

New CWB member Bob Stoney's O-1E.
Photo: Bob Stoney



✪ Cascade Warbirds Squadron Newsletter ✪

CO'S COCKPIT

By John "Smokey" Johnson



LIGHT AT THE END OF THE TUNNEL? The days are getting longer and we have switched to Pacific Daylight Time. Cherry trees are blossoming and the daffodils are showing their bright yellow flowers. All these are signs that spring is here and summer is on the way. The COVID-19 pandemic seems to be dwindling as more people have either had the virus, or have or are going to be vaccinated very soon. Hopefully, herd immunity will take effect and we can

all get back to what we enjoy doing indoors and outdoors, as well.

Hopefully, we will be able to schedule a "shake off the rust" event, to include a BBQ for the entire general membership, somewhere in the Puget Sound area.

In the last month, several CWB pilots have participated in four-ship missing man formations at the Tahoma National Cemetery for two US military veterans who recently passed away. Personally, I feel this is an important part of who we are and what we do to support the families and honor and pay tribute to the veterans. We received numerous grateful comments from the families of how much it meant for all of them to look up and see the airplanes with the missing man pull up and away from the rest of the formation.

We are also announcing the annual aviation scholarship winners, sponsoring young aspiring aviation students by providing private pilot ground school and two flight lessons with an instructor. I would like to thank Galvin Flying for their gracious donation and assistance to make this wonderful opportunity available. More information is in the following pages.

In closing, I would hope that very soon we will be released to resume our lives and activities. The simple things—being able to go an airshow, ball game, eat out in a restaurant, or have a beer with some of your friends—all now have a new meaning since they were removed, with our social lives conducted from afar by Zoom meetings, eating fast food in the front seat on your car, and everything canceled.

Stay healthy and stay positive, as this too will pass. I am looking forward to seeing everyone soon on the flight line or at our next outdoor event. ✪

all get back to what we enjoy doing indoors and outdoors, as well. Sun 'n Fun is scheduled to be in April in Lakeland, FL and recently the Reno Air Race Association has announced that plans are going ahead to have the Pylon Racing School in June and the air races in September. Contact Fred Smyth for reservations to attend and view the races from the CWB box.

Oshkosh is scheduled for July 26 to August 1, 2021 this year. Dave Desmon is taking reservations for rooms at the two houses located on Lake Winnebago that CWB members rent during the airshow. It's a great place to stay and very affordable for a room. We are still waiting to hear if Olympia, Arlington, and Madras are going to schedule their airshows. If we get information about any events, Stan Kasprzyk will update the CWB activity calendar (see www.cascadewarbirds.org/events) and Fred Smyth will put out an email to everyone. There will be another formation clinic at the Bremerton Airport on August 11–15 in Roger Collins' hangar, which is sponsored by several CWB members. Get out and enjoy these events and all the others in the NW as well. They need our support after the shutdown and downturn due to the COVID-19 pandemic.

With the airshows and other aviation activities starting up, it is also very important that we as pilots, mechanics, marshalls, and other volunteers brush up on our skills that keep us safe while operating in the airport environment. Dust off your books, go through your normal and emergency checklists, and review all the hand signals. Also make sure to check all your aircraft and personal equipment to make sure it is in working operational condition. For the pilots, it is especially important to review the new 8900 airshow operations rules.

There is a nice summary titled *8900 Ways to be Violated* which gives you a hint at how important this new rule is to understand. It has been a long time since most of us have attended and participated in any airshow event and we need to be extremely vigilant and safe-

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This is the official publication of Cascade Warbirds. The views expressed in this newsletter are those of the individual writers, and do not constitute the official position of Cascade Warbirds. Members are encouraged to contribute any matter related to warbirds, which the editor will gladly work with you to publish.

It is the goal of Cascade Warbirds to promote the restoration, preservation, operation and public display of historically significant military aircraft; to acquire and perpetuate the living history of those who served their country on these aircraft; and to inspire today's young people to become the aviation pioneers of tomorrow.

All correspondence to the squadron may be submitted via the e-mail or mailing addresses below.

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WELCOME ABOARD

It's always a pleasure to welcome new members, keeping us ever-growing and headed in the right direction. Since last time, meet **Bob Thim** from Woodinville, WA and his son **Zander Thim** from Clawson, MI. Then there's **Paul Crouch** of Oak Harbor, WA, who is restoring an SA Bulldog. **John Balow** joined us from Chippewa Falls, WI; he owns a Mooney M20TN. And his friend **Tom Wildes**, also of Chippewa Falls, has signed on. **Bob Stoney** of Mercer Island, WA, comes aboard with his O-1E. He is joined by his friend **Fred Quarnstrom** of Seattle, who is a co-owner in their Birddog. Fred is a Wright Bros. Master Pilot and CFII.

If we ever get together again (sigh), introduce yourselves and say hello. Some of you will meet the Thims, Balow, and Wildes at the Reno races.

2021 SCHOLARS

What a wonderful group of young people who applied for our scholarships this year! We are pleased to introduce the following.

Alexandra "Alex" Szrama is a sophomore at Eastside Catholic School. She's been a member of the Civil Air Patrol for over three years and has her sights set on the USAF Academy. Upon graduation, she hopes to fly fighters.

Brooke Swanson, a sophomore at Raisbeck Aviation High School, also hopes to attend the USAF Academy. She comes from a military aviation family; her sister is at the Academy now and her grandfather was a naval aviator.

