



# UN-SCRAMBLE



The Official Newsletter of the Valiant Air Command, Inc.  
6600 Tico Road, Titusville, FL 32780 - (321) 268-1941  
website: <https://www.valiantaircommand.com/>  
email: [warbirds@valiantaircommand.com](mailto:warbirds@valiantaircommand.com)

1st Quarter Review • January, February, March • 2024

## Tico Belle has a problem and bicarbonate of soda is the cure!



**See page 4 for the rest of the story**

### MUSEUM AND GIFT SHOP - OPEN 7 DAYS A WEEK - 9 AM TO 5 PM

Closed Thanksgiving, Christmas and New Year's Day

Adults \$22.00 - Senior 60+ or Military \$20.00 - Students 13 to 18 years old \$10.00

Children 5 to 12 years old \$5.00 - Children under 5 years old FREE - Special Group Tour Rates Available

#### *Statement of Purpose*

*The Valiant Air Command Inc. was formed to perpetuate the history of aviation, to encourage gathering of men and women in camaraderie, research and Warbird restoration, to serve as an educational tool for young and old alike; and to assure that the memory of those who gave their lives in service to their country shall not perish.*

501(c)(3) Non-Profit Organization Museum Recognized by the Internal Revenue Service

## Future Events • April, May, June • 2024

Apr 13	Fly-In/Drive-In Breakfast 8-10:00 am	June 8	12 Noon, VAC BOD Meeting
Apr 13	12 Noon, VAC BOD Meeting	June 14	Flag Day
May 11	Fly-In/Drive-In Breakfast 8-10:00 am	June 16	Father's Day
May 12	Mother's Day		
May 14	12 Noon, VAC BOD Meeting		
May 18	Armed Forces Day		
June 8	Fly-In/Drive-In Breakfast 8-10:00 am		

*Please check the VAC website or with the event for last minute changes before going!!!!*  
[\(https://www.warbirdairmuseum.com/\)](https://www.warbirdairmuseum.com/)



### Commander's Report

**Norm Daniels, Commander**  
**Email: [Commander@valiantaircommand.com](mailto:Commander@valiantaircommand.com)**  
**(321) 268-1941 ext. 4101**



1st Quarter - Jan, Feb & Mar • **Submission deadline - Mar 24th** NL Published - April 1st  
 2nd Quarter - April, May & June • **Submission deadline - June 24th** NL Published - June 30th  
 3rd Quarter - July, Aug & Sept • **Submission deadline - Sept 24th** NL Published - Sept 30th  
 4th Quarter - Oct, Nov & Dec • **Submission deadline - Dec 22nd** NL Published - Dec 31st

Editor: Phyllis Lilienthal  
 Unscramble Crew: Louise Kleba and Lorraine Juhl

Photo Credits: Bob Boswell, Norm Daniels, Marvin Juhl,  
 Lorraine Juhl, Phyllis Lilienthal, Hawk Moore,  
 Christine Reynolds, and Larry Titchenal

Please note: Items submitted after the submission deadline will not be published or will be published the next quarter if applicable.  
 The Editor reserves the right to not publish submitted items.

To: Members, volunteers, and friends. The first quarter of 2024 was a record 1st quarter with visitation increases vs a year ago. The Valiant Air Command, Inc. Warbird Museum is becoming a destination stop for in and out of County visitors. We believe our aggressive advertising and marketing on social media platforms plus an improved user-friendly website are the reasons for visitor increases.

Event Center/Hangar Project Update: On March 21, 2024, the Development Review Committee held at Titusville City Hall Council Chamber cleared the waiver requests in a favorable unanimous vote thus granting a permit. The next required step is to attend a preconstruction meeting with the General Contractor and members of the Titusville Development Review Committee which is in the process of being scheduled. We ordered the steel girders and related steel support materials several months ago as they are long lead items. These items are scheduled for arrival in mid-April.

A new roof will be installed over the Low Metal Roof that covers our lobby, gift shop, memorabilia area, and the second floor and will match the new TPO roof recently installed over the Main Hangar. The insurance company's assessment determined that the leaks were not caused by hurricanes; the decades-old roof is long past its service life. The repairs made over the years were temporary. Continuing leaks have caused damage to some artifacts, ceiling tiles, and electrical fixtures. The cost for this new roof is \$117,635 and will be completed in early April. We are asking for donations to help defray this cost. Note that your donation is tax-deductible; we send you a letter acknowledging your donation to the Valiant Air Command, Inc., a 501 (c) (3) Corporation.

