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## From Stratus To Cumulus



**A**s the season of spring settles in across the upper portion of the U.S., long after it awakened in the southern tier of states, pilots find themselves plowing through the buildups of cumulus clouds. After a winter of popping up through layers of smooth stratus, we suddenly encounter a return to atmospheric

lifting, dealing with clouds energized with a desire to grow and growl.

This causes a shift in our thinking, corresponding to the season. Those of us with altitude capability reach for a Flight Level that can, at least, bring us visibility to dodge the monster buildups. In the mid-levels, we'll plunge in and out, and maybe deviate to evade the dark spots. And if we are restricted to breathing all-natural, free-range air without pressurization, we'll have to play the "on-top or underneath" game, beginning the day above the tops and eventually abandoning the high road to weave through or bounce along under the bases.

Piloting is all about choosing the best flight plan to deal with the conditions, using our aircraft's capabilities in a safe manner. Our stratus clouds mode of thinking won't work with cumulus circumstances, and as we fly into spring weather we have to shift our technique. A little popcorn puffball in the morning can become a raging anvil-hatted monster in the afternoon, full of downbursts, rain and hail. No longer can we expect a frontal penetration to be quietly denoted by a wind shift and rightward heading change.

Maybe there's a parallel here with the politics of an election year. As things heat up in the crucial months leading to the vote, there's a lot of energy going into the air, with turbulent promises pushing the vapor skyward into a cumulus of rhetoric. We're

past the stratus season now, when candidates cruised along in the smoothness of ambivalence, subtly occupying the middle region between layers, hoping for a pilot's-discretion clearance as they campaigned. Taking a stand, by comparison, generates the friction of up-and-down currents, and the atmosphere of the electorate can turn ugly.

Can we, as a nation and as voters, deal with this confusing turbulence? Oh, sure; just like piloting through changing seasons, we just have to remember how to choose our plan for the future, now that we're faced with build-ups instead of off-year lethargy. Experienced pilots and voters have seen it before, so we'll seek council if we're new to the game, and tighten our belts to ride through, making the best of the situation. We can't just choose not to participate, any more than we can relinquish the controls of an aircraft in flight. Let us resolve to remember what's worked in the past, using the best tools we have today, and pick our way through the blustering build-ups. Hopefully, there are clear skies on the other side.

LeRoy Cook

### In This Issue:

This month marks Mother's Day, and we take much pleasure in presenting Captain Kevin Dingman's tribute to a Pilot's Mom. If you are fortunate enough to still have your mother with you, let her know you appreciate her support, and perhaps even take her flying. As another poignant tale, we're also featuring Dr. Kevin Ware's story about his work with the Veterans Airlift Command, and one veteran in particular. Fewer and fewer of us have served in the military, so we frequently need a reminder to express our gratitude by helping a veteran.

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*Sgt Gibson and daughter Quinn in the Lear 40.*

# An Honor and a

by **Kevin E. Ware, ATP**

**W**e are eastbound from Olympia, Washington to Columbus, Ohio at FL 450 in the Lear 40, smoothly riding along in the sun, about 6,000 feet on top of an overcast. The cloud cover extends vertically almost to the ground and horizontally all the way to the east coast, with very few breaks. Airline 737 crews two miles underneath us are on the frequency, complaining about ice and turbulence, and are looking for tops that are well above their reach. Our passengers, riding peacefully in the back, are former U.S. Army Combat Engineer Staff Sergeant Jason Gibson, his wife Kara and his one year-old daughter Quinn. The New Year will arrive in two days, and this will be the last of several Veterans Airlift Command (VAC) trips fellow Lear pilot Jeff Hendricks and I have flown in 2015.



**S**ergeant Gibson comes from a long family tradition of patriotic military service, and he joined the U.S. Army in 2005 with the intention of making it his career.

Eight years later, he was a combat engineer on a hot, dusty road near Kandahar, Afghanistan, kneeling over an improvised explosive device, with the intention of disarming it, when it was remotely detonated. When the device went off, all he could recall seeing was red...his own vaporized blood and tissue.

In prior wars, this type of explosion and injury would have resulted in certain death, but, with the airborne medical evacuation capability the military now has, that is no longer always the outcome. Sergeant Gibson was immediately flown from the site via helicopter to a field trauma hospital, where he was sedated and stabilized, then transported to a larger facility.

Two weeks later, he woke up in an Army hospital in Germany, with his legs missing from the hips down. Now, three years following a long recovery that included being feted by the White House during a State of the Union address, he is in the back of our airplane going home to Ohio, having just spent Christmas with his wife's family in Washington State.

The weather for this mid-winter VAC trip is typical for the northern latitudes of the U.S. We deadheaded from Skagit Regional (BVS) to pick up the Sergeant in Olympia (OLM), leaving BVS in fog with the ceiling at 100 feet and the visibility between  $\frac{1}{8}$  and  $\frac{1}{4}$ .

Twenty minutes later, we were over the HOOMES intersection, inbound on the ILS 17 approach to OLM, still in the same fog bank with the ceiling generously reported at 200 and visibility at  $\frac{1}{4}$ . It was one of those crewed approaches with "lights", then "runway in sight" called at the last possible second.

At OLM, we board the Sergeant and his family in mist and light rain, and as we taxi out we find the weather has improved slightly to  $\frac{1}{2}$  mile and 300 feet. We are assigned the YELM TWO departure, which handily has us turn in the general direction of Rapid City, South Dakota, where we plan to make a brief fuel stop. Six minutes later, we are climbing through 12,000 feet with the summit of Mount Rainier becoming visible through the cloud tops on the left side of the aircraft. The winds aloft are from the west, blowing about 80 knots at FL 430.

We quickly close on Rapid City, which has four miles visibility and 2,500 broken...pretty good, actually. But, while letting down, trying to see Runway 14 from 20 miles away is nearly impossible, because it is surrounded and covered by an ocean of snow and ice. The controller, seemingly telepathic, cautions us not to confuse Ellsworth AFB at 11 o'clock with RAP; apparently some inadvertent landings are known to have happened there and are not welcomed. Just to be extra careful, we elect to fly the RNAV 14 approach and have that locked into the autopilot when we watch Ellsworth slide by on our left.

As we break out, RAP has snowplows working the runway and taxiways, and there is a plethora of

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NOTAMS about closed taxiways. We land a bit long on a dusting of snow and let the Lear roll to the end before exiting the runway, then gingerly proceed to the ramp with one hand guarding the thrust reverse levers. It is so cold and slippery on the ramp in RAP that Sergeant Gibson and his wife elect to stay in the airplane as we refuel. Twenty minutes later, we are sliding our way back to Runway 14 and are quickly airborne.

As we head further east, there is a huge low pressure system over Missouri that is creating a massive counterclockwise circular movement of cold and wet air, extending north to the Canadian border. At FL450, west of Chicago, we are above the weather with a smooth ride in bright sunshine. But then, to our dismay, we are instructed to descend into the mid 30s and told we will have to stay there all the way to Fort Wayne, Indiana (FWA)...upon inquiry, we are told it has something to do with Chicago traffic. So, as we head further east, we are bouncing along in the same gray murk as all the airline crews who were below us.

FWA is the entry point for the GUNNE2 arrival into our destination, the Ohio State University Airport (OSU). The chart shows we should expect to cross the following BRYEN intersection at or below 23,000. Because of reported icing, we want to stay as high as possible as long as possible, but, due to traffic coming out of Columbus, we are told to descend to 12,000, where we get even more bumps from the outer edge of the weather system and start forming rime ice. Passing over the GUNNE intersection, for which the arrival is named, we get a series of vectors intended to align us with the ILS 9R approach into OSU.

But, the wind aloft is gusting a good 30 knots directly from our right, making the intercept process somewhat prolonged. A couple of minutes after the controller has given us a final intercept heading of 135 she calls back to ask if we show ourselves still north of the approach centerline. We reply in the affirmative, but also say we are correcting and add another 20 degrees to our heading. She politely wishes us a happy new year and switches us to the tower. It is nighttime when we finally break out of the clouds at 800 feet, see the OSU strobes and runway lights turned up high, land smoothly on Runway 9, and pull up less than 50 feet from the door at the FBO.

