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Report

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APRIL 2024 \$3.95 US
VOLUME 28 NUMBER 4



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Twin & Turbine (ISSN 1092-6402), USPS 24432 is published monthly by Village Press, Inc. with advertising offices located at 2779 Aero Park Drive, Traverse City, Michigan 49686. Telephone (231) 946-3712. Printed in the United States of America. All rights reserved. Copyright 2016, Village Press, Inc. Periodical Postage Paid at Traverse City, MI.

SUBSCRIPTIONS: *Twin & Turbine* is distributed at no charge to all registered owners of cabin-class aircraft. The mailing list is updated monthly. All others may subscribe by writing to: *Twin & Turbine*, P.O. Box 968, Traverse City, MI 49685, or by calling 1-800-447-7367. Rates for the United States and its possessions follow: one year \$15.00; two years \$29.00. Canadian subscriptions are one year \$24.00; two years \$46.00, including GST tax. Overseas subscriptions are one year \$52.00; two years \$99.00, U.S. funds. Single copies \$6.50.

ADVERTISING: Advertising in *Twin & Turbine* does not necessarily imply endorsement. Queries, questions, and requests for media kits should be directed to the Advertising Director, *Twin & Turbine*, P.O. Box 968, Traverse City, Michigan 49685. Telephone 1-800-773-7798. Website: www.twinandturbine.com.

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POSTMASTER: Send address changes and inquiries to Twin & Turbine, Village Press, Inc., P.O. Box 968, Traverse City, MI 49685.

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Endre Holen and Stephanie Goetz flying their Citation V

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Editor's Briefing

by Lance Phillips



Celebrations



day. I'm sure our ground instructor loved that we all wanted to test him every morning. Little did he know that a few of us had John and Martha explaining all the little nuances of private pilotology (new word) in excruciating and fun detail every night.

There are a few things in life that my generation has as constants that haven't really changed much over our span of

A Career Celebrated

It was the summer of 1988, a few weeks after graduating high school, and I had decided to pursue an aviation education at the Florida Institute of Technology, the higher learning institution for pilots, nowadays shortened simply to Florida Tech. FIT, as we called the school back then, had a two-month Part 141 program to earn a private pilot's license. It was sort of a basic training type of environment for people who wanted careers as pilots. Our routine generally consisted of ground school in the morning and flying in the afternoon and evenings. Most of us had airline aspirations—all of us just loved to fly.

I grew up in an aviation family but hadn't focused on learning the details of flying until that point. Operating a small airplane and being comfortable in the air was second nature, but, man, those early morning classes about regulations and weather were sometimes tough to get excited about. Our small class of around 30 kids also included an older guy making a career change (he was probably 35 years old). Most of us lived on the same floor of a 9-floor dormitory. I remember clearly one night noticing that a few in our class had gathered in the old guy's dorm room, so I checked out what they were doing. There was Martha King on TV going over Part 91 regulations in an easy-to-understand and lighthearted way that seemed really refreshing. And the graphics they used in their bulky VHS-taped presentations brought to life the stuff we had learned about in class that morning.

Now, not only could we reinforce what we learned that day, but we could also prepare to train the trainer the next

time on Earth—Paul McCartney, The Rolling Stones, Saturday Night Live—add to that list for us pilots John and Martha King. They've been there the whole time, and it's nice to know they're still there, still innovating, still making it interesting and exciting. Still bringing a lighthearted and fun aspect to the occasional drudgery. John and Martha have no idea who I am, but I still go back to them for refreshers. This time, though, it's via an app or online. I am glad the VHS tape is no longer with us.

"2024 marks 50 years since John and Martha began what has turned into a lifelong passion and an exceedingly successful business," Barry Knuttila, King Schools CEO, said. "Not only have they helped millions of pilots achieve their training goals, but they also guided the company and the curriculum through countless regulatory changes and technology transformations."

"It's humbling to see that our little idea has turned into something so successful and enduring," Martha King said. "We love to hear from pilots across the country and around the world who have used our courses to learn something new and pursue fulfilling aviation careers. That's what keeps us going."

John and Martha got their start traveling to far-flung cities and towns to conduct in-person ground school courses for aspiring private pilots. Today, King Schools is the world's premier supplier of print, video and computer-based instructional materials covering every aspect of flight training and safety, both for written test preparation and guidance in practical flight operations. More than half of all pilots in the United States have used one or more King Schools courses as part of their aviation training.

The secret to King Schools' longevity?

"When we paired up, we decided to be equal partners in everything we would do," John says. "In 1974, that was probably a little unconventional or even revolutionary. But ever since then, I have been struggling to be an equal partner to Martha. When it was apparent that Martha and I were serious about each other, Martha's father told me that Martha was the most stubborn person he had ever known. I said, "I already know that." I didn't take it as stubbornness but determination. I wanted to take full advantage of that, and as a result, the business has thrived. Fifty years later, our partnership is still pretty unique, and that has been the key to our success."

King Schools has launched a year of celebration to mark the half-century milestone. The celebration will include events, appearances, and speeches, as well as special offers on King Schools courses and curricula. The website and King Schools' social media sites will be regularly updated with details.

"In 2024, John's sideburns are long gone, but John and Martha King are still educating pilots with insights gained during a lifetime of learning and experience, delivered in their signature style with candor and humor," CEO Knuttila said. "We're not letting them retire quite yet – so watch this space to see what they'll be up to during King Schools' next 50 years."

Let's all celebrate this milestone with the Kings.



Al Caruso

A Life Celebrated

A few years ago, I took over the helm of the Pinnacle Air Network as its executive director. Pinnacle is a consortium of long-time successful FBOs, MROs, aircraft sales, and charter companies in the U.S. and Mexico. One of our member companies is MAC Air Group in Maine. Al Caruso has been MAC's president and CEO for

years (his father and uncle started the company in 1959). He is well-known in the aviation industry for not just his extensive knowledge and quick decision-making but also his thoughtful and caring approach to the people and organizations he interacts with. I was lucky to have known Al. He unexpectedly passed away in early March, a few weeks ago.

Al was born into an aviation family; his father and uncle founded Bar Harbor Airlines (BHA) in 1949 and Maine Aviation Corporation in 1959. As a teenager, he fueled and washed planes on the PWM ramp for Maine Aviation and, in summers, flew scenic flights in Bar Harbor. At 19, he became one of the youngest Captains in the nation, flying for BHA. Joining the family business full-time in 1971 as a pilot and Cessna sales representative, his responsibilities

grew until he became president of Bar Harbor Airlines in 1981 and later of Northeast Express Regional Airlines. The following years have seen a career that made the Caruso name synonymous with aviation.

During this time, Al, his son Travis, and his wife Alysian developed the business, now known as MAC Air Group, into a complete service center for general aviation offering jet charters, aircraft sales, management, and maintenance, with a state-of-the-art Fixed-Base Operation at the Portland International Jetport. He had over 100 employees under his wing, most of whom he knew on a first-name basis. He valued their thoughts and treated each one with respect.

Al's friendly, positive demeanor and patient manner were keys to his success and gave him friendships and business acquaintances across the globe. He considered himself blessed to be in an industry he loved.

He was not only CEO but, at times, supported the company as a charter pilot. He flew business leaders, celebrities and several U.S. Presidents, taking pride in flying President George H. W. Bush several times. He also flew rock bands such as Bon Jovi, Fleetwood Mac and Aerosmith and had a treasured collection of backstage passes. Al was type-rated in five jet types and had more than 30 internationally recognized flight records. He enjoyed flying everything from single-engine planes to jets. He was a natural pilot who was comfortable in any aircraft.

Al liked people and never met anyone he didn't like. He was at ease with everyone, gave you his full attention and treated you as a friend. Everyone who met him quickly realized that he was a man of integrity and character. When not in the air, he was constantly on the phone, giving friends from around the world the same undivided attention. He cherished all his friendships. Above all, his family was important to Al. It was the fuel for all he did.

My friend and colleague, Randy Groom, has known Al for many years. He said of Al, "What I really liked about Al was the fact that he was an incredibly accomplished aviator and businessman, but he carried himself with humility and an open, friendly manner."

Howard Henry, director of sales and acquisitions at Eagle Aviation in Columbia, SC, told me, "I am heartbroken. Al was one of the first guys to treat me as an equal back in my young days in aviation. He has been a mentor to me to this day. We spoke often."

Donations in Al's memory may be made to MAC Airways LLC for the Allyn Caruso Scholarship Fund and mailed to MAC Airways LLC, 100 Aviation Boulevard, South Portland, ME 04106. This fund will help young people in Maine who want to have an aviation career.

We'll miss Al. Fly safe out there.

A handwritten signature in black ink, appearing to read "Lance". The signature is stylized and fluid.

lance@twinandturbine.com

Position Report

by Dianne White



A Fortunate Outcome to a Very Unfortunate Day



Left engine before the failure



Left engine after failure



Left engine cowling

As a pilot, you've no doubt asked yourself: how would I react in the face of an in-flight emergency? Chances are, some of you reading this already know the answer, as you've experienced an unexpected event that threatened the safety of your flight.

If you regularly read accident reports—and there have been some spectacular ones in the last few months—you often sense when the pilot's response led to a worse outcome or, in some cases, saved the day and the lives of

everyone on board. The perennial question, "How would I handle that?" is a never-ending learning event.

