



UN-SCRAMBLE



The Official Newsletter of the Valiant Air Command, Inc.
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4th Quarter Review - October, November & December 2017



10-14-17 Counting the Commander contest ballots. Norm Daniels (Incumbent) beats Lloyd Morris 3 to 1.



10-14-17 Another Working Volunteer's Hot Dog Day. Hot Dogs and homemade salads were enjoyed by all.

10-14-17 - The Valiant Air Command was the host for the Aero Skills Tournament Regional Finals. This is a competition for Aircraft technicians; the winner will move on to the finals in Las Vegas.



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 • 1st Quarter • 2018

Jan 1	New Years Day - Museum Closed	Feb 10	Fly-in Breakfast 8-10:30am
Jan 4	RCC AirShow meeting 11am	Feb 20	12 Noon BOD Meeting
Jan 6	Normandy planning meeting 10am	Mar 10	Fly-in Breakfast 8-10:30am
Jan 13	Fly-in Breakfast 8-10:30am	Mar 10	Warbird AirShow Team & Volunteer Meeting
Jan 16	12 Noon BOD Meeting	Mar 20	12 Noon BOD Meeting
Jan 20	12 Noon 3rd AirShow Meeting - Library	Check the VAC website for late breaking dates & cancellations	



Commander's Report

Norm Daniels, Commander
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An entire year has flown by. Both the Valiant Air Command Museum and the Annual Airshow recorded record numbers. Visitation increased, special events (weddings, corporate meetings, etc., including repeats) helped grow the bottom line. Currently, we have already booked events through June 2018. The professionalism of our groups of volunteers who work in the restoration hangar, tour guides and the PX who meet our visitors has resulted in hundreds of written comments complimenting the teams for their informative storied history of our stable of true warbirds.

We have submitted a phased expansion plan to the TICO Airport Authority for approval. The plan calls for a large concrete pad to be added behind the Vietnam Hangar, an air conditioned event center with kitchen, 2 additional hangars, expanded parking and a new access road. We are excited about this project and are diligently seeking sponsorship funding.

Get ready! Bob Boswell, Air Show Chairman is forming a blockbuster airshow, and is in the process of advanced planning. For 2018, our show has a new name reflecting our geographical area. Set for April 6, 7, 8, the Space Coast Warbird AirShow will feature a night show culminating with a massive fireworks display. During the day, you will see, hear and feel the thunder of piston and jet aircraft performing

maneuvers that showcases the skill of pilots that have made many of them heroes.

I would be remiss if I did not thank the VAC Members who renewed their membership and have already provided donations for the 2018 Airshow. I am pleased to announce that during 2017 we have more new members including some who have signed up to volunteer as Tour Guides or volunteer to work in the Restoration Hangar.

An additional thank you to Pat and John Zelniak who against all odds keep our museum and hangars looking good and to Phyllis Lilienthal who devotes hundreds of hours working on graphics, advertising copy and the Unscramble publications. Anita, Louise, Lorraine, and Rich who stock, display and manage our Gift Shop also deserve our thanks. One more special thank you to Lynn Foraker who works one on one with our growing list of Airshow donors and sponsors. She makes sure they have a memorable experience.

I want to offer a special thank you to the Volunteer Board of Directors who supported the VAC and Airshow during 2017. All the BOD members worked events, cleaned aircraft, parked cars, picked up trash and worked in the Restoration Hangar on static and flying aircraft as well as execute their respective BOD duties. I am honored to be part of the Valiant Air Command Museum. team.



VAC's Veterans Day Open House had many interesting displays and attractions. One very popular display was the high end luxury Lamborghini cars. These cars were available for test rides.



Titusville VFW Post 4228 Commander Robert Patry presents award to VAC Commander Norm Daniels for letting them give out poppies during our veterans weekend open house.



The Un-Scramble Team

Phyllis Lilienthal, 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.



Executive Officer's Report

Bob Boswell, Executive Officer
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As we welcome the New Year it is time for us to review our goals and reflect on our past accomplishments and future plans.

