March, 2025

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EAA Chapter 569 Newsletter

Lincoln, NE

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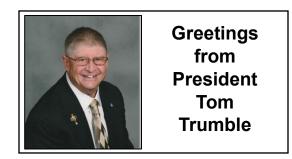
Meeting Announcement

Date: Tuesday, March 4th Time: 7:00pm

Program: Duncan Aviation Tour

Our tour guides will be Andy Bajc, Tom Henry and Erick Corbridge.

Place: Duncan Aviation, Hanger I 3831 N Park Rd, Lincoln NE 68524 Parking is west and south adjacent to Hangar I. Enter the building at the southwest corner.



I'm into my second month of refresher training as President. Old guys forget details after a short time.

We are continuing the search for a location for our fly-in breakfast.

At our last meeting on (February 4th), Paul Selivanhoff had a wonderful slide presentation of his flying trip around the Australian outback. After a great deal of documentation and bureaucracy, he was able to rent a Cessna 182 in Australia and fly with a tour guide and a group of other aircraft. His adventure is certainly a bucket list item for pilots. If you are so inclined, I highly recommend getting in touch with Paul. I personally admire his diligence and perseverance.

Spring will soon be upon us. Please be diligent in bringing your aircraft out for the first time after setting for the winter. Go through the check list pausing on each item. Measure the fuel amount and confirm it to be adequate for the planned flight. Do a preflight on yourself and be confident you are current and proficient.

If you have expertise with Google maps and can show me how to create a QR code for a location, please get in touch me (contact info to the left).

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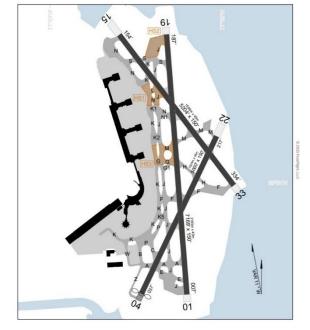
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Flight 5342 Thoughts

By Mark Gaffney

I was presenting at the 2025 Nebraska Aviation Council Symposium in Kearney, Nebraska, when I first learned of the midair between a CRJ700 and a Blackhawk helicopter while the CRJ was on final approach for runway 33 at Ronald Reagan National Airport (DCA). Since the accident, I have had several old CRJ pilots/friends reach out to me to discuss past CRJ operations and DCA years ago. This is my personal reflection on flying the CRJ in and out of DCA and is in no way part of any explanation or investigation into the tragic accident on January 29th.

Washington National Airport opened in 1941. Built along the shore of the Potomac River, it is surrounded by water on 3 sides and was the primary airport for Washington DC until Washington Dulles opened in 1962. Like LaGuardia Airport in New York City, DCA is land locked with the longest runway being only 7,169 feet long with water at both ends. In 1998 the airport was renamed Ronald Reagan Washington National Airport by a bill signed by then President Clinton. Despite DCA being relatively small, it is the 24th busiest airport in the United States, even beating out Washington Dulles at 26th. Omaha Eppley made the list at 61st. DCA even has a Metro stop, so you can take the subway to the National Mall if you have a long enough layover.



As a Detroit based airline captain on the CRJ200 flying for a regional air carrier, I found myself often flying in and

out of DCA. There was always a bit of tension flying into DCA. There is a lot of air traffic in a relatively small area, which also contained prohibited airspace to watch out for. Being post 9/11, I knew the prohibited airspace was protected in some way. Not sure if it was true or not, but at the time I felt getting lost meant possibly being shot down. My first time into DCA was during the day and we approached the airport from the northwest via the River Visual Rwy 19 approach. The approach involves following the Potomac River as you execute a series of step downs. At one point you are only 500 feet AGL with the Pentagon on the right and the Jefferson Memorial on the left. Once you cross the Rochambeau Bridge at only 400 feet AGL, the pilot flying must make a hard descending 45-degree right course change turn to line up with runway 19. Sometimes the CRJ would voice its displeasure with oral "Bank Angle, Sink Rate, Terrain" warnings. Ordinally that would be a sign of an un-stabilized approach, but that was a normal event flying into DCA. I must admit, as a pilot it was a lot of fun!