Recently, I met a pilot who faced the question we train for but hope we never experience. Ferris Pfeiffer is a reasonably new pilot who didn't catch the flying bug until 2021. Ferris bought a Cessna 172, but like most of us, he immediately began dreaming of his next airplane. In short order, he got his instrument, commercial, and multi-engine ratings and then bought a Cessna 310L. With a little over

650 hours in his logbook, Ferris has accumulated 350 hours of multi-engine time. He also holds an advanced ground instructor certificate and is working on his CFI.

Ferris is an active volunteer pilot for Angel Flight Central, an organization he is passionate about. And that's where our story begins.

A few months ago, Ferris was the middle pilot on a three-leg mission, flying a patient from the Mayo Clinic in Minnesota to her home in Louisiana. His leg required him to pick up the patient in Higginsville, MO, and meet up with the third-leg pilot in Benton, AR. After departing Higginsville, he remembers remarking how perfect the flying conditions were. "We had the tiniest of headwinds; it was a beautiful clear day. Things were progressing perfectly. We were just starting our descent when things started to happen."

With 70 miles to go and at an altitude of 9,500 feet with the autopilot engaged, he felt the aircraft shudder as if it hit a patch of turbulence. Then, the airspeed dropped.

"I looked out to the left, and I saw a piece of metal go up through the engine cowlings, and then a few seconds later, another piece, and then another piece. It didn't take long to understand that the left engine had a catastrophic mechanical failure," he recalled. "Instantly, my training kicked in: power up, identify, verify, feather. Then I contacted Memphis Center, who declared an emergency for me and pointed out the Clinton, AR airport, only 10 miles away."

At that point, Ferris said the plane was flying normally on the right engine. He circled over the Clinton airport to lose altitude and then made an uneventful landing. Once on the ground, he contacted ATC to inform them all was well. He then called the third-leg pilot and requested that he fly to Clinton to pick up the patient so she could continue on home.

What made this catastrophic engine failure a non-event? Currency, training, and an immediate reaction to implement emergency memory items. Ferris had undergone a ton of recent training in attaining his ratings, and when faced with the real thing, he didn't hesitate or dig for his emergency checklist.

"When I started my multi-engine training, I quickly found out they never let you fly multi-engine; you usually end up flying around on one-engine. I think I did more single-engine flying during my multi training than during the previous six months," he joked. "Seriously though, my actions on that day weren't those of a super pilot. They were the result of good training and flying regularly. We went through 30 seconds of the emergency, and then we were a single-engine airplane."

I asked Ferris if there was anything he would have done differently. "I've been asked why I didn't continue to the final destination, which was only 70 miles away. My answer is I probably could have made it there. But at that point, I just had a grenade go off in my left engine. Was the same thing about to happen to the right engine? Then I've got a glider without an airport nearby. It seemed prudent at the time to land at the closest airport."



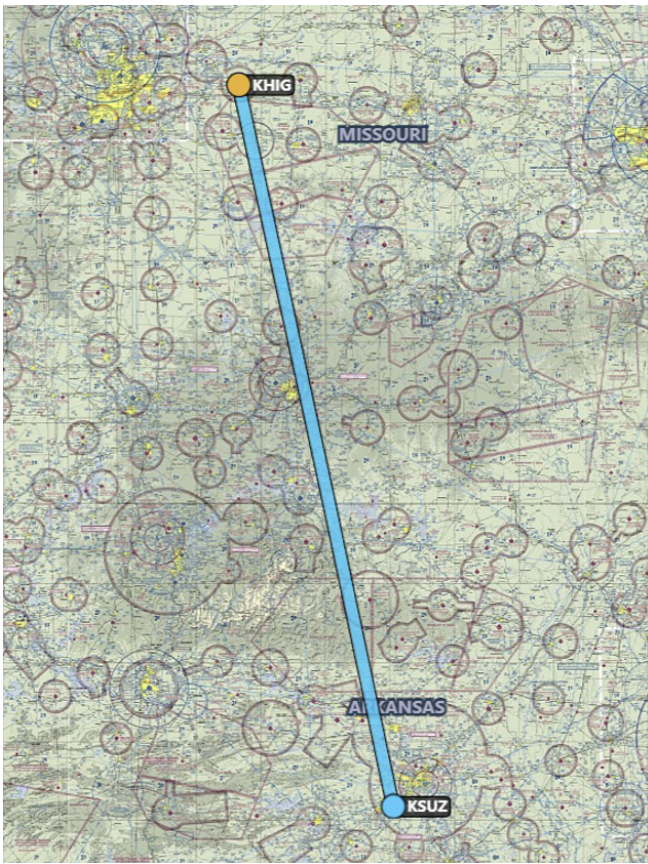
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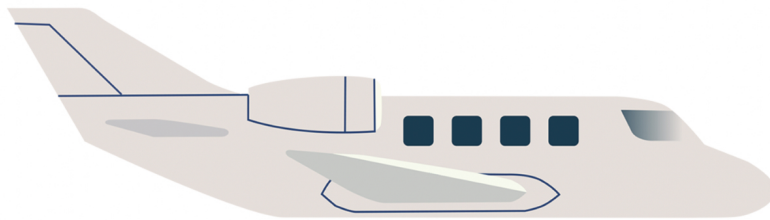
The route flown

He also pointed out many things stacked up in his favor: VFR conditions, calm winds and a diversion airport within 10 miles. He said he doesn't remember being laser-focused on airspeed, but on reviewing his FlightAware data tracks, at no time did he drop below 120 mph, which is Vyse. "That wasn't really a conscious thing; training kicked in, and I concentrated on making a stabilized approach."

As for the left engine, it was a 200-hour factory-new unit, which had performed flawlessly up to the point of catastrophic failure. Fortunately, a competent maintenance shop at the Clinton, AR airport immediately went to work removing the engine.

What's the best insurance a pilot can have in the face of an in-flight emergency? The things that are squarely in our control: Regular recurrent training, especially on emergency procedures, and recency of experience. That's our best bet in ensuring a fortunate outcome to what could be a very unfortunate day. **T&T**

Dianne White is a 35-year aviation industry veteran and the past editor-in-chief of *Twin & Turbine Magazine*. She is the former executive director of Malibu/M-Class Owners & Pilots Association (now known as PMOPA) and has worked with numerous general aviation companies throughout her career as a consultant and executive. She is an active instrument & multi-engine-rated pilot and owns several aircraft.



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Neil Koppel, President of Renaissance, possesses a love of aviation, with accumulating over 6,600 PIC hours. Holds instrument ratings for single and multi-engine aircraft, both land and sea, and type rated in the Learjet 30, 40, and 50 series. Pictured here operating his Pilatus PC-12 during one of his 58 missions to Haiti.



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ILLUSTRATION BY TIGRE PICKETT



Flying Under Pressure:

The Quest for Better Mental Health in Aviation

by Tigre Pickett

Did you know that over half of pilots admit to concealing health concerns, specifically mental health issues, fearing the loss of their medical certificate? This startling statistic exposes a significant disconnect between the needs of pilots and the current medical certification system. While maintaining the highest safety standards is paramount, fostering an environment where pilots hesitate to seek help can have detrimental consequences. This article delves into the complexities surrounding pilot mental health. It explores the challenges, potential solutions, and the need for a multifaceted approach to create a truly supportive and safe aviation industry for both passengers and crew.

The High-Stakes World of Pilots

Pilots are required to navigate the complexities of the skies with exceptional skill and composure. However, beneath their often calm exteriors lies a reality marked by significant stressors, including irregular work schedules, prolonged absences from home, and demanding responsibilities. Additionally, just like anyone else, pilots are not immune to life's everyday challenges, such as financial pressures, relationship difficulties, or the loss of loved ones. These factors, coupled with the fear of career repercussions, create a unique set of obstacles for pilots seeking mental health support.

The Dilemma: Safety, Transparency, and Support

The Federal Aviation Administration (FAA) is pivotal in ensuring aviation safety. Their stringent regulations, shaped by past tragedies, have contributed to a remarkable record, with no major airline disasters since 2009. However, the strictness, particularly regarding mental health disclosure, poses unintended consequences.

Question 18.m. on the MedXPress application, asking about any history of mental disorders, exemplifies the broad nature of the inquiry.

While aiming to identify potential risks like the Germanwings 9525 and recent Horizon Air incidents, this approach fosters a climate of fear. Pilots worry that acknowledging past mental health concerns, even if successfully managed, could lead to delayed or denied medical certificates. This fear often leads them to choose silence, hindering early intervention and potentially posing a greater risk to aviation safety.

Furthermore, the lengthy and expensive Special Issuance process for pilots seeking mental health support creates a paradox. A system designed for safety inadvertently discourages pilots from seeking help, fostering a culture of avoidance. Dr. William Hoffman's research further explains this paradox, which found that over half of pilots reported delaying or avoiding healthcare due to the fear of losing their certification.

The Balancing Act: Pressure and Coping Mechanisms

Pilots constantly navigate a delicate balance between managing immense pressure and maintaining their mental and physical well-being. The rigorous nature of their work, coupled with irregular sleep schedules and demanding schedules, creates the perfect storm for stress

and fatigue. While trained to manage stress and remain focused under pressure, pilots are not superhuman. The cumulative impact of under-addressed stress can ultimately lead to a mental or physical health crisis.