The Board of Directors and volunteers have been especially busy this first quarter. Bob Boswell, Executive Officer, along with Jolene Clark, Event Manager, has been engaged with event bookings and

Bob is preparing for our 2025 Airshow here at TICO Airport. He will be looking for volunteers to help mount an exciting show. Tracy Bohrmann, Finance Officer, continues her complex fiduciary role ensuring that all financial issues are handled following changing requirements. Leigh Lewis, Flight Operations Officer, has our C-47 flagship Tico Belle booked for several parachute drop events and appearances at various venues. Richard Jones, Personnel Officer, along with Louise Kleba, Recording Secretary and FAST Manager, handles many complex issues dealing with volunteers, staff, IT solutions, and upgrades along with maintaining databases and programs. Marvin Juhl, Procurement Officer, and Restoration Project Manager, continues to complete complex restoration projects with a stellar team of volunteers. About to come out of restoration for display are two aircraft: 1. Fouga Magister CM-170 and 2. Cessna 337 Skymaster. Both aircraft are unique warbirds with fascinating histories. Christopher (Hawk) Moore, Facilities Officer, manages the many tasks of keeping our building issues corrected, equipment maintained and repaired, special projects, and orchestrating aircraft movement for events.

David Shores, the Marketing and PR Officer, is responsible for the timely advertising in various publications as well as timely Press Releases to the media about upcoming museum activities. He also creates and funnels information to Richard Jones and to volunteer Martin and Terri Pring who are responsible for developing and maintaining our new *Continued on pg 3*

# Commander's Report

Continued from pg 2

website. Terry Rush, Maintenance Officer (currently on medical leave), is the one responsible for verifying that our flying aircraft continue to meet all FAA requirements and directives, including maintenance of Logbooks, pilot certifications, equipment repair, and maintenance documents, and that required, 25-, 50-, 75- and 100-hour inspections are made. Until Terry returns, Leigh Lewis and John Mackinson are filling in.

Malcolm Cater, Curator, and Christine Reynolds continue to enhance our memorabilia displays, constantly updating and identifying these artifacts, The constant attention to detail is what makes our displays so unique.

Our STEM program for young people continues to be especially successful due in large part to Dan MacAlexander and Lewis DePaemelaere introducing new "hands-on" projects. Our 3D printer addition continues to be a hit with students. We have many

requests from parents wanting to enroll their children in our Saturday programs. There is a waiting list.

Maureen Larney, Manager, and the Gift Shop Staff continue to excel in sales and new item introductions to stimulate sales. This quarter saw sales increases. We receive comments about the quality of our sales staff and how helpful they are to visitors and their guests.

Our Tour Guides/Docents deserve special thanks for engaging with visitors in answering questions about our aircraft collection and aircraft history. We have received numerous letters and emails noting how accommodating and informative this group of volunteers "made their day".

Phyllis Lilienthal, longtime editor, photographer, and formatter of the Unscramble is moving to Vero Beach to be closer to her family. Her talents and skills will be missed. In the interim, she will work with Terri Pring who has volunteered to take on this task. The Board of Directors thanks you for your service.



## Finance Officer's Report

Tracy Bohrmann, Finance Director  
Email: FinanceDirector@valiantaircommand.com  
(321) 268-1941

We have had a tremendous start to 2024. Attendance is up compared to last year and our revenue is up as well.

A big expense coming up is the lower main hanger roof, which was not included in the main hanger roof replacement. It is well past time the roof gets replaced to protect the artifacts inside. This project should be completed this month.

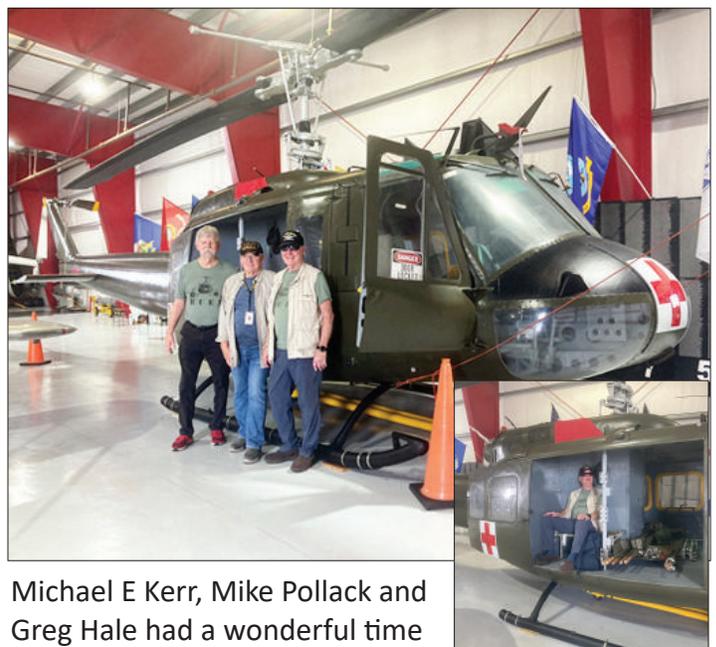
The C-47 has been up and flying for various events, most recently in Palatka dropping static line jumpers every weekend for three weeks. She recently had a \$22,000 overhaul of her interior to remedy corrosion that was starting up and improve the overall look of the interior.