After she hesitantly asks about the legality of the procedure, the Sergeant's car is retrieved by his wife and driven right through the security gate to the baggage side door of the Lear, where we easily load their cases. Colonel Dick Iverson, a retired USAF F-111 pilot, is our 'onboard' VAC trip coordinator ([aviatoriver@gmail.com](mailto:aviatoriver@gmail.com)) and we both pull the Sergeant's wheelchair from the aft baggage locker and assemble it in what we think is a competent fashion. But the Sergeant, having "arm

walked” down the aircraft aisle and the first couple of stairs, gives us a funny but patient look as he sits on the bottom stair and correctly re-assembles the whole contraption, then, smiling, wheels himself into the warmth of the FBO office.



*RAP lost in an ocean of ice and snow.*

Following him in, we joke that flying jets in bad weather is one thing, but assembling wheelchairs is obviously an entirely different matter, and we apologize for our ineptitude. But he responds in the manner I have found so typical of these American heroes, saying it was no problem at all, and he goes on to explain the difficulties wounded veterans such as himself have with airline travel.



It starts with long TSA lines, then nearly always there's some form of line pullout and a very personal body search. The fact that the numerous metal fragments in the bodies of these document-carrying American veterans were caused by injuries suffered in brave service to this country seems to make little difference to the TSA crowd. An extra hour or two of being needlessly searched and

questioned by paid officials of the very country they have sacrificed for is something these patriotic heroes and their non-complaining wives have just come to expect. By comparison, he says...wheelchair issues notwithstanding...trips flown by the volunteers of the Veterans Airlift Command (VAC) are just a joy. There is no mettlesome TSA business, the aircraft can usually



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pick them up at a very convenient local airport, and multiple aircraft transfers are usually rare.

Regardless of the severity of their injuries, in all the VAC trips I have flown with these most-deserving of all Americans, I have yet to hear even one them, or their wives, complain about their situation, or how they are treated by the country for which they have made such significant sacrifices. They are truly American heroes, and all too often are not adequately recognized as such.

As pilots, it is an honor and a privilege to have these wounded warriors and their families as VAC passengers in the aircraft we fly.

For additional information on the Veterans Aircraft Command, visit [www.veteransairlift.org](http://www.veteransairlift.org). 



*Kevin Ware is an ATP who also holds CFI, MEII and helicopter ratings, and is typed in several business jets. He has been flying for a living on and off since he was 20, and currently works as a contract pilot for several corporations in the Seattle area. When not working as a pilot, he is employed part-time as an emergency and urgent care physician for a large clinic in the Seattle area.*



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# WHY DO I NEED A Professional Appraiser?

by Mike Simmons

When I talk about the methods used to select and purchase an aircraft with any number of buyers (piston or turbine), it seems their process is very similar. The buyers clearly understand their budget and needs (the type of aircraft, mission, equipment and so forth), but their next step involves going to their favorite broker, dealer or publication to see what aircraft match both that need and budget, with very little regard for the aircraft's "value" or what these aircraft are actually selling for in the marketplace, something not found in publications and NOT reflected in the asking prices.

As a result, buyers tend to overpay for the aircraft in the purchase price and therefore pay more for the related taxes, insurance and financing – just to name a few key areas. Hiring a professional to help them understand what specific aircraft to pursue and what they should expect to pay for a particular candidate is seldom part of their research – even though it's probably one of the most important aspects of the search. After all, who needs a professional aircraft appraiser when there are plenty of publications, websites and any number of "experts" who can give us a number?

The question is, which number is the most accurate? Often, the typical buyer simply wants the acquisition process to end so

he or she doesn't have to begin the search all over again – costing even more money than originally planned. Unfortunately, realistic answers to many questions and concerns tend to be elusive. With the exception of the National Aircraft Appraisers Association's (NAAA) standardization for its members, there is no consistency in the aircraft appraisal industry and EVERYONE tends to be an "expert".

When researching the requirements of aircraft appraisers and deciding who should be hired, you may find very little information. This is not too surprising in the aircraft industry; aside from selling, brokering or piloting aircraft, a good number of evaluators have no real training or background in analyzing the subject aircraft, along with the market, to arrive at an unbiased, creditable, reliable opinion of value – or "market value". So, what is the typical buyer to do and who do they hire to help them with their aircraft search/purchase or understand what they should be paying? And what should one expect from a professional appraiser?

The result is that, with the variation in biases, knowledge, skills, abilities and experience of "appraisers" in the industry, along with the various pieces of very diverse market data, there can be a wide variance in value opinions for the same aircraft. If aircraft buyers *could* find an impartial, unbiased professional to help them analyze candidate aircraft and provide creditable, reliable, supportable data to make informed purchase decisions, it would give the buyer a huge advantage over most sellers. After all, why waste time and money looking at aircraft that are priced excessively to begin with? Knowledge is power, and having the

same or more information than the seller is critical; this is where the professional aircraft appraiser can provide valuable insight.

The NAAA is the largest and oldest global organization that is focused exclusively on the evaluation and documentation of general aviation aircraft – including pistons, turboprops, business jets and helicopters. The NAAA only accepts aviation professionals who meet its minimum requirements and all members must undergo training before they are able to issue reports to the general public. Members of the NAAA also adhere to a strict code of ethical behavior to ensure that they act in an unbiased and independent manner – and these requirements are critical and unique in the aircraft appraisal industry. Some NAAA members have also received training as "buyer's agents" and can assist buyers in the selection of true candidate aircraft that are in line with the buyer's budget and requirements, while maintaining impartiality in their analysis, which is very different from the traditional brokerage/dealer arrangement.

## Training Is Key

At this point, readers may be wondering about the need for training. After all, determining an aircraft's value involves little more than plugging in the year, make and model of an aircraft into any web tool or publication and then including the "add-fors" to determine the amount the aircraft is worth. This is the first mistake typically made by most evaluators. It's important to understand that there are two basic methods used to appraise aircraft; each method starts with a basic configuration or model. In the case of publications and websites, the typical model is the



“Average Retail” number or model, which is configured with “average” time on the airframe, mid-time engines and equipped with factory-original avionics. Aside from newer aircraft, most candidate aircraft don’t fit this model, so adjustments are needed. The limitations of the publication itself, and the manner in which these adjustments are applied, can create significant errors.

In one recent example I read about, a broker’s method of determining an aircraft’s price used a publication. The aircraft in question had a G1000 system with a WAAS upgrade. So, according to the publication, the broker added \$30,000 – as instructed by the publication. Here’s the problem. While the WAAS upgrade will COST about \$30,000, the actual VALUE increase is a small fraction of this amount, because the standard G1000 system for that model-year aircraft will have non-WAAS units that must be replaced and the relative value difference between these two pieces of equipment is very small. Simply adding \$30,000 overvalues the subject aircraft; this is only one of the many issues that tend to occur using a publication. Finding this type of error on ANY aircraft would pay for my appraisal fee several times over, but it is one of the smaller errors I encounter routinely in the appraisal process.

The other appraisal method used by the NAAA is quite different and begins with a model called the “Average Green Airframe”, which is a mathematical model representing the specific year, make and model stripped of all key value points – a “blank page” if you will. The aircraft’s value is then determined by what is found through field research and first-hand analysis. Essentially, the aircraft is “built”, based on the status and condition of a number of value points obtained from the field research.

### Expectations

So, what should someone expect from the professional appraiser and appraisal?



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One of the most critical advantages a client should expect is that the appraiser will sign their report and leave his or her office to physically examine the aircraft and related records. These two requirements are unique to NAAA members, because EVERY signed report requires a physical examination of the aircraft along with its records.

Another benefit clients should expect is that the report contains details about the subject aircraft, along with an indication of what the appraiser did or did not do, their connection to the aircraft or deal (if any), and any biases they may have. You should also expect the appraiser to perform some analysis of the market and how the subject aircraft “ranks” in this market and why, along with any key photos and findings. Reports that are less than ten pages long will not provide this level of analysis; rarely are these shorter reports signed.

Clients should also expect an analysis using data that is reflective of actual sales data (market value), something that really isn’t found in publications or websites. It is important to note that publications are in the business of selling subscriptions and publishing information – NOT the aircraft appraisal business. Publications tend to distribute information they received with very little analysis – such as the WAAS upgrade from the previous G1000 example. Many years ago, the NAAA recognized that information in the publications was unreliable and inadequate for the purposes of appraising aircraft and developed their own proprietary database for the sole purpose of appraising aircraft.

