



# UN-SCRAMBLE



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

## 3rd Quarter Review - July, August & September 2017

### IRMA RECAP

Damage to the museum was minimal. A few of the roof panels on the southeast corner of the main hangar were peeled back and some insulation was lost. While water intrusion is evident in several places within the museum, no major damage occurred to exhibits or aircraft. Our main hangar roof antenna was crushed, as a result, we had no internet or phone service. Some minor damage occurred to the TICO Warbird sign at SR405. Tico Road was blocked from SR405 to the museum due to several fallen trees blocking the road. There were massive amounts of debris in the parking lot and picnic area.

A mighty team assembled the morning of September 12th to help clean up the mess. A grateful thanks to Joe Cross-Airshow Field Boss, Tom Etter-Director Facilities, Bob Filippi-Aircraft Restoration Expert, Charles Hammer-Chief Tico Belle Mechanic, Marvin Juhl-Director Maintenance, Pat and John Zelniak-Get-It-Done Custodians.

A total of 25-man hours on Tuesday morning was spent picking up and hauling debris in members pick-up trucks to dump in undisclosed areas. Shortly after noon, everyone went home to take care of issues with their own properties.

You should check out the "Fly-in Drive-in" Breakfast every Second Saturday, weather permitting. Chef Matt prepares your omlette to order. There is coffee, OJ, danish, fruit, sausage, bacon & more.

**Reservations will be appreciated  
321-268-1941, ext 4112**



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

Closed Thanksgiving, Christmas and New Year's Day

Adults \$20.00 - Senior or Military \$18.00 - 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 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 • 4th Quarter • 2017

October 13	5:00 pm at the VAC, close out time to receive Ballots for the General Election from Active VAC Members voting for the VAC Commander and future BOD members.	November 18	Space Coast (Tico) Warbird AirShow meeting
October 14	Fly-in Breakfast	November 21	VAC Board of Director's meeting
October 14	VAC General Election Vote Count by the Elections Team	November 23	Museum Closed; Thanksgiving Day
October 17	VAC Board of Director's meeting	December 9	Fly-in Breakfast
November 9	Senior Boomer Fest - Main hangar	December 15	VAC Christmas Dinner - main hangar
November 11 & 12	Veteran's Day open house	December 19	VAC Board of Director's meeting
		December 25	Museum Closed; Christmas Day
		2018 Jan 1st	Museum Closed; New Year's Day

Check the VAC website for late breaking dates & cancellations  
<http://www.valiantaircommand.com>



### Commander's Report

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

The Valiant Air Command is poised for a great 2018. This year much time and effort was made by the Board of Directors to increase visitation. These efforts included focused advertising in various markets spearheaded by Executive Officer, Bob Boswell who is also acting as Public Relations Officer until that slot is filled.

Our booked events (weddings, parties, reunions) have increased dramatically this year vs last year. Accommodating client's requests for space, parking, lighting, sound, seating, set-up, etc., creates logistical issues including moving a fair number of aircraft. Tom Etter, Facilities Officer works with clients to schedule and execute their needs prior to the event. Tom's team reconfigures hangar space to meet client's needs in a timely and efficient manner with no disruption to ongoing museum operations.

More good news! The Tico Bell completed her 50-hour inspection in time to meet several appearance events that were booked. Marvin Juhl, Maintenance Officer along with Chief Mechanic-Charlie Hammer, Jim Towe, Andy Kidd, Roger Johnson and Terry Nies have the Tico Bell running like a Swiss Watch.

Your museum now has a new wireless alarm system protecting our assets in all three hangars. We now can arm and disarm the system remotely allowing an electronic audit trail of when and who utilized the system. In addition to helping design our new alarm systems, Richard Jones, Personnel Officer has made significant strides in cleaning up old reporting programs and continues to make our website even more user-friendly. Thanks to Richard we are able to accurately collect the number of volunteer hours electronically allowing us to submit accurate information when applying for grant funds,

Tracy Bohrmann, Finance Officer has skillfully cleaned up, set up and otherwise gained control of all our financial reporting systems allowing for timely tax reporting, submissions and has created a daily P&L allowing the Board to plan and prioritize capital expenditures.

During this last quarter, the Navy sent a team to our museum to inspect and verify that demilitarization of all their aircraft in our hangars had occurred before receipt by the VAC. The inspection discovered many anomalies that needed prompt attention. The Navy's contractor had a 3-page statement

**continued on page 3**

The Kennedy Space Center Amateur Radio Club spent a weekend transmitting world wide from the VAC picnic area to the delight of the Museum Visitors.



L to R: Larry Anders and Kevin Panik manning the radio.



*Merry Christmas*



**The Un-Scramble Team**

*Phyllis Liienthal, Editor*  
*Lynn Foraker - Lorraine Juhl - Louise Klebu*

1st Quarter - Jan, Feb & Mar  
 Submission deadline - Mar 25th NL Published - April 1st  
 2nd Quarter - April, May & June  
 Submission deadline - June 25th NL Published - June 30th  
 3rd Quarter - July, Aug & Sept  
 Submission deadline - Sept 25th NL Published - Sept 30th  
 4th Quarter - Oct, Nov & Dec  
 Submission deadline Dec 24th NL Published - Dec 31st

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

## Commander's Report

*continued from page 2*

of work to manage and execute. Due to Bob Frazier, Procurement Officer having a long-term relationship with a senior Navy official in Pensacola helped make the several weeks process a seamless effort between the parties.

The Gift Shop team: Louise Kleba, Lorraine Juhl, Rich Cariseo and Manager, Anita Varela have made significant strides in merchandising and sales with new and different merchandise offerings. Their sales efforts at the 2017 AirShow set a record. Customer comments are positive. Do not forget your 10% member discount available to you 7 days a week.