One of the most important missions of the museum is to maintain and improve this piece of history for the next generation. As such, the museum routinely incurs substantial costs to keep this aircraft flying and keep the legacy of the men who flew her alive.

As Norm mentioned, the permit from the City of Titusville has finally been approved for the Events Center expansion. We are looking forward

to beginning construction on this huge step in the VAC's growth as a museum. This project has support from the Brevard County Board of Commissioners as well as the North Brevard Economic Development Zone, but even with financial support, we will need additional funding to complete the project, so any donations for this would be greatly appreciated. All donations are tax-deductible.

## 21 Signal Group Aviation Gunner Visits VAC



Michael E Kerr, Mike Pollack and Greg Hale had a wonderful time visiting with our Huey helicopter

*A familiar seat*



## Procurement Officer's Report

Marvin Juhl, Procurement Director  
Email: MaintenanceDirector@valiantaircommand.com  
(321) 268-1941 ext. 4108

### UPDATES to Restoration / Preservation Aircraft

**C-47:** A long overdue time waiting to have its interior corrosion removed and its preservation for the C-47 long-term continued use. To meet the long overdue preservation, the interior needed to be prepared properly to receive a protective coating that would adhere to the surface for any type of abuse that comes its way. So under extensive research, what would be considered to be the best option in removing light surface corrosion and old paint? SODA BLASTING, it's a new type of blasting that uses sodium bicarbonate as the abrasive. Using sodium bicarbonate has been shown to remove specific contaminants from surfaces effectively. Baking soda is much softer than sand, which means it won't damage delicate surfaces like aluminum. To work in the closed area of the C-47 cargo/jump area we needed to suit up the volunteer men in white suits that made them look like CASPER the friendly ghost (?) and the headgear for breathing apparatus that had to come from the movie of Voyage to Atlantis, and yet while working inside (IFR conditions) with no air conditioning, but there were cool weather days.



After several days of soda blasting, which the baking soda is everywhere, I mean everywhere, the baking soda had to be washed from the aircraft interior and exterior which took several washes with not just plain water, but with uncontaminated clean water that had to be brought in by large containers. After the assurance that all was cleaned and rinsed

thoroughly, this brings us to the next step. Some sort of etching must be done before applying Alodine or priming to remove aluminum oxide. Alumiprep was our next step and was applied on all aluminum surfaces and rinsed off again with uncontaminated water. Alumiprep is used to deep clean and brighten aluminum to prepare the surface for subsequent conversion coating.

This now brings us to the next step, Alodine. Alodine is a chromate conversion coating that protects aluminum and other metals from corrosion. The goal is to obtain a water-break-free surface. After application, again, yep you guessed it, another rinse with uncontaminated water.

That being completed, the next step is to protect one's hard work. Spray painting the interior with two coats of Epoxy Primer. To do this step, one has to be suited up again to prevent breathing in all that mist from the spray. You certainly would not want all that spray mist coating in the interior of your lungs.



The final stage in this process means we can't get rid of those ridiculous white Casper tuxedos or the Atlantis breathing apparatus. What final color is to be selected for its final overlay *Continued on pg 5*

# Procurement Officer's Report

*Continued from pg 4*

color? After a long discussion from the start of this project, a color was finally selected. Two coats were made for the final conclusion of the restoration/preservation of the interior cargo bay.

Well, that was really not the final stage, so you can imagine that a lot of preparation was needed before commencing the project. Such as the removal of seats, floor decking, hardware attachments, etc. plus taping up the areas that require protection, like plexiglass windows, and covering areas for overspray on the aircraft. Plus a monkey wrench was added during this project, and a 50-hour inspection requirement needed to be accomplished. As you might imagine a lot was done in three weeks to this project, without a doubt this was not as easy as one would think. A lot of hard work and sweat took place which at times it seemed to be unattainable to reach its deadline. John Makinson led the project, with multiple volunteers assisting him and Larry Mathis overseeing the painting application to accomplish the unthinkable timetable allotted. We made the deadline by two days where it needed to be in Palatka for parachute jumps for the following three weeks. One and all must drop by to see this magnificent accomplished project and to see the color selection.

**Fouga:** In its final stage of completion, which means it's 98 percent complete with 99 percent to go. It is expected to roll out sometime in April. The canopy plexiglass is being fitted to the cockpit frames and the sealing of all cockpit glass. The interior cockpit panel and instrument panel require installation. Control surfaces require installation of special size bolts for all its hinges, 80 percent complete. We also plan on changing the main landing gear tires which we have on hand. Before the rollout, minor touch-up paint will be needed. The aircraft is covered to protect its surface while it is in the hangar. Will do a write-up on her in the next Un-Scramble with photos. This aircraft will amaze you with its complete makeover.