This database is updated monthly (versus quarterly for publications) and derived from a number of creditable reliable sources, such as the banking industry, and the analytical process generally involves an analysis of the aircraft’s specifics – such as details found in the aircraft appraisal reports involving unbiased on-site examination of the aircraft and records by trained professionals. The NAAA is the only organization in this industry that tracks actual selling prices of aircraft and the data has proven itself to be credible and reliable over the years in a number of challenging situations.

The important point to understand is that trained professionals are available that can help buyers make informed purchase decisions, based on factual data. In many cases, key decisions can be made very early in the process to eliminate candidates (and expenses). In other cases, the professional appraisal report will provide a basis for negotiating the price and highlighting issues to be addressed prior to closing the transaction. It is common for the professional aircraft appraisal report to pay for itself several times over, due to the field research and detailed reporting. 

*Mike Simmons is President of Plane Data, Inc. and may be reached at 800-895-1382 or 828-737-1599 (Direct & International), or by visiting [www.planedata.com](http://www.planedata.com)*

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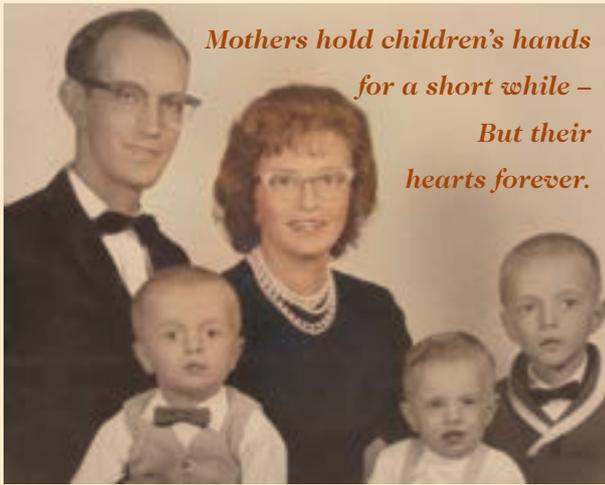


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# The Pilot's Mom

by Kevin R. Dingman



*Mothers hold children's hands  
for a short while –  
But their  
hearts forever.*

Dear Mom;

**Y**ou encouraged our interests, skills and sometimes our whims. Remember the stories you endured while I was growing up? Thanks for the typewriter. I used it to write tales about Boy Scouts, my first solo and becoming a private pilot; I received a B- for my effort on the later. I now write for an aviation magazine, so there, Mr. Buehler. I even wrote an article using that old typewriter. It was a deliberate process, but the sound of keys striking the paper, levering the carriage return, and assembling the embossed sheets of prose, made me feel like a genuine writer. I keep it in the hangar office with the Duke. Topics for my articles seldom wander from the sky and I get really nice mail from readers. I write about flying and about airplanes – except this month. This month, for Mother's Day, I'm writing about you.

## Pilot Psyche

Our readers are experienced pilots and, by nature, investigative, skeptical and clinical—it's part of how we pilots stay safe in the air. But it's you and other moms that provided the avenue by which we enjoy and savor the fruits of our clinical behavior. For

the moment, let me indulge the analytical facet of our pilot-reader's psyche. After childbirth, the way a woman acts is caused by what's happening in her prefrontal cortex, midbrain and parietal lobes. Activity increases in regions that control empathy, anxiety, and social interaction. Feelings of love, protectiveness, and worry all begin

with electrochemical reactions in the brain. An enhanced amygdala makes her extra sensitive to her baby's needs while hormones create a positive feedback loop.

Mommy, Mum, Mother. Motherhood, Mothering and to Mother. The first word of an infant often sounds like ma or mama. This strong association with mother has persisted in nearly every language and every society on earth.

Mom is the female of the species that traditionally holds the primary responsibility for the rearing of offspring. Changing diapers, cleaning up Cheerios and SpaghettiO's, providing physical and mental comfort and managing the very first time we did – well, everything. Tempering the exciting, adventurous and sometimes dangerous influences of the world—including dad's hair-brained ideas – can be included on your resume. Mothers are more likely than fathers to encourage assimilative and communion-augmenting patterns in their children.

Mothers are more likely than fathers to acknowledge their children's participation in conversation.

The way mothers speak (“motherese”) is better suited to help children in their efforts to understand speech. With these assertions and admissions, my analytical readers should now be more receptive to my, less clinically-focused, Mother's Day thank you note.

## We Know

You and Dad raised three boys. The ones that were known throughout the neighborhood, the school and around the airport as long-haired and raucous. We never got into any real trouble, but through multiple encounters with each of us, our small town sheriff recognized us as the “Dingman boys”. We were the ones that made babysitters cry, grandma shiver and you worry. You persevered and gave us the confidence to succeed. We've grown up to become a machinist, a chemist and a pilot. And we know that:

*We made you cry  
You wanted that last piece  
of pecan pie  
It did hurt  
You were afraid  
You watched us sleep  
You carried us a lot longer than  
nine months  
It broke your heart every  
time we cried  
You put us first  
You miss those days... well,  
most of them*

## Caught it on Fire

You didn't like me riding motorcycles or flying little airplanes, and you told me so – but didn't stop me. And you like to tell how, on my first solo, I had a close encounter of the third kind. Well, it was a UFO until it became an IFO; turns out it was a red party balloon in the traffic pattern. I probably shouldn't have worried you by reporting it on tower frequency. Except for the military airplanes, you have flown with me in them all. Remember the time we crossed Lake Michigan, single-engine, at night, in the weather and in

icing? And don't forget the time dad and I over-primed the 150 that bitter cold morning and briefly caught it on fire. You and dad even went to Oshkosh and Mackinac Island a few times in the Duke. Now that I'm older with lots of experience, I tell people that, whether caused by the pilot, a situation, or by living the experiences of others vicariously, it's the memory of being properly scared that helps to develop judgment. And it's judgment that keeps pilots alive. And I scared myself a few times early on.

### T. P. (Tepee)

You protected us but didn't shelter us. I'm sure there are times you saved us from others, from situations and from ourselves. Perhaps even from school officials and our sheriff during one particular football game. There was just one student known for flying little airplanes in our small town and everyone knew that it was one of the Dingman boys. I probably didn't get away with the football game caper like I thought. Thanks mom, for running interference. It was a nighttime bombing mission. We dropped thirty-some rolls of T.P. (toilet paper) on, but mostly around, the school's football field. We knew that, like tail-end Charlie, if we attempted two passes, we would catch flak. So, we made up a feeder slide for the little window of the Cherokee, in order to do it in one pass, and we flew high – too high. Bombing accuracy is all about wind and TOF (time of fall). But I wouldn't learn such things until years later, in the F-16. Because of the inaccuracy, it was not so much as around the school that the T.P. landed, as it was the proximate area of the surrounding Michigan countryside. If you lived in Southwest Michigan in the early 70's

and found some T.P. draped over your farm animals one morning, sorry about that; it must have been some other hooligan.

I sold that little two-seat airplane that I bought when I worked at the paper mill. It was too difficult to move from base to base after I joined the Air Force. And for a long time I didn't fly anything but military jets. You were glad when I joined the Air Force. You figured it was better than factory work – especially since I lost part of a finger and some of my hearing while working in factories. You were proud that I advanced from enlisted to an Air Force officer. Until you learned I was going to pilot training, and then on to the F-16. Once again you worried about me and airplanes. This time, a stronger and faster airplane – one with a gun, missiles and bombs, but only one engine. It did have an ejection seat, but I don't think that gave you much comfort. You came out to the airport with dozens of friends and family when I flew one into the base at Battle Creek. You bragged and took pictures; your son was a fighter pilot. Yes, mom, it was dangerous. But the training was good, I paid attention, I was careful and did a really good job. When the Air Force asked me to man a command post in Germany, I left the military in order to keep flying airplanes. My buddies were doing it too – we all went to the airlines.

You must have been accustomed to the worry because you seemed to take it in stride. Maybe you thought that I'd be flying something less risky – until 9-11, that is. I'm sorry to worry you again, mom, but we are still fighting that battle all over the world. And even though an airline pilot's life is

extremely structured and repetitive, I have had more mechanical and passenger issues at the airlines than I had in military and private flying combined. I've had engine failures, a handful of generator and hydraulic failures and unruly passengers that I've had arrested. Thankfully, the judgment you helped me to develop guided me through it all. But don't worry, I'll be retiring soon.

