



EAA485

June 2026—Panhandle Pelicans



PRESIDENT'S NOTES

Thanks to all 25 of you who participated in our field trip May 9th to ST Engineering Pensacola Airport. It focused on the Pensacola State College A&P training program. Program Director Kevin Kropp and Instructor Fred Armand gave us a nice tour of their amazing facilities. See photos ON eaa485.org, EVENT ARCHIVES.

Member John McKiernan is in the process of applying for the FAA Master Pilot Award. If any more of you qualify for this prestigious award, please do the same. For all the details, try the following link: [file:///E:/Downloads/faa_fs-i-8700-2_rev_7\(1\).pdf](file:///E:/Downloads/faa_fs-i-8700-2_rev_7(1).pdf). You should see the following document: FAA/FS-I-8700-2 (Rev. 7), dated March 19th, 2026. This award not only recognizes your accomplishment, but it makes good publicity for the chapter. We would gladly arrange for a chapter presentation, as we have done in the past.

The main presentation at the June 13th meeting, weather permitting, will be a "Show & Tell" by Duane Thiessen of his recently completed Zenith CH-750. Individuals building their own aircraft is the fundamental core of EAA. This will be a great example.

For those of you who fly tailwheel aircraft, aspire to fly them, are looking to buy a used one, or are looking for a good place to learn to fly them, check out Taildraggers.com.

Vice-President Mark Rogers will conduct the June meeting, since I will be in Minot, North Dakota attending a 40-year USAF F-15 squadron reunion. Time flies!

Hope you can join us for our June 13th meeting!

Ralph

Human Factors: Know Thy Airplane

By William E. Dubois · May 6, 2026 · 2 Comments



The Tri-Pacer after the accident.

It could have ended much worse. At 200 feet above the ground, on takeoff, the engine started running rough. The pilot pulled the carb heat. Things improved momentarily, then it got rough again and the airplane began to descend. At 50 feet above the ground, the engine lost all power. However, as luck — and some last-second navigation — would have it, at that point the airplane was over a nice flat field.

But that's where the luck ran out.

As the pilot tried to put the Piper PA-22 Tri-Pacer down, it stalled in the last 10 feet, the nosewheel smacked down into the soft earth, and the little plane flipped on its back, injuring all three aboard and causing substantial damage to the left wing, rudder, and engine mount.

And even though it could have ended much worse, it actually didn't have to happen at all.

Earlier that Day...

The pilot of the Tri-Pacer was a 33-year-old female with commercial and flight instructor certificates. She was flying under a third class medical, with 834 hours total time, 59 of which were in the make and model. She'd flown 15 hours in the last 90 days and 7.7 in the last month.

She had departed Edgeley Municipal Airport ([51D](#)) in North Dakota about 10 in the morning, and flew a bit over 50 miles northeast to Sky Haven Airport ([5N4](#)) in Enderlin, N.D., where she met with other pilots who were taking kids for airplane rides. She arrived early and did one lap in the pattern and then picked up her first pair of passengers. After a routine flight she returned, dropped the pair off and picked up two more, both boys, one aged 12 and one 13. Apparently this switch was done with the help of ground crew, with the airplane engine still running.

It was the right tank the plane was feeding from at the time the engine stopped. In fact, the pilot had flown her whole day up to that point on that tank. Did she see any sign of trouble when she sumped the tank that morning? Did she even sump the tank?

It was during the takeoff with this second set of passengers that the engine failed and the airplane crashed. Thankfully, everyone's injuries were minor, and there's no report of the boys' mother having a heart attack watching the plane crash and flip, although one would suspect it might have taken a few years off her life.

