the people were nice. This is part of a huge prairie that will be under me all the way to Dawson Creek BC where the Alcan Hwy begins. I'm filing flight plans and utilizing Canadian Government Flight Services. Their system works pretty well keeping track of me and providing help with flight planning. Flight plans are mandatory.

After a quick stop at Carlyle SK, I fly direct to Kindersly SK. This place is from a different time. It seems left behind but the people are nice. No frills here, gas on the honor system again. Nobody too concerned. A young kid wanders up and admires the airplane and says he wants to be a pilot some day. A storm passes north of the airport and blows my airplane around a little too much.

The next leg into Camrose Alberta was a planned gas and go but storms were blocking my way beyond it and I decided to stay the night. I had covered about 1,000 miles so far. This was a good small airport and I had the airplane tied down for the night and was about to call a cab when the wind started blowing. There was very little rain but at least 40 mph winds with gusts higher. I was anxiously holding down on the up-wind wing tip as the airplane shook and buffeted. My gust locks, parking brake and tie towns held fast. Lots of dust and wind for 1/2 hour and it was over.

I checked into a cheap hotel, laid out the charts and planning materials and went to bed. The next morning's weather brief indicated a large area of storms ahead the whole day so I re-checked into the hotel and paid for another night. By this time I'd found a very nice hanger for my airplane at no charge. This was a friendly place. I rested, had a couple of beers and wait-

ed for the next day, with still 2,000 miles of remote wilderness and mountains ahead.

I was airborne at 730am and the destination was Dawson Creek BC. Canadian FSS had told me the weather was not very good and was fairly discouraging to my hopes of an easy day. The country below is beginning to look pretty wild so I'm flying near the Alcan Highway from here on. There is no trouble getting to Dawson Creek. It's a good airport. I meet a helicopter crew that's going the same way to Anchorage AK.



Ft Nelson is the next fuel stop and it's pretty expensive including a \$75 call out charge because it's Saturday. A fill here takes only 15 gallons. It starts to rain, the ceilings are 1500 and I will be into mountainous terrain right away. Flight service doesn't know what the weather actually is going to be but they are saying it might not be very good. The first mountain pass came quick and I was hooting and hollering a bit because I could immediately see a very long way and the ceilings looked manageable. Normal cruise is 190mph at 8 gallons per hour but best range speed is slower and it allows me to stretch my range substantially. I decided to slow down, skip the refueling stop at Watson Lake and continue on to Whitehorse YT.



The scenery is going to be spectacular from here on! Approaching Whitehorse, rain leaks into the cockpit and drips across the instrument panel and onto my leg. I knew about this leak and later fixed it with a little tape across the canopy front. At Whitehorse I decide to continue on and try to get to Homer AK that day. It was going to be close. Sunset was around 1100 pm and I was gaining another hour. The entry point into the US along the Alcan Highway is Northway AK but it's available only 9am to 3pm. At other times they grant a waiver that allows for a fuel stop at Tok Junction, AK and then on to clear customs at Anchorage Intl. The Tok Junction refuel stop turned out to be a mistake. My little RV4 took a slight beating due to rough, narrow, off road taxiways and ramp construction. Not a good airport for this low wing airplane but I fueled up and flew out of there still following the ALCAN.

Anchorage Intl was all 747s and me. I kept the speed up and followed one on final. Phone issues delayed notification of Customs but finally they arrive and cleared me with a smile. The last leg into Homer was short and beautiful. I landed around 1000pm with plenty of sunshine left. This day covered about 2000 miles of wild and scenic country. It took six legs and 11.8 flight hours.

My son Mitch and his fiancé Jolene had recently purchased a nice little trailer. Luckily it was unlocked when I arrived at their place close to midnight. I figured they were sleeping and quietly made myself at home. My 10-day stay in Homer was great fun!

I left Homer early August 2nd. High pressure along the Alcan Highway was encouraging but the weather in the Anchorage area was marginal VFR. The extensive system of weather cams and excellent flight service in Alaska was very helpful and I made it through a couple of beautiful mountain passes to my first stop of Gulkana AK.