Unfortunately, the fear of career repercussions discourages many pilots from seeking professional help. This fear creates a situation where unhealthy coping mechanisms, such as self-medication or suppression of emotions, become prevalent. Pilots also feel that other interventions, such as prescribed medications or therapy, are risky to reveal and, therefore, go unreported. As one anonymous pilot shared, "Flying is wonderful, and it can also be very toxic — with stress being one of the most corrosive negative effects. Without safe outlets for mental health support, the cumulative stresses of the commute, work responsibilities, and feeling powerless to help out at home when we're gone take their toll." This lack of support highlights the hidden struggle faced by many.

Beyond the Regulations: The Need for Change

"Interviews with pilots have highlighted significant barriers to transparency and trust between pilots and the FAA," conveyed Madolyn Miller, advocate and co-host of The



Mental Health Resources for Pilots

Pilot's Pandemic Podcast: Erasing stigmas around aviation
tinyurl.com/pilotspandemic

Pilot Mental Health Campaign: Advocating for holistic and humane FAA mental health reform | PMHC.org

Captain Reyné O': Pilot health pioneer, author, and speaker
piloting2wellbeing.com

Non-Reportable Counseling: Get talk therapy without consequence
listenr.io/pilots

NTSB Pilot Mental Health Roundtable 2023 | tinyurl.com/ntsb-pmhr

Mental Health Stats

Mental health By the Numbers | NAMI: National Alliance on Mental Illness Key Substance Use and Mental Health Indicators in the United States: Results from the 2021 National Survey on Drug Use and Health | nami.org/mhstats

There's More to the Story of Pilots Avoiding Mental Health Care | MedPage Today by William R. Hoffman, MD | tinyurl.com/3snsdj75

Aviation Mental Health News

Aviation student takes own life | tinyurl.com/52j73nv8

Alumnus killed after stealing and crashing plane | tinyurl.com/3ytesyhn

Ex-Alaska Airlines pilot accused of attempt to cut engines mid-flight released from jail after not guilty plea | tinyurl.com/4mu5bapt

Germanwings Flight 9525 | tinyurl.com/yc3uypk2

Aviation Mental Health Advocates

Capt. Reyné O'Shaughnessy | Piloting2WellBeing.com

Emma Laczko and Madolyn Miller of The Pilot's Pandemic Podcast | tinyurl.com/2wwhfwrh

Brian Bomhoff of Pilot Mental Health Campaign | PMHC.org, tinyurl.com/5n869w4c

New Zealand's Peer Assistance Network | www.pan.org.nz

Capt. Herwin Bongers | LinkedIn: tinyurl.com/2y6rvn9s

Jillian Bourdage, CFII | LinkedIn: tinyurl.com/yc6jnunc

Zachary Friedman, PMHC | LinkedIn: tinyurl.com/333fcu29

Jennifer Homendy, NTSB Chair | LinkedIn: tinyurl.com/mr3fjtp6

Austen Jarboe | LinkedIn: tinyurl.com/45baypsc

Aviation Researchers

Dr. William "Billy" Hoffman - LinkedIn: tinyurl.com/zyu6by6w

Pilot's Pandemic Podcast. "The costs, time, and lack of transparency surrounding the Special Issuance process discourage pilots from seeking help, perpetuating a culture of repression."

Miller and her co-host Emma Lasko strongly advocate for a more uniform and transparent approach to the aeromedical process. They emphasize that the Special Issuance process comes with high costs and lengthy processing delays. Additionally, Miller and Lasko advocate for talk therapy as a non-reportable event.

Captain Herwin Bongers, a seasoned pilot and mental health advocate, calls for a shift in perspective. He suggests moving away from a binary approach towards mental health, recognizing that "the absence of illness doesn't necessarily mean being fully well," and advocating for a more nuanced understanding of mental well-being. Like how an aircraft can operate with an MEL (Minimum Equipment List), Bongers proposes exploring ways to support pilots with manageable mental health conditions while ensuring safety for all aboard.

Dr. Hoffman further emphasizes how we might rethink what mental wellness means in the aviation system of the future. Encouraging early intervention and creating a supportive environment can mitigate potential risks and foster a safer and healthier aviation industry.

Breaking the Stigma and Fostering Change

Cultural norms profoundly influence societal attitudes toward mental health. Captain Reyné O'Shaughnessy, a pilot, international speaker and author, reflects on her lengthy career: "During my 35 years, there was a pervasive belief that individuals had to 'lie to fly.' Discussing health and mental health was uncommon, largely due to the fear of jeopardizing one's career."

O'Shaughnessy continues, "The question is, how do we adapt and innovate to meet the human needs of today's and tomorrow's aerospace

system?” Her question echoes the central concern all stakeholders seek to address: how to ensure a safe and healthy environment for pilots and passengers alike. She suggests a groundbreaking and innovative approach, integrating “the whole pilot, not just their technical prowess” into safety management systems.

Thankfully, the tide is turning. Younger generations, like 18-year-old student pilot Zachary Friedman, are openly discussing their experiences with mental health, breaking down stigma and fostering conversations. However, Friedman’s story also serves as a stark reminder of the remaining challenges. Despite using only a topical acne medication and receiving a childhood anxiety diagnosis with a stable medication history, he was caught in the complex and opaque Special Issuance process for over a year (441 days to be exact), incurring significant financial costs and facing an uncertain future in his chosen career.

Like many others, Friedman’s story underscores the need for a comprehensive overhaul of the current

system and a commitment to creating a more supportive and accessible environment for pilots seeking mental health assistance.

Voices for Change: Inspiration and Action

Thankfully, global initiatives offer valuable lessons and inspire change. In 2014, New Zealand witnessed a series of pilot suicides. In response, a collaborative effort between airlines, air traffic control groups, and flight schools led to the Peer Assistance Network (PAN) creation. PAN, named after the universal call of urgency in aviation (“PAN-PAN!”), offers peer support for mental health and has emerged as a successful case study.

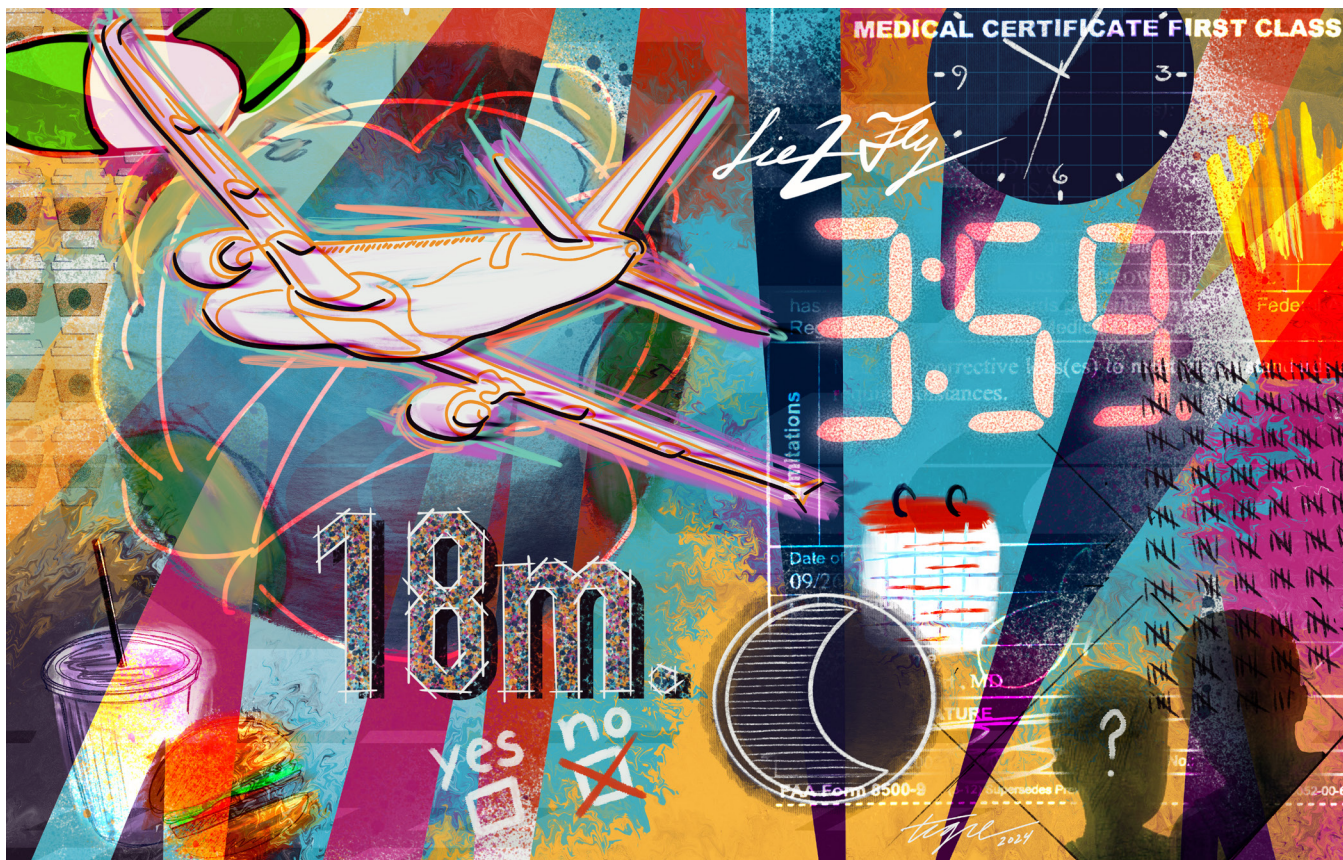
Captain Bongers, who is involved with PAN, shares that most calls are handled at the volunteer level, demonstrating the effectiveness of peer support. This approach fosters a safe space for pilots to openly discuss their struggles and receive understanding from someone who empathizes with their unique challenges.