**Cessna 337:** It looks like this aircraft will be rolling out before the Fouga. Aircraft exterior painting is completed other than minor touch-ups. The big job now is installing all the cowlings and the multiple access panels which are never-ending,

unbelievable numbers of access panels. All landing gear bearings need to be greased. The interior requires installing the missing instruments and the installation of the three seats, The final marking will be the step. More on its history in its covert operation in the next VAC Un-Scramble

**April Aircraft Incoming:** Fokker Tri-Wing Dr.1, often known as the Fokker Triplane, will be displayed in the main entryway. The engine will be displayed as well. An original rotating engine from WW1. In other words, the engine rotates with the propeller.



Also, authentic-looking guns are mounted on top. This is one of the best authentic-looking Fokker.



The Dr.1 saw widespread service in the spring of 1918. It became famous as the aircraft in which Manfred von Richthofen gained his last 17th victory in which he was killed on 21 April 1918.

**MQ-1 Gray Eagle Drone:** On loan from the US Army is the MQ-1 Gray Eagle Drone, currently being demilled and crated for

*Continued on pg 6*

# Procurement Officer's Report

Continued from pg 5

shipment to VAC. Gray Eagle is a medium-range, long-endurance unmanned aircraft (VAS).



Specifications: Length 28 ft, Wingspan 56 ft, Height 7 ft, Max takeoff weight 3,600 lb, Max speed 192 mph, Endurance 25 hours, Service ceiling 29,000 ft. A full history is needed on the VAS. The full research will most likely be done after the drone is delivered to VAC.

**C-47 Left Wing:** A left wing is needed for the new Event Hangar for an overhead walkway cover into the main entrance of the hangar. A left wing has been found near Deland, but it will need to be looked at to see if indeed it is in good enough shape for the crew to give it TLC for it to fit VAC purposes. If so, then it needs to be obtained and brought in ASAP to restoration for preparation.



*Fougia is ready*



*Cessna being painted*



## P R Officer's Report

David Shores, Public Relations Director  
Email: [David.Shores@valiantaircommand.com](mailto:David.Shores@valiantaircommand.com)  
(321) 268-1941 ext. 4106

Yelp report for our ad last month: 145K impressions, 617 page visits, 141 leads, and 349 clicks on our website.

We are earning \$500 to \$1000 per month from Groupon.

TUI continues to send us 5 to 10 visitors a week.

Our admission tickets are now being sold at ITT (Information, Tickets, and Travel) at Patrick Space Force Base.

Our ad appeared in Florida Today yesterday and in the latest edition of Viera Voice.

We have approximately 20,000 followers on Facebook.

Roberta Caruthers, The Chief of Collection

Management at the National Museum of the Air Force at Wright Patterson, spent a morning touring our museum last week.

2023 attendance was 29% ahead of 2022.

The 2024 Airforce Symposium will be in Tucson in November 2024, hosted by the Pima Air Museum and put on by the Air Force Historical Foundation.

We are in final discussions with the Army for their donation of a Gray Eagle drone.





## Facilities Officer's Report

Hawk Moore, Facilities Director  
Email: Hawk.Moore@valiantaircommand.com  
(321) 268-1941 ext. 4105

The Facilities Team continues to support event setup, aircraft movements, aircraft restoration/maintenance assistance, event teardown, aircraft movement back into the hangars, facilities infrastructure work, and support to other VAC teams. Tom Etter, David Shores, Terry Nies, Roger Tonovitz, Joel McGinley, Jim Bowers, Larry Dickinson, Greg Goetz, Curt Reus, Rob Shaw, Charlie Meyer, Tom Wilke, Jim Grammatico, and new guy Steven Ozier provided excellent support to the team and museum over the past quarter.

The large events over the past quarter were January, February, and March Fly-in/Drive-in Breakfasts, First Tech Challenge Tournament, National Corvette Museum Tour, and National Warbird Operator Conference (NWOC) Training sessions with SNJ/T-6, B-25, T-28 and P-51 aircraft, Colonel Harman Cole Talk to the Daughters of the American Revolution, Bloom Beautiful Academy, FDOT/CFASPP Meeting, In Bloom Academy Tour, Conway Middle School Tour, Florida Prep School Tour, Flagler County Homeschool Group Tour, Astronaut High School Prom, and the Old Farts Flying Club Fly-in.