As part of the 2018 year ahead, Bob Boswell, Air Show Chairman has officially booked Tora, Tora, Tora as the exciting ground shaking performance act. Do not miss this event set for April 6,7, and 8 with a special night show on Friday. More news to come from Bob B.

Curator, Don Leathers is in the process of designing new signage covering all aircraft in the museum. This process included correcting narrative and creating a new standard design. All the Aircraft in the main hangar now have new attractive signage with work commencing on signage for the Aircraft in the Vietnam hangar.

Special restoration project: Work on the F11F-1 is progressing. The work process is slow due to

significant structural corrosion and corrosion on a large part of the exterior with some additional issues with the wings that were cut at some point in the life of the aircraft. Our commission project from the California Science Center Foundation is unique. Their representative, Dennis R. Jenkins-Project Director was instrumental in the Valiant Air Command receiving this honor. Dennis has been most supportive; our museum has been given this charge due to the reputation we have received in turning out high-quality restored aircraft. For those who have a special interest in Aviation and Space may want to check out the numerous books authored by Dennis. You are in for an eye-opening treat.

Guest satisfaction: Reputation is one of the keys to a museum being successful. Our tour guides are in the unique position to foster guest satisfaction and they as a group has stepped up to the challenge. Randy Wheeler, schedule creator and Don Henry keep the train on the track. The Board owes this group special thanks.

A thank you to Phyllis Lilienthal for devoting, as a volunteer, much time and talent in putting together the Unscramble in a professional manner in addition to designing ads for inclusion in various media.

A thank you to Lynn Foraker. She is the woman behind the scenes in organizing the monthly "hot dog day," Lynn's husband, Bob Foraker,

Grill Master handles the cooking for volunteers. ). In addition, Lynn helps to support many events as well as our monthly Fly-in Breakfast. Lynn is the scribe and minute recorder at Board Meetings. Also, Lynn assists the Airshow Chairman by centrally locating and organizing all the thousand plus documents necessary to mount an airshow.

Two other volunteers the Board thanks, Lorraine Juhl and Patti Champion devote hundreds of hours in assisting in all event set-ups to make sure the client experience is seamless. Additionally, they attend various workshops during the year representing the Museum; Teachers Open House at the Brevard Zoo, Senior Safety Day at Buena Vida Estates and various Chambers to list just a few.

A thank you goes out to Kenita Bushee for taking up the task of working through the mountain of paperwork hitting her desk and taking on special tasks.

Tender loving care of our aging fleet of tugs, forklifts, carts and crane fall under the "keep them running" guru Joel McGinley. Joel scours sources who may have parts that are no longer available from the manufacturers. His due diligence in this matter allows continuing use of our ground service equipment.

I want to wish all members, pilots and friends of the Valiant Air Command Warbird Museum a safe, happy holiday season and a fruitful new year.

*Norm*

***"To Honor the Past, Educate the Future and Preserve Our Heritage"***

*Use the VAC's Website and Facebook page to stay up to date on current events, new events & cancelled events*



**Not unless  
your ballot is  
returned by 5PM  
on October 13th,  
2017**



## Executive Officer's Report

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

This has been a very busy Spring and Summer, filled with multiple activities. The number of visitors to our museum has been good as has the Gift Shop sales. We have expanded our advertising and marketing program and continue to see an increase in visitors, both individuals and groups. Request to use the museum as a venue for private functions has also continued to increase. We have weddings and other events booked well into 2018.

General Election Ballots to select our next Commander were mailed out to all active members on 15 September. Close out on balloting is 5:00 PM on 13 October 2017. Ballots will be counted on 14 October following the Second Saturday Fly-In Breakfast and the winner announced. Our VAC Articles of Incorporation, Article VI states that only Colonels of the VAC in good standing shall be able to vote in any election....and they must have been official members not less than 30 days prior to said election. Ballots may be returned by mail or in person at the VAC.

On Thursday, September 21 we hosted the American Volunteer Group reunion. Known as the WW II Flying Tigers in China, they flew P-40 fighters under the command of General Claire Chernault. The current Flying Tigers, at Moody AFB, Valdosta, Georgia, flew in two A-10 Warhogs for the event.

Also last month we supported Hurricane Harvey with a monetary donation to the American Red Cross. For Hurricane Irma, we offered the C-47 to transport needed relief supplies to the Florida

Keys. We were on standby and alerted to go when the roads were opened and they sent the trucks in relief.

Our Flagship C-47 Tico Belle flew in the 3-day Thunder Over Michigan during Labor Day Weekend. Dick Osborne was PIC, Mike McCann SIC, Charlie Hammer FE and Stan Taylor Flight Crew and Jumpmaster. Our VAC maintenance team provided a herculean effort to get the aircraft ready for this important event. C-47 Events planned for the remainder of this year include the Stuart AirShow, November 3-5, Fri-Sun. [Brian Bucher PIC, SIC TBD, Charlie Hammer & Stan Taylor + Crew.] We will take the PX so volunteers are needed for the PX and C-47 Tours. We will fly 2-3 times on Friday and once on Saturday and Sunday. There may be a 2-ship troop drop with a second C-47, Placid Lassie.

On December 7, late Thursday afternoon we will do a Parish Medical Center Fly-By for their Pearl Harbor Salute and Tree Lighting Ceremony.

On Saturday December 16, we will be supporting the Annual Surfing Santa's Drop on the Beach. This is an all-day event with multiple parachute drops.