### No More Pilots

I raised a family of my own, like ours. Except that I had to learn about little girls – turns out they're astonishing. I understand now. Even without a neurochemical reaction. None of them had any interest in flying though; the flying bug will end with me. No more Dingman pilots. You're probably glad to hear that. The moms of pilots are a lot alike I imagine, because we pilots are a lot alike. Somewhere in the lives of us pilots, there is someone like you that felt apprehensive about us flying and about little airplanes. But they saw us through the learning process, the cross-countries and the check rides. Some, like you, worry about us still. The Duke is a very nice, bigger, little airplane. I love it and I'm careful. So, try to relax mom. Thanks for encouraging my writing and tolerating my flying. You did a really good job. Happy Mother's Day. 



*Kevin Dingman has been flying for over 40 years. He's an ATP typed in the B737 and DC9 with 21,000 hours. A retired Air Force Major, he flew the F-16 then performed as a USAF Civil Air Patrol Liaison Officer. He flies volunteer missions for the Christian organization Wings of Mercy, is employed by a major airline, and owns and operates a Beechcraft Duke. Contact Kevin at [Dinger10d@gmail.com](mailto:Dinger10d@gmail.com)*



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31 ASTRA 1125SP  
63 ASTRA 1125SPX  
51 BEECHJET 400  
275 BEECHJET 400A  
58 BOEING BBJ  
391 CHALLENGER 300  
65 CHALLENGER 600  
58 CHALLENGER 601-1A  
133 CHALLENGER 601-3A  
56 CHALLENGER 601-3R  
279 CHALLENGER 604  
5 CHALLENGER 800  
169 CITATION 500  
319 CITATION 525  
284 CITATION BRAVO  
151 CITATION CJ1  
69 CITATION CJ1+  
202 CITATION CJ2  
160 CITATION CJ2+  
390 CITATION CJ3  
180 CITATION ENCORE  
306 CITATION EXCEL  
5 CITATION I  
288 CITATION I/SP  
478 CITATION II  
50 CITATION II/SP  
173 CITATION III  
329 CITATION MUSTANG  
138 CITATION S/II  
257 CITATION SOVEREIGN  
284 CITATION ULTRA  
287 CITATION V  
20 CITATION VI  
104 CITATION VII  
257 CITATION X  
199 CITATION XLS

1 DIAMOND I  
53 DIAMOND IA  
3 DORNIER ENVOY 3  
282 ECLIPSE EA500  
47 EMBRAER LEGACY 600  
8 EMBRAER LEGACY 650  
158 EMBRAER PHENOM 100  
82 EMBRAER PHENOM 300  
123 FALCON 10  
28 FALCON 100  
25 FALCON 200  
176 FALCON 2000  
21 FALCON 2000EX  
81 FALCON 20C  
17 FALCON 20C-5  
26 FALCON 20D  
3 FALCON 20D-5  
7 FALCON 20E  
8 FALCON 20E-5  
59 FALCON 20F  
82 FALCON 20F-5  
229 FALCON 50  
8 FALCON 50-40  
113 FALCON 50EX  
135 FALCON 900  
21 FALCON 900C  
116 FALCON 900EX  
98 GLOBAL 5000  
112 GLOBAL EXPRESS  
25 GULFSTREAM G-100  
161 GULFSTREAM G-200  
8 GULFSTREAM G-300  
27 GULFSTREAM G-400  
222 GULFSTREAM G-450  
7 GULFSTREAM G-500  
330 GULFSTREAM G-550  
42 GULFSTREAM G-I  
110 GULFSTREAM G-II  
31 GULFSTREAM G-IIIB  
186 GULFSTREAM G-III  
188 GULFSTREAM G-IV  
317 GULFSTREAM G-IVSP  
182 GULFSTREAM G-V

40 HAWKER 1000A  
9 HAWKER 125-1A  
2 HAWKER 125-1AS  
1 HAWKER 125-3A/RA  
2 HAWKER 125-400A  
29 HAWKER 125-400AS  
1 HAWKER 125-400B  
4 HAWKER 125-600A  
11 HAWKER 125-600AS  
113 HAWKER 125-700A  
50 HAWKER 4000  
187 HAWKER 400XP  
21 HAWKER 750  
223 HAWKER 800A  
2 HAWKER 800B  
335 HAWKER 800XP  
14 HAWKER 800XPI  
67 HAWKER 850XP  
131 HAWKER 900XP  
4 JET COMMANDER 1121  
6 JET COMMANDER 1121B  
12 JETSTAR 731  
11 JETSTAR II  
51 JETSTREAM 31  
40 JETSTREAM 32  
15 JETSTREAM 41  
15 LEARJET 23  
26 LEARJET 24  
5 LEARJET 24A  
19 LEARJET 24B  
53 LEARJET 24D  
14 LEARJET 24E  
9 LEARJET 24F  
33 LEARJET 25  
57 LEARJET 25B  
7 LEARJET 25C  
94 LEARJET 25D  
6 LEARJET 28  
28 LEARJET 31  
172 LEARJET 31A  
43 LEARJET 35  
426 LEARJET 35A  
21 LEARJET 36

34 LEARJET 36A  
24 LEARJET 40  
219 LEARJET 45  
193 LEARJET 45XR  
115 LEARJET 55  
5 LEARJET 55B  
12 LEARJET 55C  
293 LEARJET 60  
130 PREMIER I  
16 SABRELINER 40  
13 SABRELINER 40A  
7 SABRELINER 40EL  
3 SABRELINER 40R  
24 SABRELINER 60  
1 SABRELINER 60A  
2 SABRELINER 60AELXM  
12 SABRELINER 60ELXM  
3 SABRELINER 60EX  
1 SABRELINER 60SCEX  
85 SABRELINER 65  
1 SABRELINER 75  
17 SABRELINER 80  
3 SABRELINER 80SC  
101 WESTWIND 1  
4 WESTWIND 1123  
45 WESTWIND 1124  
76 WESTWIND 2

## TURBO PROPS

### CHIEF PILOTS & OWNERS

#### Aircraft Count

275 CARAVAN 208  
1087 CARAVAN 208B  
3 CARAVAN II  
34 CHEYENNE 400  
221 CHEYENNE I  
14 CHEYENNE IA  
303 CHEYENNE II  
59 CHEYENNE III  
21 CHEYENNE IIIA  
59 CHEYENNE II XL  
22 CHEYENNE IV  
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120 KING AIR A100  
203 KING AIR A200  
58 KING AIR A90  
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135 KING AIR B100  
902 KING AIR B200  
78 KING AIR B200C  
63 KING AIR B200GT  
2 KING AIR B200SE  
3 KING AIR B200T  
66 KING AIR B90  
295 KING AIR C90  
32 KING AIR C90-1  
160 KING AIR C90A  
316 KING AIR C90B  
7 KING AIR C90SE  
278 KING AIR E90  
160 KING AIR F90  
17 KING AIR F90-1  
1 MERLIN 300  
1 MERLIN IIA  
29 MERLIN IIB  
12 MERLIN III  
20 MERLIN IIIA  
49 MERLIN IIIB  
14 MERLIN IIIC

5 MERLIN IV  
13 MERLIN IV-A  
13 MERLIN IV-C  
105 MITSUBISHI MARQUISE  
1 MITSUBISHI MU-2D  
29 MITSUBISHI MU-2F  
1 MITSUBISHI MU-2G  
22 MITSUBISHI MU-2J  
32 MITSUBISHI MU-2K  
15 MITSUBISHI MU-2L  
23 MITSUBISHI MU-2M  
30 MITSUBISHI MU-2N  
38 MITSUBISHI MU-2P  
55 MITSUBISHI SOLITAIRE  
673 PILATUS P-12  
341 PILATUS PC-12 NG  
549 PILATUS PC-12/45  
154 PILATUS PC-12/47  
492 PIPER MERIDIAN  
10 ROCKWELL 680T TURBO  
6 ROCKWELL 680V TURBO II  
7 ROCKWELL 680W TURBO II  
9 ROCKWELL 681 HAWK  
89 SOCATA TBM-700A  
91 SOCATA TBM-700B  
4 SOCATA TBM-700C1  
115 SOCATA TBM-700C2  
318 SOCATA TBM-850  
22 SOCATA TBM-900  
6 STARSHIP 2000A  
51 TURBO COMMANDER 1000  
27 TURBO COMMANDER 690  
129 TURBO COMMANDER 690A  
113 TURBO COMMANDER 690B  
58 TURBO COMMANDER 840  
16 TURBO COMMANDER 900  
23 TURBO COMMANDER 980

## TWIN PISTON

### OWNERS

Aircraft Count

9 ADAM A500  
1550 BARON 58  
479 BARON 58P  
137 BARON 58TC  
5 BARON A56TC  
142 BARON G58  
43 BEECH BARON 56 TC  
2 BEECH BARON 58 PA  
217 BEECH DUKE B60  
193 CESSNA 340  
556 CESSNA 340A  
120 CESSNA 402B  
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# Public Trust

by Thomas P. Turner

The private pilot of a Cessna 421 departed about 90 minutes after sunset on the cross-country flight. The climb and level-off at cruise altitude were uneventful and, based on the radar data, appeared to have been accomplished with the use of the autopilot. The cruise altitude of 27,000 feet was the highest the airplane had been flown in recent history, and the highest altitude it had been operated at with the pilot flying.

