

THE RITE FLYER

MARTIN AIRFIELD

ACCIDENT ANALYSIS

BY GENE BENSON, SAFETY INITIATIVE

Coming Up ...

Meeting :

Monday , April 10, 2023
7:00 p.m. at Martin Field

Program: CFIT**Board of Directors**

April 9, 2023 7:00 p.m.
Cancelled

Next Meeting:

May 8 2023, 7:00 p.m. at
Martin Field.

Chapter Website:

chapters.eaa.org/caa604

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This crash that happened in June of 2021 is not only sad because of the loss of life, but it was as preventable as it gets. A 51-year-old pilot and her 6-year-old granddaughter died in the crash of a Piper PA28-140 in Utah. The airplane collided with mountainous terrain at night. Unfortunately, that is not rare. What sets this crash apart is the qualifications and experience of the pilot. The causes of the crash equates to a salad of human factors.

Here is the Analysis Section of the NTSB accident report: "The accident flight was the second leg of an overnight, multi-leg cross-country from the pilot's home airport in Northern Montana to her grandfather's house in Southern California. The pilot was traveling with her granddaughter, and the trip was planned as a Father's Day surprise. The pilot opted to fly overnight to avoid the heat and turbulence associated with flying over the desert during the day.

The airplane was not equipped with an ADS-B transponder. In order to avoid both the Salt Lake City International Airport (SLC) Mode-C and automatic dependent surveillance - broadcast (ADS-B) system out veil an adjacent military operation area (MOA), the pilot chose to fly through a narrow, mountainous corridor. Due to the altitude limitation of the MOA, the pilot could not fly over the mountain range.

Radar data confirmed that the airplane passed very close to terrain as it avoided the SLC Mode C veil, and ultimately turned into a valley and rising terrain just short of a mountain pass that led away from the airspace and in the direction of the destination. Although the moon was in a position where it would have silhouetted the mountains, it was only 50 percent illuminated, and a broken cloud layer was present that would have obscured most of the available moonlight.

The pilot had already worked a full day and departed on the flight late in the afternoon.

(Continued on page 2)

Calendar Items to share

Fridays	10:00 a.m. Coffee Club, Martin Field Pilot's Lounge,
April 22	Fly-in at Martin Field, 10:00-2:00, hamburger and hot dog barbeque



ACCIDENT ANALYSIS *continued*

The accident occurred at about the halfway point of the trip, about 7 hours after departure from her home airport, almost 18 hours from when she likely woke to report for work, and about the time she would normally have gone to sleep. Therefore, she was likely suffering the effects of fatigue as a result of the flight time and extended time awake. Additionally, her circadian systems were not actively promoting alertness because she was operating the airplane at a time she would normally have been asleep.

The majority of the pilot's flight experience was as an Army helicopter pilot, with about ¼ of her flight time accrued at night, often over desert terrain, frequently with night vision goggles. Since then, she had taken a long break from flying, and recently purchased the accident airplane and attained her fixed wing private pilot's license. The accident flight was the longest flight she had flown since leaving the Army, and her longest flight single-pilot in a fixed-wing airplane. The pilot's decision making associated with the timing of the flight over mountainous terrain suggests overconfidence based on her previous flight experience.

The pilot was carrying oxygen to aid with her night vision; although she had taken a borrowed GPS moving map system that was capable of displaying terrain features, this was the first time she had used it, and she was likely not proficient in its operation.



Airplane Flight Track Graphic Source: NTSB

The airplane crossed into the Mode-C and ADS-B Out veil twice as it followed a meandering track around the SLC airspace and came perilously close to terrain on two occasions, further indicating that the pilot was possibly suffering the effects of fatigue and either not proficient in the operation of the GPS unit or not using it. It is likely that the pilot lost situational awareness and turned prematurely into

the valley, possibly mistaking it for the pass, resulting in controlled flight into terrain."