On Saturday October 28th, our first "Space Coast Warbird AirShow" meeting will be at 12:00 Noon in the Library. The AirShow will be held Friday, Saturday and Sunday, 6-8 April 2018. Friday will be an afternoon show leading to a night show ending with giant fireworks. This year we will honor

*continued on page 5*

Bob Boswell presents a signed and framed Thunderbird Litho to Lt. Tom House in appreciation for all the outstanding support provided by the Titusville Police Department for our TICO Warbird AirShow 2017.



A film crew from the United Kingdom spent 2 days at the VAC on interviews and shooting videos of some of our aircraft.



Larry Champion on the Canberra



Tour Guide, Kaila Comeau telling the history of the TBM Avenger



Tim Plunket, owner of the Sopwith Camel replica in the background, is interviewed.

## Executive Officer's Report

*continued from page 4*

those who served in the Pacific Theater during WW II.

We will present the Tora! Tora! reenactment of the bombing of Pearl Harbor, the B-25s will present the Doolittle Raid on Tokyo and the TBM the Battle of Midway. This will be a very exciting show and one not to miss.

All Board of Directors and Team Leaders should attend this first organizational AirShow meeting. Request that everyone review your AirShow responsibilities and coordinate with other team members. Volunteers who would like to work the AirShow are also be asked to attend. Lunch will be provided.

On Thursday 9 November, the VAC will host the 2017 Senior Boomer Expo. The event will be open to the public from 9:00 AM to 2:00 PM. This is a large event with entertainment, food, handouts and local area vendor/information tables. We expect one to three thousand attendees throughout the day. Once again, we will need volunteers to help with the parking, transportation, set-up and clean-up. Go to our web site volunteer area and indicate the days you will be able to work.

We are preparing for another great Veteran's Day weekend Open House at the Warbird Air Museum, 11th and 12th of November. Admission is FREE for all military, Active or Retired; plus, we will also allow Free admission to ANY Florida resident with ID.

In addition to the Warbird Air Museum display of 47 vintage warbirds and hundreds of artifacts

and memorabilia; we will also have on hand many of the veteran pilots that flew these venerable aircraft. Additionally, there will be operating train layouts, an antique and hot rod car show; as well as the model club building and showing their craft. The radio control aircraft club will also be there with their aircraft and flight simulators. If you are the owner of a vintage automobile or other specialty vehicle and want to display it during our Open House, please contact the museum. Finally, there will be music and miscellanies food vendors as well. The museum will be open from 9:00 AM to 5 PM. Hot dogs and drinks will be available and parking is free. There's something for the whole family so come on out.

As always, we will need volunteers to help with the parking, transportation, set-up and clean-up. Go to our web site volunteer area and indicate the days you will be able to work.

Our Christmas Dinner this year will be on Friday, December 15th. Happy Hour with hors d'oeuvres from 5:30-6:30 with dinner to follow. The event will be catered and cost \$20 per person. Non-alcoholic beverages are provided and a pay as you go bar will be open. Please make your reservations with the PX gift shop, (321) 268-1941.

The VAC supports local needy food centers and the "Toys for Tots" program. For both the Veteran's Open House and the Christmas Dinner, please consider bringing a canned good for donation and/or bringing in a toy to our drop-off point.

Safe and Happy Holidays!

*Bob*

### Bye old friend!



Removing the tattered and torn flag in the main hangar



It is very hard to fold a giant flag



Don't step on it!!!



The new donated flag is up and really looks great



# Facilities Officer's Report

Tom Etter, Facilities Officer

Email: [FacilitiesDirector@valiantaircommand.com](mailto:FacilitiesDirector@valiantaircommand.com)

(321) 268-1941 ext. 4105

It has been a very busy three months.

## **Events:**

We are now using the Vietnam Hangar for most functions. By placing all the flying aircraft (and their mess) in the Main Hangar, we can keep the Vietnam Hangar clean for functions; if more room is needed we can easily clear the South part of the Main Hangar. The North part has 14 aircraft and keeping them inside is a must as many of the older aircraft are covered with fabric.

## **We supported the following:**

Photoshoot of the A-7 and F-8 by opening the cockpits and moving aircraft.

BBC photo shoot and interviews by moving aircraft and opening the TBM wings, putting air in the tires of the WWI aircraft and helping Tim Plunkett fly the Sopwith Camel and Fokker for photos.

Three Florida Institute of Technology visits.

Met with the USAF team, planning big celebrations here.

The July Fly-in-Breakfast.

We launched the July 4th skydivers.

Opened and made certain aircraft available for the 3-D photo project of interior shots.

The August Fly-in Breakfast but had a poor response due to Spruce Creek airfield repair.

## **Building:**

I did some more patching on the roof and got most of the spots to stop leaking and I was able to cut back the amount of water coming into the museum due to the rusted out gutter on the North side by adding metal to the floor of the gutter. We will attack this again in the Fall.

The Main Hangar roof repairs were completed along with some minor repairs to the Motor Pool and Restoration for \$12k. The main roof was rusted through on the edges on both the North and South sides that was compromising the cross beams. This Fall will see more repairs to doors, drains, gutters and interior panels.

Repaired emergency lights in the Vietnam Hangar.

Bathroom fixture repair, replace bad lights and reset alarms.

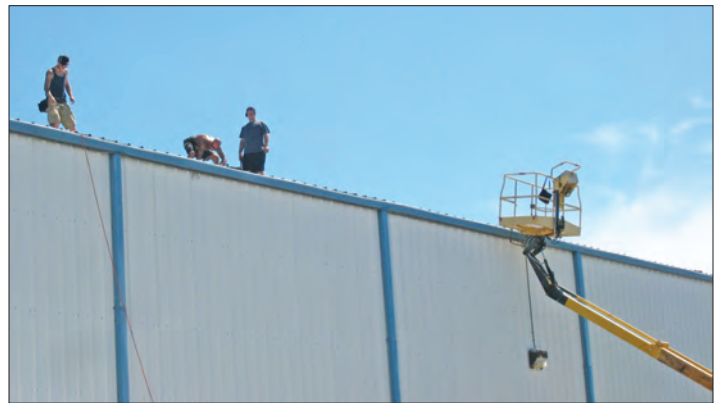
We installed a Knox Box for the Fire Marshall. This will

save glass doors and gate damage if we have a fire since firemen will have our key that is kept in the Knox Box.