Liam Mullins attends South Puget Sound Community College. His career goal is to become an airline pilot, so he will start flight training this summer while he finishes his college degree.

Mauricia Lott is a junior at Lynnwood High School. She, too, hopes to attend the USAF Academy where she'll study aerospace engineering. Her ultimate goal is to become a commercial airline pilot. She's proud to be second generation military—her mother was in the Army and her father in the Marines.

Thanks to our partner, **Galvin Fly-**

ing, which donates the private pilot ground school tuition. Our scholars also receive the books and supplies they need for the course and two instructional flights. That places the value of each scholarship at \$1,250. Wish these young folks well.

RENO AIR RACES

RARA expects a return to normal come September. Obviously, finally dependent on the state of the pandemic, but planning continues. To that end, CWB maintains our Moya Lear A-41 box at show line center. We still have seats available, only \$392 each for the entire week. For those of you who might wonder about your money should the races be cancelled, your FO is holding it until assurance that the races will be held. If you have questions, contact Fred.

OSHKOSH 2021

Any members looking to stay in the CWB leased house for the 2021 Oshkosh fly-in, please contact Dave Desmon ASAP at DaveDesmon@yahoo.com. The house is 3.5 miles from the field, air-conditioned, right on the lake, lip-walking distance from the neighborhood bar, and a whole week goes for what a single night goes for in a hotel (*if you can find one within 50 miles*).

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You likely know that we rely on your timely payment of annual dues. That money supports our several programs, most important of which is interesting our area youth in both aviation careers and STEM. Additionally, support for our pilot-owners is available for some events and even this newsletter needs funds to continue publishing. Your \$20 is a meaningful addition to our coffers; consider renewing now.

Don't know if you're current? Your expiration date is located on the envelope of this newsletter, just after your name. Make payment to CWB, 1066 Yates Rd, Oak Harbor, WA 98277. The FO thanks you for your timely remittance. If for some reason you decline, drop him a note and he'll stop pestering you.

OUR INTREPID AVIATORS have organized our first memorial missing man formation of the year, flying in salute of Navy veteran Glenn Ewing at the Tahoma National Cemetery on March 1st. The main thing I noticed while prepping for the flights, listening on the radio, and observing traffic at Renton, Paine Field, and other airports is that we all are RUSTY!

I've also heard of a number of local incidents as pilots try to regain their proficiency after winter and COVID-related slowdowns. A local twin suffered expensive damage to its engine and propeller when starting with metal intake covers still attached. Another pilot forgot to latch his rear cockpit canopy while flying solo in a tandem aircraft this week, and the canopy departed into the vertical tail on takeoff, causing damage but still allowing a safe landing.

As we return to flying after what has been a long break for many of us, checklist use and a slow, thorough pre-flight are very important. If something doesn't look or feel right, stop if on the ground and check things out. If already airborne, land as soon as possible and fix the

issue once safely landed.

Chair fly your flights on the ground. Get the rust out by flying the basics first, exercise your bird in the air with light maneuvering and takeoff and landing practice for proficiency before you tackle any involved four-ship maneuvering. Start formation work slowly, recognizing that your lead and wingman are working the rust out as you are.

While spring airshows are slow to rebound, our summer and fall schedule in the northwest looks promising. Let's Go Fly! ✈️



Glenn as a nugget following his first solo. Photo courtesy Seth Crofton.

CHALLENGE ACCEPTED

In mid-February, long-time members **Pete Stekel** and **Jennie Goldberg** issued a fundraising challenge to the squadron membership in the amount of \$400 to benefit the squadron's memorial scholarship program. That was quickly matched with another \$400 from **The Neyman Fund**. Then that total was doubled with \$800 from **Karyn King**. Standing then at \$1,600 total, **Roger Collins** decided to double that again with his own \$1,600 pledge, bringing the total challenge to \$3,200.

As you would expect, the CWB family stepped in, fifteen of whom responded with matching donations of \$2,250. When Karyn King learned that three of our 2021 scholars are young women, and in honor of Women of Aviation Worldwide Week, she committed to the final \$950! Thus, \$3,200 in challenges has been

matched with the full \$3,200 in responses.

But wait—just before we went to press, another very generous couple of CWB members added their \$400 to the mix! What started out as an off-hand “well, then, I'll just add \$50 to my dues payment” comment ended up benefiting our area youth to the tune of \$6,800 (so far). The Scholarship Committee and all our scholars, present and future, thank these generous members for their belief in the CWB aviation scholarship program.

By the way, we would be remiss if we didn't mention the generous support of **Bob Jones**. His belief in our scholarship program and the results we have achieved has led him to donate \$8,000 over the past three years. We thank Bob and the other generous contributors who are helping your Cascade Warbirds “inspire today's young people to become the aviation pioneers of tomorrow.”

AIRCRAFT AVAILABLE

Pilot and Vietnam veteran **Richard Kloppenburg** owns a restored 1967 O-2 that served in Vietnam. He is seeking its next caretaker; is it you? E-mail him for details at kloppenburg@mac.com.

Passed member **Bill Junjek's** 1947 Navion was an airshow regular and has a few upgrades. It would make for a fine first warbird. Contact markjunjek@gmail.com for more info.

Longtime member **Tom Elliott** is selling his longtime airshow circuit mount, a beautiful red CJ-6A, aptly named **NOTAYAK**. Tom can be reached at N13472@aol.com.