The next leg to Whitehorse YT was through some very remote country. There is not much here but highway, mountains, trees and rivers so I decided to have some fun. I have made hundreds of low-level flights in mountainous terrain in the F16 and this seemed a good place to try it one more time. Of course the safest way to make this trip is at 35,000' and with that in mind and some careful route study, I flew the 200 miles from the Canadian border to Whitehorse at about 200' AGL. With the power set about 50%, burning 5gph my airspeed was a comfortable 135 indicated. I stayed within gliding distance of the highway most of the time and had a blast!

Climbing up to pattern altitude prior to Whitehorse YT, I cleared customs, bought gas and was quickly on my way again. Just like the way up here I don't dawdle much on the ground and hope to cover many miles per day. This airplane can do it! After Whitehorse, it's just more amazing scenery and I flew on to Fort Nelson BC. The weather is now perfect

and after a quick stop for gas I put Dawson Creek on the nose. It's getting late and I spend the night at Dawson Creek.

Day two I get started early and hope to make Fargo ND by the end of the day. The first fuel stop is Camrose Alberta and then I head to Regina SK. Clearing US customs requires filing an eAPIS manifest and also contacting the entry point directly. Fargo customs was closed so it's another stop at the Intl Peace Garden Airport. They are open 24 hours per day but the runway is unlit. No troubles getting in the US and it feels good to be back. I didn't get Canadian data for my Dynon Skyview and I was missing all the helpful info that it provides. With my iPhone and an iPad mini running Fore Flight it worked out great. I wouldn't like doing this trip with just paper charts. I landed at Fargo, ND and spent the night on my son in laws couch. The next morning was fun. The weather was great and I had only about one hour of this journey left, so I took my time at the Fargo Jet Center, cleaned up the airplane, chatted with anyone interested, lounged around and enjoyed myself before this last leg home. Around noon I landed at KRNH. The total distance round trip was about 6,000 miles and it took 35 flying hours. I did all but the last leg out of Fargo in 4 days with one additional day spent grounded due to weather. It was great fun and a real aviation adventure.

Van's Safety Corner

Ed note: Several years ago, Dick Van Grunsven wrote an excellent series of articles on RV safety that now seems to reside in a little visited corner of Facebook. For a number of upcoming issues, we'd like to reprint them. Some of the statistics may be a little dated by now but the general themes are very relevant to the operation of our RV aircraft

VAN'S SAFETY CORNER – part 2 *April 27, 2011*

I've been reading the threads of comments regarding my Safety postings. Many very experience, informed, and concerned persons are participating. A lot of great ideas are being shared. I'm encouraged and confident that some positive action will spring from information change. That's part of the goal; to get valuable input from a



broad base and share it. Dictates from FAA, EAA, Van's Aircraft, etc. will never have the beneficial impact that universal local action can.

Many of the comments were in agreement that we flying A-B aircraft must reduce our accident rates, but felt that we first needed to identify the primary accident causes. The FAA and NALL accident reports do this, but I will give my own views on leading causes of RV accidents and where to begin finding means of preventing them. Before getting into that, there are a couple of words I want you to think about.

ANTI-AUTHORITY.

During the FAA Safety meeting in Florida a couple of months ago, one of the panel members suggested that he had noted an Anti-Authority thread in the A-B community. Not everyone felt the same, and the topic was not further discussed. However, I've thought about it and believe that this sentiment may be more pervasive in the A-B community than elsewhere. I think that homebuilders are more independent and creative. They are willing to put in the effort to do it their own way, and are more resistant to being told what to do. There may be an element of anti-authority also, and in some instance this can be destructive. Keep that thought in mind while reviewing A-B flying safety.

CULTURE

1. We need to develop a Safety Culture. Though it seems that we are constantly bombarded with safety warnings and education opportunities by the FAA, EAA, and AOPA, is it really enough? Most of us also have a social engagement associated with our flying. We mingle with our flying friends at the airport, our EAA chapter, and the Saturday-morning-breakfast-bunch. These social contacts are probably our most powerful peer pressure influence. This less formal social side of aviation is the most enjoyable, and probably the most influential. This is our aviation "culture".