We completed a quarterly sprinkler system test.

The C-47 crew emptied the Main Hangar to allow the new overhead fan wiring to be installed.

I have been placing white vinegar in our eight airconditioning systems with mixed results. One still floods and will require spending money to fix the mold blocking the drain causing flooding of the PX storeroom.



## **Equipment:**

Joel replaced the water pumps on the VAC dually and the Boxer tug.

The Airport loaned us a big tug and big forklift. We loaned our forklift to Area 51.

The Large Forklift steering gearbox failed and it took many man hours to get it apart, try to fix it, find new parts, reassemble and test. All the C-47 crew members were involved at one time or another and included Joel, Richard Jones and his son, Tom. It is now repaired.

## **RV:**

We worked some on the RV but events, hurricane, damage repair, and more events have pushed it off my immediate to-do list. We will need to spend money for tires and refrigerator repair.

## **Navy Contractors:**

The Navy sent ten contractors with a Navy Master Chief to inspect, review conditions, and make safe the 13 aircraft they have loaned to us. Their orders were to seal all openings, lock all canopies, and make all the aircraft immovable. We were very lucky Norm Daniels was able to get waivers from Pensacola to allow us to still open the plane canopies and to move them

*continued on page 7*

## Facilities Officer's Report

*continued from page 6*

around. They did seal most panels up, drilled holes in all pressure vessels, removed 800 pounds of fuel from the F-14 and some in others, removed and disposed of some radioactive items for us (T-33 had many switches with radium), and many other things such as making wing locks taking 17 days of our support of them supporting us. We learned a lot about the aircraft and they were happy with us as we were their first civilian museum they had done, so they learned much from us. We also saved about 100 gallons of JP5 that will work in our equipment. We disposed of any oil or hydraulic fluid for them.

### **Aircraft:**

Folded the Wildcat wings out to please the Docents but it blocks a safe fire exit. Don Leathers is working with the Docents to figure out a way to have one wing out and one folded and they are excited about it.

The L-13 is now in the Restoration Hangar and the Cessna 170 has moved out. The S2F will go into the Restoration Hangar soon. Tracy and Richard started on returning the S2F to flight under Tom Riley's suggestions.

We loaned our C-47 sextant to Pat Foley and his CAF crew as they were getting their C-47 ready to go to Michigan, as were we.

We started and completed the 50-hour maintenance on the C-47.

We helped get the C-47 ready for the Michigan flight and test flights prior.

The C-123 prop stand is now at the VAC for the S2F project.

I removed the accessory covers on the TBM so Marvin could start the coil swap and its return to flight.

The F-86 came back and the owner's son inspected it.

The C-47 crew helped the Restoration crew place the new F-11 on a cradle so it could enter Restoration.

We re-did the Vietnam Hangar so to reduce stress on the F-5 and F-105 nose gears. While doing this we placed the Canberra into the Vietnam Hangar to see how it looks. It looks super but I had to leave two TA-4s out to make it happen so it's not going to work at present. The Canberra will be in again per a wedding request.

We replaced both main tires on the TA-4.

### **Hurricane:**

The B-25 left before the hurricane hit.

We moved drums around and tied down aircraft for the hurricane.

The hurricane re-opened our earlier roof leak repairs and the wind found new paths for water entry.

Besides tree branches down in front of the museum, we had a 2'x10' hole opened up just above the F/A-18 in the corner of the Main Hangar. A storm the other day widened it to a 2' x 20' hole. We covered the engines with tarps awaiting a roofing crew. We got a crew in and have a temporary repair in place. Bristow had much hangar damage and borrowed the Man-Lift to do a temporary repair. We got it back in time for our roofers to use.

I would be remiss if I did not mention how lucky we are to have such a group of volunteers who have worked so hard this summer in the worst heat I can remember in a long time. It was worse than my two years in Nigeria. The C-47 crew really has expanded as we work on just about anything. To Jim, Joel, Terry, Roger, Harry, Charlie, we have added Len, Andy and Cullen. Of late we have Tracy, Norm, Richard, Larry Champion, Martin, Tim Plunkett, Marvin and Tom Jones working with this crew in the heat on many diverse projects. The Docents have also been helping opening doors and moving planes. The Restoration Crew will help the C-47 crew anytime we need them. I love it here. Thank you all.

*Tom*



Tico Belle, once again, transported these jumpers to the beach on the Fourth Of July





## Finance Officer's Report

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

Hello, members!

We had a close brush with Hurricane Irma in September 2017. Luckily the VAC received very little damage to the facility and no aircraft were impacted. Both before and after the storm period we did experience very light visitor attendance which of course adversely impacted our sales. Going forward we are diligently planning an increase to advertising to bring more visitors to our museum. There are also several larger events planned for the upcoming months which will help increase our revenue.

I would like to take a minute to extend a grateful thanks to our maintenance and aircrew teams which got our C 47 up to the Thunder Over Michigan event earlier in the month. Cranky carburetors and iffy weather had threatened to scuttle the event for us, but our team came together and solved all the issues and were able to get the Tico Belle and her crew to this event. This resulted in a happy client, increased visibility for the VAC and a check, the funds of which will go right back into the C 47 for her continued maintenance and her continued flight schedule. All this was done by a team who worked together and got the job done with no arguments or screaming! (Although rumor has it that something not nice was written on the men's room wall about a certain carburetor's momma.)