Read more about each airplane at cascadewarbirds.org/for-sale/. ✈️

Photos (L-R): Richard's 1967 O-2A Saigon Tea (Richard Kloppenburg), Bill's 1947 Navion (Mark Junjek), Tom's 1977 Nanchang CJ-6A (JaybirdAviationPhotos.com)



2018 SCHOLAR UPDATE

By Devin Graves

I WANTED TO WRITE A SHORT UPDATE about my progress at the University of North Dakota. My first semester at UND, I did not do much flying, just a few lessons to adapt to UND's procedures and policies. But this spring, I started UND's four semester Part 141 training course that will grant me an all-in-one airplane single-multi commercial land (ASMEL) with instrument rating at the end.

This first semester of the four focuses primarily on basic attitude instrument flying and some commercial flying. Over the summer semester, I will be learning the procedures of instrument flying. I have enjoyed what instrument flying I have done so far and am looking forward to getting into the procedural instrument world. This summer, I am also hoping to do aerobatic training, and if that goes well, join UND's aerobatic team and compete! I have been successful academically, maintaining a 4.0 average in both semesters so far.

I miss the meetings and wish I could be in town when everyone can finally meet in person again. 🍷

2020 SCHOLAR UPDATE

By Harrison Pulido

I FLEW MY FIRST SOLO FLIGHT on February 24, 2021. Since then, I have had two other gratifying solo flights. My first solo was exhilarating and sunny, literally, which is a rarity flying during the winter. Before my flight I was nervous but felt prepared. Flying has become an important part of my life. As I was taxiing next to the ramp on my way to do another lap in the pattern, I heard my flight instructor say, "You can take a right here so I can get out." I knew I was ready.

My prior training had more than prepared me for this moment. I was so excited I even texted my family, "Going solo now!!" February 24th will be a day I will never forget. To this day, it has been my biggest accomplishment. I am blessed that I have had amazing support all around me. My second solo flight came a few days later, on a cloudy day where I stayed in the pattern and did three takeoffs and landings. Because of the less-than-ideal weather, I had the airport to myself, which was a nice added bonus. My most recent solo flight was out to Woodinville, where I did a steep turn and flew back to Harvey Field. Now, I am working on my cross-country flights, where I have gone to Bellingham and plan to fly to Orcas Island and Olympia.

I have everything I could ask for and I always look forward to flying. I can almost see the end of my training and the beginning of my next phase in the world of flying. 🍷

ENGINE FAILURE ON TAKEOFF

By Bill Lattimer

11/2/2019: DEPARTURE FROM S43, Harvey Field, for a local flight with a non-pilot passenger in my 1948 Ryan L-17B Navion. Standard preflight, run-up, and short-field take-off. Once positive rate of climb was established, I reached for the gear handle and suddenly...silence.

At 80 MPH and 100' the prop stopped with about 500' of runway remaining, leading to a fence and a busy road. With few options—too low and slow to turn and too low to clear the road—I pitched up to scrub airspeed to about 60 and then slipped hard to make the runway, landing firmly but making a turn-off about 10' short of the fence. The tech working the line had seen (and heard) the issue and was already on the way with a tug. A few minutes later, the aircraft was back in the hangar with both pilot and passenger a little shaken but unharmed.

Inspection of the Continental E-225-4 engine revealed that the occasional problems encountered with the starter failing to engage weren't about the starter—as the problem wasn't resolved after an expensive overhaul of the starter—but about the accessory case gear that engaged the starter with the crankshaft. The picture shows the damage. The failed starter gear jammed with the crank gear, shearing all five 5/16" bolts on the crankshaft and disconnecting the crank from the rest of the accessory case, including the fuel pump, magnetos, etc. This caused a full and immediate stop to the engine and broke the crankshaft at the front bearing.

As catastrophic failures go, this one was self-contained and fortunately happened while the aircraft could get down on a runway. It's an uncommon but not unheard-of failure for the gear-driven engine accessory case, which is a known weak spot for Continental engines. This is now an annual checklist item to inspect the case and details of the failure were shared with the Navion and Beechcraft communities that used the E-series Continental engine.

Now what?

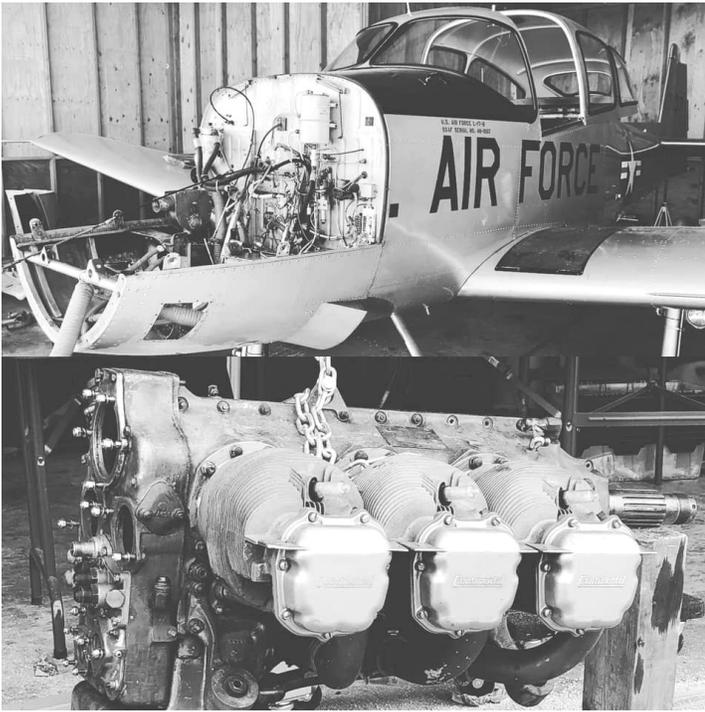
Faced with replacing the engine, there were four choices: 1) overhaul the broken engine or a suitable core, 2) find a used/serviceable replacement, 3) overhaul a stock E-185-9 engine as part of my long-term restoration plans (this was the original engine), or 4) upgrade to a newer engine. Far from being a straightforward decision, there were a lot of things to consider to help drive the right



Engine failure culprits—starter gear (left) and crank gear (right).