2017 has been a good year for the VAC and the Warbird Air Museum. Our 2017 Warbird Airshow in March was a success due to the hard work by all the members and volunteers involved. I salute all those who planned, prepared and presented the airshow. The USAF Thunderbirds highlighted the event and helped draw a good crowd. The Friday night Show was awesome and the Fireworks were the best in Brevard. Heat from the wall of fire finale pushed viewers back into their seats. Forecast showers for Sunday convinced many to attend on Saturday providing a maximum crowd which was good; however, the exit traffic was not. We think we have that problem fixed for this coming year. The 2018 AirShow will be a three-day show, 6-8 April. Gates will open at Noon on Friday with a late afternoon, leading to a Night Show ending with Giant Fireworks. Saturday and Sunday the gates will open at 08:30 and the day show will be packed with activities for everyone from the opening gate to the last performance.

This show will be especially spectacular with the Demonstration Flight Team of Tora, Tora, Tora reenacting the bombing of Pearl Harbor, followed by our B-25 Doolittle Raid on Tokyo. We will have a lot of pyro, not to mention the return of the Friday Fireworks. Don't miss this show!

We have added several new aircraft as well as museum

memorabilia this past year. The restoration folks have been busy working on the forward cockpit of the Boeing B-52D that will be open to the public, the North American F-100 Super Sabre Jet and the first twin-jet trainer, the French CM 170 Fouga Magister. We also added a fully restored Bell 47 "MASH" Helicopter.

The Museum has reached a point where the display hangars are looking more like storage hangars. There are additional warbird aircraft available; however, we do not have the ramp or hangar space to accept them. A museum expansion proposal has been provided to the TICO Airport Board and we now must develop a detailed plan, which is in the works. Our most immediate need is for additional ramp space behind the Vietnam Hangar for parking aircraft. That ramp would connect to the existing "A" Taxiway. Just as badly as we needed the Vietnam Hangar a few years ago, we need an additional hangar to accept new aircraft into our collection.

Over the past two years, the museum has become a very popular venue for various events from Birthdays, Anniversaries, Engagements, Weddings, Reunions and Business Celebrations. Rarely does a week go by that we are not hosting an event and they are now booked well into 2018. Hosting these events is another reason we need additional hangar space. This has been a great source of financial support, but is a two-edged sword. Using our current hangars, we must play a continued game of moving

aircraft in and out to accommodate the various activities. Not only is it labor intensive, it is not good for either our collection aircraft or our flying aircraft.

We have taken our advertising and marketing program global and it is paying off in additional daily attendance. We have been able to attract some of the visitors who were going to the Kennedy Space Center and were looking for something to fill the rest of their Space Coast Visit day. We will continue to expand in that direction.

Bottom line, the Warbird Air Museum is active and growing. We look forward to 2018 and the opportunity to raise the needed funds to continue to expand our aircraft collection. The Warbird Air Museum continues to be a family destination and an ideal attraction for your out of town visitors.

Wishing everyone a Happy and Prosperous New Year!



CM 170 Fouga Magister



Bell 47 "MASH" Helicopter



Facilities Officer's Report

Tom Etter, Facilities Officer

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The C-47 Crew started off the 4th quarter by getting the repairs to the big fork-lift completed and they got it up and running with help of Joel and Richard Jones (and Son, Tom). Over the quarter the Crew helped Jim Towe with the C-47 aft strut and carburetor, test and run the TBM a number of times, run and launch the C-47 as was needed and moved barrels around on the ramp to gain more room. Joel fixed a bad urinal and kept the tugs running. I replaced lights and fixed plumbing issues and flooding. Roger and Lenny serviced the eight building air conditioning systems. Marvin placed small cones over the tie-downs to protect the toes of our Open House Guests. Terry Nies and Pete Peterson worked on the stuck hangar door problem; together they solved the problem. The white trailer is now covered with a white tarp and is full of many old tires. The new Big Ass fans were installed and they work great. Tracy washed the OV-1 again. I attended the Drug Program with Charlie Hammer and the C-47 Pilots. Terry tuned the low boy tug. Joel and Pete Peterson replaced the lift cylinders on our good fork-lift.

The C-47 Crew moved aircraft around to accommodate numerous weddings, weather issues, parties, aircraft flights, Fly-in-Breakfasts and now Christmas parties. These events occurred almost weekly and have required up to two hangar areas to be in use at the same time resulting in many of our aircraft parked outside. A new procedure has been developed for

2018 to reduce the aircraft moving and make social events more efficient; most of our future efforts will follow those procedures.