While we are on the subject of thank you's.....Thank you to all who have responded so quickly to the call for Airshow Donations. Always needed, always welcome. That, of course, goes for volunteers for helping during the Airshow. I'm sure Richard Jones, our great Personnel Officer will keep you posted.

### **Our Goals, Our Mission:**

Of course, you all have heard the various viewpoints on the

VAC's mission and goals, lately much contested. So here is what I believe:

The VAC exists to promote warbird aviation and the story of those that used these planes in service of their country. We restore warbird aircraft: some to flight, some to static display. The planes that fly bring the museum to life as they demonstrate their purpose. One can hardly deny the excitement level goes up any day the C 47 is pulled out of the hangar, even if it's just to do the weekly run up. Watching her take off is an incredible experience, one which all of us who volunteer here are grateful to be a part of.

The argument of museum vs a flight club is a false one to me. We can be a museum that has flying aircraft. In restoring the aircraft to flight we are bringing the museum to life. This draws people to us and helps put new blood in the pipeline. A careful balance must be struck between growing and maintaining our museum and our flying aircraft programs.

As with many other things in life, money is course is key, but I would venture to say that of equal importance is engagement and participation of our members. Too quickly the day may arrive that no amount of money can buy the skills and knowledge needed to maintain and fly an aircraft like the C 47. We are at the cusp of these rare skill sets beginning to fade as our Greatest Generation continues to pass. If their knowledge is not given to those that follow, it will recede into a distant memory in a book on a shelf. One doesn't learn to fly from a book, one learns to fly from a pilot. The level of engagement and interaction of our more experienced members and our youngest members is part of what continues to make the Valiant Air Command a very special place. Where else can a 16-year-old make a connection with a master pilot like Bud

Evans? Or hear the first-hand account of World War Two from Joe Reus? Or learn how to manage a temperamental R-2600 from someone as experienced as Tom Reilly?

This special place needs all of its members in all of their abilities. Some can give money easily; some can figure out how to navigate bureaucratic maze of grant applications; some support our special events; some maintain the aircraft and some fly the aircraft. All are needed and all are welcome who come with the intent to improve and grow the VAC. Your Board of Directors is actively striving and dedicated to building a stronger VAC, with stronger connections to the local community as well as the warbird community.

### **One more Topic:**

#### **A VAC Scholarship Program**

I know we have done something like this in the past, and the program stopped several years ago, a victim perhaps, of benign neglect of the prior administration. I was talking the other day with one of our youngest volunteers as she spoke of her dream of flying our TBM and the process of applying to colleges and also for scholarships. This is one volunteer and member the VAC would want to support at the start of their career.

Please let me know your thoughts on reinstating this program. How much? How often? Open to members only? Who should be eligible to apply, etc.? To be honest, I don't have that much experience in this area as I was fortunate to be able to pay for my college degrees. As such I would like membership input into going forward with the idea and the design and scope. Please email/call me with any input you would be willing to give on this issue. [tracy.bohrmann@valiantaircommand.com](mailto:tracy.bohrmann@valiantaircommand.com).

As always, thank you for letting me be a part of this organization and a part of our Board of Directors. If I don't see you before....Happy Thanksgiving, Merry Christmas, and a Joyful New Year!

*Tracy*





## Maintenance Officer's Report

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

Five months I have been your Maintenance Officer for the Valiant Air Command. I can't begin to tell you how much of a privilege it has been. I am proud to be working with such an outstanding Board Of Directors. By no means do I want to leave out our VOLUNTEERS who make it possible for the Valiant Air Command to be put on the map as one of the best aviation museums in the Southeast and expanding. The various skills of our volunteer maintenance team make it possible to keep the aircraft flying and our static aircraft to stand at attention for our public viewing. I must not forget our restoration team who end up with a basket case aircraft and are asked to put it back together to look like it just rolled off the factory assembly line. Their task is not easy, but they keep on working miracles, and the proof can be seen sitting proudly in the hangar.

### C-47 Skytrain

TICO BELLE's long cross-country revenue trip for Thunder Over Michigan Airshow was a great success, this trip was made possible by many who rolled up their sleeves, getting hands dirty right up to the 11th hour in making sure that she had a safe trip. More local revenue trips/flights are in the schedule for the next two months. The Aircraft Status Book appears to be working as Pilots and FE are making their discrepancies known in the book for corrective action requirements. In the short run, this system will undoubtedly enhance the aircraft's readiness. Many suggestions were made for: inspection kit made in advance; serviceable parts ID

and stored in one location; parts in storage containers to be tagged and identified as serviceable, repairable, cores or just trash. The latter will take time and needs qualified manpower to complete.

### TBM Avenger

Left and right magneto coil replacement is completed. The first of four engine run-up checks made it through satisfactory along with cycling the wings unfolding and boom bay doors closing. It was a great site to see her on the flight line with wings extended out and boom bay doors closed, just purring like a kitten. After all four engine runs check out satisfactory, we will start on the annual inspection.

### S2F Tracker

The S2F will be moved to the restoration hangar in two weeks for continuing engine maintenance and the performance of an annual inspection. Both engines oil systems have been drained, pre-oiled and the oil tanks ready for removal for cleaning and inspection.

### Restoration

Work on the F-100 paint stripping with the left and right side of fuselage completed. Stripping paint on top wings is next. Cleaning, prep and painting continue on the leading edge slats. Vertical stabilizer to be installed after its final painting. Our goal is still on track for completion by year-end. The B-52 interior is getting closer to its completion with exterior still requiring some additional sanding before painting. This is one cockpit display that is well visited by all visitors.