Photo: Bill Lattimer

THANK YOU TO OUR SCHOLARSHIP PROGRAM DONORS!



Bill's L-17B safely in the hangar, but disassembled. Photo: Bill Lattimer

choice. The E-series Continental is somewhat of an orphan engine these days. While parts are still available, expertise is getting harder to come by and the day when that parts bin runs completely dry is within view. At the same time, I had a virtually new prop which is unique to the E-series, so making a significant change meant doing a complete firewall forward, which was about a \$35k decision and completely counter to my passion to return the aircraft to stock configuration.

This narrowed the decision to keeping an E-series, but which one? I was collecting parts but wasn't ready to do all the work required to return the aircraft to stock configuration with the E-185 and I didn't want to invest \$30k in an overhaul of the E-225 which at some point I would be replacing, leaving a mid-time used E-225 as the best option. As Navion engine upgrades are extremely common, often the first change a new owner makes, there was no shortage of solid used E-225s at a reasonable price, around \$5k. A good one was found, crated, and sent on the way.

You'd expect that two engines of the exact same type would be completely interchangeable and a rapid swap. This was not the case. First, the replacement engine was correctly pickled and stored but hadn't been maintained to the standard I'd expect. This meant going through the engine piece by piece and replacing bolts, nuts, engine mounts, intake tubes, and ultimately one of the jugs. If you've never bought a nut from Continental, they're about \$8 each, and we needed a bunch of them. Bringing the engine up to snuff was about \$2k in parts and the same in labor. We tried to limit "while we're in there" work but it was the right time to overhaul the prop, and \$7,500 later the beautiful prop was sitting in the hangar.

Pushing through roadblock after roadblock, we fi-

nally hit a big one: Hartzell wanted \$2,700 *each* for the four bolts that held on the prop hydraulic control unit, with a year-plus lead time. I may have used inappropriate language to their parts person on the phone, especially when they declined to share the drawing. The community responded by digging into their parts bins, I was able to get some made by a local machine shop as an owner-produced part and we were back on track. As we started connecting accessories and lines, we found more differences in the engines, pushing through each one with creative drive and unique AN fittings.

Finally, the engine went back into the airframe, everything was connected up, and after three blades we had a good start! There were a few small squawks, but after five hours of run time on the ground and a little more than a year after the failure, an uneventful first flight was followed by another five hours of flight time with no issues.

Of all the lessons learned, the biggest one was to be well-connected to your type community. Time after time, the Navion (and Beechcraft, which also uses the E-series) communities brought expertise, guidance, support, and parts (!) to help move the project forward. We couldn't have done it without them or the outstanding support of Northwest Propeller and Logan Shepard of Normandy Aircraft. ✪



CWB member and Navion owner David Osgood helps new CWB member and Normandy Aircraft owner Logan Shepard install the new engine. Photo: Bill Lattimer

Stay Connected

Remember that our CWB family and resources are online while we're not together in person. Events calendar, past newsletters, conversation on Facebook, photos on Flickr, videos on YouTube—all at www.cascadewarbirds.org.



THIS PORTION OF THE STORY picks up with five civilian participants from the Arsenal of Democracy 75th Anniversary of V-J Day traveling to Pearl Harbor, Hawaii aboard USS *Essex* (LHD-2), a *Wasp*-class Landing Helicopter Dock, during Operation Opportune Lift as part of RIMPAC 2020.

0300 hours in my quarters aboard ship, in the forward portion which would normally have the US Marines Corps aviation officers. I was suddenly and abruptly awakened from my sleep when I feel myself rapidly becoming airborne in my rack as the bow of the ship descends back into the turbulent seas we encountered while heading southwest at fourteen knots. I had intuitively extended my right hand upwards to prevent my face from colliding into the springs of the empty bunk bed above me. Then I was firmly slammed back into my rack as the bow ascended in the next swell.

After thirty to forty minutes of being tossed about, I gave up, climbed out of bed, carefully got dressed, and went down to the officers wardroom, which was located more amidships and had some coffee. Right across the passageway on the starboard side was the captain's conference room, with a nice mahogany table and overstuffed office-type swivel chairs. There was a monitor/television there that had recorded programs and closed-circuit views from cameras at various locations aboard the ship. As I flipped through the channels, I found images near the bridge looking forward and watched the bow of the ship move vertically, showing only the sky, then descending into and seeing the sea come over the bow. The ride was much smoother in the conference room than it was in my cabin.

At 0500, the red lights in the passageway turned to white lights and crew activity started to increase as everyone scurried about to prepare for our first full day at sea. I went back across the passageway to the wardroom for breakfast. A Navy tradition dating back to the Revolutionary War is that officers aboard ship pay for their meals while the enlisted men and women are served free chow. There was a line of about fifteen to twenty personnel waiting and I had the good fortune to have the ship's captain right in front of me. He wel-

comed me and the others aboard and said we would have a briefing here at 0800 to introduce the ship's staff and give us the layout of the ship and rules for our time aboard. He also invited me to sit with him at breakfast. They were serving eggs cooked to order or scrambled, omelets, french toast, ham, and bacon. There was also cold cereal and oatmeal available for health-conscious individuals. All the food was very good and there was no shortage of any item. During the 0800 briefing, the captain introduced his staff and told the five of us we could roam about the ship anywhere except where the doors were marked accordingly.