If you approached the airfield from the south, many times you would be cleared for the ILS Rwy 1 approach only to have ATC cancel the landing clearance and circle runway 33 instead. Runway 33, at a length of 5,204 feet, was the shortest runway we used out of all the airports we serviced. For reference,

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runway 33 is nearly 600 feet shorter than 17/35 here in Lincoln. Like runway 1/19, it also has water at both ends. Because the CRJ200 lacked leading edge slats, our approach speeds were much higher than other airliners. A final VREF speed of 137 knots or 153mph was common to the touch down zone. You had to be on speed and in the touchdown zone, or it was a go around. After touchdown full thrust reverse with heavy breaking was needed.

On January 29, 2025, Flight 5342 was cleared for the Mount Vernon Visual 1 approach, but was later instructed to circle runway 33. Even though it's a



Capt. Gaffney, first week on the line.

visual approach, pilots will typically load up an instrument approach for vertical guidance. Because the only instrument approach for runway 33 doesn't provide vertical guidance to the touchdown zone, the pilot flying most likely would have called for the "snowflake" from the pilot monitoring. The "snowflake" is a constant 3-degree glide slope down to the touchdown zone via the flight management system or FMS. From my experience flying into DCA under similar conditions, I believe the tension would have been quite high. Hand flying the airplane, at night, with the added pressure to be on speed and land in the touchdown zone would have been a hand full. It would have been an already busy flight deck without the helicopter traffic.

The CRJ also has a Traffic Collision Avoidance System or TCAS II. There has been a lot of scrutiny as to why the system didn't save the day. TCAS II looks for transponders on other aircraft and warns the crew via an oral "Traffic Traffic" and presents the traffic on the multi-function display or MFD for each pilot. If the other aircraft is also equipped with TCAS II, the two systems work together with each other via mode S and both crews will get a Resolution Advisory or RA. With an RA, an oral voice will state, "Climb climb, or descend descend" depending on the correct course of action. It's important to note that whether the Blackhawk helicopter had TCAS II is irrelevant, because the TCAS II inhibits RAs below 1100 feet AGL for decents and 1,550 feet AGL on climbs. The midair occurred at 325 feet AGL. The NTSB has stated that the CRJ700 crew did get a TA, but no RA. The FAA and the NTSB are investigating, and we will get answers someday. Typically, based on the Swiss cheese model, there will likely be multiply causal factors which lead to the accident.

I'll end this on a positive and very funny note. On the return flight on my first time into DCA as a First Officer, it was time for the tug to push us out of the gate, so we could start our engines and be on our way. I called ground control by stating... "Reagan Ground, Flagship 3412, Ready to Push B16." Silence followed. I again said... "Reagan Ground, Flagship 3412, Ready to Push B16." A slightly irritated voice answered by saying, "Sir, we do not refer to it by that name." Then it hit me. Ronald Reagan fired 10,000 striking air traffic controllers that refused to return to work in 1981. Apparently, they still held a grudge 20+ years later. National ground was what they were looking for.

A couple related videos you might find interesting – <u>River Visual Approach to Rwy 19</u> and a <u>TCAS Demo</u>.

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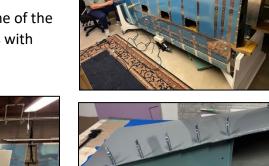
Builder's Report

(I reached out to our builders for an update on their project. We'll publish their reports as they come in. Click any picture to enlarge. – Ed)

Builder: Mark Basel	
Project: Van's RV-8	

Wings done! Waiting on my fuselage kit. In the meantime I'll be working on getting my hangar setup at LNK.

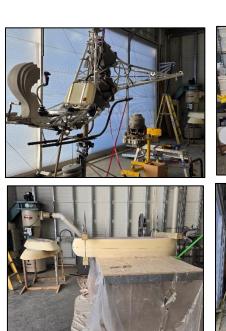
I've been posting videos on Instagram (*baselma8860*) of some of the progress, if anyone cares to take a look, about 50 short videos with music so far.