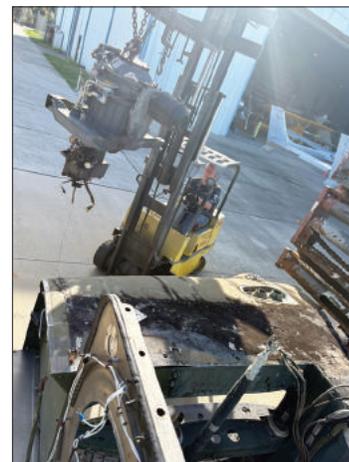
Hopefully, by the publishing of this Unscramble, we will have a new low roof installed over the Memorabilia/Gift Shop/Offices/Library. It is long overdue since this is the original roof when the facility was built in the mid to late 1980s.



**Gorton's Fisherman (Charlie Meyer) visits VAC to Clean rare metal C-47 Jump Seats**

Tom Etter, David Shores, Rob Shaw, and Steven Ozier fixed and reinstalled the S-2 Tracker main wheel/tire.

Terry Nies led the team of members to get the Big Bertha tug running to move the C-123, re-inflated the Me-208 nose wheel, and moved the A-6E, F-4, and XP-82 so Roger Tonovitz could replace three additional metal halide fixtures with LEDs in the Vietnam Hangar. Curt Reus and Tom Etter made the necessary changes to the fixture rods for Roger. Tom and the team fixed the B-57/TT.18 Canberra entry door that was swinging in the wind on the South tarmac. Roger and Joel are checking the recurring burnt power cord issue during our fly-in/drive-in breakfasts.



**Greg Hale removes the Huey transmission**

Greg Hale and Mark Biro removed the Huey carcass transmission for possible resale by the museum. The Huey carcass will be recycled for VAC revenue once additional parts are removed.



**Tom Etter, Terry Nies and Steven Ozier work on Mig-21 nose wheel rim**

Previously, Terry led the team to break down, sand and refinish the MiG-21 rim (Larry Mathis/Tom Wilke prepped and painted the rim), installed tire on rim, and then remounted the tire on the MiG-21. As with the main tires, the process was quite tough to do, but after working through many issues with the nose wheel fork and assembly, the airframe is ready to be moved to Restoration. Terry also led

*Continued on pg 8*

## Facilities Officer's Report

*Continued from pg 7*

the effort to re-do left main tire on the OV-1 Mohawk. Tom Etter, Rob Shaw, and Steven Ozier remounted the wheel/tire. The Mohawk can also be moved to the Restoration Hangar for restoration.

David Shores brought in Mark Hopkins to demonstrate a Hunter TCX-53 tire machine to the team. While impressive, the machine is expensive and the injury risks are too great for untrained personnel using the machine without trained supervision. We decided not to purchase it. David found C&L Towing in Titusville who will remove tires from rims for us at a very reasonable price (\$30). The Mohawk main tire was removed from the rim by C&L for free before being rebuilt and remounted. Hawk Moore was able to dispose 28 tires at the dump.

Roger Tonovitz was able to replace five additional metal halide fixtures in the Vietnam Hangar. Curt Reus and Steven Ozier cut and drilled the metal hangars to Roger's specifications. Roger also replaced the remaining fluorescent lights in memorabilia with LED lights after removing the ballasts and rewiring the fixtures. Roger also installed an additional line and wall socket for the simulators in memorabilia.

with aspects of the C-47 inside restoration, periodically moving the aircraft and cleaning of the aircraft exterior. Curt and team assisted with getting Restoration Hangar cleaned and re-organized for C-47 work (the SSBD F-5 was moved back outside during that effort). Curt Reus pressure washed the flooring before it was reinstalled into the refurbished inside of the C-47 fuselage. Curt Reus, Rob Shaw, David Shores, and Steven Ozier reassembled the Doug Matthews donated desk in the conference room. The following week, much of the same team and Jim Grammatico and Tom Etter disassembled the desk and reassembled it for Norm's office desk. It was a full team effort.



**Joel McGinley replaces Zamboni batteries**



**Tom Etter, Christine Reynolds and Curt Reus clean the Replica 1907 Epps Flyer**

Tom Etter and Curt Reus led the team in the movement of multiple aircraft in the Main Hangar to move the FM-1 Wildcat from memorabilia to the Main Hangar. The team lowered the 1907 Epps Monoplane Replica and cleaned it while Roger installed the LEDs high in memorabilia. Memorabilia is being readied for a Fokker Dr.1 once the lower roof work is completed.