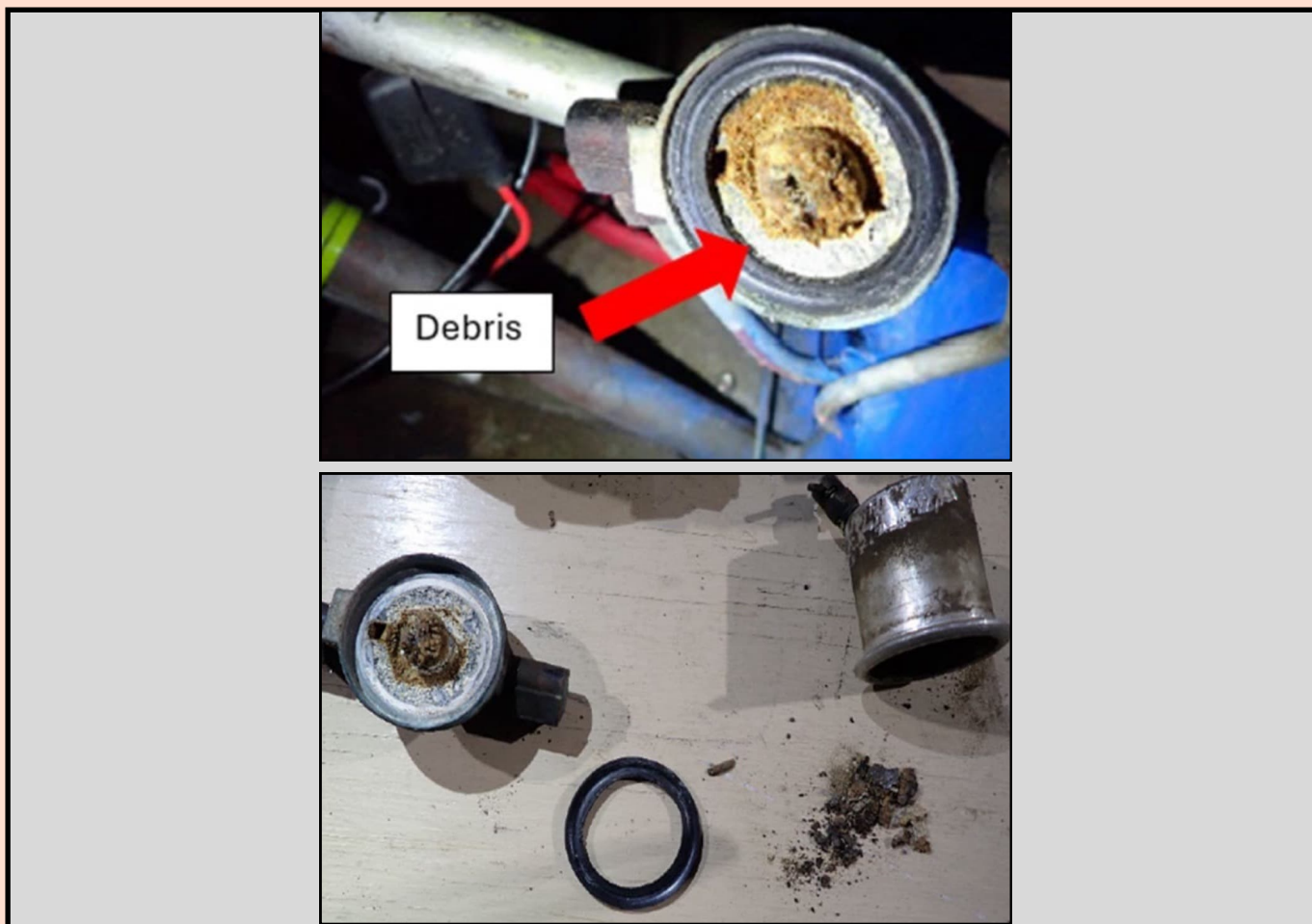
The NTSB

Two NTSB staffers — an air safety investigator and a piston engine specialist — inspected the aircraft after the accident. Due to the damage that the engine mount suffered, investigators didn't test run the engine, but they did give it a full non-running diagnostic and initially only found one odd thing: The carburetor bowl was bone dry.

Now, if you haven't played around with carbs much, let me assure you that even when you are trying to empty one — say to send it out for overhaul — it's not at all easy to get it empty. I still smell like avgas weeks later. But back to the engine.

The Tri-Pacer's engine timing was right, the ignition harness was fine, mags worked, the spark plugs were unremarkable, and so forth. Working backwards, the gascolator on the firewall was fine, then they got to the gascolator for the right tank's rear fuel line.

“The gascolator bowl for the right wing fuel tank rear fuel line,” wrote the investigative team, “contained a large amount of sediment and the rubber gasket was no longer pliable and was cracked. The fuel lines going to and coming out of the gascolator for the right wing fuel tank rear fuel line were clogged with the same sediment that was found in the bowl.”



Her NTSB report only says that there was “nothing unusual” about the preflight. Apparently, investigators didn’t ask her about sumping. They did, however, reach out to the airplane’s owner.