We did much car parking on the ramp and sometimes on Taxiway A. Night parking takes more effort to be safe. We have been using rented golf carts and we modified one of ours to add two more passenger seats. Luckily the Docents have taken on most of the parking tasks and have been doing a good job.

The C-47 Crew helped with the Camaro photo shoot, wedding plans with Virginia Taylor, met and inspected the facilities with the new Fire Marshall, helped with the sprinkler tests, helped with the Top Gun Contest, Senior Day, the two-day Open House and supported the Santa sky-divers drop at Cocoa Beach.

We borrowed our crane back from Area 51 (Global Aviation, Inc.) and unloaded the new H-13

Helicopter donation. Of late, our ramp has become very hard to use with many of our aircraft parked outside to accommodate the many events. The Piper Meridian aircraft stayed outside longer than planned. We used the ramp for car parking and many days of B-25 and C-47 flying. I think we will be better off with the re-stacked Vietnam Hangar following the new procedures mentioned above.

We have added another member to our operations. Andy Kidd (Tour Guide, car/plane parker, TBM Mechanic and C-47 Crewman) is welcome and is a good tug driver too.

I killed a coral snake as it was heading into a wedding reception wiggling to the music. Interesting.

The building repair process will soon start and our electrical system up-grade is starting as I write this.

I will continue my efforts at the VAC and will support my replacement as I have stepped down from this position.. I thank all of the VAC Members who gave me much help and support during my stay in this position.





Finance Officer's Report

Tracy Bohrmann, Officer

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Hello everyone!

It Has been quite a year for the Valiant Air Command. Many changes have occurred, hopefully, all for the future growth and betterment of the organization.

As many of you know, I am an RN at Wuesthoff, oops, I mean at Rockledge Regional Medical Center (we just changed owners). I was rambling on a bit to some of my coworkers curious how the Surfing Santa Drop went. I was going on about what the particulars were, how many jumpers, how many runs the C 47 made, etc. Eventually, I rambled on to the upcoming flight schedule and what needs to be done for this project or that project. I stopped and realized they were incredulous about what we do here at the VAC. How different the experience I am a small part of here, is their normal day to day. It made me stop and think how lucky I am to be able to

be a part of this organization. How much I have learned since becoming involved at the VAC. To be honest, I couldn't tell a C-47 from a 747 when I started! Now I know not just the difference, but the history and importance of this aircraft, as well as all of our aircraft we care for. We are a unique and special place here in Brevard County.

I am deeply grateful for the opportunity to serve the VAC, and for the quality of the people I serve with, both on the Board and on the hanger floor. The goals of growth and further development are closer at hand then they have been in the past. It is my sincere hope this new year brings us closer to our goals.

Space Coast Warbird AirShow 2018 tickets are on sale now!!!! Please go to our website for more information.

Happy New Year to All!

Tracy



One of our young visitors to the VAC and his family happened to be there on a day when Tom Reilly was working on his B-25, Killer B, and he let the young man get into the pilot seat. Bet that made his day!

Porter Airline's first flight into Orlando Melbourne Airport. Patti Champion and Lorraine Juhl were there manning the VAC table welcoming them



The welcome cake with replica of Canadian Porter Airlines aircraft.



The aircraft is a Bombardier Aerospace Q400 turboprop aircraft.



The Captain of Porter Airlines stops to chat with Patti and Lorraine. 33 passengers were on this flight. Patti and Lorraine spread the VAC story with as many as they could as they passed though the area with their baggage.



Maintenance Officer's Report

Marvin Juhl, Maintenance Officer
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It's been very busy this last quarter with all the VAC events and maintenance accomplishments (please see other reports), but before getting into my report, I want to wish everyone a Merry Christmas and a Happy, Healthy New Year. 2017 was great and I'm sure 2018 will be even greater. I can't begin to say enough thanks to our dedicated maintenance volunteers who spend their hours of skill and dedication in "Making Valiant Air Command Great". I've said this before and I say it again without reservation that "I'm proud to be working with such an outstanding Board of Directors and all the VOLUNTEERS in making 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". If you don't believe what I'm saying, drop in and see what the volunteers have done, doing and what's coming up. I'm sure you'll be surprised at the accomplishments made.