While peer support programs exist in the U.S., accessibility is often

limited to specific companies or unions. PAN’s model is an example of a holistic, inclusive, and collaborative approach, funded proportionally by sponsors, making it accessible to all pilots in New Zealand. PAN’s success demonstrates the potential for broader adoption and adaptation of such programs.

The mental health narrative is also shifting within the U.S. government, driven by figures like Jennifer Homendy, Chair of the National Transportation Safety Board (NTSB). Homendy emphasizes the need for collaboration and a cultural shift within the aviation industry, one that prioritizes transparency, early intervention, and readily available support without fear of repercussions.


Grassroots movements like the Pilot Mental Health Campaign (PMHC) are crucial in advocating this cultural shift. PMHC founder Brian Bomhoff emphasizes the significance of “creating a positive message around mental health and mental hygiene” and fostering an environment where seeking help is not seen as a risk or sign of weakness but is encouraged as a sign of strength and dedication to safety.



Towards a New Horizon: A Multifaceted Approach

Moving forward requires a multifaceted approach grounded in collaboration, research, and a commitment to supporting mental health awareness and access to treatment. Integrating mental well-being into the fabric of aviation safety can empower pilots to manage the inherent stress of their profession while fostering a healthier and safer work environment for all.

By taking inspiration from successful initiatives like New Zealand's PAN, we can hope to establish readily accessible and confidential peer support programs to bridge the gap between regulatory requirements and the human needs of pilots. Additionally, continued research is needed to refine regulations and support systems specific to the unique pressures faced by pilots.

As the aviation industry evolves, so must its approach to pilot mental health. By fostering a culture of transparency, empathy, and proactive support, the industry can create a future where the well-being of those navigating our skies is prioritized alongside their physical safety. This inclusive approach can lead to a safer and healthier aviation industry, benefiting not just the pilots but also the millions of passengers who trust them daily. 



Tigre Pickett is a commercial single- and multi-engine pilot type rated in the Citation 525-series jets. With his father and Co-Captain, Rich Pickett, Tigre manages multiple CitationJets in southern California. Tigre has a passion for aviation and loves to fly various aircraft, exploring new destinations with his family in their Cessna Turbo 206. You can follow his exciting journey as a professional pilot alongside Captain Pickett on their YouTube channel and find more aviation content on PersonalWings.com.



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Endre Holen and Stephanie Goetz

by Grant Boyd



Endre Holen and Stephanie Goetz share a lighthearted competition. Who has more flight hours? Endre, with 3,300. Type ratings? Stephanie, with four. Who enjoys flying more? That's a tie, as the husband-and-wife duo are as enthusiastic about aviation as anyone could be. They have a collection of aircraft and flying stories that prove their enthusiasm to be true.

The couple met shortly after Stephanie first flew in a general aviation aircraft. "I took my first flight in a Piper Archer in 2014, just a week or so before Endre and I met. I was a news anchor and reporter at NBC/CBS then, and a flight instructor called me out of the blue to do a story on getting a pilot's license. He had me sit in the left seat and fly the plane. I





remember pulling the yoke back for the first time and thinking, ‘Where has this been all my life?! This is incredible!’ I was instantly hooked,” she explained.

“Serendipitously, I met Endre about a week later. He was flying a Turbo Commander at the time. However, I didn’t actually go for my pilot ratings until June 2019, five years later. Within a year and a half, I went from zero flight hours up through commercial ratings, CFI, MEI, and a CE-500 type rating,” she said, adding that most of her training was with Endre, now her husband, as her CFI.

When the couple first started dating, there were a lot of miles between them. The distance led Endre to consider what plane would best bridge the distance. He ultimately settled on a Citation V, which they now hangar alongside their Twin Comanche and an Aero Vodochody L-39C Albatros at North Las Vegas Airport (KVGX).

“One big part was that I lived in Seattle then, and Steph lived in Minneapolis. We began thinking about moving to Vegas together. If you draw a triangle around those, that’s 1,200 nautical miles between Seattle and Minneapolis and from Minneapolis to Vegas. This mission was right at the edge of my Citation I Stallion capabilities. Sometimes, we could make it, and sometimes, we would have to stop for fuel. So, I started looking for a 1,800-nautical-mile airplane,” he recalled.

“I thought briefly about a Citation II, but I decided the Citation V was more modern and robust. You get the heated wing on the inside and the boots on the outside instead of TKS. And

the reason I got the V was I wanted to keep the capital cost down. So, I was comfortable with a slightly older Citation. But I wanted a Citation because of parts availability and Textron’s superb support. And every mechanic in the U.S. knows how to work on a Citation. You roll up into some little town and have a generator out; you will find somebody who can help.”

Fortunately, he hasn’t had to locate a mechanic in a pinch or wrench on the plane himself in the field (Endre is an A&P and will perform select tasks on his aircraft), so the ability to easily find help is a nice plus. The aircraft also has positive aspects from the ramp and cockpit perspectives.

“I just like the way they look and the way they fly. This model has a gross weight increase STC, so it’s a 16,500-pound airplane. With that, I can get a 1,200-pound useful load with full fuel. And it gets above the weather well, too. We can get up to FL430 easily and then [FL]450 if you need to. It’s just an incredible traveling machine. We see about 380 to 400 [knots], depending on temperature, and a fuel burn of about 1,000 pounds per hour,” Endre said.

“The Citation V is the greatest find. It is a great airplane, and we love it. I found this one (1992 model) down in Mexico with the help of my brokers. Its owners maintained it only by authorized service facilities in Mexico and the U.S. At the time, it had 3,500 hours on it, which meant it only flew a hundred hours a year. It was in mint condition, except for the interior,” Endre explained.

Stephanie noted that they refurbished the interior shortly after

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purchasing the aircraft in September 2020. New paint and avionics followed. After all of the work, the low-time bird looked like it had just rolled out of the factory.

This Citation flies about 150 to 200 hours per year, on average. The couple's mission is varied, primarily personal travel to various destinations around the country. Andre and Stephanie are each certified to fly the aircraft single-pilot, but they usually fill both pilot seats. They completed their part 61.58 single-pilot exemptions at LOFT in early February this year.

"We often fly the Citation together and absolutely love doing so! We are so fortunate to be best friends, soulmates, partners, and co-pilots. Sometimes one or the other flies individually," Stephanie began.

Andre followed, "It's designed to be a crew-flown aircraft, and we fly a lot together as a crew. We follow NetJets (for whom Stephanie presently flies a Citation Latitude as a first officer)

protocols and callouts, focusing on safety. Even though I've said otherwise a few times, the reality is that this is my final airplane. It's the biggest plane with the most capability that we can fly single-pilot."

Intensely passionate about the benefits of early-model Cessna jets, particularly the Citation 560, Andre advocates for the 500-series lineup within the Citation Jet Pilots (CJP) organization. He serves as the Chair of the Legacy Citation Safety Committee.

"CJP has a group of pilots committed to the legacy fleet. On the forum, you can ask any questions about what these airplanes cost to operate, the missions they can perform, and their advantages. It is an incredible resource for people considering older Citations. You cannot get better airplanes for the money you spend. When properly maintained and upgraded, they are an incredible value. My Citation V has been the most reliable airplane I've ever owned.

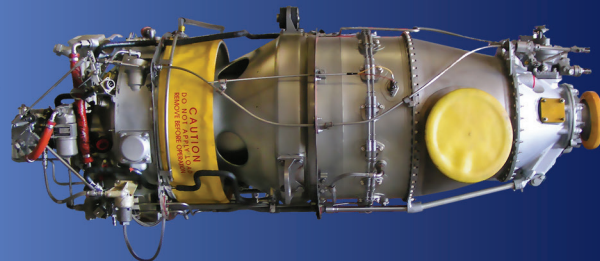
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ENGINE	BASIC	CAPPED PRICE
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PT6A-27 / -28	\$ 180,000	\$ 245,000
PT6A-34 / 34AG	\$ 190,000	\$ 255,000
PT6A-112	\$ 169,000	\$ 225,000



Engine must be a normal time expired core with no missing parts. Basic price includes accessory overhaul. Basic price does not include CT Blades or 1st Stage Reduction Gears. Replacement parts may be new PWC, overhauled PWC or PMA. Pricing does not include life limited parts, freight, insurance or taxes.



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So, what aviation goals are next for the couple since they aren't pursuing another aircraft? They are mobile and excited to travel, flying to new destinations as far as The Bahamas. Another pursuit of theirs is helping aviators achieve goals of their own.