The team assisted John Makinson and his team

Joel McGinley continues to do miracles with our fleet of VAC vehicles. Man-Lift: Joel installed a new starter in the manlift; the starter was covered under warranty. Utility Golf Cart #33: Joel repaired from "Won't go" by replacing main solenoid and cables to/from with on-hand parts. The solenoid was burned and wires burned/corroded. Later, when advised of a brake concern and pedal nearly to floor, he found right side was okay but on the left side, both shoes were debonded and crumbled. He was able to get one pair only and installed/adjusted. Tug #1 (gray diesel): had no brakes, pedal to floor since 5-12-2022. Joel removed, honed, and rebuilt the brake master cylinder with a kit from "TOPS" in Pittsburgh, PA (\$64.40 w/ shipping; only place in entire U.S. with parts for this master cylinder). It now has a firm pedal and brakes. It has been tested and Jim Bowers assisted Joel with cleaning and readjusting the parking brake. Factory Cat #34 "Zamboni": checked scrub disc drive motor - found burned/corroded wires and two stuck motor brushes. One new brush installed (one more on-hand); the rest cleaned/repared. New vacuum hose *Continued on pg 9*

## Facilities Officer's Report

*Continued from pg 8*

from squeegee to tank; the old one was brittle/cracked and losing vacuum. Also added a new hose inside the tank. Two new tires ordered/received but not yet needed. Greg Goetz reported cleaner only lasting 20 minutes at the time. Joel last replaced batteries 2 years ago with AGM batteries that should have lasted longer. Joel replaced the batteries with standard wet-acid batteries. Two Donated Mobility Scooters (from DAV): batteries removed/checked/charged. Big scooter is for a quadriplegic; we don't need it. Ron Hull and Tracy Bohrmann are looking for the next home for it. Batteries are recent (10-2022) and charged. Joel did not try to operate it. Small scooter is Jazzy - one battery charges, one barely charges. Did drive okay but only showed 1/4 charge/range. We had two smaller scooter batteries; Joel installed and should have more range. Joel added last of "diesel biocide" to prevent algae in fuel to all diesel tanks except Tug #9 Pettibone, which is at FBO. Bought new bottle; need to add some to Tug #9 and fuel in jugs. Restoration Air Compressor: per John Makinson's request, Joel ordered but has not received new V-belt for the middle compressor. 6-Pax Golf Cart: Joel, Curt and Steven worked the brakes and jumpy accelerating issue.

Jim Bowers removed the generator in motor pool from the trailer onto his personal trailer and purchased it for home use (VAC decided we did not want it even though Jim rewired it, cleaned it, mounted it on a trailer, and got her running). The old trailer is currently stored under one of the C-123 trailers behind Restoration and is ready for Marvin's antenna mounting project. Jim and Hawk looked over the Air Boss trailer. It can be brought back in operation by replacing the announcer platform raising cable system and some of the wood. Since most of the Air Boss trailer is aluminum and in good shape, it would be relatively easy to accomplish. Norm is considering whether we want to put in the effort to restore it to full use. Jim and Hawk are also looking to shore up one of the C-123 semi-trailers behind Restoration. Some of the tires are flat and the trailer is listing slightly. Weeds and underbrush have been removed from the area.

Hawk Moore, Malcolm Cater, Christine Reynolds, and Jack Bradford removed the Fokker biplane model from the SW corner of memorabilia and cabled it in the NE corner of memorabilia using the Genie lift. Jack and Hawk hung the C-47 model over the simulators to Mel

Juhl's specifications. Malcolm and Hawk also added another cable in the NW corner of memorabilia for another model later.



**C-47 rehung model over simulators**



**Fokker Biplane rehung in Memorabilia**

Hawk Moore, Tom Etter, Tracy Bohrmann, and Steven Ozier hoofed 16 chairs up the emergency stairs and into the conference room and then assembled the chairs (Tom Etter did the last four, the day after). They removed the old conference room chairs with the assistance of the Restoration Team and placed them in Motor Pool for pickup 6 March 2024. Bob and Sandy Boswell picked out the chairs and Sandy butt-checked them for the final two types of chairs that were purchased.



**Roger Tonovitz working on LED light on Main Hangar**

Roger Tonovitz fixed a faulty wire in one of the NE west-facing LED lights and installed two additional LED lights on SW and South walls outside the Main Hangar. Roger rearranged and organized the motor pool toolbox. The team moved the working dog-tag machine from motor pool to the memorabilia area in the Main Hangar. The team, with the assistance of Jack Bradford and Malcolm Cater, moved the VAC founders bricks board from memorabilia to inside the main hangar.

*Continued on pg 10*

## Facilities Officer's Report

Continued from pg 9



**Greg Hale Secures Parachute Wall**



**Parachute Wall for MASH Diorama**

Greg Hale and Hawk Moore installed the parachute behind the Bell 47/Ambulance MASH diorama. Hawk Moore repaired the B-52 access door handle. The network rack in the back of motor pool was moved to the library for safe keeping for future use in the new Events Hangar per RJ Jones' request. Two Huey skid dolly assemblies were moved to Restoration for possible rebuilding/parts use. The B-24 propeller was moved from the memorabilia area access door and installed with molly-bolts to the back wall above the founder's brick frame with the assistance of Jim Grammatico, Jack Bradford, and Steven Ozier. The propellor is safety-wired to the hub for additional safety.