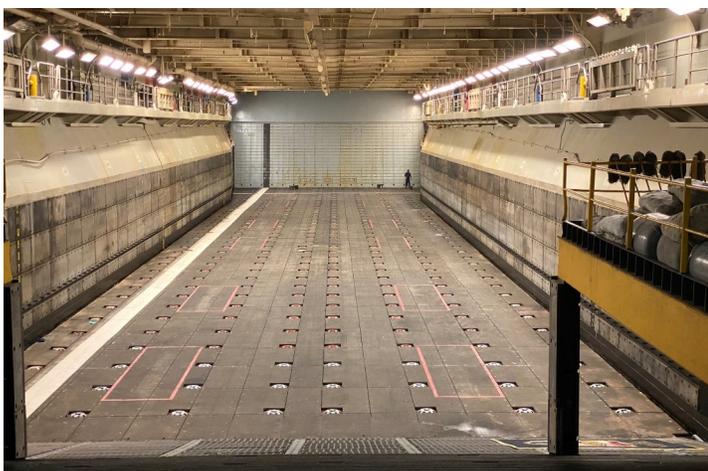
Immediately after the briefing, the five of us went up on the flight deck to check the status of the airplanes that were secured aft and behind the island. The seas had calmed down and the sun was out with a light breeze, plus the effect of the ship's forward movement. We were issued helmets and white float coats prior to going out on the flight deck. We were back up to thirteen to fourteen knots steaming SSW. Everyone checked the chains for security on the two PB-1Ws, three T-6s, and the B-25. We also inspected all the flight controls to make sure nothing was damaged in the rough weather the night before.

Prior to our departure, we were told there would be fresh water available to wash down the airplanes on the flight deck to rinse off the salt which would accumulate during the night. There was also distilled water available for the bare aluminum polished surfaces, which included the entire fuselage of the B-25. We asked one of the many chief petty officers who managed the deck crew and we soon had 150 feet of hose hooked up to the ship's water supply. We began to rinse each of the airplanes. It was very exciting to be on top of the PB-1W wing or going up the vertical stabilizer to rinse the tail section, as it was slightly hanging out over the rear port side of the ship. Between just enough pitching and rolling from the ship's movement and being up on the empennage looking all the way down at the deep blue Pacific Ocean, you moved very cautiously to avoid falling overboard. There was always a Navy H-60 helicopter standing by on deck with an alert crew for just that rea-

son, because the ship would not be able to stop for several nautical miles if you did find yourself in the water.

After we finished rinsing the airplanes, several of us did some walking on the 844-foot flight deck for exercise because the gym was closed due to the COVID pandemic. By the time we did our walk, it was time for lunch, so we all went down below, secured our gear, and made a beeline to the officers wardroom for chow. We had not even been on board twenty-four hours and already realized that everything on the ship revolved around chow time.

At lunch, several of us were busy scheduling visits to the various areas, compartments, and shops on the ship. We spent part of every morning and every afternoon exploring the different portions of the ship. Today, we went to the hangar deck to check on the remaining aircraft stowed there. There was a P-51D Mustang, TBM Avenger, F4F Wildcat, F8F Bearcat, two more T-6s, a T-28B Trojan, and a PT-17 Stearman. After we finished up on the hangar deck, we walked down the ramp on the starboard side to the vehicle storage area where we had come aboard. From there, we turned to right and approached the well deck, which is 266' x 50'



x 28' and would normally house three huge LCAC hovercraft that transport Marines and their equipment ashore. The entire aft end of the ship can be flooded at this level and there is a huge door hinged on the lower edge that opens hydraulically to allow the LCACs to launch out the stern. It was a deceptively huge area and we had difficulty gauging its true vast size until a sailor walked back and stood next to the huge ramp door.

After an afternoon of climbing up and down vertical ladders and exploring the ship, we went up to the observation deck on the island to watch two H-60 helicopters prepare for a gunnery training mission. The two helicopters were being prepared by loading .50 caliber, 7.62 mm ammunition for the door machine guns, and fuel. Both H-60s did a vertical lift off the ship's deck and then a lateral slide to port before dipping the nose of their aircraft to accelerate and fly away, climbing parallel to the flight deck.

Unfortunately, they went too far away for us to ob-

serve their gunnery training. While on the observation deck, we took the opportunity to visit the bridge and the air ops flybridge. All the crew members and officers were very friendly and professional, answering any questions we had unless, of course, there was a security issue.

After about an hour, the two H-60 helicopters called inbound. They approached from the stern on the port side and slowly made their way forward. Abeam their landing spot and matching the speed of the ship, they slowly moved laterally over the flight deck and set down. Once they were both on the deck, the H-60s were secured from flight status, rotors and tail folded, and stowed forward of the island. Only the standby helicopter was left ready to launch in case of an emergency.

We stood up on the observation deck, just taking in the view of the deep blue Pacific Ocean and discussing how amazing it was that we were on board a US Navy warship en route to Pearl Harbor, when we realized everyone else had disappeared. A quick check of the time solved the mystery; it was time for dinner.