Accomplishment! Just look in our restoration hangar and you will see, F-11 is coming apart piece by piece for repairs, it looks ugly now, but wait and see as it comes together like a giant jigsaw puzzle, one piece at a time. Not like the B-52 nose display with its interior just about completed and is now second in line for its exterior painting with markings.

That brings us to who's first for exterior painting, that would be the F-100. That's another great accomplishment, it's now ready to have the tail feathers installed and we are currently working on the

cockpit area before we install the new canopy and glass. This bird is just around the corner in getting its final paint job. We feel very confident that she will stand very proudly with her sister ship on the static line for the airshow.

Aha, but wait there's more in the restoration hangar, like the S2F Tracker, UH-1 Huey and H-13D Sioux. The Tracker is going through a complete inspection of all systems including run-up checks. At this current stage, it doesn't lack much in getting her in operational shape. Not like the Tracker, the Huey has a long way to go in its maintenance inspection. The timetable on this is dependent on outside funding. We do have an excellent crew with Huey experience working on her.

This same crew is currently inspecting our newly donated, 1953 H-13D Sioux (Bell 47 helicopter).



Those of us that are old enough can remember the TV series "M.A.S.H." helicopters used in flying the wounded during the Korean War. The Sioux was received by the VAC in excellent shape with the right color and with the litters. After inspection and run-up checks, she will be moved to a static display in

mid-January to stand proudly for our Veterans. It's a great addition to the VAC museum. As one of the restoration aircraft finds its way out of restoration hangar doors, another one moves in. So you see it never ends, but that's ok because our maintenance volunteers are anxious and ready in starting new projects.

With all that restoration work going on we still have the C-47 that must be maintained in top condition in order to meet scheduled revenue flights. With the last flight of the year, she will now go into a 100-hour inspection. She is in good shape, with that said the inspection should be completed by the end of January. We also have the TBM Avenger that is undergoing inspection, including extensive inspection of the engine. Upon completion and with satisfactory run-up checks, flight testing will commence. Will it be ready for our airshow? Only when it becomes safe to do so.

So as you can see we here in the maintenance department are very busy, but not so busy that we can't enjoy our work together and we surely do.

VAC, once again, was a Toys For Tots drop off point



Kathy & Mark Nathan dropping off four bicycles for Toys for Tots



Operations Officer's Report

Brian Boucher, Operations Officer
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Happy New Year to all from Operations.

This fall has been very busy with the Tico Belle attending the Punta Gorda Airshow, Stuart Air Show, Fly Over the Parrish Hospital Event and just last week we did three hops over the Cocoa Beach Pier dropping the Surfing Santa Clauses.

It was our first time at Punta Gorda displaying the Tico Belle on static. The show was a great event for us with hundreds of people viewing the aircraft. The weather was fantastic and we are invited back next year.

Then we headed over to Stuart airshow for three days. We were responsible for dropping the paratroopers with the flag and also the Round Canopy reenactment of a World War II event.

Copy and paste the link below to view us on YouTube.

<https://www.youtube.com/watch?v=CLpJvC2rYjo>

Then we came home and completed a successful Champagne flight with 12 participants. It was

a great night with plenty of very happy passengers. We will be scheduling a Champagne flight once a month starting February for the rest of the year. These flights will go regardless of numbers so please do your best to sell tickets. It is a great experience!

Then it was a twilight low pass over the Parrish Hospital event. It was a huge success for the folks who were responsible that evening. Many people in the area and not part of the actual event saw Tico Belle fly over and were extremely impressed!

Finally to end the year we had the Surfing Santa Clauses jumping over the Cocoa Beach Pier. It was a beautiful day and we had about 40 jumpers exiting the Belle. Thank You, Chuck, for a great day and hopefully we can do it again next year.

This year we also completed



a two-day Recurrent Training Class in the boardroom with 12 Pilots and Engineers present to discuss our Standard Operation Procedures and also the various aircraft systems.

January 6, 2018, we are kicking off our "Return Flight to Normandy" in the Library. We will develop a strategy to prepare for the Normandy mission in 2019. If you are interested in participating, we can use your help!

It was an amazing Fall for Operations.

Annual Santa Claus Drop



12-15-2017 - Sky Diving Santa Claus helpers being briefed for the drop at Cocoa Beach. Tico Belle did three drops.