"Our Twin Comanche was originally a trainer and time-builder for Steph, and now she has more time

in it than me. However, one of the things that we both like to do is give back to the aviation community, which has given so much to us. We give scholarships to young professional pilot candidates in need of help. That's been with Women in Aviation International (WAI), the Organization of Black Aerospace Professionals (OBAP), and other

organizations. Not only is it a fun sightseeing plane for us, but it's also a philanthropic platform. It gives us and many other people joy," Endre began.

"So, for the numerous scholarships we've given, we will train the recipients in the Twin Comanche. Our big thing is giving away multi-engine ratings and commercial licenses. We will provide the option of \$5,000 for recipients to acquire these on their own or they can train with us - which most have chosen. That's a different level of gift-giving because you get to find a mentor and share camaraderie," Stephanie concluded. **T&T**

Grant Boyd is a private pilot with eight years of experience in aviation business, including marketing, writing, customer service, and sales. Boyd holds a Bachelor's and a Master's of Business Administration degree, both from Wichita State University, and a Doctor of Education degree from Oklahoma State University. He was chosen as a NBAA Business Aviation "Top 40 Under 40" award recipient in 2020.



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JETS - 22,379

CHIEF PILOTS & OWNERS

COUNT	AIRCRAFT
8	ASTRA 1125
41	ASTRA 1125SP
59	ASTRA 1125SPX
21	BEECHJET 400
266	BEECHJET 400A
250	BOEING BBJ
513	CHALLENGER 300
317	CHALLENGER 350
29	CHALLENGER 3500
29	CHALLENGER 600
25	CHALLENGER 601-1A
108	CHALLENGER 601-3A
52	CHALLENGER 601-3R
351	CHALLENGER 604
283	CHALLENGER 605
78	CHALLENGER 650
3	CHALLENGER 800
53	CHALLENGER 850
5	CHALLENGER 870
504	CIRRUS VISION SF50
130	CITATION 500
375	CITATION 525
345	CITATION BRAVO
207	CITATION CJ1
107	CITATION CJ1+
255	CITATION CJ2
245	CITATION CJ2+
489	CITATION CJ3
267	CITATION CJ3+
464	CITATION CJ4
192	CITATION ENCORE
85	CITATION ENCORE+
405	CITATION EXCEL
13	CITATION I
277	CITATION I/SP
436	CITATION II
50	CITATION II/SP
164	CITATION III
173	CITATION LATITUDE
58	CITATION LONGITUDE
376	CITATION M2
510	CITATION MUSTANG
142	CITATION S/II
366	CITATION SOVEREIGN
118	CITATION SOVEREIGN+
315	CITATION ULTRA
289	CITATION V
27	CITATION VI
135	CITATION VII
324	CITATION X
39	CITATION X+
314	CITATION XLS
358	CITATION XLS+
17	DORNIER ENVOY 3
33	ECLIPSE 550
317	ECLIPSE EA500
20	EMBRAER LEGACY 450
83	EMBRAER LEGACY 500
113	EMBRAER LEGACY 600
72	EMBRAER LEGACY 650
16	EMBRAER LINEAGE
379	EMBRAER PHENOM 100
580	EMBRAER PHENOM 300
113	EMBRAER PRAETOR
57	FALCON 10
21	FALCON 100
15	FALCON 200
272	FALCON 2000
5	FALCON 2000DX
23	FALCON 2000EX
162	FALCON 2000LX
148	FALCON 2000LXS
25	FALCON 20C
15	FALCON 20C-5
17	FALCON 20D
1	FALCON 20D-5
1	FALCON 20E
48	FALCON 20F

75	FALCON 20F-5
182	FALCON 50
5	FALCON 50-4
8	FALCON 50-40
115	FALCON 50EX
282	FALCON 7X
70	FALCON 8X
173	FALCON 900
28	FALCON 900C
21	FALCON 900DX
351	FALCON 900EX
99	FALCON 900LX
22	GULFSTREAM G100
130	GULFSTREAM G150
238	GULFSTREAM G200
305	GULFSTREAM G280
13	GULFSTREAM G300
11	GULFSTREAM G350
324	GULFSTREAM G450
131	GULFSTREAM G500
641	GULFSTREAM G550
465	GULFSTREAM G650
16	GULFSTREAM G-I
15	GULFSTREAM G-II
12	GULFSTREAM G-IIB
87	GULFSTREAM G-III
175	GULFSTREAM G-IV
319	GULFSTREAM G-IVSP
202	GULFSTREAM G-V
113	GULFSTREAMG 600
32	HAWKER 1000A
5	HAWKER 1000B
7	HAWKER 125-1A
2	HAWKER 125-1AS
1	HAWKER 125-600A
55	HAWKER 125-700B
66	HAWKER 4000
216	HAWKER 400XP
53	HAWKER 750
142	HAWKER 800A
16	HAWKER 800B
408	HAWKER 800XP
44	HAWKER 800XPI
100	HAWKER 850XP
176	HAWKER 900XP
213	HONDA JET
4	LEARJET 23
44	LEARJET 24
64	LEARJET 25
3	LEARJET 28
614	LEARJET 31
22	LEARJET 35
56	LEARJET 36
140	LEARJET 40
470	LEARJET 45
102	LEARJET 55
418	LEARJET 60
17	LEARJET 70
158	LEARJET 75
294	PREMIER I
6	SABRELINER 40A
2	SABRELINER 40EL
2	SABRELINER 40R
5	SABRELINER 60
9	SABRELINER 60ELXM
48	SABRELINER 65
11	SABRELINER 80
1	SABRELINER 80SC
1	SUKHOI SBJ
3	SYBER JET SJ30
52	WESTWIND 1
14	WESTWIND 1124
47	WESTWIND 2

TURBOPROPS - 16,319

CHIEF PILOTS & OWNERS

COUNT	AIRCRAFT
210	AVANTI
1	AVRO RJ70
483	CARAVAN 208
2275	CARAVAN 208B

37	CHEYENNE 400
140	CHEYENNE I
21	CHEYENNE IA
218	CHEYENNE II
49	CHEYENNE III
39	CHEYENNE IIIA
58	CHEYENNE IIXL
238	CONQUEST I
292	CONQUEST II
77	DAHER TBM-700A
96	DAHER TBM-700B
113	DAHER TBM-700C
383	DAHER TBM-850
134	DAHER TBM-900
70	DAHER TBM-910
102	DAHER TBM-930
138	DAHER TBM-940
66	DAHER TBM-960
165	DE HAVILLAND DHC
49	EPIC E1000
1	FOKKER 70
37	JETSTREAM 31
70	JETSTREAM 32
64	JETSTREAM 41
32	KING AIR 100
474	KING AIR 200
21	KING AIR 200C
8	KING AIR 200T
261	KING AIR 250
46	KING AIR 260
190	KING AIR 300
10	KING AIR 300LW
695	KING AIR 350
91	KING AIR 350C
35	KING AIR 350ER
397	KING AIR 350I
6	KING AIR 350IER
73	KING AIR 360
7	KING AIR 90
7	KING AIR A/B90
65	KING AIR A100
155	KING AIR A200
32	KING AIR A90
89	KING AIR A90-1
93	KING AIR B100
1154	KING AIR B200
118	KING AIR B200C
121	KING AIR B200GT
6	KING AIR B200SE
8	KING AIR B200T
46	KING AIR B90
306	KING AIR C90
40	KING AIR C90-1
193	KING AIR C90A
402	KING AIR C90B
78	KING AIR C90GT
112	KING AIR C90GTI
165	KING AIR C90GTX
18	KING AIR C90SE
257	KING AIR E90
172	KING AIR F90
29	KING AIR F90-1
5	MERLIN 300
14	MERLIN IIB
5	MERLIN III
27	MERLIN IIIA
45	MERLIN IIIB
14	MERLIN IIIC
4	MERLIN IV
11	MERLIN IV-A
34	MERLIN IV-C
91	MITSUBISHI MARQUISE
16	MITSUBISHI MU-2F
1	MITSUBISHI MU-2G
11	MITSUBISHI MU-2J
28	MITSUBISHI MU-2K
10	MITSUBISHI MU-2L
18	MITSUBISHI MU-2M
23	MITSUBISHI MU-2N
25	MITSUBISHI MU-2P
46	MITSUBISHI SOLITAIRE
70	NEXTANT 400XT
1	NEXTANT G90XT

1081	PILATUS PC-12 NG
836	PILATUS PC-12/45
216	PILATUS PC-12/47
300	PIPER JETPROP
91	PIPER M500
263	PIPER M600
601	PIPER MERIDIAN
292	QUEST KODIAK 100
3	QUEST KODIAK 900
15	ROCKWELL COMMANDER
6	STARSHIP 2000A
54	TURBO COMMANDER 1000
21	TURBO COMMANDER 690
134	TURBO COMMANDER 690A
136	TURBO COMMANDER 690B
80	TURBO COMMANDER 840
27	TURBO COMMANDER 900
26	TURBO COMMANDER 980