He told investigators that he’d owned the airplane for about four years and “did not know that the quick drain under the right front seat was for the right wing fuel system. He assumed that the drain was part of the right brake system. He stated that he never sumped that drain.”

Now, the available documents don’t establish the relationship between the pilot and the owner. It might be that she was renting from him, it might have been a borrowed-from-a-friend airplane, or they might have even been a couple for all we know. But the fact that the bowl was so badly clogged, and that the owner didn’t even know the drain was there, is at least suggestive of the fact the pilot might not have known either, especially if she relied on the owner for operational information on the airplane. More about that in a bit.

But first, what about maintenance? When was the last time the airplane’s mechanic checked out the gascolator? Well, now we get to the skeletons in the closet. Accidents have a tendency of revealing those.

The accident occurred in May 2024. Over the preceding three years, the logs show three 100-hour inspections on the airplane — one per year — with no other maintenance logged. This work was all done by the same A&P mechanic, one who did not have Inspection Authorization to perform annuals. In fact, the Tri-Pacer’s last logged annual was a full four years before the accident, in the spring of 2020.

While the regs allow an annual to “stand in” for a 100-hour, the inverse is not true. It also appears that several ADs with 100-hour compliance requirements weren’t addressed over the intervening years. While this isn’t directly linked to the accident, I mention it because it’s important for aircraft owners to remember that maintenance is a partnership between you and your mechanics. It’s important for owners to know and understand the maintenance regs and be sure that your team is keeping the airplane legal.

But let’s not forget that it’s the legal responsibility of any pilot in command to determine that the airplane is airworthy before flight — be it an owned airplane, a rented airplane, a borrowed airplane, or a shared airplane. Out of annual is out of airworthy. A five second glance at the logbooks would have been all that was necessary in this case to know that the airplane wasn’t legal to fly at all, much less carry minor passengers for a community event.

That said, the NTSB aren’t the FAA police, so all of this wasn’t really their problem. But they did want some insight into the three years of maintenance that managed to miss the increasingly clogged gascolator and, more specifically, whether or not the Piper Inspection Report form had been used. This is a rather long, but nicely detailed, three-page checklist to guide mechanics through all the various things that should be inspected on the Tri-Pacer, including the gascolator in question.

PIPER AIRCRAFT CORPORATION

INSPECTION REPORT

This form meets requirements of FAR Part 43 - Inspections must be performed by persons authorized by the FAA.

Make: PIPER PACER, TRI-PACER & CARIBBEAN

Model PA-22-125, 135, 150, 160 & PA-20 Serial No.

Registration No.