The pilot made a routine radio exchange with air traffic control personnel shortly after leveling for cruise. Five minutes later, the airplane, with no further radio transmissions, rolled to the right and rapidly descended 10,000 feet, where it subsequently broke apart. Analysis of fractured surfaces, the debris field distribution and radar data revealed that the breakup sequence was most likely inadvertently induced by the pilot as he attempted to recover control of the airplane during the dive.

Examination of the engine components, surviving primary airframe components, the cabin heater, and the autopilot system remnants did not reveal any mechanical malfunctions or failures that would have precluded normal operation. There was no evidence of bird strike, inflight fire, or that the engine fire extinguisher system had been activated.

The airplane was flying toward an uninhabited mountain range and a largely unpopulated desert area at the time of the upset. The moon had set, and the pilot would have had limited reliable external visual cues should the airplane have experienced a failure of either the flight instruments or autopilot. The pilot was instrument rated, however the majority of his flight experience was garnered in aircraft equipped with modern “glass cockpit” avionics, as opposed to the traditional flight instruments installed in the accident airplane (which he had recently purchased).

The airplane was equipped with a dual vacuum pump system that drove the primary flight instruments and, in turn, the autopilot. One of the vacuum pumps had failed on the previous flight, and the pilot was unable to get it repaired in time for the accident flight. The dual nature of the vacuum system allowed for flight with a single failed pump. However, failure of the remaining pump or associated vacuum system components would have left the pilot to hand-fly the airplane, using backup flight instruments, at an altitude perilously close to the limit of the airplane’s flight envelope. Examination revealed that the second pump was most likely operational;

however, fire damage precluded an accurate assessment of the remaining vacuum system components. Although operation of the airplane did not require adherence to a minimum equipment list, the airplane’s FAA Master Minimum Equipment List stated that one of the vacuum pumps can be inoperative, provided the airplane is operated under VFR and not operated at night.

The airplane had experienced multiple anomalies with the autopilot and vacuum system prior to the accident flight. Maintenance records indicated that these discrepancies had been resolved; however, damage to the airplane precluded a substantive confirmation of their operation. Additionally, an oversight by an avionics repair facility one week before the accident resulted in the airplane’s pitot/static system being inadvertently tested and certified to 20,000 feet, rather than the airplane’s service ceiling of 30,200 feet. The relevance of this finding, if any, could not be determined.

The airplane was equipped with a supplemental oxygen system; however, maintenance records indicated that the pilot’s mask, while operational, had degraded. Additionally, the mask had been relocated to a position behind the pilot’s seat, which would have been hard to reach in the event of a rapid decompression. Ultimately, the NTSB was unable to determine the cause of the rapid descent because of the postcrash damage to the airplane systems and components.

The National Transportation Safety Board determines the probable cause(s) of this accident to be: The pilot’s failure to regain airplane control following a sudden rapid descent during cruise, which resulted in an in-flight breakup. Contributing to the accident was the pilot’s decision to make the flight with a failed vacuum pump, particularly at high altitude in night conditions.

Two died in the crash of this pressurized piston twin. Although there is no definitive determination, the NTSB clearly considers failure of the Cessna’s remaining vacuum pump, and the “glass cockpit” pilot’s lack of recent experience in legacy-panel instrument flight, possibly in a partial panel condition, to be a likely scenario. The NTSB report includes an unusually frank statement: “Given the pilot’s overwhelming experience with ‘glass cockpit’ instruments, as opposed to the traditional type in the accident airplane, along with the failure of one of the vacuum pumps, he should have reconsidered making the flight, particularly during night conditions.”

Most reviews of crashes of this sort would focus on the skills needed to fly partial panel, the uniquely different scan techniques for glass cockpit versus traditionally-instrumented cockpits, and—as has rightfully received so very much attention in the last couple of years—the topic of Loss of Control – Inflight (LOC-I). In this and many other crashes involving deaths in piston twin airplanes, however, there is a deeper issue we must consider: pilots’ failure to uphold their responsibility to their passengers, their families, the employees and co-workers who depend upon them, and the persons on the ground under the flight path of the airplane. The deeper issue in a great many fatal general aviation accidents is that of pilot professionalism, to live up to the responsibility we freely accept as pilot-in-command.

### Public Trust

It’s fashionable to think of Federal Aviation Regulations as putting limitations on our freedom to fly. The reality, however, is that the FARs put amazingly few restrictions on the pilot-in-command, except when he or she takes a passenger along. Take, for instance, the requirements for pilot currency. FAR 61 tells us the pilot-in-command must receive a Flight Review or equivalent every two years. You can take your Flight Review today, not get near an airplane for one year, 11 months and 29 days, and jump into a piston twin and fly as pilot-in-command—probably not a good idea, but it’s perfectly legal. Sure, you must log a small number of procedures by reference to instruments if you wish to fly on an instrument flight plan. But you don’t need anything more than an hour of ground instruction and an hour of flight instruction every two years.

To carry passengers, the rules are far more strict. You must log at least three takeoffs and landings as pilot-in-command within the previous 90 days. In some cases, these landings must be full-stop, and at night for carrying passengers at night. The limitations on what we can do as PIC are in place primarily to protect the *public*, not the pilot. The FARs are all about upholding the public trust.

Meanwhile, passengers have an expectation that the pilot meets this

standard. As far as they know, the pilot is just as disciplined and well-trained as the pilot of a TransPacific Boeing. It’s up to us to live up to that expectation.

### Personal OpSpec

One of the significant factors that make corporate and airline flying so incredibly safe is crew adherence to OpSpecs, or operating specifications. OpSpecs make many of the decisions for a flight crew, so when they are faced with fatigue, stress or temptation—times when decision-making is compromised—critical decisions are already made. For example, if a flight department’s OpSpec is

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that the airplane must have at least one hour of fuel remaining on board when it lands, the crew won't take off with less fuel than needed to meet this requirement, and will monitor fuel status and ground speed en route, landing early if less than one hour's worth of fuel will remain at the estimated time of arrival.

At a bare minimum, your personal OpSpec should include a requirement to meet all airworthiness requirements for the airplane. It should also restrict you from flying in instrument meteorological conditions or at night with any known discrepancies with the instruments and navigation systems. Your personal OpSpec should require higher minimums and daytime-only operation when you move from glass cockpit to traditionally-instrumented airplanes, or between different models of Technologically Advanced avionics.

I've spoken to many pilots who have survived crashes or near-accidents. Most report they knew they were doing something wrong before the event unfolded. I suspect the pilot of the C421 felt he shouldn't be flying night IFR in an airplane with a failed vacuum pump and an instrument layout he had not flown in a long time. I suspect also the passenger who rode with the pilot to his death thought the pilot would never put him in that sort of position. Yet the flight went anyway. Even though the Federal regulations don't require it, your responsibility to your passengers – the public trust – demands a strict adherence to limitations, and conservative decisions made based not only on the airplane and environment, but also your recent experience with the type of airplane and its specific equipment. 

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*Thomas P. Turner is an ATP CFII/MEI, holds a Masters Degree in Aviation Safety, and was the 2010 National FAA Safety Team Representative of the Year. Subscribe to Tom's free FLYING LESSONS Weekly e-newsletter at [www.mastery-flight-training.com](http://www.mastery-flight-training.com).*

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# *On the Go*

by LeRoy Cook



One of the most perilous conditions confronting a pilot is making the ol' switcheroo from landing to climbing out. The aircraft starts in a low-power, high-drag configuration, flying with a limited amount of airspeed, near the ground or possibly already on it. The conclusion, if successful, is to be in climb power and drag configuration, accelerating and rising in obstacle-free airspace. This is a handful of changes for the pilot; no wonder it sometimes turns out badly.