Personnel Officer's Report

Richard Jones, Personnel Officer
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Greetings VAC members,

Here we are, nearing the holiday season, and all is well at the VAC Personnel Office. We have had our BAF fans installed in the Main and Vietnam hangars. The air flow created by these beasts is unbelievable. While we've only had a couple real opportunities during events (since their installation) to see the results of these fans this time of year, I'm sure we will see massive differences in temperatures in the interiors of the two hangars this next summer. We still have two more to install and anyone wanting to donate or sponsor the purchase and installation of these wonderful pieces of equipment can see our Finance Officer for a tax-deductible donation to the cause!!

From a Volunteer perspective, we are working diligently to continue to grow the Volunteer database and now have over 300+ wonderful, helpful and amazing volunteers from Special events, Restoration, Tour Guide, air show staff and Office Admin staff services. With the increase of special events and more aircraft projects, we are oh so appreciative of these wonderful volunteers that help make this organization great. We continue to grow this product to capture hours that we use to report for grant and funding submissions into the future. The hourly reporting of these hours is astounding from

the off-the-cuff reporting style that had been used in the organization. Anyone that is volunteering around our organization must make sure to log in and out and record your hours at one of our three kiosks about the facility, or even from your Smartphone with the link to the timekeeping PIN pad. If you are not signed up for the volunteer service please fill out the application at <https://www.volgistics.com/external.dll/ap?AP=2081027054>. We will be more than happy to get your help with whatever your strengths are. We need all kinds of help to keep this the best-kept museum in Brevard County and/or the State of Florida.

From a Membership perspective, we are still growing with new and renewing members monthly; these memberships also allow us as an organization to grow even more into the future. If you are interested please go to our website and Join us at the Valiant Air Command, Inc. by becoming a member.

Enough for now. I have work to do. Here's wishing everyone a wonderful Holiday Season and a Prosperous New Year for 2018. Remember to support your favorite museum organization here; donate, volunteer, and become a member for the upcoming year.

Please stay safe and Happy Holidays.

Richard Jones, Personnel Officer



The new fan, made by the BAF Fan Company, is installed in the south side of the main hangar.



Below: A closer view of that big ass fan.



Editor's note: Yes, that is the name of the fan company. I put their logo in to prove it.



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

Gift Shop News

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“Christmas 2017 is in the rearview mirror! We trust it was a pleasant and memorable one for all. Happy New Year, too! Just in case you won the lottery or got a gift card for that holiday, consider using some of those funds to buy a special gift for Valentine’s Day (coming up soon) for yourself or that special someone.

No doubt you’ve seen our bracelets, charms and earrings. The PX is expanding that line with different designs and as we approach the 75th anniversary of D-Day in 2019, we’ve added a commemorative keychain. Stop by and take a look – or take one home!

For that truly diehard aviation fan, we are also excited to now carry the limited edition of avionics cufflinks crafted from circuit breakers originating from the Concorde aircraft flight deck – complete with Certificates Of Authenticity. Hurry to get your piece of history now!

Air show tickets are now available in the PX for early purchase if you don’t want to visit the website for early bird discounts.”

Anita, Louise,
Lorraine, Rich

Available in the Gift Shop NOW!



**Do you have yours yet?
ONLY \$19.95 • 2X, 3X \$20.95**

New Name! New Date! Same Great Air Show!

ADVANCED DISCOUNT TICKETS ONLINE NOW @ www.valiantaircommand.com

41st AIRSHOW

FRIDAY AFTERNOON & NIGHT SHOW
GRAND FINALE FIRE WORKS DISPLAY
GATES OPEN - 12 NOON

SATURDAY & SUNDAY - DAY SHOW
GATES OPEN - 8:30 AM

Tickets and Info at valiantaircommand.com

Honoring the Pacific Theater 1941-1945

Space Coast Regional Airport Titusville FL
MODERN MILITARY DEMOS VINTAGE WARBIRDS
WWII PARACHUTE TEAM STATIC DISPLAYS SIMULATED BOMBING & STRAFING

Sponsors: Inland Community Bank, Space Coast, Parkview, Titusville Chamber of Commerce, Museum of Science & Industry, Space Coast, Club Windham, Delaware North, MCT, Holiday Inn, Best Western, Celebration, and others.

For Your Safety - No Coolers - No Pets - No Large Umbrellas - No Firearms

Go to the VAC website to get your discount tickets!