2. "Culture must change". A quote by Doug Rozendaal, with regard to improving A-B safety. This is obviously a comment that needs to be qualified. Overall, we have a great culture. We have common interests in flying and building, we help each other in many aspects of building, and we enjoy socializing with each other. But, there are aspects of our flying culture, perhaps holdovers from bygone years, perhaps results of our minority status in GA, which are counterproductive to safety. Keep this in mind as you read on.

3. More often than not we hear comments like: "Any landing you can walk away from is a good landing." Ha Ha. Or, "there are two kinds of pilots; those who have had accidents and those who are going to have accidents". Ha, Ha. "The most dangerous part of flying is the drive to the airport". More laughter. What kind of culture does this otherwise innocent banter promote?

Sure, these examples are oversimplifications. On the other hand, when pilots are conversing over breakfast or lunch at the airport café, don't we often engage in telling War Stories? These mostly-sometimes-almost- possibly true tales of flying ad-

ventures which are seemingly harmless entertainment. But, do they possibly set the wrong tone or the level of the bar? Particularly for the newer and less experienced pilots. They (we) need encouragement to improve skills, not necessarily tales glorifying high adventure.

RV ACCIDENT RATE

For the 2009 year, my review of the NTSB record shows 11 fatal RV accidents in the USA. According to the NALL Report, there were 71 total fatal A-B accidents that year. This means that RVs had 15 % of the fatal A-B accidents. Assuming that there were 5500 RVs flying in the USA that year, and 31,000 total A-B aircraft in the fleet, RVs would comprise about 18% of the fleet. On that basis, the RV fatal accident rate would be only slightly better than all other A-Bs. However, I'm inclined to think that RVs fly far more than 18% of the annual A-B hours.

Accident statistics are formally based on fleet usage, not fleet size. The total hours flown by the A-B fleet in 2009 was estimated at 1,000,000 hours. Assuming that the 5500 RVs flew an average of 50 hours per aircraft, that would be 275,000 hours, or 27.5% of the total. If RVs averaged 70 hours per year, then the RV fleet hours would 38% of the total. I'm inclined to think that RVs contribute a higher percentage of the total flight hours than their relative numbers would indicate; they certainly do in this part of the country. If so, that would put the RV fatal accident rate at about ½ the overall A-B rate.

Regardless, a review of individual accidents usually show probable causes which should not have happened—cause which we should be able to eliminate or at least mitigate. Thus, any posturing over "we are better than you", or "we are not as bad as you" is nonproductive. Improvement is possible, and should be our primary focus.

PRIMARY CAUSES OF RV ACCIDENTS?

I have researched the NTSB records for RV accidents over the past several years and tried to categorize the causes of fatal accidents. I find them to be:

1. Stall/spin,
2. Power loss
3. Reckless Flying
4. IMC/ VMC into IMC flight.

This is an approximate order, because the ratio of causes varies from year to year. I find that at least half of the total RV fatal accidents involve a stall/spin. In many instances, there are multiple causal factors. For instance, a loss of power can often be followed by a loss of control (stall/spin) in the process of an attempted emergency landing. In such an instance, what is the primary cause-how should it be categorized? Power loss would be the primary cause, but the fatal outcome may have resulted from ensuring pilot error. This example is a classic case illustrating the need to improve our airplanes as well as our piloting skills.

STALL/SPIN

Many of the accidents in the maneuvering, departure, and landing phases of flight result from low speed loss of control. (LOC) In the above summation, I have lumped these together in the LOC category. This I see as the lowest hanging fruit for safety improvement. The majority of these I feel could be eliminated through better basic piloting skills; skill levels which are attainable by the average pilot. Such skills are attainable through better training, transition training, and ongoing proficiency practice.

While we are not trying to pass judgment on pilots of any specific accident, there is a common thread indicating that most of these accidents could be avoided, or the outcome mitigated, if the stall/spin had not occurred. Thus, the continuing emphasis you will see placed on transition training, particularly training with emphasis on low speed control and stall avoidance, recognition, and recovery.