Circle Type of Inspection (See Note 2) 50 100 500 1000 Annual	50	100	500	1000	Inspector	DESCRIPTION	Perform all inspections or operations at each of the inspection intervals as indicated by a circle (0)				
							50	100	500	1000	Inspector
A. PROPELLER GROUP						26. Inspect condition of flexible fuel and primer lines		0	0	0	
1. Inspect spinner and back plate for cracks	0	0	0	0		27. Replace flexible fuel lines				0	
2. Inspect blades for nicks and cracks	0	0	0	0		28. Inspect fuel system for leaks		0	0	0	
3. Inspect for grease and oil leaks	0	0	0	0		29. Inspect fuel selector valve operation		0	0	0	
4. Lubricate propeller per lubrication chart		0	0	0		30. Inspect venturi or vacuum pump, lines and separator for security and operation		0	0	0	
5. Inspect spinner mounting brackets for cracks		0	0	0		31. Overhaul or replace vacuum pump (See Note 5)				0	
6. Inspect propeller mounting bolts and safety (Check torque if safety is broken)		0	0	0		32. Inspect throttle, carburetor heat, and mixture controls for travel and operating condition		0	0	0	
7. Inspect hub parts for cracks and corrosion		0	0	0		33. Inspect exhaust stacks, connections and gaskets (Replace exhaust gaskets as required)		0	0	0	
8. Rotate blades of constant speed propeller and check for tightness in hub pilot tube		0	0	0		34. Inspect muffler, heat exchanger and baffles		0	0	0	
9. Remove constant speed propeller, remove sludge from propeller and crankshaft			0	0		35. Inspect exhaust stack braces for security		0	0	0	
10. Overhaul propeller (per Hartzell Service Letter No. 61_D)				0		36. Inspect breather tube for obstructions and security		0	0	0	
11. Recondition fix metal propeller (See Note 11.)						37. Inspect crankcase for cracks, leaks and security of seam bolts		0	0	0	
B. ENGINE GROUP						38. Inspect engine mounts for cracks and loose mountings		0	0	0	
CAUTION: Ground Magneto Primary Circuit before working on engine.						39. Inspect all engine baffles for damage and security		0	0	0	
1. Remove engine cowl		0	0	0		40. Inspect rubber engine mount bushings for deterioration (See Note 6)		0	0	0	
2. Clean and inspect cowling for cracks, distortion and loose or missing fasteners		0	0	0		41. Inspect condition of firewall seals		0	0	0	
3. Drain oil sump (See Note 9)	0	0	0	0		42. Inspect condition and tension of generator drive belt		0	0	0	
4. Clean suction oil strainer at oil channel (Inspect strainer for foreign particles)	0	0	0	0		43. Inspect condition of generator and starter		0	0	0	
5. Clean pressure oil strainer (Inspect strainer for foreign particles)	0	0	0	0		44. Lubricate all controls per lubrication charts		0	0	0	
6. Inspect oil temperature sender unit for leaks and security		0	0	0		45. Complete overhaul of engine or replace with factory rebuilt (See Note 5)				0	
7. Inspect oil lines and fittings for leaks, security, chafing, dents and cracks (See Note 7)		0	0	0		46. Reinstall engine cowl		0	0	0	
8. Clean and inspect oil radiator cooling fins for damage		0	0	0		C. CABIN GROUP					
9. Remove and flush oil radiator			0	0		NOTE: (See Note 13 before beginning this inspection group.)					
10. Fill engine with oil per lubrication chart	0	0	0	0		1. Inspect cabin entrance, doors, latches and windows for damage and operation		0	0	0	
11. Clean engine		0	0	0		2. Inspect all plexiglas for cracks		0	0	0	
12. Inspect condition of spark plugs (Clean and adjust gap as required, adjust per Lycoming Service Instruction No. 1042) (See Note 8)		0	0	0		3. Inspect upholstery for tears		0	0	0	
13. Inspect ignition harness and insulators (High tension leakage and continuity)		0	0	0		4. Inspect seats, seat belts, security brackets and bolts		0	0	0	
14. Check magneto points for proper clearance - Maintain clearance at 0.018 +/- 0.006		0	0	0		5. Inspect trim operation and adjustment		0	0	0	
15. Inspect magneto for oil seal leakage		0	0	0		6. Inspect operation of rudder pedals		0	0	0	
16. Inspect breaker felts for proper lubrication		0	0	0		7. Inspect control yoke, chain, pulleys and cables (See Note 14)		0	0	0	
17. Inspect distributor block for cracks, burned areas or corrosion, and height of contact springs		0	0	0		8. Inspect flap lever for operation, adjustment and safety		0	0	0	
18. Check magnetos to engine timing		0	0	0		9. Inspect controls for ease of operation		0	0	0	
19. Overhaul or replace magnetos (See Note 5)				0		10. Inspect battery, box and cables (Check at least every 30 days. Flush box as required and fill battery per instructions on box)	0	0	0	0	
20. Check valve clearance at 0.010 on 0-290-D engine only (Adjust per Lycoming Service Instruction No. 1068A)		0	0	0		11. Check landing, navigation, cabin and instrument		0	0	0	
21. Remove air filter and clean (Refer to Owner's Handbook) (Replace as required)	0	0	0	0		12. Inspect fuse box for burned out fuses		0	0	0	
22. Drain carburetor and clean inlet line fuel strainer		0	0	0		13. Inspect instruments, lines and attachments		0	0	0	
23. Inspect condition of carburetor heat air door and box		0	0	0		14. Inspect gyro operated instruments and electric turn and bank (Overhaul or replace as required)		0	0	0	
24. Inspect intake seals for leaks and clamps for tightness		0	0	0		15. Replace filters on gyro horizon and directional gyro or replace central air filter		0	0	0	
25. Remove, drain and clean fuel filter bowl and screen (Drain and clean at least every 90 days)	0	0	0	0		16. Clean or replace vacuum regulator filter		0	0	0	
						17. Inspect altimeter (Calibrate altimeter system in accordance with FAR 91.170, if appropriate)		0	0	0	
						18. Check operation of fuel selector valve (See Note 10)		0	0	0	

Owner:

The mechanic did not return phone calls from the NTSB.