All our flyable Aircraft manuals are

in-progress for collection and will be stored in one location and marked as "MASTER FILE". All flyable aircraft logs will be collected, monitored and stored in one location with a high controllability. Tasks for these Manuals and Logs will have the highest priority. The above will be stored upstairs in the Maintenance Officer's office.

If you haven't visited us in awhile, stop in and see the progress your Board of Directors and the volunteer workers have accomplished and what the future holds for your Valiant Air Command Museum. One other note I would like to make; we are always looking for volunteers to help in all of our departmental areas. You would be surprised at the feeling of accomplishment and how rewarding it can be in one's lifestyle.



C-47 Skytrain



TBM Avenger



S2F Tracker

Would you like to be part of the volunteer restoration crew or how about becoming a Tour Guide?

Fill out an application on our website or stop at the Gift Shop and get an application.



## Personnel Officer's Report

Richard Jones, Personnel Officer  
Email: Richard.Jones@valiantaircommand.com  
(321) 268-1941 ext.4100

Greetings VAC members,

I hope everyone here in Florida survived Irma with only repairable issues. We were very lucky that it was not much worse than it ended up being. Please remember property can be replaced, human loss is not reversible, please be safe! All of our collection being spared and only minor damage to one hangar was a much-relieved sight after the big blow calmed down. Technology-wise we had a few days while the internet infrastructure was restored, but no loss of internal network or server hardware.

The last couple of summer's one complaint I've heard and seen from both staff and visitors to our organization is the unbearable heat in our hangars. This is most noticeable to our events and tour group staff. They spend hours in setup and breakdown on the hangar floors and escorting visitors. I believe I've seen a few of our Tour Guides and their visitors melting from the sweltering heat out there. I placed a motion before the Board and they approved the purchase and installation of two massive fans in the Main and Vietnam hangars. These fans will be placed in one-half of each hangar, in the future,

when funds come available we will be installing a second one in each hangar. These fans are big, at slightly over 24 feet across blade tip-to-tip and 8 blades. The main hangar fan will help with much-needed airflow out there. The Vietnam hangar will get an 18 foot tip-to-tip, 8 bladed fan installed. These fans should get our visitors and staff down to a more livable condition to perform their tasks. We are currently waiting for our electrician to complete the wiring for the install in the Vietnam hangar and then we are ready to start getting these fans mounted. The fans themselves have already been received.

The 2017 Election process is nearing its finality. I hope everyone got a chance to get your ballots in and help keep us a cohesive organization into the future.

Our work on the Member, Volunteer and PX databases continue and we are ramping up for the 2018 Warbird Airshow, I hope to see many of the 200 plus volunteers at the show again this next year.

Your VAC Board continues to work cohesively to ensure the future of our organization; we hope to see everyone at some of the events the rest of this year.



**Gov. Scott • Bob Boswell**

Bob Boswell, VAC Executive Officer, shaking hands with Governor Scott after being awarded the Governor's Veterans Service Award.



Museum Visitors exiting "Tico Belle" after an On-Board Tour



**Richard Jones • S2F Tracker**

Richard is checking carefully to see what is needed to return the S2F to flight.

Would you like to be part of the volunteer restoration crew or how about becoming a Tour Guide? Fill out an application on our website or stop at the Gift Shop and get an application.

**SAVE THE DATE !**

**VAC CHRISTMAS DINNER • DECEMBER 15, 2017**



## Gift Shop News

Anita, Louise, Lorraine, Rich  
Email: VAC-PX@valiantaircommand.com  
(321) 268-1941 ext. 4112



We made it through our unwelcome visit from Irma giving us more memories of living in Florida.

There are only 3 months until Christmas. This is a great time to get ahead of the season by shopping early. Remember, we do offer layaway and your member discount still applies.

We have a lot of new items from which to choose. One of the most popular is the Top Cat t-shirt for the cat-lover in your family. A Gift Certificate is also a nice gift – one that is often redeemed but rarely returned! Just a reminder that we carry a lot of toys that would be nice to drop into our Toys For Tots collection boxes. Oh the benefits of one stop shopping!

Anita, Louise, Lorraine, Rich

Once again, The Warbird Air Museum will be an official “Toys For Tots” toy drop off. Please bring a new, unwrapped gift



The drop off boxes will be available Mid-November in the VAC lobby.

*Do Your Christmas Shopping Early And Do It At The VAC Gift Shop*

# LAYAWAY AVAILABLE UNTIL DECEMBER 23RD

## DON'T KNOW WHAT TO GIVE FOR CHRISTMAS



- T-shirts - Pull Back Toys
- Model DIY Planes - Paintings
- Scale Model Planes - Signs
- Posters - Photos - Toys
- Puzzles - Jackets - Hats

**10% DISCOUNT FOR MEMBERS**

**GIFT CERTIFICATES ARE ALWAYS GOOD AND NEVER RETURNED**



## FLY-IN WALK-IN DRIVE-IN BREAKFAST SPECIAL



Have you seen anything special in our gift shop that you would love to have? Come to our Fly-in/Walk-in/Drive-in Breakfast; have breakfast and you will receive a 20% off coupon to use on all merchandise in the gift shop. Coupon good on the day of the breakfast only.