TWIN PISTON - 7,649

OWNERS

COUNT	AIRCRAFT
37	BARON 56TC
1677	BARON 58
428	BARON 58P
119	BARON 58TC
3	BARON A56TC
355	BARON G58
108	CESSNA 310
167	CESSNA 340
552	CESSNA 340A
50	CESSNA 402B
124	CESSNA 402C
27	CESSNA 404
317	CESSNA 414
452	CESSNA 414A
42	CESSNA 421
28	CESSNA 421A
309	CESSNA 421B
707	CESSNA 421C
59	CESSNA T303
112	DIAMOND D42
20	DIAMOND IA
186	DUKE B60
80	PIPER 600 AEROSTAR
3	PIPER 600A AEROSTAR
45	PIPER 601 AEROSTAR
4	PIPER 601B AEROSTAR
201	PIPER 601P AEROSTAR
24	PIPER 602P AEROSTAR
589	PIPER CHIEFTAIN
26	PIPER MOJAVE
301	PIPER NAVAJO
255	PIPER SENECA
74	ROCKWELL COMMANDER
168	ROCKWELL SHRIKE

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OWNERS

COUNT	AIRCRAFT
393	BEECH BONANZA
441	CESSNA 182
55	CESSNA 206
428	CESSNA P210N
22	CESSNA P210R
58	CESSNA T182
1220	CIRRUS SR20
3733	CIRRUS SR22
2048	CIRRUS SR22T
121	MOONEY ACCLAIM
37	MOONEY ACCLAIM ULTRA
407	MOONEY OVATION
12	MOONEY OVATION ULTRA
263	PIPER MALIBU
199	PIPER MATRIX
565	PIPER MIRAGE

Editor's Pics

Photos & Story
by Lance Phillips



01 An old Aztec means aviation is thriving in North Texas




Why This Old Aztec Makes Me Feel Good

I happened to be in McKinney, Texas, last year and drove by a little neighborhood airport on the west side of town. I have taken pictures there before. Aero Country Airport T31 is nestled between several housing developments and a large shopping area. It even has its own small development of on-airport townhouses. On the west side of the single runway, there are quite a few aviation businesses and lots of full hangars.

So, why would an old, seemingly forgotten Aztec make me feel good? The fact that this airport exists and is thriving is unique and a very good sign. Most of the little airports north of Dallas within the DFW metroplex have closed down in the last 20 or 30 years. Housing and shopping developments for the ever-north-growing population around DFW have taken priority.

But Aero Country is no soon-to-be-abandoned airport. Just take a look at www.aerocountry.org. Viewing the website alone shows the quality of management at the airport and the dedication to serving the aviation needs of North Texans.

Keep it going, Aero Country.

This image was taken on my old Hasselblad 500C/M medium format camera on Fuji Pro 400H film. 

OEI

One-Engine Inoperative

by Ed Verville

In the February T&T, we looked at Obstacle Departure Procedures (ODPs) and Standard Instrument Procedures (SIDs). Today, let's see what happens if an engine fails during takeoff or shortly after departure. It is interesting to note that pilots flying under FAR Part 121 and 135 while departing an airport under IFR are required to use an engine-inoperative takeoff obstacle clearance or avoidance procedure. The Instrument Procedure Handbook states that the One-Engine Inoperative (OEI) assessment planning process "is separate and independent of the IFR departure procedure associated with the all-engines-operating climb gradient requirements." Another interesting note is that the FAA does not require but rather "encourages" Part 91 operators to follow the same OEI planning process. Although most of my flying has been Part 121 and 135, all the Part 91 operations I flew followed the recommendation and conducted OEI planning. The consequence of not doing this could be grave.

The industry standard has been to purchase tailored Engine-Out Procedures (EOPs) from a business such as Aircraft Performance Group (APG) or ForeFlight. I have used APG for many airplanes, including CRJs, Boeings and Challenger Jets. I currently use ForeFlight for the Challenger Jets I fly. The one-engine inoperative procedure is a designed flight path considering aircraft performance, weight, and obstacle clearance along the OEI flight path track. But unlike ODPs and SIDs that show required climb gradients, the OEI procedures display their information in max takeoff weight. The higher the required climb gradient, the more the maximum takeoff weight is reduced. Part of our standard protocol is to brief the departure procedure for a normal two-engine departure and the one-engine inoperative procedure in case of an engine failure.



Eagle, CO KEGE

The Engine Out Procedure may be:

- 1. Fly runway heading.*
- 2. Tailored route.*
- 3. Identified as a SID (may or may not be your assigned SID).*

Most EOPs dictate flying runway heading or straight out; however, the procedure will provide a route to follow if there are obstacles or terrain in the path. ODPs and SIDs begin their obstacle clearance assessment at 35 feet above



Aspen, CO KASE, looking southeast 150 degrees.



Boyne Mountain, MI KBFA, aerial view of the Boyne Ski Resort.

the departure end of the runway (DER). Unlike ODPs and SIDs, the OEI obstacle fight path starts its obstacle assessment when the aircraft reaches 35 feet above the runway, using a portion of the runway for obstacle clearance. Another difference is that the OEI must account for “low close-in obstacles” that are not required for climb gradients in ODPs and SIDs.

For a contract trip to Toluca, Mexico, with a Fortune 500 company, the director of aviation asked if I would review the OEI procedures and run some numbers as this was their first time flying to this destination with an airport altitude of 8,466 feet. I did that and test-flew the procedures with an engine failure in a flight simulator at the charted maximum takeoff weights and temperatures. Not everyone has access to a fourteen-million-dollar simulator to test-fly

Runway Conditions: Dry				Sample Aircraft Engine Type Flaps 0						KAPA/APA Denver - Centennial	
Elevation = 5883 ft				Max Structural Takeoff Weight Limit = 28000							
				Runways - lbs							
OAT	N1	A/1		10	17L	17R	28	35L	35R	SEC. SEG. CLIMB	
F	C	ON									
50	10	98.91	97.11	21880 R	29380 C	25250 R	21210 R	26690 R	29460 C	29000	
52	11	98.73		21750 R	29340 C	25070 R	21090 R	26500 R	29460 C	29000	
54	12	98.56		21620 R	29190 C	24900 R	20950 R	26310 R	29460 C	29000	
55	13	98.47		21550 R	29100 C	24820 R	20890 R	26210 R	29460 C	29000	
57	14	98.29		21420 R	28950 O	24650 R	20750 R	26020 R	29460 C	29000	
59	15	98.11		21290 R	28790 O	24490 R	20620 R	25830 R	29460 C	29000	
61	16	97.95		21160 R	28620 O	24320 R	20490 R	25650 R	29360 C	29000	
63	17	97.80		21020 R	28450 O	24160 R	20360 R	25460 R	29210 C	29000	
64	18	97.72		20960 R	28360 O	24080 R	20300 R	25370 R	29120 C	29000	
66	19	97.56		20820 R	28170 O	23930 R	20170 R	25180 R	28870 R	29000	
68	20	97.40		20670 R	27980 O	23770 R	20030 R	25000 R	28630 R	28930	
70	21	97.20		20530 R	27720 O	23610 R	19880 R	24810 R	28380 R	28630	
72	22	97.00		20380 R	27460 O	23420 O	19740 R	24630 R	28110 R	28330	
73	23	96.90		20310 R	27370 R	23340 O	19670 R	24530 R	27970 R	28180	
75	24	96.70		20170 R	27110 R	23170 O	19530 R	24350 R	27690 R	27870	
77	25	96.50		20020 R	26860 R	22990 O	19390 R	24150 R	27390 R	27570	
79	26	96.24		19880 R	26590 R	22810 O	19240 R	23960 R	27100 R	27230	
81	27	95.97		19710 R	26330 R	22630 O	19070 R	23760 R	26800 R	26890	
82	28	95.84		19630 R	26190 R	22540 O	18990 R	23660 R	26650 R	26720	
84	29	95.58		19460 R	25920 R	22320 O	18820 R	23460 R	26350 R	26380	
86	30	95.31		19290 R	25610 R	22120 O	18650 R	23260 R	26050 C	26040	
88	31	95.04		19130 R	25300 R	21930 O	18490 R	23070 R	25740 C	25690	
90	32	94.77		18980 R	24990 R	21730 O	0 R	22870 R	25440 C	25350	
91	33	94.64		18900 R	24840 R	21630 O	0 R	22770 R	25290 C	25180	
93	34	94.37		18740 R	24530 R	21440 O	0 R	22570 R	24990 C	24830	
95	35	94.10		18590 R	24220 R	21240 O	0 R	22380 R	24690 C	24490	
RUNWAY DIM				Length = ft	4800	10002	7000	4800	7000	10002	---
				Slope = %	-0.62	0.9	0.93	0.62	-0.93	-0.9	---
LVLOFF ALT				ft	7383	7383	7383	7383	7383	7383	---
WIND CORR				lbs/kt hw	67	5	31	62	42	4	---
				lbs/kt tw	N/A	-254	-227	N/A	-223	-131	---
QNH				lbs/.1"Hg > 29.92	75	10	85	0	88	5	0
				lbs/.1"Hg < 29.92	-87	-127	-99	-86	-113	-114	-123
ANTI-ICE				lbs	-1210	-1400	-1480	-1180	-1690	-830	-70
LIMIT CODES					R = RUNWAY LIMIT	O = OBSTACLE LIMIT	B = BRAKE LIMIT	C = CLIMB LIMIT			
DATE: 07/01/2011											

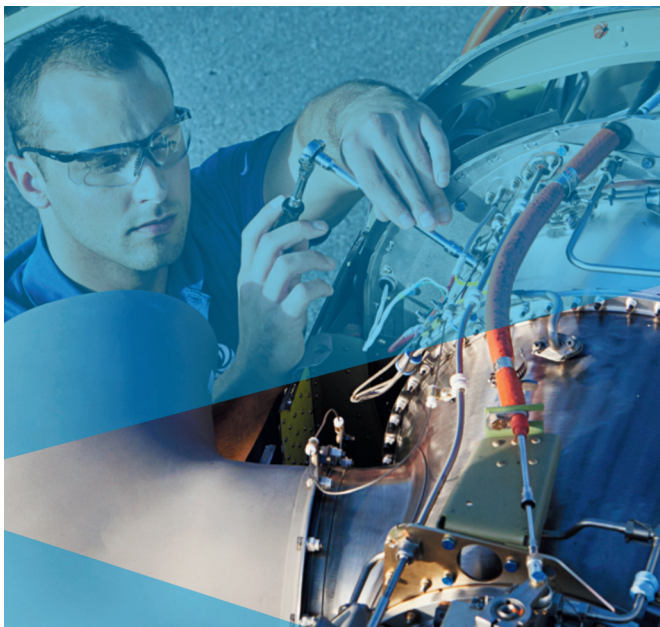
Figure 1-20. Airport/runway analysis example.

their upcoming trips. Still, I was lucky to be able to back up the information provided by APG.