Analysis & Discussion

The official “cause” of the accident was put down as: “The pilot’s failure to properly inspect and sump the fuel system before the flight and the maintenance personnel’s inadequate maintenance of the fuel system, which resulted in fuel starvation and the subsequent loss of engine power due to the contamination of the right tank fuel gascolator and fuel lines.”

To me, the cause is a grotesque deficiency in systems knowledge. Now there’s no end to how deep you can get into systems knowledge, I get that. But I think that we can all agree that knowing how many fuel sumps there are, and where they are located, is a minimally-acceptable level of systems knowledge for pilots, along with knowing things like where the oil dipstick is located, and how the control locks — if any — work.

Now, I’ll grant you that with some older airplanes, figuring out the systems can be quite a trick. But in this case, there really aren’t any excuses. I quickly located an early 1950s Tri-Pacer manual online and the second paragraph of the section on the fuel system reads, “The rear fuel line from the right tank has a low point under the right front seat at which point is located a quick drain gascolator. The drain in this gascolator, which should be checked frequently for water or sediment, is reached through an opening in the right landing gear belly fairing.”

This sump is also widely discussed on various Piper forums online, so there’s no reason for the owner, or any pilot of a Tri-Pacer, not knowing about it.

On top of that, the accident pilot is a commercial pilot and a flight instructor. Both of those certificates emphasize the importance and responsibility of knowing the machine before you fly it — never mind the whole airworthiness issue for the moment. Beyond that, the pilot had 59 hours in the make and model, which should have been more than enough to be intimately familiar with its systems, had she bothered to make the effort.

The Takeaway

To me, the big takeaway from this accident is a reminder to spend time researching any airplane you fly. Read through the manuals. Talk to owner’s groups and type club members. Go on a “ramp date” with the airplane, spending a non-flying day just studying it. Look at each and every part with questioning eyes and an open mind.

A second takeaway is one we see in accidents a lot and that’s premature abandonment of emergency procedures, especially of the “flow” type. Short of a catastrophic engine failure — with chunks of metal flying through the cowl, smoke everywhere, and oil spraying up on the windscreen — any time an engine stops there are only three things that can have caused it: You’ve either lost fuel, air, or spark — and, frankly, fuel problems are the number one most common.

That said, I do think the pilot made a good call in pulling the carb heat — an air problem — first. It only takes a second to do that, but takes a bit of time to work if carb ice is the issue, so the mix of quick application and slow resolution logically puts that action at the top of the pack.

And perhaps the fact that there was a momentary improvement might have lulled the pilot into thinking problem solved.

But once the engine got rougher, even if it had been carb ice that had gotten ahead of the carb heat, she should have tried to cover the other bases while pitching for best glide. And that’s an important takeaway for us all. For fuel, it only takes a breath or two to check the four common cockpit fuel controls: Throttle, mixture, primer, and fuel selector. In this case, switching tanks would probably have restored power.



The fuel selector in the Tri-Pacer. (All Photos from the NTSB docket)

Although, granted, the young boys have a better story to tell their friends with the way this one — unfortunately — worked out.

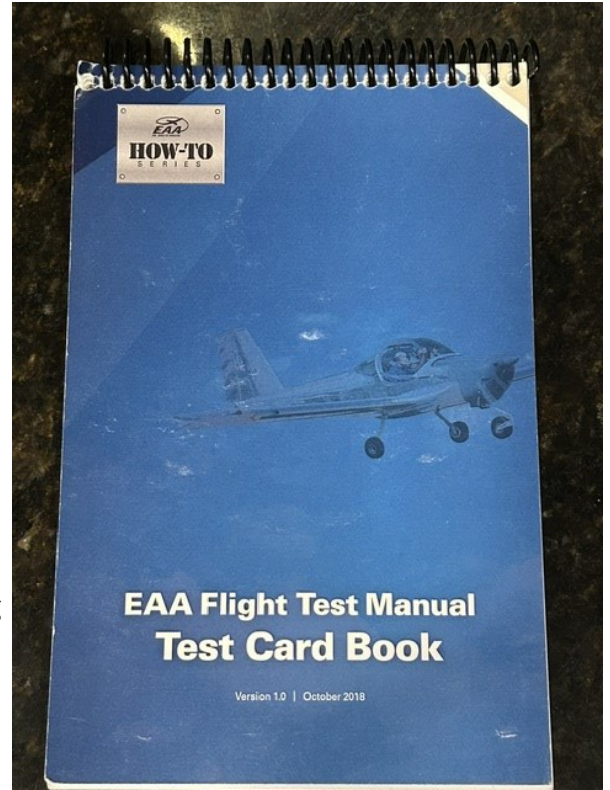
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DRANO'S ZENITH 750 UPDATE