There was a nice turn-out for the VAC Christmas Party. Good food, good people, good time was had by all.



Curator's Corner

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8th Air Force Roll of Honor backdrop:

The 8th Air Force Roll of Honor with Backdrop is now complete. The lighting has been installed making it quite an eye-catcher. Shown here is a photo of this display with the new lights and one of Major Joe Reus, an 8th Air Force B-24 Liberator Navigator, pointing to the Group tail markings of the bomber that he flew in.

We have also received an additional Roll of Honor book that will be used for photographing, at the request of Museum customers, individual pages from this book. The pages show the names of 27,000 plus airmen who died while assigned to the Eighth Air Force from 1942 to 1945. The Museum will charge a small fee for each copy in addition to the mailing container cost and postage. We plan to start this program early in January 2018.

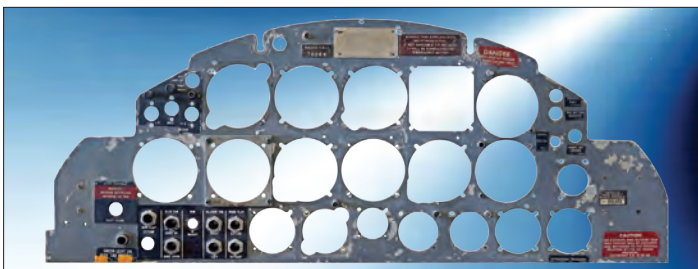


The runway at Ramsbury:

We now have on display, a small remnant from the runway at Ramsbury, England where our C-47 #42-100591 (Tico Belle) flew from many times during 1944 and 1945.



T-33 Instrument Panel before restoration



T-33 Instrument Panel after restoration



When the VAC took on the restoration of our Navy Lockheed T-33 project, the aircraft was in total disrepair. The restoration was completed except for the cockpit, ejection seats and instrument panels. It was decided to wait for cockpit and seat restoration subject to finding suitable instrument panels that could be restored. The instrument panels that came with the aircraft were too far gone to repair or restore and devoid of instruments. Thanks to Robbins Air Force Museum, we were able to trade some of our spare items in exchange for instrument panels that were restorable with time and patience. Ray (Sea-Ray) Brown, one of the volunteers who works in our restoration hangar, took on the task of restoring the instrument panels. The front cockpit panel has been completed and Ray is beginning the restoration of the co-pilot's instrument panel. Ray also has worked on our 105-D Thunderchief. When you look closely at any restoration work Ray has done you will note that "everything is in the details".

A-7 Corsair II

Dr. F. J. Erik Kramer, VAC Historian

The A-7 Corsair II was a derivative of America's "Last Gunfighter", the F-8 Crusader, and a replacement for the A-4 Skyhawk. Made by Ling-Temco-Vought, later merged into Northrop Grumman Corp, the Corsair II was one of the world's most cost-effective and capable attack aircraft ever flown. Although derived from Vought's legendary F-8 Crusader, the A-7 was, in fact, a completely different aircraft. By limiting speed (to subsonic) and eliminating some other esoteric aerodynamic features of the cutting-edge F-8, Vought was able not only to save cost, but also to dramatically reduce structural weight, allowing the A-7 to carry three times the F-8 weapon load, and, by means of the newest electronics, to deliver it extremely efficiently and with unprecedented accuracy.

The A-7 saw action in numerous conflicts and performed very well in the attack role. During the Vietnam War, the Corsair II achieved an extremely enviable loss rates: only four planes were shot down. The Navy requirement was for a low cost, lightweight, non-supersonic attack aircraft capable of carrying both conventional and nuclear weapons. The principal constraints for this new Navy aircraft was ease of operation, cheap maintenance, and not difficult to fly, but with greater range and better payload than the A-4 Skyhawk.

The A-7 was mainly to be used for close air support attack missions. Particular emphasis

was placed on accurate delivery of payload in order to reduce the cost per target destroyed. This aircraft type was also: to operate as an attack and bomber platform, to assume the role as forward air-controller and to be capable of in-flight refueling for longer missions.

Vought designed an aircraft based on its earlier F-8 Crusader airframe. The Corsair looked superficially similar to the Crusader. But in fact, the A-7 was shorter, broader, and had a larger wing than its ancestor. The Corsair II was a low-risk project for Vought since its fuselage was derived from (an also simpler) than that of the aerodynamically complex Crusader.