The situation can be planned, or unplanned. It can involve a certain amount of runway acceleration (a touch-and-go) or begin a few hundred feet above the terrain (a missed approach). In any case, the workload is high, and controlled flight into terrain (CFIT) or loss of control (LOC-I) are very present dangers. Technique and adherence to procedures are important if we're to pull it off.

As with any critical flight condition, the go-around needs to be planned and practiced. The airplane will act and feel decidedly different than in most other realms of flight. If you haven't been there and haven't experienced it, you may not understand what's taking place, particularly with poor or non-existent visual references. This is not a time for vacillation and too-late reactions; you must be ahead of the airplane.

## Flying The Miss

Let's consider the missed approach segment of an instrument approach, seldom actually used but vital when it's needed. You should have at least an inkling that it might have to be flown, particularly if in IMC close to the ground. In low weather, I prefer to think in terms of the miss being the likely outcome, with landing only an option. In that mindset, I'm ready to execute.

If flying level at MDA, perhaps with less than the landing flaps setting, you're in a pretty good position to start the wave-off. You're already carrying quite a bit of power, so all you need to do is to add climb power, set flaps to takeoff and retract the gear—and fly the airplane. There will be trim changes as the thrust builds, drag reduces and speed increases; your job is to fly the appropriate pitch attitude and follow the MAP. You should have it loaded in your mental and electronic memories; this is no time to be glancing down at the approach plate. In lieu of other guidance, climb straight ahead until you've stabilized things, getting away from the ground.

If following vertical guidance, you are likely to be closer to the surface, with landing flaps out, powered down for the descent. In this case, the changes required

to execute the missed approach are more radical. While power is building, you'll need to establish the initial go-around attitude and begin the clean-up; there may be a little sag below DH while the descent rate is reversing, but you're not landing, so retract the gear and most of the flaps. Expect more extreme trim shifting; stay sharp on the attitude indicator. There's less margin for error while escaping the clutches of the terrain.

Focus on flying the aircraft, rather than communicating with ATC and figuring out the next move. The controller needs to know your status and intentions, but not at the cost of abandoning attention to the flight path. As with all flying, you should have the miss planned, and fly your plan.

### Going Around

A little further into the landing scenario is the possibility of having to fly a go-around below MDA or DH. At this point, you may have committed to the landing, powered back in a landing configuration, with speed bleeding off as sink rate is being arrested. This is dangerous territory, requiring prompt, correct handling to escape with a whole airplane. Your first priority is to hold altitude and accelerate. Apply full takeoff power, not just an approximation of lever movement, roll in some trim and keep the aircraft straight. Bring up flaps carefully, reducing their drag but not surrendering all the benefits of their lift. Leave the gear down until you've

established a positive rate of climb, just in case you hit windshear or energy is slow to build. If the airplane touches down while going around, make sure the wheels are aligned and you're tracking straight.

Again, your target is to move away from a ready-to-land condition into a climbout state. Maintain control, trim to oppose shifting forces, pitch up as energy builds into the aircraft, and get away from the dangers associated with the ground. Join the climb profile with gear retracted and climb power after you've escaped the low-level environment. Gain altitude, not excessive airspeed. Remember AFTA; always fly the airplane.

### Touching And Going

Finally, there's the challenge of bringing the aircraft back into the air after it's touched down on the runway. In the majority of touch-and-goes, the maneuver is planned as a time-saving alternative to a full-stop rollout, but it involves some risk. Most of the time, once the airplane has settled onto the surface it's better to keep it there. Initiating a go-around from a completed landing takes much more runway than you think, and any obstacle clearance calculations are probably bogus. Only if you act quickly and have oodles of pavement ahead should you attempt the touch-and-go as an escape maneuver. It's better to go off the departure end at 25 knots and slowing than to hit the fence at 100 knots while attempting to fly under full power.

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That said, there's a right way to conduct the touch and go. Position the flap lever (not the gear handle!) to the takeoff setting, then immediately add takeoff power; if power is applied with full flaps extended while still rolling with near-flying speed, there is a chance of lifting off, then settling back as the flaps retract. Acceleration is the goal, so reducing drag and maximizing power is primary. As in all major configuration changes, the aircraft will require trim and control pressure adjustment; don't swerve off the runway while looking at the pitch trim indicator, just make an initial resetting and fine-tune it later.

Rotate the nose up on schedule and fly the normal climbout attitude, bearing in mind that you may be closer to the trees or noise-abatement profile than you would have been during a normal takeoff. If required, establish an obstacle-clearance airspeed to steepen the climbout path.

### Reasons To Go Around

Why would one initiate a go-around? Losing sight of the runway environment due to visibility restrictions obviously calls for abandoning the attempt at landing, and sighting a hazard on the runway or in the approach path certainly demands a go-around. Most commonly, a go-around is needed when the approach is unstabilized; airspeed is too fast or is deteriorating rapidly, or the

sink rate is excessive, perhaps because windshear has entered the picture.

Adding an extra 10 knots to the normal reference speed increases the landing roll by a huge margin. It's no mark of skillful airmanship to be able to turn a fast, long landing into a smoking-brakes turnoff at the departure end of the runway. Good piloting means determining that the approach is not falling within normal parameters and should be re-done.

Air traffic control may instruct you to perform a go-around, even after landing clearance has been received, most typically because of an anticipated loss of required separation. Preceding traffic might not have cleared the runway as quickly as expected, or dissimilar speeds were a greater factor than the controller foresaw. Even the best of airspace managers have to move an airplane out of the string once in a while. Separation is an "at least" requirement; your actual mileage will have to be greater, to give a cushion for contingencies. If ordered to go-around for a clearly visible reason, move to comply instantly and acknowledge as you do so.

If you institute your own go-around, make sure you tell ATC what you're doing. An off-site control facility assumes you are conducting a landing, particularly in VMC, and your return to the vacated airspace requires

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accommodation. Therefore, an immediate check-in is needed. Hopefully, you have retained the last-used frequency after switching to the local communications link, so you can return to it at a touch. Remember, you are now rogue traffic, popping up into the stream of other aircraft. State your intentions, whether it's to return for another attempt, fly the missed approach and hold, or go elsewhere.

If in uncontrolled airspace, make an advisory call and conform to the circuit if returning for another landing attempt in visual conditions. I often see hurried traffic patterns after a wave-off, when a too-eager pilot climbs only a few hundred feet and tries to get back into the queue like he's laying down suppression fire. Safety first is the rule, with minimizing noise impact a close second. Pulling up to 1,500 feet above field level to avoid low-and-slow traffic is the wisest procedure.

Common wisdom is to conduct the go-around to one side of the runway, so that the pilot-flying has a clear view of any traffic on the runway below. Do not make an extreme deviation to do this; climbing out on the runway heading until assigned otherwise is the expected procedure. Once completing the balked-landing checklist, your immediate task is to remain clear of obstructions, both laterally and vertically. Remain spatially oriented, pay attention to the terrain warnings and verify that ATC's vectors are in a safe direction.

The time and fuel invested in another landing attempt should not be wasted by doing the exact same thing—expecting, somehow to achieve different results. If a go-around was needed, change whatever was its cause, so that the next outcome will be different. That may require switching to another runway, an earlier flap extension, and most probably a wider visual approach. Learn from the previous experience and don't repeat the mistakes. Call up the “before landing” checklist and adhere to it with diligence; this is a perfect time to overlook something important while rushing to finish the now-extended flight.

The important point is to make a decision, early rather than late. The expected outcome from every approach is to land. But always be ready to accept the alternative, going around if the aircraft is not in a good position to touch down on target and stop within the confines of the runway. Sitting there passively while pavement is burning up, runway lights streaking past you, is not piloting; at that point, you've become a passenger, hoping the airplane will stop.

Any reconfiguring of the airplane from a landing to a takeoff will take careful flying, whether it's an aborted approach or a last-second pull-up. If tasked with this challenge, be ready with planning and prior practice. 