**SAVE THE DATE !**  
**VAC CHRISTMAS DINNER • DECEMBER 15, 2017**

**CALL THE VAC GIFT SHOP FOR RESERVATIONS • 321-268-1941**

VAC was host to Flying Tigers AVG Tour (70 people) September 21, 2017



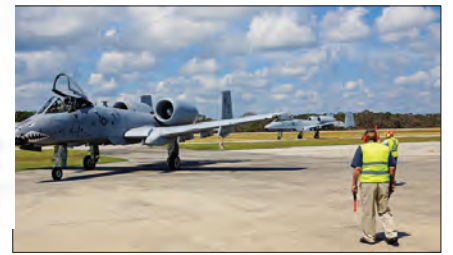
AVG Group watching the arrival of two A-10s



Frank Losonsky, former AVG pilot, meets Captain Dan Lusardi, A-10 pilot



Chocking the A-10



Marshalling the A-10s



*High Dynamic Range photo of the two A-10 Thunderbolts parked on the VAC ramp*



# F-86 Sabre

*Dr. F. J. Erik Kramer, VAC Historian*

North American's F-86 Sabre Jet... It is time to put a fantastic jet fighter in the limelight. Reference is made to the North American F-86 Sabre. It was one of the greatest jet fighter aircraft of all times. It entered service with the USAAF in 1949 and although not as fast and maneuverable as the MiG-15, it was instrumental in denying air superiority to the Chinese during the Korean War. Russian, Chinese and North Korean MiG pilots discovered the Sabre was razor-sharp, it could dive opponent faster, was more aerodynamically stable, and had a radar gun sight that came in handy during high-speed jet dogfights. After the Korean War ended in 1953 and on account of F-86 outstanding combat record it became the mainstay of many Allied nations, becoming their primary fighter. Yet, while the Jets captured the public's imagination, it was the pilots that were most fascinating. World War II was a young airman's war where teenagers were strapped into powerful airplanes that too often killed them. But the Soviets sent many of their top aces from World War II to Korea, men such as Ivan Kozhedub (62 victories on the Eastern Front) who had survived the Luftwaffe's best and thus had no terror of the Americans. For their part, Americans sent to battle top guns like "Gabby" Gabreski (28 victories).

Both sides appeared fairly evenly matched in terms of the pilot- and aircraft quality, while the Americans had the disadvantage of political

restrictions that prohibited hot pursuit of Communist MiGs to their bases across the river Yalu in China. However, US pilots weren't the only ones suffering from limitations. Those who were piloting the MiG-15s received their own limitations coming straight from Stalin. MiG pilots were forbidden from flying over non-communist controlled territory or within 30-50 miles of the UN front lines. That meant no air strikes on UN airfields or aircraft carriers, no aerial bombing of supply lines or seaports, no close-in air-support for the Chinese or North Koreans, and no air cover for those same units at the front line. In turn, the UN pilots were free to attack the Chinese & North Korean forces throughout North Korea and often they violated the restrictions and not only pursue them across the Yalu River but would loiter over air bases in Manchuria. The fact that the Soviets rotated their squadrons in the Korean War for training purposes, made it worse for their side since whole units would come into the air without any experience, same scenario for the Chinese & North Korean pilots.

Fortunately, the Soviets started to replace their aces with rookie pilots who soon demonstrated their inferior training and tactics versus their Western counterparts. They were supplemented by hordes of Chinese and North Korean pilots fresh from the farm plow. It was then the Sabre scored consistent victories over Russian, Korean and Chinese pilots. Admittedly

the superior training and tactics of the US pilots contributed to these successes. At the end of the Korean War, it is claimed that the F-86 Sabre had established a kill-ratio of 10 to 1 over the MiG-15. However, this impressive kill-ration is only applicable when Chinese or Korean pilots flew the Mig-15's. An important factor that contributed to this high kill-ratio is due to the fact that Chinese and Korean pilots were not wearing g-suits in the cockpit, while American pilots always flew their F-86 fighters, dressed in a g-suit. As a consequence MiG-15 pilots in a hard break sometimes passed-out due to GLOC (loss of consciousness occurring from excessive and sustained g-forces, draining blood away from the brain, causing cerebral hypoxia), resulting often in a crash. F-86 was about equal in performance as the MiG-15. The MiG-15 did not easily depart from controlled flight, unless the pilot pulled too hard, other than that, MiG-15 flew very well! But when flown by Russian pilots MiG-15 performance was slightly superior over the F-86 fighter.



***This very F-86 is on display in our Warbird Air Museum when not out doing Air Shows.***

The German Luftwaffe at the end of WW-II recorded an important database of their experimental-  
*continued on page 14*

# F-86 Sabre

*continued from page 13*

and operation jet fighters like the ME-262 Schwalme. This source of proven conditions was used by North American aircraft builder to designing the F-86, which became the first aircraft in the USA that used swept wings like the ME-262. However, the ME-262 featured swept wings of only 18.5°, which really did not much affect aerodynamics. Records of Luftwaffe experiments were adapted to give the F-86 swept wings of 35°, also applicable to the horizontal stabilizers. Such a configuration resulted to delay the onset of shock waves, thus allowing the aircraft to fly at higher speeds. These shockwaves are building up at the frontal surfaces of aircraft, particular at wing and tail surfaces when aircraft was flown at high speeds and sometimes did cause complete destruction of several aircraft like P-38 Lightning and P-47 Thunderbolt.

The F-86 was the first USAF night fighter to carry only one airman and has only one engine. The fire control system was so automatic, a second airman was considered unnecessary. F-86 Fighter was armed with six .50-caliber M-3 machine guns in the nose, just aft of the jet intake. Target acquisition was aided by a new radar assisted gun-sight. It required the pilot to hold the cross hairs on his target for just one second. From then, till target was obliterated, the pilot was free of the complicated problem of adjusting for target's range during the heat of combat.