The NTSB accident Probable Cause Finding states, "The pilot's misidentification of a mountain pass at night, which resulted in controlled flight into terrain. Contributing to the accident were the pilot's overconfidence based on her previous aviation experience and fatigue due to both the time of the flight and her work schedule. Also contributing was the pilot's decision not to install an automatic dependent surveillance-broadcast (ADS-B) system, which forced a flightpath close to mountainous terrain to avoid the Mode-C and ADS-B Out veil."

Pilot Information

Certificate:	Commercial; Military; Private	Age:	51, Female
Airplane Rating(s):	Single-engine land	Seat Occupied:	Left
Other Aircraft Rating(s):	Helicopter	Restraint Used:	Lap only
Instrument Rating(s):	Helicopter	Second Pilot Present:	
Instructor Rating(s):	None	Toxicology Performed:	Yes
Medical Certification:	Class 3 Without waivers/limitations	Last FAA Medical Exam:	August 7, 2020
Occupational Pilot:	No	Last Flight Review or Equivalent:	March 14, 2021
Flight Time:	863.4 hours (Total, all aircraft), 174.3 hours (Total, this make and model), 790 hours (Pilot In Command, all aircraft), 67.2 hours (Last 90 days, all aircraft), 29.2 hours (Last 30 days, all aircraft), 0 hours (Last 24 hours, all aircraft)		

Pilot Information included in the NTSB Accident Report

This pilot had most certainly been educated in all of the above factors while serving as a military pilot. The motivation for the flight, and most likely the source of the external factors involved, was a surprise Fathers' Day visit. I think that most experienced pilots would find beginning and continuing this flight under these conditions and in this limited capability airplane, to be incredulous. Yet, the flight was begun and had a tragic conclusion.

I have written previously about something I call the "Bias Bundle Bomb." It is when three of our known cognitive biases come together and influence us to make bad decisions. It begins with illusory superiority in which we all believe that we a bit better than the other pilot. That can very certainly be fueled by having significant experience as this pilot had. Next, we have confirmation bias which allows information that supports our decision to get through while blocking negative facts. Finally we have continuation bias which provides a strong desire to continue a task once it has begun. This pilot perhaps thought that her experience gave her the edge to conduct this flight. She perhaps realized the difficulty of the flight once airborne, but her brain was blocking the magnitude of the risk involved. Then when about half the flight had been completed, her desire to continue was very strong.

General Meeting Minutes March 13, 2023

The meeting was called to order by President Jim Edwards who introduced three Ray Scholarship Candidates: Ethan Kregger, Elsie Mann, and Klint Kuykendall. They were present with their parents for an informal meet and greet with our local EAA Chapter. We had an opportunity to hear from each of them and their aviation goals.

Jim talked about the passing of our Vice President, Torch Davis, and the need to replace him. Our By-Laws state that a replacement shall be appointed for the remainder of the term of office. After some discussing, Susan Chlarson agreed to step up to the position. Also, Torch served as our Eagle Coordinator. Andrea Moore agreed to take on that role as well. Thank you for helping fill our leadership positions.

A list of up-coming events was discussed. First, is our Fly-in scheduled for April 22 at Martin Field. More details will be available at our April meeting. Travis reported that the Hermiston EAA Chapter has started up their last Saturday breakfast and we are all invited. On March 25th EAA will hold a Leadership Bootcamp in Independence Oregon. Jim and Sue are hoping to attend. Bill Herrington mentioned a date for the WSDOT cleanup at Little Goose airstrip (W16). It is scheduled for May _____. Last, we listed the WPA Fly-Out to the Pasco Aviation Museum in July.

Young Eagles: Our event is scheduled for June 10th this year. Susan talked about volunteer opportunities and encouraged everyone to help where you can. As we get closer to the event, she will be looking for commitments for specific jobs. She will wet up the online registration with EAA.

D.A.R.T will have a food drive at local grocery stores starting March 25th. They have a drill scheduled for July 8th.