I was asked to give an aircraft project update presentation during our next chapter meeting in June so I will keep this newsletter update short. The BLUF is that I am into Phase 1 flight testing. During flight tests and on post flight inspection, you find small glitches and “gripes” that you have to fix, some are easy adjustments and some are just, as Winston Churchill once said, “A riddle, wrapped in a mystery, inside an enigma.”

The FAA requires any newly certified homebuilt to fly off a 40 hour test program in a specified area defined by an 25 mile radius circle remaining clear of any Class ‘C’ airspace. This can be a lot of drilling around in circles and can be excessive if you have built a well established type of airplane and it is performing as it has been designed to perform. A few years ago EAA coordinated FAA approval of a task based test program to replace the 40 hour requirement. Under the task based testing, you take an approved program with targeted testing points and work your way through the individual flight test cards. You fly the test, record the data and move on to the next test card. It may take 40 hours of flying, it may take less. I am currently working my way through an early version of the approved EAA Test Card Book. While the cover could use some serious redesign, the content and organization are very well done.



June 2026 Ray Aviation

Scholarship Report

McKenzie Peterson and June Moore are busy with their flight training.

Since McKenzie has already soloed she is working on cross country while getting used to flying in the local area.

June is early in her training.

Secretary's Notes

May 9, 2026

VMC: Starved of attention
IMC: Trim trouble

Officer Reports

Drano has flown the Zenith!

Oct 3: CJFA Young Eagles Rally

Oct 31: Fall Young Eagles Rally

Tour of ST Engineering



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EAA and Local Chapter Sites

[EAA 485](#)

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[Interesting Links](#)

[Making the First Airbus 220 Time Lapse](#)

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[1800wxbrief.com](#)

[FAA Notams](#)

[Barnstormers](#)

[Skyvector.com](#) Flight Planning, Charts

[AirNav.com](#) Airport info, Fuel Prices

[EAA 1265](#)

[EAA 108](#)

Normally meetings will be held at [Roscoe Field Airport \(82J\)](#) (Uni 122.8) on the Second Saturday of each month at 10:00 AM unless otherwise posted. **If flying in, check NAS Pensacola (KNPA) NOTAMS for possible TFRs and the [Roscoe Field Airport website](#) under the Arrivals tab for important arrival and departure information.**

Driving: From Hwy 98 turn south on Aileron Avenue and enter at the main airport entrance. Turn right at the dumpsters and follow the single-lane paved road. Just short of the blue aircraft hangars, turn left. Our white clubhouse is at the end on the left. If the main airport entrance gate is locked, continue south on Aileron Avenue to the end and turn left into the back gate. Open and close the gate behind you. Make a right once past the blue hangars. You'll see our white clubhouse at the end on the left.

For more info contact:

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Home Of The
PANHANDLE PELICANS

EAA 485 Pensacola, FL

Upcoming Events

(CHAPTER EVENTS IN CAPS):

June 20, AM – AIRCRAFT STATIC DISPLAY FOR CJFA GRADUATES

July 15-18, Pensacola Beach Air Show

July 20-26, Air Venture, Oshkosh, WI (KOSH)

Sept 16-20, National Championship Air Races, Roswell, NM (KROW)

Oct 3 – CHAPPIE JAMES ACADEMY YOUNG EAGLE FLYING

Oct 31 – FALL PUBLIC YOUNG EAGLES RALLY

November 6-7, Blue Angels Homecoming Air Show

Chapter Meetings:

Saturday, June 13th, 2026

8:30-9:30am, VMC/IMC Club Meeting.

10:00-11:00am, General Membership Meeting:

Pledge of Allegiance

Guests

Officers Reports: President, Vice-President, Secretary, Treasurer/Membership

Young Eagles—Sean Londrigan

Ray Scholarship—Scott Swanson

Member Build Projects Update

Show and Tell of recently completed CH750 Project - Duane “Drano” Thiessen

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