We worked our way down from the observation deck to the officers wardroom and had dinner. Afterwards,



several of us went to the captain's conference room with a cup of coffee and relaxed. At 2000 hours, I went to my quarters and read for a while before falling asleep, hoping it was going to be smoother than the night before.

For the next nine days, we assumed the shipboard lifestyle of getting up at 0500, having breakfast, checking on all the airplanes, getting some exercise walking the flight deck, giving the airplanes on the flight deck a rinse every two days, then exploring some more of the ship before lunch. We were privileged to see the huge galley that prepared the food for up to 2900 sailors and marines three meals a day. We also saw the fridge and freezer, which were cavernous and filled with all the fruit, vegetables, chicken, meat, and fish for our voyage. After lunch, more exploring of the various ship's areas, including the engine room and propeller shaft room. We went forward to the anchor locker to see the two huge windlasses and were able to open a hatch and look down at the bulb on the bow of the ship as it sliced through the water. Then we went back up to the obser-



As we were transitioning into the harbor, the entire ship's company was on deck and ordered to attention with a hand salute as we passed by the battleships USS *Missouri* and USS *Arizona*. It was a very moving and solemn moment to think of all those sailors still entombed from the surprise attack on December 7, 1941 on the Pacific Fleet anchored here in the harbor. I had previously been to the USS *Arizona* memorial, but somehow it was a very different experience going by it on an active duty US Navy warship.

On the evening of the ninth day, the captain advised us at dinner that we would be arriving at Pearl Harbor in the morning. That evening, we all went back to our quarters to pack up our personal belongings so we would be ready to disembark in the morning. We were briefed that the two PBY flying boats would be placed in the water and taxi around to the north side of Ford Island, then take off and land at Honolulu Airport (PHNL). The rest of the aircraft would be placed by crane on barges, then transported towards the mouth of the harbor and lifted off the barges onto a pier that had taxi access to the tarmac at Hickam Air Force Base, now Joint Base Pearl Harbor-Hickam.

As I went to sleep on the last night aboard ship, I was very glad we had gone through the fourteen-day quarantine period back in San Diego so we could experience this amazing voyage aboard the USS *Essex*.

In the morning, we met in the officers wardroom. Several of us went up on the flight deck to see if we could make out any landforms, which of course would be Hawaii. As the sun started to rise in the east, off in the distance we could see Molokai on our starboard side and Oahu off our port side. We checked the airplanes and then headed down to enjoy our last hot breakfast. When we finished chow, we all went back up on the flight deck and saw Diamond Head off to our right. One hour later, we were at the mouth of Pearl Harbor and waiting for the harbor pilot to come aboard and bring us into the dock.

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The tugs tightened their lines on the big ship and turned us around 180 degrees in mid-channel and gently shoved us towards the dock, right in front of a huge US Navy fleet oiler. The lines were thrown ashore and we were secured to the dock. Soon, the cranes which were positioned on the pier placed the gangway up to the ship and several ground personnel came aboard to welcome us to Pearl Harbor.

Most of us who were on board with the airplanes stayed aboard and watched them be unloaded onto the barges for the short trip to the small pier at Hickam.

We went down below to our quarters to gather our gear and then headed down through the hangar deck to the vehicle storage area where the gangway was located, which led to the pier below. We requested permission to leave the ship and go ashore and were cleared to disembark.

Once on the pier, we were met by several members from the Pearl Harbor Aviation Museum who were to be our hosts and get us to our rental cars and hotel. Prior to stowing our gear in the car, we took a moment to look back at the ship. We were all very grateful to have had the opportunity to spend time among some of America's finest, the crew of the USS *Essex*. 🇺🇸

All photos: John "Smokey" Johnson



ART UNRUH MEMORIAL

By Brandon Edwards

IN MEMORIAM OF ART UNRUH, Nov. 10, 1922–Jan. 27, 2021. Our great friend and longtime Cascade Warbirds member, Art Unruh, B-17 silver star recipient, passed away at 98 years old on the morning of January 27th.

Many of us were blessed to have just celebrated with Art the week of his 98th birthday! At the Arlington Airport, in fine fashion and tribute, we enjoyed a parade and fly-by which included the beloved P-51 Mustang—from the Heritage Flight Museum, flown by Lt Col Greg Anders, USAF (Ret.)—and Cascade Warbirds pilots Tom Hoag, Bob Jones, and Alex Munro in their personal aircraft.

Art led a truly heroic and inspirational life! Art was an avid supporter of *Aluminum Overcast*, *Sentimental Journey*, and *Nine O' Nine* for more than two decades. He continued to docent at Flying Heritage & Combat Armor Museum until their closure under the COVID-19 stipulations. Art volunteered countless hours and gave special presentations for FHCAM, several area schools, local Civil Air Patrol cadets, Naval Sea Cadets at Naval Station Everett, many Cascade Warbirds gatherings, and so many of the Arlington Fly-ins, other local air shows, and beyond! He went back to Foggia, Italy in 2012 as a celebrated guest of magnate Mr. Bulgari, to the hometown of the co-pilot of that silver star mission, John Klette, then 100 years old. He also traveled to the National Museum of the US Air Force in Dayton Ohio, sharing history and his love for our country and her fundamentals across the ages.

Art shared about those fifty missions from Foggia, Italy in the 15th Air Force, just a few miles from enemy action and ground combat. As a former Staff Sergeant, Art wrote a wonderful accounting of his training, missions in the 32nd Bomb Squadron of the 301st Bomb Group and of life after the B-17 and becoming a private pilot. If you have not read or own *The Shadow Casters*, I encourage you to acquire a copy to read and gift.