We are expecting to see a feature article in the May issue of SPORT AVIATION; an interview with long time RV transition instructor Mike Seager. The EAA staff was eager to run this feature because they recognize the value of “type” transition training. They want to highlight the successes Mike and the other RV transition instructors have had, and apply it to the wider A-B fleet. It is hoped that the example set by these RV instructors, the Lancair Owners and Builders Organization (LOBO), and others will serve as lynchpins for an industry wide safety-training program.

Finding ways to provide “type” training for the wide variety of A-Bs, some of which are rather obscure and that no longer benefit from factory support, will be a challenge. I think that this will be achievable if a “similar type” transition training aircraft is available. For example, training in an RV would probably be beneficial to a pilot of a new T-18 or Mustang II. After all, a lot of the emphasis in good transition training is that of polishing basic flying skills, in addition to familiarization with the unique control and handling qualities of a new type aircraft. RV transition instructors have found that many of their students lack basic flying skills. They are not really proficient at flying normal GA aircraft, let alone a new and different A-B. Hopefully, publicity of this sort will cause other GA pilots to become more introspective and skill conscious, even if they are not considering a homebuilt. Maybe it could even trickle down to flight schools and cause more emphasis on needed basic skills.

On this topic, a 4-25-11 post on Vansairforce.net caught my eye. In addition to announcing the first flight of his new RV-7, Marc Hudson wrote the following:

“For those of you getting close to flying your own project, please at least consider getting some transition training before you go up. I did mine with Alex De Dominicis at RVtraining.com here south of Dallas. I have flown a few

different airplanes in the past but it wasn't until after that training that I realized just how much I needed it. Even though I fly for a living, it had been 5 years since flying an RV-4 that I owned. Thanks again Alex.”

This illustrates a professional pilot's attitude as contrasted to some private pilot attitudes. Why, with his background did he seek additional training? Because he's a professional and because it is part of his culture. This is one reason (ongoing training) that commercial aviation has a vastly superior safety record. We can all learn from this. Marc, congratulations on your new RV-7, and for the fine example you've set.

The first part of a good transition training syllabus is, believe it or not, straight and level flight. Then simple 360 degree turns, etc. The point being, the transition student needs to be able to fly this new (to him) airplane precisely, particularly at low speed, before ever attempting a landing. The only means of making good landings is to have mastery of the aircraft within that last 10mph above stall speed. The transition instructor knows this, and knows that these skills are best learned and honed at altitude. It reduces the probability of later embarrassing ricochets off the runway, or bent airplane parts.

Many of us current RV pilots can also become careless and let our skills get rusty. If our approaches and landings seem to be losing their edge, maybe it's time for some refresher training, or at least some airwork practice. I'd like to see a training outline from one of the transition instructors listing practice maneuvers (slow flight techniques, stall series, etc.) which they recommend for pilot re-currency practice. Such practice will prepare us all to make our routine flights with a greater safety margin, and prepare us to better survive an emergency should that become necessary.

Recommended Reading: *DON'T QUIT STALLING FLYING* MAGAZINE, May 2011

Author Tom Benenson makes an appeal to pilots to remain current at stall recognition and recovery. Much of what he covers should be routine to all pilots, but probably isn't. This article caught my attention because of its relevance to the above, and because somewhere in my computer files is an unfinished article with a similar title and theme. Since Tom beat me to the punch, please read his well-written article. Sometimes we overlook FLYING magazine because of their concentration on Jets and Turbines. However they regularly include many very good safety articles such as this one, which pertain to pilots of small airplanes as well as large.

RECKLESS FLYING

RV Accidents resulting from reckless flying, daredevil antics, showing off. Overly aggressive pilots are often referred to as “Cowboys”, so I'll use that term for pilots who engage in low level aerobatics, low level maneuvering (abrupt or otherwise),

buzz jobs, steep pull-up climbs, etc. Generally, an aggressive form of flying not normally performed with general-purpose private aircraft.

I could easily contrive hypothetical examples of how “cowboy” flying could result in accidents. Rather, I have chosen several examples of RV accidents copied directly from NTSB reports. Two of them occurred on the same day. In Cowboy Western parlance, this could be titled, “Bad Day at Black Rock”.