Jim asked for updates on local builder projects. We then had a program on "The Improbable Turn" followed by refreshments.



WPA Fly-Out: Saturday, July 10 from 11-2 at Pasco Tri-Cities Airport (PSC)

Aircraft Parking: Pasco Aviation Museum Ramp
Pasco Aviation Museum | 4022 Stearman Avenue, Pasco, WA 99301
\$10.00 cash per person, includes museum admission and lunch
RSVP requested so we know how many lunches!

Fly Washington Passport Program

Mission

The Fly Washington Passport Program encourages pilots and aviation enthusiasts to explore Washington's public-use airports. Beyond motivating pilots to fly, this program supports general aviation airports, area businesses, tourism, and provides flight planning, safety, and educational opportunities. The program relies on the voluntary participation of Washington's public-use airports, pilots, aviation enthusiasts, and sponsors. **The ultimate objective for this program is to increase aviation economic activity and enhance general aviation visibility.**



Participants, using an official Fly Washington Passport Program booklet, collect "passport stamps" at enrolled public-use airports. Any licensed pilot from any state, and their passengers, may participate. Participants will earn levels of recognition and prizes as they explore the airports of Washington State.

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[ABOUT \(flywashington.org\)](http://flywashington.org) for more information

2023 REFRESHMENTS

JANUARY	Ray Banks
FEBRUARY	The Chlarsons
MARCH	Matt Haris
APRIL	Jim Edwards
MAY	
JUNE	Larry Moore
JULY	
AUGUST	
SEPTEMBER	
OCTOBER	
NOVEMBER	Blaise
DECEMBER	CHRISTMAS PARTY

HOW TO CLEAN AIRPLANE WINDOWS

By Erich Rempert

When you clean your dusty, buggy, Plexiglas Cessna airplane windows, do you grab a paper towel, spray down your window with Windex, and wipe it down in big wide circles? Ouch!

If you have spent either the money, time, or both to install new windows in your airplane, nothing will be more worth your time and increase the longevity of your new (or old) windows than taking a minute to learn the basics on proper care.



HERE'S HOW TO CLEAN AIRPLANE WINDOWS

1. No Paper Towel

First off, never use any type of paper towel, no matter how soft — even tissue is extremely abrasive and will scratch aircraft windows. Always opt for a clean (preferably new) microfiber towel. These are often available in bulk for under \$1 each if you do some searching. After they have been used on Plexiglas, they can be used for bugs on leading edges, and then finally to clean the belly, then thrown out. They are a minor expense and an invaluable insurance policy to protect your aircraft's finishes.

2. No Ammonia

Next, never use any type of household cleaners with ammonia as an ingredient (such as Windex). Ammonia can craze plastic and Plexiglas; always make sure any cleaner you use is Plexiglas safe, and preferably use aircraft windshield cleaner like Prist or Kleer to Land, available at most aircraft supply houses and FBOs.

3. No Circles

Also, never use a circular motion when wiping your windows. Always use a back-and-forth motion that aligns with the airflow over the surface. This will reduce scratches in multiple directions and reduce glare when flying into the sun.

4. Finish With Water

Finally, if your window is noticeably dusty, grab a hose and use copious amounts of water to rinse the dust and dirt off before using mechanical means to clean the window. Any particles that don't wash away in the water will be softened and release easier when you do take a cloth to the surface, thus reducing scratching.

EAA Chapter 604

Second Annual



***and Fly-In
At Martin Field
April 22, 2023***

EAA Chapter 604 is hosting an informal Fly-in and barbeque at Martin Field on April 22 from **10:00 a.m. until 2:00 p.m.** This is a come and go event to celebrate the freedom to fly and the ability to gather again with friends and colleagues in General Aviation.

The event will begin around 10:00 with food served starting at 11:30 a.m. We will be serving hamburgers and hot dogs with chips and a beverage. This is a no charge event but we will accept donation to cover the cost of the meal if you are so inclined.

Fly in or drive in, but come!