Joel McGinley has installed headlights, taillights, and reflector tape on three of the VAC golf carts. This involved having to run new wiring in almost all cases. **Golf Cart drivers need to be reminded that VAC golf carts ARE NOT to be driven on Tico Road.** They cannot be legally driven off the VAC campus. On the big diesel tug, Joel added power steering stop-leak and topped it off with power steering fluid. He filled the tires to 100 psi, drove front to back a length and steered left to right, watching for leaks. Joel got the silver "Air America" tug working well. The battery cables and ground to block were corroded. He cleaned and re-gapped the plugs and removed the starter and cleaned the solenoid. Larry Dickinson reports the tug is starting the working well. Joel found a wiring issue with the cigarette lighter in the pickup truck. He moved the solar panel plug to a separate power outlet.

Jim Bowers welded up two additional engine stands with wheels for the Restoration Team.

Joel installed two new solar battery chargers on the off-road forklift. Gattos came and fixed the right-rear rim ring that had separated on 11 January. The ring had to have corrosion cleaned up before it would seat

properly. The team is working to ensure tire pressure of 45 psi is maintained with all four tires.

Terry Nies, Tom Etter, and various members of the team replaced the T-33 nose tire as well as the Mig-21 main tires. On 6 February, after numerous issues, the Mig-21 nose wheel/tire assembly was removed. A bar was fashioned to use with the press to remove the corroded axle from the wheel.

Tom Wilke continues to do a superb job with mowing and weed-eating the entire lawn along with his Restoration duties. Greg Goetz continues to do a great job with cleaning our facilities and opening and closing.

I've probably missed some items and support. Thanks to the team for picking up the pieces while I was out of town on several occasions. The entire team continues to do yeoman's work supporting the entire VAC mission.



**Curt Reus in his M2 Half Track**



**Greg Goetz, Curt Reus, and Tom Etter pulling P-51 Ain't Misbehavin' to main tarmac following NWOC event**



**Hawk Moore and Robert Varney in Robert's Stearman at Warbird Round-up at Leeward Air Ranch**

SCIENCE • TECHNOLOGY • ENGINEERING • MATHEMATICS

# STEM

*Louis DePaemelaere and Dan McAlexander, STEM Coordinators*

Greetings from the Valiant Radials! The 2023-2024 session of the museum's S.T.E.M. Program has been in full swing since Sept of last year and we will be concluding our fifth year at the museum this coming May. Myself and Dan McAlexander took over as S.T.E.M. coordinators last summer and replaced Kathy Lowe when she took a job in another state. When the session started, we had 8 kids return from the previous year and have gained many more students over throughout the year. All of the students have been enjoying the classes and have been learning quite a bit of information.

The 2023-2024 session started with a presentation from Ms. Lauren Chu who is a Mechanical Engineer at the Jet Propulsion Laboratory in California. Ms. Chu worked on the Perseverance Mars rover and Mars Sample Return mission and the Psyche mission that launched from the Kennedy Space Center back in Oct 2023. Other presentations included a few lectures that covered my career in the United States Air Force as

an Air Traffic Controller while in the military and now as a civilian. Dan presented a talk about electronics and how to diagnose issues using various pieces of test equipment.

The S.T.E.M. program purchased three 3D printers at the start of the session and has been using them to create some small-scale aircraft for a museum project that will allow the museum staff to plan out where the museum's aircraft can be placed in the hangars or out on the ramps before having to move them for various events. The students have also had the time to get familiar with flying through the use of the museum's flight simulator. This activity seems to always be a big hit with the students. This year the students had the opportunity to work on 2 different multi-week hands-on projects. The first one was to learn how to solder by putting together various soldering kits and the other project was to build a robot kit that the kids can use to become familiar with robotics coding.

Dan and I are continuing to look for projects or speakers to present information on the various aspects of Science, Technology, Engineering, and Mathematics. We both look forward to building on what has been accomplished during this past year.

***Students and Instructors hard at work on soldering kits and robot kits***



# Curator's Corner

*By Malcolm Cater*

It has been a busy few months and the culmination was the lowering of the Epps flyer to the lobby floor. The Wildcat was moved to the main hanger and placed next to its companion, the Dauntless. When the Epps was down the fabric surfaces were cleaned, minor repairs were made to the fabric, and the tires on the main landing gear were replaced (bicycle tires fitted to existing rims). All this activity was in preparation for the arrival of the Fokker DR1 triplane.

With the scissor lift being available, the opportunity was taken to move the large Fokker DRV11 Model to the northeast corner of the main lobby adjacent to the World War I section. A large-scale model of a C-47 was mounted above the new simulator. Some overhead fluorescent lights were replaced with newer LED-type fixtures and bulbs. Many thanks for the assistance of Hawk Moore, Tom Etter, Roger Tonovitz, Christine Reynolds, Jack Bradford, and Gang.