1. *“The accident airplane departed third in a flight of four airplanes. The pilot of the first airplane was observed doing a roll during climb-out. The second airplane climbed out normally. As the third and accident airplane was on initial climbout the airplane was observed to do a roll. As the airplane’s wings rolled back to a level attitude, the airplane impacted into trees and subsequently the ground. The pilot exited the airplane unassisted, but was later airlifted to a hospital. Following the accident, continuity was established to all of the airplane’s flight controls. Due to the pilot’s injuries, he could not be interviewed by investigators or submit an accident report form.”*

I’m still shaking my head over this one. So many lessons to be learned! Too many unknowns.

A - Had pilot #1 planned to do a departure roll. Had it been discussed with the others, or was it spontaneous? Had he practiced and done this before?

B - Did pilot #3 attempt his rolling maneuver as a copycat response to #1, or had he preplanned this?

C - Had pilot #3 ever performed a low level departure roll before?

2. *“An experimental amateur built RV-6A, registered to and operated by a private individual, crashed into trees in Englewood, Florida. The certificated private pilot was killed, the passenger received serious injuries, and the airplane sustained substantial damage.”*

“Witnesses at a local gathering referred to as the “Redneck Roundup,” stated that a white single engine airplane flew over their heads at what they estimated to be 300 feet and then the airplane did what some witnesses referred to as a “barrel roll” and others referred to as a “loop”. The airplane disappeared from sight. Organizers of the roundup stated that there was no air show scheduled to be performed at the gathering.”

3. *“According to the pilot, while on a cross country flight, he descended and overflew a lake along his route of flight. Flying into the setting sun at low level over the lake, the right landing gear struck a marked power line, about 70 feet above the lake’s surface, which separated the right landing gear and broke an engine mount on the airplane (RV-4). The pilot turned immediately for a nearby airport and completed the forced landing, which collapsed the left main landing gear and damaged the firewall. The pilot reported there were no mechanical anomalies with the airplane. A witness stated that the power lines were marked by orange balls, while the pilot stated that the balls were red and “dark”. When asked how the accident could*

have been prevented, the pilot stated that “yellow or white balls could have been easier to see”.

My only comment is a Homer Simpson quote: “Doh”.

Were these instances of rare flying practices, which went awry, or were they “business as usual” flying which went awry? How widespread is this practice, and how many cowboy RV pilots are there?

Since the early days of aviation such showing off has been a part of aviation. Over time as GA airplanes have become more utilitarian cross-country vehicles, and these show-off antics have become less common. Now, it seems to be a practice most often associated with “hot little homebuilts”. Is this part of the homebuilt “**culture**”?

I’ve been guilty of this myself, mostly in the distant past. It is a complex subject because of attitudes and pressure within our culture. We build these airplanes to be intentionally different than common GA pattern ponies. We want airplanes in which we can enjoy and “express” ourselves. But, we need to establish safe limits of “self expression”.

Why are show-off antics more prevalent in RVs and similar homebuilts? Probably one reason is that they have the requisite performance and maneuverability to perform these maneuvers; more so than most GA aircraft. Many builders choose RVs because they are aerobatic, maneuverable, climb well, and go fast. Some pilots apparently perceive them to be Walter Mitty fighters which just beg to be used to “beat up the aerodrome” after a mission. After all, most airport bums seem to enjoy these impromptu airshows, and this audience approval serves to encourage and reward the cowboys for their flying behavior. Fun for all?

If cowboy flying is quite commonplace among RV pilots, then maybe and occasional accident is an acceptable statistic. However; the two 2009 accidents mentioned above, combined with three other accidents of this type during 2009, resulted in three deaths. From this, the RV accidents from this cause alone resulted in a higher than the GA average fatal accident rate for the year. In other words, if all RV accidents with other causes were eliminated, we’d still have a worse rate than non-commercial GA, just due to the Cowboys alone. This is obviously unacceptable.