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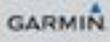


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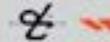















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# EN ROUTE

## Pratt & Whitney Offers New Engine Rebate with Blackhawk XP Upgrades

**T**hrough May 31, 2016, aircraft owners and operators who purchase a Blackhawk XP New Engine Upgrade for the Beechcraft King Air 200 or 90 series, Cessna Caravan, Cessna Conquest I, or Piper Cheyenne series aircraft will receive up to a \$65,000 rebate from Pratt & Whitney Canada. To reduce downtime, the installation of the new engines can be delayed through the end of July, which allows more time to schedule the upgrade, along with other maintenance items. Details of the New Engine Rebate program and specific amounts by engine model can be found at [www.blackhawk.aero/pwc-rebate](http://www.blackhawk.aero/pwc-rebate).

Aside from the substantial performance boost delivered by new

and more-powerful engines, another advantage of the New Engine Rebate program is a relaxed core engine exchange condition. There are no extra charges for corrosion, sulphidation, expired life-limited parts, non-genuine P&WC parts, FOD or missing logs. Any core engine will be accepted, as long as it was not removed for unscheduled reasons. Resetting the engine logs back to zero time and cycles will restart the pedigree of your engines, which increases resale value and peace of mind.

“In the conversations I have with aircraft owners, it’s not a question of if but when they will decide to upgrade with Blackhawk’s XP New Engine program,” said Edwin Black,

Senior Vice President of Sales and Marketing, Blackhawk Modifications. “The Pratt & Whitney New Engine Rebate has opened wide a window of opportunity to make the upgrade decision sooner. With the reliability of new PT6A engines, coupled with Blackhawk and Pratt’s dedication to the aftermarket upgrade community, it is easy to see why we have upgraded over 600 aircraft to date and continue to grow.”

For more information, visit [www.blackhawk.aero](http://www.blackhawk.aero). 



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# EN ROUTE

## Hartzell Engine Technologies announces the purchase of the Sky-Tec brand of high performance starters and solenoids.

*Acquisition of the Sky-Tec products further demonstrates Hartzell Engine Technologies' commitment to excellence in manufacturing and support of general aviation aircraft starters and solenoids.*

**O**n April 5, 2016, Hartzell Engine Technologies LLC announced the company's acquisition of the Sky-Tec brand of high performance aircraft starters and solenoids.

"We are ecstatic to have successfully completed the acquisition of one of the aviation industry's most respected brands, which significantly enhances our starter product line and adds solenoids as well," said Mike Disbrow, president of Hartzell Engine Technologies (HET). "Working with the entrepreneurial team behind Sky-Tec starters during our acquisition of Plane-Power alternators made it clear that our companies shared an uncommon mutual commitment to general aviation and our shared customers."

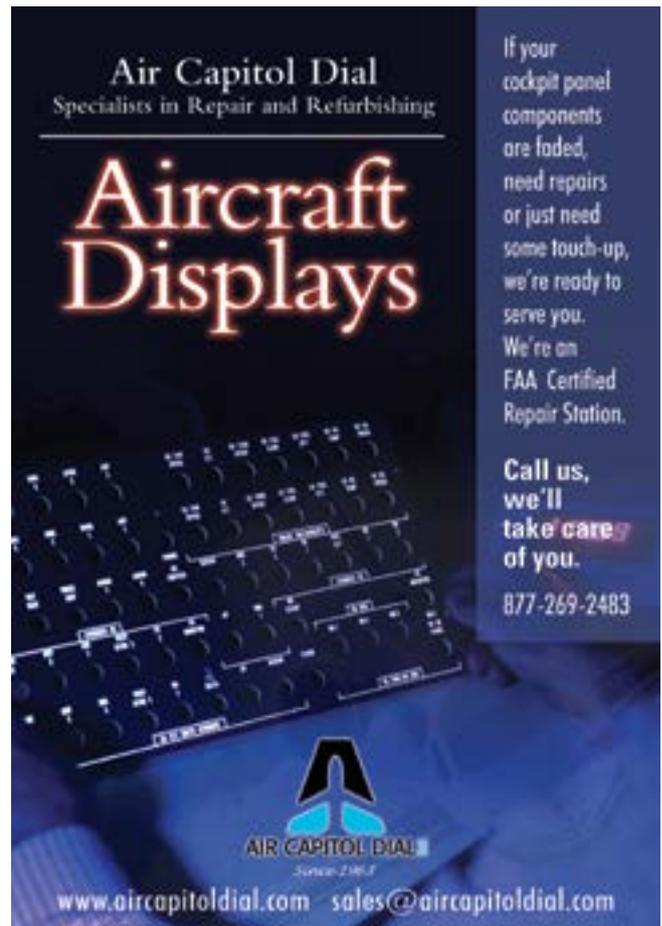
"Hartzell Engine Technologies will be the ideal home for the care and growth of the Sky-Tec brand," said Rich Chiappe, Partner of Sky-Tec Partners. "My partners and I needed to be assured the brand would be cared for with the same honor and commitment we poured into it for over a quarter century, allowing us to focus our attention entirely on bringing new products to market, such as the SureFly electronic ignition for certified aircraft. Hartzell's leadership clearly appreciates the value of the Sky-Tec brand and will be the brand's best caretakers for the next quarter century and beyond. Hartzell will continue to provide Sky-Tec customers with exceptional quality and first rate support moving forward."

"Sky-Tec's current starter and solenoid products are the perfect complement to the Hartzell line," Disbrow said. "Sky-Tec has a strong position on Lycoming engines and HET's strength is in Continental engine starters. Customers will further benefit when the best products of both businesses are together under one roof."

Disbrow stated that HET will continue to produce the Sky-Tec starter and solenoid products under the Sky-Tec brand and manufacturing will continue in the current factory in Granbury, Texas though the end of 2016, after which production will be transferred to HET's Montgomery, Alabama facility .

For more about Sky-Tec, visit: [www.skytecair.com](http://www.skytecair.com).

For further information about Hartzell Engine Technologies, visit: [www.Hartzell.aero](http://www.Hartzell.aero). 



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## EN ROUTE

### Piper Aircraft Repositions M-Class Product Line

Piper Aircraft has announced the repositioning of the M-Class product line in anticipation of the certification of the M600, which is expected to take place in Q3 of this year. As part of the product repositioning, Piper Aircraft has reduced the price of the M500 from \$2,264,000 to \$1,990,000. Additionally, the newly-upgraded executive interior will be a standard feature on each M500 and includes a new color palette - Inverness. The recently-announced Hartzell 5-blade composite prop will also be an option for all factory-produced M500 aircraft. The M500, with the latest in Garmin avionics and advanced safety features (enhanced autopilot flight control system with stability protection), is now better positioned to offer the market a true entry-level turboprop.

In addition to the M500 repositioning, Piper announced that the price of the Matrix has been adjusted from \$939,950 to \$899,000. The price reduction was designed to help customers “step-in” to the Piper M-class family at a more competitive price point.

The M350 for 2016 will offer the re-designed executive interior as an option in two color palettes: Inverness and Wellington. Additionally, as announced last year, the aircraft features the new Garmin G1000 avionics suite that includes high-resolution dual 10-inch PFDs and a high-resolution 12-inch MFD, as well as the latest Garmin software upgrade, along with a GFC700 autopilot with enhanced Autopilot Flight Control System (AFCS). The M350 is the only aircraft in its class with AFCS, which offers industry leading safety features like under speed protection, coupled go-around, level mode, emergency descent mode, and electronic stability protection (ESP).

“Our goal was to create price spacing between the products that would support the optimal step-up structure as well as a seamless transition. Furthermore, the team spent a great deal of time developing equipment lists, options, and packaging to further differentiate each product within the M-class family,” said Piper President and CEO Simon Caldecott. “As part of our on-going product improvement initiatives, we saw an opportunity to provide our customers the best value proposition for each product while differentiating each aircraft in the lineup. This approach gives the customer a reason to step-up from one M-class product to another as their needs and experience dictates.”

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# EN ROUTE

## Sierra Industries introduces engine lifespan extension for Pratt & Whitney JT15D fanjet family

Addressing the concerns of many owners and operators of Pratt & Whitney powered aircraft, Sierra Industries announced in late 2015 the creation of an affordable alternative to expensive engine overhauls every 3,500 hours. Known as the Fanjet Life EXtension (FLEX™) program, this FAA-approved maintenance and inspection program can provide many years of additional service at a remarkably affordable price point.