Builder: Doug Elting Project: <u>Helicycle</u>

In the process of building a male mold of the helicopter cabin from high density machinable foam. I will cast each layer in foam, transport to Bennet, have it machined with CNC Router, and reassemble it in 6 inch layers. Assembled cabin will be shaped with body filler, coated in gelcote, refinished, and used to produce female molds for forming the transparencies. Male mold will then be used as form for carbon fiber cabin frames and non-transparent portions and sacrificed. Paint and reassemble.







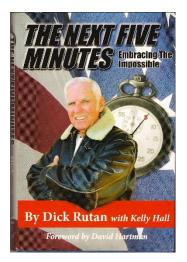
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Book Review

By Dennis Crispin

The Next Five Minutes

In the world of sport aviation, the name Rutan is known by everyone. Burt Rutan's innovative, original designs totally changed the world of private aviation. Constructing homebuilt aircraft was once an endeavor enjoyed by a relative few resolute builders. With the publication of Burt's VariEZ and Long EZ plans, anyone who could follow the extensively detailed instructions could build a unique, fast, efficient, safe, economical personal aircraft. The inovative "moldless composite"



construction techniques could be easily done by someone without the metalwork, fabric, and welding skills traditionally used to build light aircraft. A couple of thousand of the distinctive planes were built and the Rutan designs were followed by other designers and suppliers until today homebuilt completions exceed the number of factory-built airplanes by a significant margin.

Then another Rutan, Burt's older brother Dick, came on the scene. At first, he was known only as the test pilot and demonstration pilot for Burt's increasing group of airplane offerings.

The two brothers could not have been more different. Burt was the quiet, introverted design genius capable of generating highly inovative original designs. A bit of a loner as well as a workaholic, he was at his best working by himself.

Dick on the other hand had the spirit of an adventurer with a type A personality and a life-of-the-party style.

<u>The Next Five Minutes – Embracing the Impossible</u> is an autobiographic work by Dick Rutan. The title comes from the many times in Dick's adventurous life that the outcome of the next five minutes determined success or failure, winning or losing, or even life or death. The 308-page hardcover book was self-published by the author and is available online.

Dick Rutan was born in 1938 the son of a successful dentist. He had trouble learning in school from an undiagnosed minor dyslexia. But he started flying lessons and discovered that he was a natural pilot, proclaiming himself as " the man with the velvet arm". He achieved a commercial pilot's licence with a flight instructor's rating at age 18. Feeling that he was unfit for higher education, he joined the Air Force.

The Air Force ignored his pilot skills and made him a navigator, guiding the enormous C-124 transport on transpacific flights. Eventually he was accepted for flight cadet training and graduated at the top of his class.

He was sent to Vietnam to fly the "fast FAC" forward air control jet fighters. The mission was to spot and mark targets for the bombers. The work required flying low over the highly defended targets, subject to heavy defensive artillery fire. It was an extremely dangerous occupation.

He served multiple tours with the fast FAC and on his last scheduled mission was hit by ground fire. He nursed the crippled, burning jet some distance to the ocean where he could safely bail out and be rescued by a Navy helicopter. It was one of the first of his "next five minutes" incidents.

Disillusioned with further promotional opportunities, he left the service after more than 20 years, retiring as a Lieutenant Colonel. His marriage came apart at about the same time.

Burt had moved on from homebuilt aircraft designs to designing and building exotic experimental/research prototype planes for the major aircraft manufacturers. Dick found work as a test

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pilot for Burt. Testing unproven radical designs had its own challenges resulting in several "next five minutes" situations.

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One day Dick and his new girlfriend, Jeana Yeager, met with Burt to ask Burt to design an aerobatic kit plane that Dick and Jeana could promote and market. Burt had other ideas. He told them about a new carbon fiber material that would allow the construction of a plane light enough and strong enough to carry sufficient fuel to fly around the world nonstop without refueling.

Flying around the world nonstop, unrefueled had not been done before. It would be the "last first" for the record books.

Dick and Jeana bought into Burt's idea and formed a company called Voyager Aircraft to pursue the venture. Thinking that it would be easy to find a sponsor that could foot the bill, they approached a large number of businesses, but none of them wanted to risk being identified with the project should it fail.

Eventually they would get the plane built with \$10, \$20, and \$100 contributions from individuals, mostly from within the sport aviation community. Some major aircraft companies supplied avionics, instruments, engines, and propellers.