How can we eliminate the Cowboy accidents? How can we alter behavior? Education may help, as well as may peer pressure and **culture** change. It has been my experience, both personal and otherwise, that cowboy flying is favored and encouraged by airport bystanders. But what if we could change that cultural element? Don’t ask me how I know, but it’s my feeling that most Cowboy pilots fly over-aggressively as a means of seeking attention, recognition, or acceptance. If not, they would not choose an airport, a farm home, or a gathering of people as a spot to demonstrate their aerial prowess. If they were doing this type of flying strictly for their own satisfaction, they could do so out in the hinterlands, out of sight of all others. The need for attention is a human trait, and can have both positive and negative manifestations.

What would happen if the cowboy got nothing but ostracism from his peers? What if several pilots, preferably respected ones, took him aside in the manner of an intervention, and explained a few facts to him:

- a. What you just did was dangerous, both to yourself and to others. Statistics bear this out.
- b. What you just did was stupid; it reflects badly on pilots in general, and particularly on A-B aircraft and pilots.
- c. What you just did was a violation of FARs. We are not going to report you this time, but in the interest of aviation safety, someone might do so in the future. Then you would get a chance to talk with your friendly FAA man, not just us.

What do you think can be done? I hate to sound like a bad guy by even suggesting getting in someone's face or "ratting" to the FAA. However, I think that peer pressure is perhaps the best tool available. It's just a matter of bringing about a widespread attitude change and finding means of bringing peer pressure to bear.

I see a definite "cultural" element here. Maybe a bit of Anti-Authority also.

POWER LOSS-ENGINE FAILURE

Power loss accidents rank high on the RV list, as they do for A-B in general. Even A-B aircraft using traditional aircraft engine have a much higher rate of power loss accidents than equivalent GA aircraft. Some of the reasons for this include non-standard fuel system installations, and engine and accessory modifications permitted under liberal A-B licensing rules. We will study power failure accidents in a future installment, and I welcome input from those who have experienced such failures or are aware of exact causes. We need to learn specific causes to know how to prevent so many of them happening.

Stay Tuned!

RV Grins in Iceland

-Doug

It's always a pleasure to get an email from our most eastern RV club member, Arni Sigurbjorgsson from Iceland. He's still very active flying his RV-4 and here's a new photo he passed along. Arnie's daughter Berglind poses in her RV-6 with 14-month-old daughter Bergros and 5-year-old Kristofer on the wing. Grandpa Arnie's in the back.

The RV guys in Iceland do a lot of flying. Often the weather there is a challenge but they get airborne whenever they can flying over some of the most interesting geology on the planet.



Twin Cities RV Builders Group
12 Island View Lane
North Oaks, MN 55127

First Class

Twin Cities RV Builders Fall Family Picnic and Fly-In

Saturday, September 9, 2017, eatin' starts at noon

**Sky Harbor Air Park (1MN8)
N44 31.7, W093 19.5, FGT (115.7) 218 degree radial, 9.0 nm, CTAF: 122.9
Cass Trail, Webster, MN 55088**

The Minnesota State Fair is wrapping up which seems to be a harbinger of fall. So too our annual Fall Family Picnic and Fly-In. Yep, for over a **quarter century** we have gathered at Sky Harbor to indulge in great food and enjoy an afternoon of great RV talk and great RV friends. The plan is the same. Our guests are the Furhmann's and the residents of Sky Harbor. Bring your family and friends plus a salad or dessert to share. The grill will be cranking out brats and all the other necessities will be provided. A free will offering will be collected to cover the incidentals.

Fly-ins welcome of course!! Unicom on 122.9 and **please, please, please fly SAFE!!!!** Look for the friendly parking crew.

More details on the website at www.mnwing.org

Directions are: **Minneapolis, south on I-35. Exit at the Elko, New Market exit. East on Cty Rd 2 then south on Cty From Rd 46. Then west on Cty Rd 3. You will cross I-35. Take the second entrance to Sky Harbor (Cass Trail). Follow the driveway to the Furhmann's on the left. You can't miss it!**

If you have any questions or you get lost en route, please call Peter Fruehling at 612-578-3333.