The Sabre was continuously improved throughout its 10-

year production run. Each model performed better than the last. Four models of the fighter (F-86A, E, F and H) were day fighters, while the F-86D, K and L versions were all-weather interceptors. Successive models of the daylight versions were equipped with more powerful engines and armament. All were rated in the 650-mph (1046 kph) class with a 600-mile (966-kilometer) combat radius and a service ceiling of more than 45,000 feet (13,716 meters). The K-model was flown by NATO forces and was manufactured in Turin, Italy, by Fiat.

Various models of the F-86 held world speed records for six consecutive years, setting five official records and winning several National Aircraft Show Bendix Trophies.

As of the introduction of the F-86A, fighters were equipped with a unique control system, developed by North American, called the "all-flying tail". North American built 6,200 F-86 fighters in total before production ceased in December 1956. Altogether there were 9,860 F-86 Sabres built in the US and many other countries around the world. The F-86, the first swept-wing airplane in the U.S fighter inventory, was able to score consistent victories over Russian built MiG fighters during the Korean War.

Some remarks as to the supposed supersonic capabilities of the F-86 and MiG-15. The Russian designed fighter had the engine-thrust to push the Mig-15 through the sound barrier, but in reality, it only could achieve Mach .98. When flying

supersonic, the nose of the MiG fighter would push up and aircraft becomes uncontrollable by pilot due to the produced shock waves. As regards to the F-86 in a dive, it could go supersonic and has enough people to back up this claim. It was George Welch, a pilot working for the builder North American, who flew supersonic (Mach-1) with the Sabre. Observers on the ground, who heard the loud "ba-boom" when Welch broke the sound barrier, confirmed this event.

But in reality, F-86 and MiG-15 are officially classified as sub-sonic fighters.

VAC's F-86 saw duty in Argentina Air Force until its retirement in 1988.

Basic Statistics:

Crew: 1

Empty weight: 10,815lbs

MTOW: 17,772 lbs

Engine: 1x J47-GE-27 turbojet

Max speed: 688 mph at sea level

Range: approximately 1,317 miles

Service Ceiling: 48,000 ft

Rate of climb: 9,000 ft/min

Armament: Guns 6x 0.50in M3-Browning 16 x 5-inch rockets

Bombs: 5,300 lb

Drop tanks: 760 lit.

*Sources a.o: Aviation History on line/Boeing Historical Snapshot/The National Interest/etc.*



***This MiG-15 is on display in our Warbird Air Museum.***

# Coming Events - Save The Dates



**WARBIRD AIR MUSEUM**  
**OPEN HOUSE - 9 AM TO 5 PM**  
**NOVEMBER 11TH & 12TH**

Flybys • Displays • Memorabilia  
 Food & Drink Available For Purchase  
 Car Clubs • Model Trains & Planes  
 Combat Pilots On Hand  
 Radio Controlled Airplanes

**VETERANS DAY WEEKEND OPEN HOUSE**  
**PLANES - TRAINS - AUTOMOBILES**

**Free** FOR ALL ACTIVE  
 OR RETIRED MILITARY  
 AND ALL FL RESIDENTS  
I.D. Required For Free Admission

Please bring a  
 non-perishable  
 food donation

Warbird Air Museum, 6600 Tico Road, Titusville, FL 32780  
 (321) 268-1941 • [www.valiantaircommand.com](http://www.valiantaircommand.com)



**Happy Holidays**

**NEW NAME - NEW DATE**  
**SAME GREAT AIRSHOW**



**WARBIRD MUSEUM 2018**  
**SPACE COAST**  
**WARBIRD AIRSHOW**  
**APRIL 6, 7, & 8**

**FORMERLY TICO WARBIRD AIRSHOW**  
**SATURDAY & SUNDAY**  
**DAYTIME SHOWS**  
 Gates Open 8:30 am



**FRIDAY**  
**AFTERNOON & EVENING SHOW**  
 Gates Open 12:00 noon  
 Afternoon & Evening show ending with Fireworks

**Available**  
 DISCOUNT TICKETS AND  
 AIRSHOW INFO ONLINE AT  
[VALIANTAIRCOMMAND.COM](http://VALIANTAIRCOMMAND.COM)  
**October 1st**

**OUR 41ST AIRSHOW**  
 Advance tickets - Adults \$20, Youth (5 to 12) \$5  
 Gate Tickets - Adults \$25, Youth (5 to 12) \$10  
 Discount tickets and AirShow information online at [www.valiantaircommand.com](http://www.valiantaircommand.com)

**Space Coast Regional Airport - Titusville, Florida**  
 For Your Safety • No Coolers • No Pets • No Large Umbrellas • No Firearms



**DECEMBER 15, 2017**  
**VAC CHRISTMAS DINNER**  
**VAC MAIN HANGAR**  
**HAPPY HOUR - 5:30PM TO 6:30PM (CASH BAR)**  
**DINNER - 6:30PM**

**\$20**



**Music**

**RESERVATIONS MUST BE MADE AT THE VAC GIFT SHOP**  
**321-268-1941**

## 3rd Quarter Review - July, August & September 2017

### *Fly-In Breakfast Visitor sends a note*

It was a pleasure being in your facility and meeting your director (Colonel Bob) yesterday afternoon. I'm always impressed with the cleanliness and arrangement of your displays in the museum and the hangars, as well as the friendliness and knowledge of your staff.

I'd like to submit this picture to you. Please do with it what you will, perhaps post it on your official site or Facebook page. Thank you again for your service, your volunteerism and your dedication.

Very respectfully, John Eggert



### *Editor's note:*

Bill and Marge Eggert, of Melbourne, Florida, enjoying a soda and sharing a war story in the Vietnam Hangar. Mr. Eggert was telling about the time when his C-130 crew very narrowly avoided a mid-air collision with an OV-10 over Vietnam in 1972.

### *F-100 Super Sabre making progress*



*Larry Mathis at work*



### *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)