Working on a shoestring budget, Dick and Jeana built the Voyager themselves with the help of a couple dozen volunteers.

Building and testing the craft, expected to take 18 months, ended up taking several years. The testing uncovered many problems and resulted in several emergency situations creating those "next five minutes" scenarios.

On December 14, 1986, the Voyager left Edwards Air Force Base bound around the world to Edwards Air Force Base 24,986.727 miles away.

The takeoff created the first "next five minutes" situation. A last-minute adjustment of the landing gear struts set the wing at a slight negative angle of attack. The resulting downforce caused the wingtips to drag on the runway, impeding takeoff speed and damaging the wingtips. They used almost all of the world's longest runway before the Voyager staggered into the air.

For a little over nine days Dick and Jeana would, live, work, eat and sleep in a space smaller than a phone booth. That small space, in addition, contained all of their food, water and survival equipment.

The plane was inherently unstable, and the instability was magnified by the overload of fuel, requiring all of Dick's considerable skill to maintain flying attitude. Dick was in the pilot's seat for three days before the load burned off enough to allow Jeana to fly and Dick to get some sleep.

The flight was spiced with numerous problems and a few "next five minutes" level emergencies. A navigational misunderstanding almost ran them into a mountain. They "lost" a considerable quantity of fuel in the complex tank system but managed to find it in order to continue the flight. They couldn't get overflight permission for a couple African nations, so they turned off the lights and electronics and crossed over anyway without telling anyone where they were. At one point Dick became so fatigued that he was not thinking straight. It took some time for his flight managers, back at Mojave communicating by radio, to convince him to get out of the seat and let Jeana fly the plane. Skirting a thunderstorm, the plane was tossed so the wings became nearly vertical. It was a critical moment – the fragile airframe was not strong enough to deal with unusual attitudes.

Nine days after takeoff they returned to Edwards, having done something that no one had done before – flying around the world nonstop on one tank of gas. Of the 1209 gallons of fuel onboard at the start, only 18.3 gallons remained at the end of the adventure.

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More than half of the book is devoted to the Voyager project. There is material devoted to the mental and emotional stress endured while dealing with the many complex details of financing and building the plane and to the extreme potential risk to life and limb.

Midway in the construction phase, Dick sought some relaxation by going flying in Old Blue, his personal Long EZY. He was struck with an attack of acrophobia. Shaking with this unexpected psychological fear of heights, he managed with difficulty to get the plane back on the ground. It was a condition that would prevent him from flying the Voyager, or any other plane, ever again. He secretly consulted a psychologist and devised his own treatment plan. He was able to permanently slay the mental demon.

The remainder of the book covers the continuation of a life of adventure. Dick flew around the world again, this time with many stops, in Old Blue. There was an attempt to circumnavigate the earth in a hybrid balloon. The plan was to take the craft to extreme altitudes and selectively ride the jet streams. Dick and his fellow pilot would ride in a special sealed, pressurized capsule designed by Burt. The balloon envelope ruptured before even reaching the initial altitude. The pilots managed to extract themselves from the capsule and parachute to safety in still another "next five minutes" adventure. The flight intended to go around the world did not even make it out of the county.

There was an expedition to the North Pole where the plane that Dick was flying broke through the ice and sank. The adventurers had to use their survival training for a day until rescued by the Air Force. Dick participated in the development and testing of a number of exotic aircraft including a rocket powered Long EZY.

Dick Rutan holds ten world aviation records. Four of these are shared by Jeana Yeager, the only woman whose name appears on the list of absolute aviation records. In addition, the two were given dozens of awards and recognitions by a variety of organizations. The most meaningful award was when President Reagan gave the Presidential Citizen's Medal to Jeana, Dick and Burt just six days after the Voyager flight. The medal has been awarded only sixteen times in our country's history.

<u>The Next Five Minutes</u> will be thoroughly enjoyed by anyone with an appreciation for real-life adventure. Our modern world is woefully short of real heroes. Those individuals who choose to confront the imposable and have the courage and perseverance to achieve their goals are now a rarity. Reading of a man like Dick Rutan is therefore most heartwarming and inspiring.