Vought proposed an aircraft featuring a sturdy, long-legged design, matched by only a few fighters.

The Corsair's true innovations resided in electronics and avionics, featuring namely digital computers. The A-7 was fitted with a radar integrated digital navigation- and weapons computer. The aircraft relied on an avionics system that was based on state-of-the-art electronics and featured digital computing techniques. The integrated navigation system allowed for another innovation — a projected map display system (PMDS), which accurately showed the aircraft's position on two different map scales. The fully integrated digital navigation/weapon delivery system was radical for 1965; in 2017, it now is common to all current USN/USAF attack aircraft. This aircraft was a modern,

sophisticated, integrated, highly versatile airborne weapon system platform.

Other technical innovations included: one of the first combat aircraft to feature a head-up display (HUD); Doppler-bounded inertial navigation system; but also... a thrifty turbofan engine. In order to achieve the required range, its final version, the A-7-E was powered by a P&W TF-41-A non-afterburning turbofan, producing 15,000 lbs of thrust. The turbofan engine provided a dramatic increase in fuel efficiency as compared to earlier turbojet power plants. The A-7D Corsair claimed to have specific fuel consumption six times less than that of an F-100 Super-Sabre at equivalent thrust!

Fly Low and Strike Hard

It served with both the Navy and the United States Air Force and later with the Air National Guard. The Corsair II was also exported to South Vietnam, Greece, Portugal and Thailand.

The last naval aircraft built by Vought enjoyed the fastest and most trouble free development period of any American combat aircraft since the Second World War. It first flew on September 27, 1965, ahead of schedule; the first trainer variant was delivered to the Navy one year later in November 1966. The Vought plant in Dallas employed 35,000 skilled workers, who turned out one aircraft a day for years on end, to support the Navy's combat in Vietnam, and to fulfill commitments to NATO partners. A total of 27 Navy squadrons took delivery of four different A-7A/B/C/E models between 1967 and 1971. The Vought factory built no less than 15 versions derived from

continued on page 12

A-7 Corsair II

continued from page 11

the initial A-7A.

Pilots found that the A-7 was a highly effective attack aircraft. However, the design had one minor but nasty flaw: during launch from aircraft carriers, the Corsair II would have a tendency to suck-up catapult steam, and as a consequence would occasionally experience compressor failure. Although A-7 was easy to fly, it suffered from poor stability on crosswind landings and miserable stopping on wet runways with an inoperative ant-skid shield braking system.

From first flight in 1965 to retirement in 2014, the Corsair II enjoyed a five-decade career. The Corsair II began to enter Navy squadron service late in 1966. The first Navy A-7 squadrons reached operational status on 1 February 1967, and the aircraft began combat operations over Vietnam in December of that year.

Production continued through 1984: the assembly line was closed after 1,569 aircraft had been built. USAF retired the type in 1991 after 24 years of excellent service. Retirement from the US Navy of the humble, but incredibly effective Corsair II took place immediately after the end of Operation Desert Storm. The National Guard retired its Corsairs in 1993, while the Portuguese withdraw A-7A from active duty in 1999.

The Greek Air Force, the last operator of the Corsair II, praised the jet for its extremely long range capability, its reliability, its massive bombing load, and its impressive stability as a low altitude penetration- and bombing platform — thereby harking back to

the US Navy's A-7 motto: "Fly low and strike hard".



Pilots nicknamed the A-7 the "S.L.U.F." It stood for: "Short Little Ugly F**er". A lot of fondness lay beneath this lighthearted scorn of the Corsair II.

Comparing an F-16, a much later and more sophisticated aircraft, to an A-7, both aircraft mission-loaded with ten thousands pounds of ordnance — thrusting through the countryside at very low altitudes, the F-16 never comes close to meeting the S.L.U.F.'s endurance (even when fitted with under-wing drop tanks).

The United States Navy's A-7's illustrated themselves for unparalleled mission effectiveness and flexibility. The forward-looking infrared radar ("FLIR") meant that the Corsair's accuracy for night attacks was equivalent to that for day-attack missions. During operation Desert Storm, A-7's demonstrated more than 95% operational readiness and flew more than 120,000 combat sorties. Altogether, the Corsair II provided an unprecedented response during America's actions in Vietnam, Libya, Granada, Panama, and with operation Desert Storm.