The APG data and the simulator practice with engine failures at V1 confirmed that we could take off with up to 14,000 pounds of fuel, up to 21 degrees F. It was interesting to observe the rising terrain while I flew up the valley, per the engine out procedure, with a negligible but adequate single-engine climb rate. When it did come time for the actual departure from Toluca MMTO Airport, the temperature was a few degrees cooler, and we only needed 13,000 pounds of fuel. Both engines kept running fortuitously, so the climb out was much better than I encountered during my simulated test flights.

The goal is to find an OEI departure procedure that mirrors the normal ODP or SID you are flying. This pre-planning eliminates a lot of busy work during an emergency engine failure. Most operators, including training companies such as FlightSafety and CAE, recommend loading the FMS, briefing your normal SID/departure, and loading the one-engine inoperative departure into the secondary flight plan. If you lose an engine on takeoff, all you or your co-pilot, if you have one, must do is activate the secondary flight plan. Some pilots “split the boxes” or un-synchronize the FMS boxes to separate the all-engine versus the OEI procedure. The problem with that technique is that you must re-sync the FMS CDUs after every takeoff without an engine failure, significantly increasing the chance of an error due to being heads down during a busy time.

The more complex the OEI procedure becomes, it's usually rewarded by an increased maximum takeoff weight (see analyses chart above). The more complex track follows the



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best route to avoid obstacles and terrain. You should look at and plan for these even in VFR conditions, as this will provide you with the safest route in an emergency situation. Last week, I was flying out of Eagle, CO and cleared for the BEVVR 1 RNAV Departure. ForeFlight offered two engine-out departure procedures for runway 25. The first is "Straight out." Interesting as that sounds, it is not even an all-engine departure option due to the mountain off the departure end of the runway. The next EOP mirrored the BEVVR 1 SID, except for the climb in the holding pattern.

Maintain runway heading until DER.

Then turn left direct COPER.

Then on track 264 to HNDES.

Then on track 308 to BEVVR.

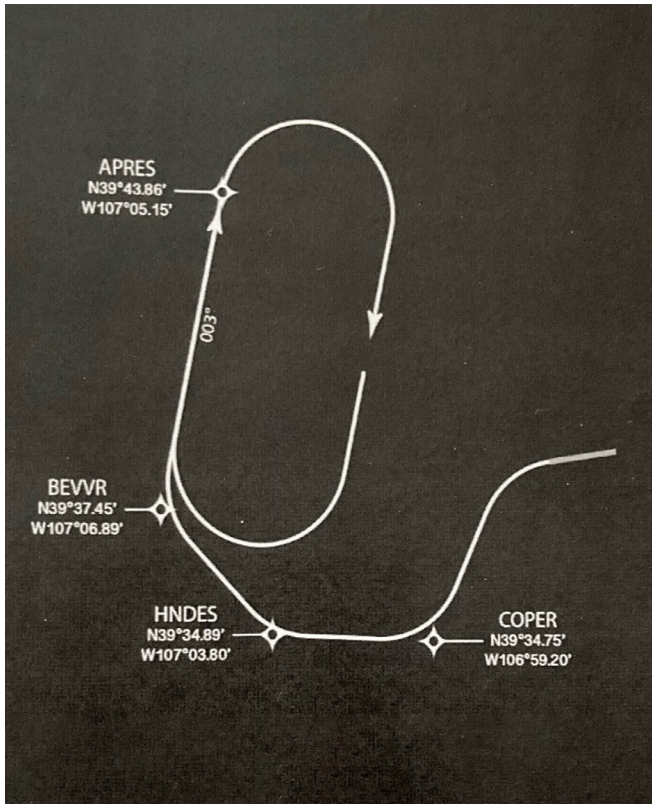
Then on track 003 to APRES.

Climb in holding pattern at APRES, right turns, 5 NM legs, 003 inbound course.

This routing curves around the mountain, off the departure end of the runway, just as the SID does. The difference between the "Straight out" fly over the mountain and the fly around the mountain is the Maximum Allowable Takeoff Weight (MTOW). The "Straight out" allows for an MTOW of 35,087 lbs. The circuitous routing allows for an MTOW of 39,898 lbs. That's an extra 4,811 lbs. of fuel. This additional fuel allowed me to fly non-stop to the East Coast rather than stopping at Denver to top off. (For reference, the Structural MTOW for the Challenger is 48,200 lbs.) Many other airports, such as Aspen, Rifle, Jackson Hole, and Boyne Mountain KBFA offer similar OEI departure procedures.

In the simulator training world, most engine-out departures commence with engine failure at V1. As a simulator instructor, I was privileged to train divergent procedures to pilots for a large Part 135 company. Advisory Circular 120-91A states: "Consideration should be given to the possibility of an engine failure occurring after passing the point at which the OEI track diverges from the normal departure track. Judicious selection of this point would simplify the procedure and minimize the difficulty of this analysis. This is generally achieved by keeping the two tracks identical for as far as is practical". For our simulator training session, we would assign the clients to fly a SID with a departure procedure to the right or northeast and provide them with an OEI procedure with a turn to the left or northwest. Instead of initiating an engine failure at V1 speed while on the runway, we would allow the crew to fly the SID, fail an engine a few hundred feet in flight, and then watch what they would do. Most of the pilots stayed on the assigned SID, and this worked most of the time. Considerations need to be given to how much altitude they gained, how steep the climb gradient on the SID is, and any potential obstacles between the airplane's present position and the OEI track. This is another reason for keeping the tracks as near as practical.

While there is no official requirement to analyze OEI missed approaches or rejected landings, the FAA states that it may be prudent to do so under some conditions.



Engine-out procedure at Eagle, CO, KEGE.

AC 120-91A states:

"However, further analysis may be required in the following circumstances:

A published missed approach has a climb gradient requirement.

The DP for the runway has a published minimum climb gradient.

A special OEI takeoff procedure is required, or

There are runways that are used for landing but not for takeoff."

OEI departure procedures are much easier to plan and set up today, with most of this information available at our fingertips via our iPads than yesteryear when I had to search through droves of paperwork prepared by dispatch. The best practice is to have a plan just in case you have an engine failure at the worst possible time. While attending your next recurrent training session, you may request to practice any of these OEI procedures. I did just that last month when I requested and practiced an engine failure at V1 speed and flew the OEI engine out procedure at Aspen, CO (KASE). I have a scheduled trip to Aspen in a few days. This practice will help me feel more comfortable with my departure and even put a smile on my face when both engines keep working, compared to my sim world.

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Cessna 310 and Beechcraft Baron

by Joe Casey



Two special people entered my work life about three years ago, also bringing along two special airplanes: Gerald West with his Cessna 310Q, and Deanna Wallace with a Beechcraft Baron 58. I would have enjoyed life with these two even without the airplanes, but they make the relationship all the more sweeter.

For decades, Gerald has been a pillar of leadership and strength at my home airport, Cherokee County Airport (JSO), and is the patriarch of one of the neatest families in the East Texas area. Gerald and his family operate Westcraft Manufacturing, a supplier of hydraulic cylinders to industrial markets nationwide. Gerald purchased a King



Air B100 that I manage and fly and also gave me access to his other airplanes: a Piper Super Cub and a Cessna 310Q. Gerald has owned the Cessna 310Q since 1978 and it is a creampuff. At first, I was not too excited about the airplane but that was because I was unversed with this fine family of airplanes. Now that I've been educated, I fly the 310Q frequently and it has become our go-to steed for any mission that seems too small for the King Air.

Deanna hails from Lufkin, Texas, and is locally called the "Baroness" at the Angelina County Airport (LFK). There are four Beechcraft Barons based at LFK and she is trusted by the various owners, ending up in the front left seat of a Baron multiple days each week. She came to work with me and now has the keys to every airplane in our hangar ranging from the King Air 300, B100, to all of the PA46s. But she continues to operate the Barons because they are such good airplanes and, well, she's the Baroness. So, along with Deanna came the Barons, and I got an introduction to an airplane that somehow evaded my grasp in my earlier years in aviation. Now I get to fly the Baron, too and have grown to appreciate the airplane for what it is – a remarkable, overbuilt machine that is great for cross-country flying.