I want to share this most valued quote from his book. “I continually think about and am proud to live in this country, whose trademark of FREEDOM is still a way of life. This freedom was bought as a result of the unselfish actions of a bunch of real proud KIDS who took care of an awful and ugly situation that, through no fault of their own, presented itself upon the world.”

Sharing a close friendship with Art, Cascade Warbirds Veterans Liaison Brandon Edwards records many pointed and exceptional moments with Art. When asked, “What has been your best mo-

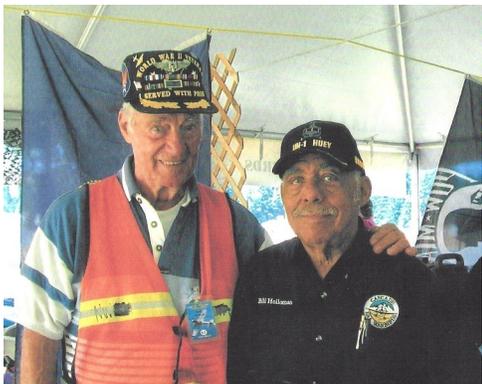
ment,” Art replied, “The completion of that fiftieth mission, that silver star mission. We were really shot up. I kissed the ground when I returned to it.” What do you want us all to know? “Life is precious.” What would you say is your best lesson or proverb to share with us? “What is life without friends and what are friends without life. ... Yesterday is gone, today is almost past, tomorrow is your future, take good care of today, do right and everything will be okay—that sums it all up!”

Art was a longtime resident of Arlington, Washington, helping to raise three children with his wife Maxine of forty-three years, until her passing in 1989. Many of us knew Art after that, as he shared twenty-five years with his second partner, Lee, until her passing in 2014. A sweetheart, Art continued in his love of life and people and shared a special bond and friendship with Saundra, who many of you met at one of the recent CWB Christmas banquets in 2016, 2017, or 2019.

His three children survive and have given Art eight grandchildren and twenty-three great-grandchildren, a legacy that continues to remember this special man and his love!

Stay tuned, the family and friends will hold a memorial service when improved weather and health concerns are more hospitable. At such a time, we would like to have a tribute that includes Art's friends in the military vehicle and warbird communities in celebration and tribute to this very fine example of the Greatest Generation—the man, the hero, Art Unruh! Condolences may be left at

<https://www.legacy.com/obituaries/heraldnet/obituary.aspx?pid=197685038>. ☘



Photos: Brandon Edwards, Sam Warren

[Cascade Warbirds member Jack LaBounty is working to restore a T-28A. He walks us through parts of the restoration process in this third installment.—Ed.]

HYDRAULIC SYSTEM

There should be concern when your aircraft's hydraulic fluid system indicates a weak pressure and/or experiences dribbling. In the case of my T-28A project, every hydraulic system aluminum line and hose required replacement. The hoses were probably the original hoses from the aircraft's date of manufacture. Besides the hoses being stiff, many of the hose ends were nothing more than aluminum oxide. Hoses can be ordered or made if a person has all the correct assembly tooling. All T-28 hydraulic hose assemblies follow the MS28741 "Medium Pressure Hose Assembly" and MS28759 "Hydraulic 3000 PSI Hose Assembly" specifications. Reviewing these standards is helpful in understanding how the length of a hose is determined. A person could easily end up ordering hoses that are too short. MS specifications can be found online at <http://everyspec.com/MS-Specs/>.

I ended up remaking all the original aluminum lines. Many of the aluminum lines had cracked MS20819 (AN819) flared tube fitting sleeves under the coupling nuts. At the time of manufacture, one of the AN819 fitting sleeve material types was aluminum bronze. At some point, this material type was dropped, probably because of cracking. I cannot say all T-28As have aluminum bronze AN819 sleeves, but the T-28B and C models appeared to have gone to all steel sleeves. The current MS20819 specification calls for the use of steel or corrosion resistant steel sleeves as a replacement for aluminum sleeves. Because of the aluminum bronze fitting sleeves cracking, I can imagine a lot of aircraft had hydraulic fluid leaks and the mechanic did not know why. The mechanic probably just tightened the coupling nut more, thinking it was loose, to only make the cracking worse.

Making the aluminum lines over again was a very time-consuming project. If a bend is made just a few degrees off, or if the clocking of a bend to the rest of the line is not correct, you get to start all over again. You cannot straighten a bend. I must commend the North

American engineers in the close tolerances required to route a line and have it fit correctly on both ends without stress on the line or fittings. All the components in the hydraulic system

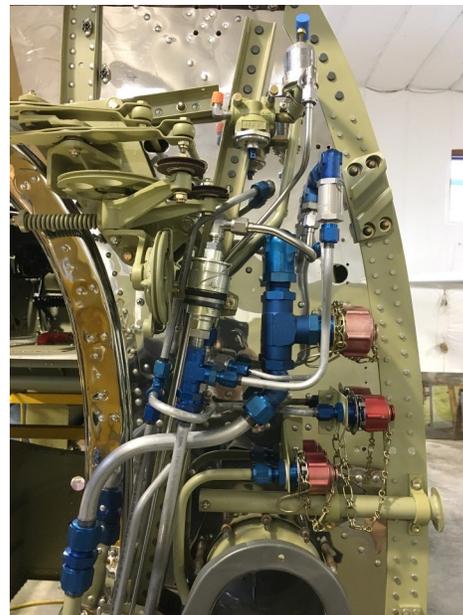
needed disassembly or replacement. There are two separate hydraulic systems in the T-28A: the canopy, flaps, landing gear, nose wheel steering system and the braking system. I left the nose wheel steering system off and will be going with the castering nose wheel as installed on the T-28B and C models. After looking at the condition of all the steering

electro-mechanical components plus hydraulic components, I thought it posed too much risk of failure. Also, in discussing the topic with a very knowledgeable T-28 mechanic and restorer, they had seen a number of steering failures that caused damage to the aircraft. You do not want to land with your nose wheel turned sideways.