The FLEX program extends TBO up to 5,250 hours by increasing the frequency and thoroughness of routine engine inspections. The purpose is to find and correct engine problems in their early stages. This early correction of potential engine problems supports an FAA-approved

increase in the engine overhaul interval. Aircraft owners may enroll in the FLEX program at any time up to TBO and in some cases even beyond. For many legacy aircraft owners, this could mean a decade or more of flying without incurring the substantial expense of engine overhaul or replacement.

Enrollment in the program includes a full subscription to the SierraCom maintenance tracking program. Integrating the engine program with overall maintenance tracking streamlines inspection alerts and scheduling, centralizes record keeping and provides a single point of contact for administrative and regulatory concerns. Once enrolled, periodic oil analysis, borescope inspections

and performance monitoring are utilized to continually evaluate engine condition.

The FLEX program is applicable to these Pratt & Whitney engine models: JT15D-1, -1A/-1B, -4/-4B and -5A/-5D. Membership in the program may be transferred to a new owner upon aircraft sale. The FLEX program provides an affordable alternative to spending hundreds of thousands of dollars in engine overhauls or used engine purchases.

More information on the FLEX program may be found online at [www.skywaygroup.aero/flex](http://www.skywaygroup.aero/flex). Details and an online demo on the SierraCom maintenance tracking program can be found at [www.sijet.com/sierracom-maintenance-tracking](http://www.sijet.com/sierracom-maintenance-tracking). 



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## EN ROUTE

### Banyan Air Service Completes Agreement With ATP To Begin Transitioning Technical Publication Libraries to Online Access

*Aircraft Technical Publishers (ATP) Cloud-Based SaaS Application Enables Competitive Advantage With Improved Speed, Productivity, and Flexibility in Maintenance Operations*

Aircraft Technical Publishers (ATP) announced on March 1, 2016 that Banyan Air Service has completed an agreement with ATP to begin transitioning their entire technical information library from CD-based services to ATP's Aviation Hub™ cloud-based SaaS (Software as a Service) application. With online access to critical maintenance and regulatory information, the Fort Lauderdale, Florida-based FBO reported dramatically improved operating efficiency, speed, and flexibility, among other benefits.

"We pride ourselves on the highest levels of service excellence and the ATP Aviation Hub represents a considerable source of advantage in a highly competitive market," said Lewis Homsher, Banyan's Quality Assurance Manager. "Meeting and exceeding the expectations of our customers means not only getting the job done right as quoted, but also working as productively as possible to minimize aircraft downtime. With hassle-free access to the most current maintenance and regulatory information at our fingertips, we can deliver on that promise with confidence."

A satisfied ATP customer for decades, Banyan Air Service decided to make the shift from disc-based information service to the SaaS application after testing the ATP Aviation Hub firsthand. The company reported convenience, flexibility, and ease of use among the many benefits; Banyan's maintenance staff can access

technical and other information on any internet-enabled device, while managers have flexibility in assigning access and permissions to specific staff members, based on the type of work they are assigned.

In addition to instant scalability at the flip of a switch, upgrading to the cloud-based application also lifted the burden on staff who were previously required to constantly maintain and update dedicated servers and hardware, as well as managing content updates received every two weeks on publication revision discs. More importantly, with ATP Aviation Hub, Banyan Air Service can ensure that all of their technicians have instantaneous access to the most accurate and up-to-date technical and regulatory information available from any computer with Internet access.

Homsher explained: "Obviously we don't want access to this type of mission-critical information to be a bottleneck in getting aircraft back up in the air. ATP Aviation Hub is truly a turnkey solution that does the heavy lifting for us and frees us up to focus on what we do best. By integrating all of this constantly updated information for us, ATP takes that complexity out of the equation and helps us speed and streamline our maintenance operations."

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# EN ROUTE

## ForeFlight Acquires JetFuelX

### Adds Jet fuel contract price management to portfolio

**F**oreFlight, creator of the most widely-used flight planning and electronic flight bag app for Apple iPad and iPhone, recently announced that it has acquired JetFuelX, a free web-based fuel card management service for owners and operators of turbine aircraft, making it easy to find the lowest prices available from their multiple jet fuel discount program memberships.

“We are thrilled to announce this exciting addition to ForeFlight. The JetFuelX platform is the first of its kind and allows our customers to make timely and cost-effective planning and fuel purchase decisions,” says Tyson Weihs, ForeFlight’s co-founder and CEO. “The free JetFuelX service helps operators get the most out of participating in fuel contract programs and helps fuel providers and FBOs efficiently distribute pricing data to their members.”

“Our primary focus is to enable owners, operators, and flight departments to take full advantage of the tremendous cost savings available in purchasing fuel,” says Jason Talley, JetFuelX founder.

“JetFuelX turns a time-consuming and cumbersome process into an elegant and easy-to-use solution that is accomplished in seconds. We are really excited to join the ForeFlight team and continue to expand our services.”

JetFuelX is designed to help everyone, from individual pilots to large flight departments, including charter operators, quickly pinpoint the best fuel prices and eliminate the time-consuming task of managing and comparing fuel card and FBO discount programs. Customers can manage card memberships and aircraft profiles, view prices available at the planned destination, compare prices with nearby airports, and submit fuel releases in a matter of seconds.

Existing JetFuelX customers can continue to enjoy the benefits of this free service. ForeFlight customers can also login to [portal.jetfuelx.com](http://portal.jetfuelx.com) with their existing ForeFlight credentials and use the JetFuelX platform at no additional charge. New customers are encouraged to sign up for a free account at [www.jetfuelx.com](http://www.jetfuelx.com). **T&T**

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by David Miller

## Peaches' Great Escape

Some of you may be new to this publication but Peaches, our white English Golden Retriever, is certainly not. Indeed, she gets substantially more fan mail than I do. So, for all of you who need your Peaches “fix,” an update is in order. You may remember from previous articles that our six-year-old beast dances to a different drummer. As a puppy, she refused liver treats, attacked us from behind, and dug up concrete fence posts. Her rough play and 75 pound strength precipitated my first-ever trip to an osteopath. She has required the services of a trainer and a psychologist, and has attended a two-week attitude adjustment camp in San Antonio. After a consult, Patty and I were advised to change her name from the original Lily to Peaches. It seems that early on, we only used the name Lily in conjunction with “dammit” or “sh@@” and Lily decided to totally ignore both her name and us. We trashed her personalized collar and hand-painted food bowl and began life anew with Peaches.

That idea hasn't worked so well.

In the big city, she is constantly on a leash, ever mindful of taunting squirrels, other dogs, butterflies, you name it. In Peaches' world, there are no boundaries. If you let her go, you might not see her for a while. But on a ski trip to Crested Butte, we let our guard down. For three days, she romped in knee-deep powder, constantly running 50 yards ahead of us, always alert to our exact position, and usually just out of our reach. This was the life she dreamed of.

One small problem, however. When we returned to the FBO, she forgot where she was.

The instant Patty opened the car door, Peaches decided she was still on the mountain top. Leash and all, she bolted for open space. The runway! Patty was horrified and angry at the same time. Peaches calmly sat at the edge of the taxiway and watched as a turbine Bonanza taxied by. Not so calmly, Patty turned to me and asked if the AIRPLANE would be damaged if Peaches ran into it! Jumping on the tug, Patty rode side-saddle with the lineman as they coaxed our mutt back onto the rescue vehicle and to safety.



*With 6,000-plus hours in his logbook, David Miller has been flying for business and pleasure for more than 40 years. Having owned and flown a variety of aircraft types, from turboprops to midsize jets, Miller, along with his wife Patty, now own and fly a Citation CJ1+. You can contact David at davidmiller1@sbcglobal.net.*

Peaches was so ashamed! She cowered back into our Mustang and covered her face. Thinking she had learned her lesson, I continued with my pre-flight. Until I glanced over my shoulder to see a white flash making a beeline towards the FBO. Now with four people chasing her, she flew up the steps and into the waiting area, where she promptly squatted and soiled their brand new carpet. The carpet that they replaced from her previous accident in the same location.

Shortly after Christmas, we received this note from the general manager of Gunnison Valley Aviation.

Dear David and Patty:

“Thank you so much for your generous holiday gift to me and the crew. We so enjoy working with you and seeing you often. We love Peaches too.

Maybe someday she'll be allowed back in the building.”

Thanks again.

Right now, Peaches is sitting in the pool and barking at the Polaris cleaner.

Fly safe.

Photo courtesy of Pilatus



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