A last feature to be admired is the Corsair's record for post-flight maintenance readiness: average scheduled, including unscheduled direct maintenance man-hours per flight hour amounted to only 11, which is five times better than the 55 man-hours required for the F-14 Tomcat!

The perfect summary of the Corsair II: "the A-7 was an incredible mix of just enough kinetic performance, game-changing technology and a lot of gas- and bomb-lugging capability."

The Corsair-II "...may have been just too logical in retrospect... an aircraft more suited for the battlefields of today than yesterday."

Main Specifications (A-7E)

Maximum speed: 690 mph (1,111 km/h) at Sea level

Empty weight: 19127 Lb. MTOW: 41988 Lb

Power plant: 1 × Allison TF41-A-2 non-afterburning turbofan engine, 15,000 lb thrust

Range: 1,280mi with maximum internal fuel. Service ceiling: 42,000 ft (13,000 m)

Take-off run: 1,705 ft (519.7 m) at 42,000 lb (19,000 kg)

Aircraft of comparable role, configuration and era: Grumman A-6 Intruder

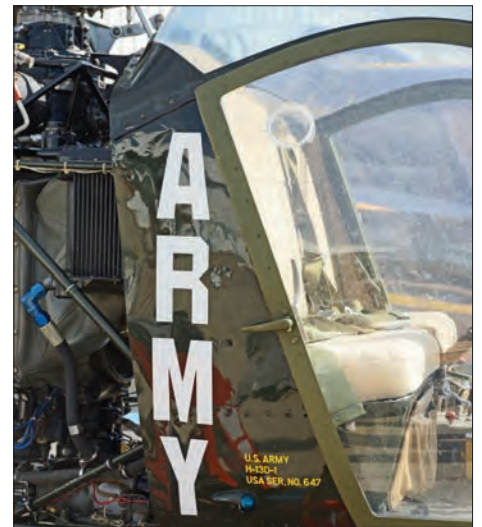
On October 17th, 2014 the Hellenic Air Force (HAF), the last Air Force to use the Corsair II, retired the A-7 with a spectacular retirement ceremony at Araxos Air Base in Greece. The Corsair II had an exceptionally long successful career, starting in 1966 and finally being retired from active duty in 2014. A record to be proud of, having completed service duty for 48 years: close to half a century of active operations



This restored A-7 Corsair is on display at the Warbird Museum.

A beautiful H-13D helicopter arrived today and will join the VAC inventory

November 27, 2017, we welcomed the newest addition to our collection; an original Bell 47, iconic for its usage as a Medivac during the Korean War. Most of you will probably recognize it from the movie and television series M*A*S*H.



A small band of Volunteers, led by our Maintenance Officer, went to Spruce Creek to pick up this donation. A great big thank you to the Aircraft's donor for this wonderful museum addition!

To answer a few anticipated questions; it came with two stretchers that after clean up and paint in the proper color for the era, will be displayed with the helicopter. It is a Bell 47D-1/H13-D1 with a 6 Cyl Franklin engine. The engine appears to be the 200HP model and the good news is...she was a flying aircraft. Great, smooth recovery effort...Good job guys!

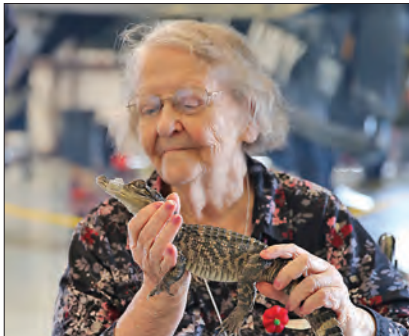
4th Quarter Review - October, November & December 2017

Great turn out for the December AirShow meeting



The Tuesday morning tour guide crew were celebrating the outcome of the recent VAC election. Norm has been a superb commander and three more years is well deserved. A special thanks to Eric Kramer for bring in the Champagne!

Veterans Day Week End Happenings



Everybody loves Ally the Gator!



Very interesting models on display.

Veterans Day Hot Dawg Crew



L to R, Lorraine Juhl, Marilyn Eldredge, Sandy Boswell, Joanne Baxter, Claudette Holda, Char Page, Jim Page, Violet Rice, Linda Hammer, Norm Rathborne, Barb Rathborne • Missing from photo: Patti Champion

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