We have to remember the age of the T-28 in its design and what was available at the time of manufacture. Hydraulic component O-rings are easily replaced, but any spring or electrical winding in a solenoid needs to be closely checked. I found broken springs in check valves and an electrical short in the wiring of a solenoid valve. The wire insulation on the inside of a component can become brittle over time and break down.

Originally, the auxiliary hydraulic pump was a hand pump with a handle on the left side of the front cockpit. So, in an emergency landing situation without the engine-driven hydraulic system pump operational, it is one hand on the stick, one hand on the throttle quadrant, and one hand to operate the auxiliary hydraulic pump. Personally, I have only two hands. Others recognized this problem and many T-28s have replaced the hand pump with an electric motor-driven auxiliary hydraulic pump activated by a toggle switch. I too, will be installing an electric hydraulic pump activated by the flip of a finger.

Fortunately, with digital photography and the availability of specifications for the hydraulic components, a number of the components are easily overhauled. I took many photos when disassembling a component for reference. I found you cannot take too many photos. We want to keep our fluids reliably flowing. ☺



The T-28 hydraulic system is not for the faint-hearted. Photo: Jack LaBounty



A simple component may be an assembly of many pieces! Photo: Jack LaBounty

JULY 4 FORMATION

By Stan "Sundance" Kasprzyk

AS THE FOURTH OF JULY (2020) APPROACHED, my fellow warbird pilot, JF Vallee, contacted me about an opportunity to honor some local veterans and celebrate the 4th in style. JF had been working with some residents in Sedro-Woolley, WA who were interested in sponsoring a flyby of the town on the 4th of July. JF had done a flyby the previous year but his wingmen from the past were mostly unavailable. JF reached out to me and a few of the local warbird owners and pilots and was able to assemble a five-ship for the event, designating us the "Wolfpack." Justin Drafts had graciously offered his Nanchang CJ-6 to the mix and wanted me to fly from the front seat for re-currency, with him in the back. Twist my arm.

Our July weather had started similar to most of June, with a cool onshore breeze bringing in low clouds on many mornings. Three of the five warbirds were based at Paine Field in Everett and, after pre-flighting our birds, we had to wait for over an hour for the IFR conditions to change and the low clouds to open up. I launched single ship in the 'Chang once marginal VFR opened up a hole to the north, and Justin and I cruised quickly along the Puget Sound shoreline to initial and a pitch out and smooth landing on runway 29 at Skagit, KBVS.

After parking on the Heritage Flight Museum ramp, Justin and I walked to JF's hangar where we joined the other pilots for the flight briefing. In addition, we met Korean War veteran Don Collen, who had helped coordinate our flyover with the Sedro-Woolley mayor and others. After a detailed briefing by JF, we started and the Wolfpack taxied as a five-ship. JF led in his bright yellow Navion, Justin and me followed in the #2 position, Dave "Guso" Osgood was #3 in his silver Navion, Tanner Matheny was #4 in his blue Navion, and Bob Hill was flying #5 in his IAR-823. We took off from runway 22, quickly joined up in a five-ship vic formation, and cruised under bouncy cumulus directly to Sedro-Woolley.

We were able to complete six separate passes over every portion of the small town of Sedro-Woolley, giving the locals a grand 4th of July set of flybys, and held decent formation even given the bouncy conditions and our relative rustiness. After the sixth pass, we reconfigured to echelon, cruised to initial at 500' over Skagit's runway 29, then pitched out to landing, looking good on the taxi back with five sharp-looking warbirds. At the debrief, Don Cullen called to say how much he, the mayor, and others had appreciated the flybys. Well done, Wolfpack!

Our sixth potential flier, Chad Hawthorne, had to drive to Skagit due to low clouds at his airport, but flew with Guso in the #3 slot to create an outstanding video of the event. ✪

Photos: Chad Hawthorne, Tanner Matheny, Stan Kasprzyk



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CHECK SIX



Lashing T-6/SNJ's to the decks of aircraft carriers dates back to WWII. Here, SNJ trainers are tied down on USS Wolverine, a training carrier, on Lake Michigan in 1942. USS Wolverine and USS Saipan, converted side-wheel steamers, trained some 17,000 pilots and landing signal officers.

Photo: US Navy, https://ww2db.com/image.php?image_id=19873

UPCOMING EVENTS

As restrictions and good sense allow, the Board aims to hold social events which will include airplanes and BBQ. The 2021 airshow calendar is still changing too often to publish here.

Our full list of events and their status is updated regularly on our calendar at www.cascadewarbirds.org/events. Check it for updates, which are likely.

April

24 Fly-in BBQ, time TBD
Bremerton National Airport /
KPWT (Bremerton, WA)

June

TBD Fly-in BBQ
Anacortes Airport / 74S
(Anacortes, WA)