So, considering the 310Q or the Baron, which one do I like best? Which would I buy if I were to pony up the coin for a multi-engine cross-country steed? Well, that depends upon a few considerations.

Cessna 310

The Cessna 310 is probably in the "Top Ten" list of coolest looking airplanes on the planet (at least on my list). Everything on the airplane is sleek and pointy, giving it the impression that it repels parasite drag like oil does to water. The non-turbo Q model is the one that I fly, and I have grown to love it. With a huge and comfortable cockpit, lots of luggage space, engine nacelle storage, and a panel that is



spacious enough or all the latest avionics gadgets, the Cessna 310Q is a fantastic airplane for many varied missions. Gerald's Q-model has been upgraded with the Continental 520 engines that develop a lot of power for their size/profile, and the performance is very good. We regularly climb at 1,100 FPM at max-gross, and cruise at 185 KTAS while burning 22 GPH. I've flown from Texas to Montana, New Mexico, Minnesota, Florida, and a whole host of other faraway states in the 310Q – each time with four-plus people and bags. It has the useful load, range and space to be a true cross-country machine. I've grown to love it for its efficiency and utility.

But, all is not perfect in the Cessna 310. While the seats are comfortable and space cavernous, the 310 is a hard airplane to climb in. If you or your passengers have mobility issues, then the climb up on the wing and the down into the seats (especially the back seats) can be troublesome. There's a spar to contend with and only one door for everyone. I think it'd be a poor choice of an airplane for the owner who is a non-pilot and plans to hire a pro, for he or she will be sharing the same space as the pilot and will often be climbing into the awkward back seat.

On the ground, the airplane is easy to taxi and maneuver, and while in flight, it is a good performer. But in the air, the Cessna 310 can be nauseating for the newbie flyer due to the yawing. The large main tanks on the tips of the wings translate into a lot of weight on the wingtips. So, there's a definite yawing moment in turbulence. The 310Q model we fly does not have a yaw damper and it could really use one. For the pilot (who is sitting very near the CG of the airplane), it is probably not a big deal, but anyone in the aft seats will be thrown side to side when the bumps are prevalent.

The oscillations on the yaw axis are most prevalent on landing in a gusty wind. It takes a well-trained pilot who knows what the feet are for when flying to manage the longitudinal axis during the landing sequence. Don't expect to just hop in the 310 and go when you purchase one. Plan to spend some time with a CFI who knows the 310 well.

I find that I operate the 310 at a lower power setting normally. We pull back the power to 60 to 65 percent power, and we still see cruise speeds in the 170 KTAS range while only burning 18 to 19 GPH. It can be a very efficient airplane.

Beechcraft Baron

The Baron is like most other Beechcraft products – rugged, reliable and a pleasure to fly. The version we fly is a 1994 Beechcraft Baron 58 Model that flat out performs. The pilots have about the same access as a Cessna 310 (climb

in the right side and slide over), but the passengers are afforded a huge door in the back that provides access to a club-seating cabin that is plenty big enough for comfort.

The spacious cabin is allied with the super large nose baggage. We've carried three sets of golf clubs, five people and even some other baggage items, and the Baron performs well. Many of the Barons have a useful load of over 1,300 lbs – that is a gob for a six-place airplane.

In cruise, we flight plan for 195 KTAS on 32 GPH and are rarely disappointed. We've loaded the Baron right up to max gross weight and it still performs well. We are repeatedly amazed at how much stuff the Baron will legally carry.

Performance-wise, the Baron is similar to other Beechcraft products in that it is not the best in any one category, but it is solid in nearly every category. It is not the fastest piston twin, but it is reasonably fast. It doesn't carry the most, but it carries a lot. It won't go the farthest, but it goes really far. There's not a hole in the Baron's game. I even asked Deanna, "What does the Baron not do well?" Her answer was, "Not do well? I don't know; it does so much so well." That was that. And she is right. The Baron is a great airplane that doesn't really have an area of consideration where it scores poorly – except for maybe one – cost.

The Baron can be expensive to purchase. It is such a good airplane that people actively seek them on the market, ensuring that it holds its value well. While some



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multi-engine piston airplanes have plummeted in value over the years thanks to the plethora of more efficient single-engine offerings, the Baron remains a desirable purchase consideration. Deanna operates a 1994 model and a similar airplane would retail on the market for about \$350,000. That's a lot of coin for an airplane that is 25 years old. But, again, this is an airplane that performs well, has no holes in the game and is still being made new from the factory.

And, that last fact is important. Any airplane that is still being built generally enjoys better support than one that has been orphaned by the manufacturer. So, the support for the Baron is arguably better than the support of the Cessna 310, which last rolled off the line in 1981, and they didn't roll many that year. Most of the 310s were built in the 1970s and that is a long time ago for an airplane to still be relevant. But, the Cessna 310 is still relevant because it is a great airplane. A nice example of a Cessna 310Q with average times will sell at retail for about \$100,000. A slightly newer R-model will be harder to find and will fetch a bit more.

The Decision

So, if you are working with a budget of \$250,000 or more, then you can find a very nice Baron where youthfulness (newer year model) will get more and more expensive. If you want to find a nice Cessna 310 and spend \$250,000, then you can buy the best possible 310 out there and add

all sorts of the best modifications and upgrades. That is if that seller will sell. Most Cessna 310 owners are longer-term, owner-flown pilots and will only let their estate sell their beloved airplane once they've flown west for the last time.

In my opinion, you really can't go wrong with either steed from a functionality or investment standpoint. Both have stood the test of time, both are great cross country airplanes, and both have a following of faithful supporters. I think the cabin-class seating and the newer-year models make the Baron better for the buyer with more coin in the pocket, and the Cessna 310 is an ideal airplane for the owner-flown pilot who is value-driven that wants multi-engine reliability.

To me, when I get a mission that calls for the Baron or the 310, I'm thrilled at the prospect of flying either. Both are solid airplanes that we trust to haul around our loved ones and friends. **T&T**

Joe Casey is an FAA-DPE and an ATP, CFI, CFII (A/H), MEI, CFIG, CFIH, as well as a retired U.S. Army UH60 standardization instructor/examiner. An active instructor in the PA46 and King Air markets, he has accumulated 14,300-plus hours of flight time, with more than 5,200 dual-given as a flight instructor. Contact Joe at joe@flycasey.com or 903.721.9549.



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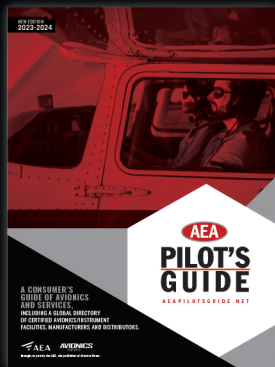
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On Final by David Miller



“You’re a Really Good Pilot...For Your Age”

Those words were spoken by Gregg Brightwell, my simulator instructor in the Citation Mustang. It was early in 2019, and I had just completed my 61.58 check at FlightSafety in Wichita, Kansas. I wasn't sure exactly what to think.

What did he mean by “for your age?”

I was sixty-eight years old at the time. I thought I was at the top of my game. But Gregg had the advantage of seeing hundreds of pilots come through the simulator doors every year. He could see how age and performance were sometimes related.

So, when are you “too old” to fly?

I returned to FlightSafety recently for another 61.58. It's a fairly demanding multi-day test of your flying skills. I normally train every six months, but due to an instructor shortage, it had been a year since my last test.

To say the least, I was anxious. And with the sale of my Mustang, it had been months since I was in the left seat of any airplane. I scheduled an extra simulator session before my class began. The first few minutes were not pretty. But slowly, it came back. I passed.

We all have pilot friends both younger and older than us. Some we wouldn't dare allow our family to fly with us. Others, we wouldn't give it a second thought. But our decisions are seldom based on age alone.

Of course, we all decline at somewhat different rates. Aviation insurance underwriters have decided, however, that from about age seventy, we are patently unhealthy and a much greater risk to insure. And by age seventy-five, we might as well hang up flying anything with a turbine engine. Most of their data probably comes from auto accident rates. What about older pilots who still have what it takes? There doesn't seem to be a mechanism to reward great genetics, diet and exercise, or increased training into the risk equation.

The authorities have figured out how to penalize a pilot who just might be a tick slow, though.

Upon arrival for his annual physical, a friend was administered a psychological test by his AME. Perhaps the one where you count backwards from one hundred by three or try to remember several words from a story. Certainly, all great examples of important skills we use when flying.

Really?

He failed and is now struggling to get his medical back. And while the AME's decision may be the correct one, shouldn't we also have some mechanism to help older, healthy pilots obtain insurance instead of being automatically denied?

Ironically, a bill before Congress is being debated that would extend the mandatory airline retirement age from sixty-five to sixty-seven.

Will those grey-haired captains just become medically fit by the stroke of a pen?

Something to think about.

Fly safe. **T&T**



David in the simulator.

David Miller has owned and flown a variety of aircraft from light twins to midsize jets for more than 50 years. With 6,000 plus hours in his logbook, speaks nationally and writes on a variety of aviation safety topics. You can contact David at davidmiller1@sbcglobal.net.

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