Donations have been coming in at a steady stream and some nice limited edition prints of World War II aircraft, some are on display in the lobby and the break room.

A rare Japanese handheld aerial camera was also donated, this dates back to the 1940s and only about 1500 were produced. It was produced by the predecessor to Konica.

A new flip chart has been purchased and is located in the Vietnam memorabilia room, and is in the process of being populated. Several visual and one audio display have been activated throughout the museum and have greatly enhanced the guest experience. Many thanks to Jim Grammatico for his efforts in making this happen.

Chip Chamberlain, modeler extraordinaire, continues with his work on renovating and repairing models throughout the museum.

Christine Reynolds, Jack Radford, and I are continuing to sort and catalog the various artifacts in storage in the library area. The library is still being sorted out and well over 150, surplus to requirements, books were donated to a local charity event.

Several duplicate uniforms have been given to the gift shop for sale and are selling very well, also surplus artwork has been given to the gift shop.

Finally, a shout out to Phyllis Lilienthal, Unscramble Editor for the past 11 years, who is retiring after this edition. Phyllis has kindly donated a lot of her office supplies to the Curator Department. Have a long and happy retirement and don't be a stranger.



**Getting new tires**



**Tom Etter cleaning the wing on the Epps**



**Roger Tonovitz installing new LED lights**



**A rare view of the top of the Epps' wing**



**Repairing damage to the cloth wing on the Epps**



## Executive Officer's Report

Bob Boswell, Executive Director  
Email: [ExecutiveOfficer@valiantaircommand.com](mailto:ExecutiveOfficer@valiantaircommand.com)  
(321) 268-1941 ext. 4104

We have had a terribly busy first quarter. Our daily museum attendance has been strong and multiple venue events have kept everyone racing to keep on track. Our 2nd Saturday Fly-In / Drive-In breakfasts continue to set attendance records. The Robotics Championship Events brought close to six hundred visitors to the museum. In February we hosted the National Warbird Operator Conference, bringing together members of the Warbird community to share common goals and issues. Breakout training sessions were held for several different aircraft. The Flying Club Fly-In on Thursday March 21 brought in seventy-two aircraft and Jolene served 141 lunches.

In the next quarter, I see group tours and events planned for every week. These activities are in addition to the robust flying our C-47 has scheduled helping to prepare the Paratrooper Reenactors for the 80th anniversary of D-Day in France. On Saturday July 6, from 4-8 pm the museum will again host the Coastal Auto Rally and Show. One of the premier events on the Space Coast. We will open the museum doors to the public at 4 pm with a reduced entrance fee to visit both the museum and the car show.

Looking forward to the March 15-16, 2025, AirShow at our own Space Coast Regional Airport, we hosted a planning session with the key members to structure the show. Everything is starting to take shape with the major performers already committed. Friday morning, we will host a Media Day and that afternoon open air space for performer practice with an air show participant and volunteer social that evening at the museum. Saturday and Sunday the public gates will open at 09:00 with the air portion of the show starting around 12:30. Shortly we will be contacting previous air show volunteers asking for a commitment for 2025. Those who have not helped in the past will be able to volunteer through our web. As we get closer, additional planning meetings and a public meeting date will be announced.

Elsewhere in this Unscramble I am sure that there will be an announcement about our receiving the final permit to begin construction of the new Event Center.



***Filling the Sodium Bicarbonate blasting machine***



***I to r: Peter Massaras & Bob Westerman  
installing new plexiglass on the  
Foga CM.170 Magister***

# VAC Happenings

*By Bob Boswell*



NWOC T-28 Training Class held by Jamie Trudeau



Tom Reilly holding class during the National Warbird Operators Conference the VAC hosted in February.



2nd Saturdays Fly-In / Drive-in Breakfast



VAC Refreshment Booth "Planet Mars" at the Titusville Chamber "Ride it Down" event.



Robotic Championship hosted by the Valiant Air Command in January



VAC Booth at Central Florida Honor Flight fund raiser in Orlando



**Workers hard at work prepping “TICO” for the final coating**



**Veterans Corner**



The Veterans Corner which was the brainchild of Melvin Juhl and Ron Hull has been active in our museum for over 1 year. It serves all Veterans that come in the front door, explaining benefits to those who served and their families. It has been manned by Charlie Conklin and others from the DAV located on Singleton Ave, Titusville on Tuesdays and Thursdays from 1000 - 1400 hrs. We are looking for more people to man the desk helping out our Veterans, so if you or someone you know might be interested in helping out let us know. Call the DAV on Singleton Ave, Titusville FL, 321-269-0109.

***Valiant Air Command, Inc.***

6600 Tico Road, Titusville, Florida 32780 – 321-268-1941

Website: [www.valiantaircommand.com](http://www.valiantaircommand.com) – Email: [warbirds@valiantaircommand.com](mailto:warbirds@valiantaircommand.com)