Footnote:

In the early summer last year, word came through the media that Dick Rutan had died at age 86. No further details were available.

In late July, at AirVenture, Burt spoke before a standing-room-only crowd in Theater in the Woods. The two-hour presentation was mostly a eulogy to Dick.

Dick had lung cancer. It was an unfortunate ending for a man who was so passionately against smoking. He had once turned down the offer of a two-million-dollar sponsorship, saying that the entire tobacco industry did not have enough money to cause him to put cigarette advertising on the side of Voyager.

As the disease progressed, he was kept alive with great quantities of oxygen. He joked that airline flights had to be canceled because some guy in California was using up all the oxygen.

When finality was close, he decided that he did not want to continue on in a vegetative state. He picked a day, said goodbye to his family and friends, and took off the oxygen mask. He finished his life on his own terms, just as he had lived it.

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Minutes of the Club Meeting

The February 4, 2025 meeting of EAA 569 convened at 7 pm in the Darlene Christiansen room of Duncan Aviation Hangar I. Sixteen members were present. The meeting opened with a lively presentation by Paul Selivanoff about his tour in Australia with a Cessna 182RG.

The business meeting was called to order at 8:15pm by President Tom Trumble.

Mark Gaffney moved to approve the minutes of the previous meeting as published in the newsletter. Bruce Holtmeier seconded the motion. The motion was passed.

There was no treasurer's report.

Tom reported a request by Mark Langrud, NDOT Chief Pilot for a donation to the aviation art contest. Tom suggested we consider this request at a future meeting.

Tom reported that negotiations were ongoing over a location for our monthly fly-in breakfast since the new tenant of the Crete maintenance hangar is unable to accommodate us. There may be another location available at Crete. The Seward airport is another possibility.

Tom reported that as of February 4, 2025 our Ray Scholar Tobias Jordan has 27.3 hrs of dual from Jon Vanderhoof and 3.4 hours of solo.

Description	Amount
Ray Funds received	\$8,800.00
Eligible expenses to date	\$5,864.88
Balance on hand	\$2,935.12
Donation from Jodi Mueller in honor of Ken Mueller	\$260.00
Non-eligible for Ray Funds	(\$16.00)
Total scholarship funds on hand	\$3,179.12

The May float plane weekend at Harlan County, Alma Airport (May 2 thru 4) is going ahead. There may be a restaurant open near the events. Contact Cristi Higgins at 402-217-9763 for more info.

The March 4, 7:00 meeting will be at Duncan Aviation Hangar I-Darlene Christiansen Room. There is elevator access. Program is to be determined.

The meeting was adjourned at 8:35pm, and was followed by awarding of valuable prizes sourced for the discard pile from Tom's hangar.

Respectfully Submitted,

Jerry Mulliken, Secretary



From the M Gmail

- o SpaceX catches rocket boosters using giant robotic arms attached to the launch tower
- o FAA Issues Special Airworthiness Information Bulletin on AOA Alerting Systems

Month		EAA Chapter 569 Calendar
March	4	7:00pm General Meeting - Duncan Aviation Hangar I Program: Duncan Aviation Tour
	29	11:30am - 1:30pm Hastings Hamburger Fly in Lunch (rain or shine) - KHSI
April	1	7:00pm General Meeting
May	2 - 4	Floatplane Adventure - Alma (H63)
	6	7:00pm General Meeting



AirVenture 25 Poster

(July 21 – July 27, 2025)

Download and print your own poster!

Download Home Printing Version (no bleeds)

Download Professional Printing Version (Includes bleeds for professional printing)

Choose the version that suits your needs!

And finally ... The Win Beneath my Wings



Doug Prange captured this shot over a night game at Memorial Stadium. The city lights cast an interesting reflection on the underside of Doug's Cessna 150 wing. Click photo to enlarge.

John Cox 2279 County Road 2425 DeWitt, Nebraska 68541-2518

Checklist

AFTER LANDING

- 1. Carburetor Heat COLD
- 2. Wing Flaps UP
- 3. Transponder STANDBY
- 4. Pay EAA Chapter 569 dues . . CLICK HERE