



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

4th Quarter Review - October, November & December 2018



VAC yard sale was a huge success



The Yard Sale workers • l to r: Norm Rathbone, Barb Rathbone, Violet Rice, Bob Foraker, Lynn Foraker

VAC Hosted the Aero Skills Regional Finals



AIRCRAFT STRUCTURES COMPETITION



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

Closed Thanksgiving, Christmas and New Year's Day

Adults \$20.00 - Senior 60+ 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 • 2018

Jan 1	Museum closed for New Year's Day	Mar 14	AirShow Media Day 9:00 to Noon (Museum)
Jan 12	Fly-in / Drive-in 8:00 to 10:30	Mar 15-17	Space Coast Warbird AirShow Fri-Sun (Space Coast Regional Airport)
Jan 15	VAC BOD meeting - Noon		
Feb 9	Fly-in / Drive-in 8:00 to 10:30	Mar 19	VAC BOD meeting - Noon
Feb 19	VAC BOD meeting - Noon		
Mar 9-14	Memphis Belle at VAC to sell rides		
Mar 9	No Fly-in / Drive-in, AirShow prep		

Check the VAC website for last minute changes and/or additions (www.valiantaircommand.com)



Commander's Report

Norm Daniels, Commander
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It has been a good year for the Valiant Air Command Warbird Museum. Many new members and renewal of memberships are most encouraging.

2019 Airshow: Discounted tickets are now available online and in the Gift Shop. Our 2019 Airshow "Gathering of Warbirds" dates are March 15,16,17. Airshow tickets make great gifts for Family Members, Anniversaries and Birthdays.

Last year's Airshow was spectacular with aircraft and performances that many in attendance let us know it was the best airshow they have seen. As reported in the last Unscramble, the financial results were not as healthy as in past years. This was due to the Melbourne Airshow moving their Airshow dates two weeks before our dates.

The Melbourne Airshow has announced their revised 2019 Airshow dates are March 30-31 just 2 weeks after our Airshow. This presents the same issues as last year with 2 major Airshows 2 weeks apart drawing attendees from the same demographics.

The Melbourne Airport previously announced their 2019 Airshow dates would be May 11-12. Had they stayed with these dates there would be no conflict with our Airshow. This would have created almost a two months spread between competing Airshows. Aggressive advertising for our Airshow is underway. Look for billboards shortly.

We have received exceptional numbers of "thank you" notes and letters complementing our Museum Guides for making the history of our various aircraft come alive. Many of these letters and emails came from overseas and out of state visitors.

Restoration projects completed: The B52 Cockpit has been moved from the Restoration Hangar and is now open for visitors to enter. Thanks to Larry Mathis, Bob Westman and Peter Masaris for the hundreds of hours of effort to make this a one-of-a-kind exhibit.

Restoration work in progress: F-14 Tom Cat, F-111F-1 Tiger Shark and the Huey Helicopter. Almost ready for flight is the restoration of our Bell 47 *MASH* Helicopter.

Our Gift Shop had record sales this year due to the introduction of new merchandise selections and display efforts by Manager, Anita Varela, Louise Kleba, Lorraine Juhl and Rich Carisio.

The Facilities team led by Tom Etter/Facilities Officer have handled many issues Including, but not limited to air-conditioning maintenance, roof repairs, building maintenance, aircraft moving and storage, lawn mowing, tugs and other rolling equipment repairs and working *continued on page 3*

Deck The Halls



l to r: Joann Baxter, Pat Kerr, Joan Dorrell
 Missing: Patti Champion and Lorraine Juhl
 The ladies did a great job once again. Now the VAC is ready for Santa Clause.

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.



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

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with the events planner in staging our hangars for special events.

Marvin Juhl/Maintenance Officer oversaw the completion of the required 100-hr inspection of our C-47, the Tico Belle, to the satisfaction of the FAA. Not a simple feat. Marvin and his crew also are also forging ahead with the complex restoration of our Huey Helicopter.

Leigh Lewis/Flight Officer has recruited and vetted several qualified pilots to fly the TICO Belle. We missed several appearances this year due to pilot shortage. The Tico Belle is our D-Day survivor that represents the Valiant Air Command Museum and its members at numerous events.

One of the keys to our success is due to the efforts of Tracy Bohrmann/Finance Officer and her skills in managing contractual payment issues, accounts payable and receivables, bank accounts, chart of accounts and daily P&L reconciliations. We know financially each day where we stand.

Bob Boswell, Executive Officer and Airshow Chairman has diligently prepared the 2019 Airshow budget and already negotiated and contracted with an impressive list of performers for the Airshow. Bob is also responsible for completing a massive number of FAA forms that are required before performance flying is permitted. Also, Bob has been filling in the vacant position of Public Relations Officer and is aggressively marketing our Airshow. The Public Relations Officer position has been open for over two years. If you are or know anyone interested in this position that has marketing/public relations experience, please contact Richard Jones/Personnel Officer. This Board Position is on a volunteer basis. Assisting Bob is Lynn Foraker who works diligently

to secure sponsorship donations to help cover the cost of mounting the Airshow.

Richard Jones/Personnel Officer has many sides to his position. Apart from being our resident IT guru who over a year ago successfully bid out our phone and internet contracts at substantial savings, he continues to teach all of us the intricacies of computers as well as managing our databases that include among other statistics a capturing of all volunteer man-hours in order to manage the scheduling of volunteer personnel giving us the ability to accurately report man hours when applying for grants. Richard also cuts our grass when he has spare time.

Bob Frazier/Procurement Officer is the individual in the organization who maintains relationships with the NAVY, USAF, US Army and Marines. All our leased/loaned aircraft and support equipment from the services are here due to his efforts in convincing each service that we are worthy to receive, restore and display their aircraft.

Don Leathers our resident Curator for many years decided to move to Dayton, Ohio to be with his family and sixteen grandchildren. Jem Golden has volunteered to be our Curator. Jem has had experience as a Curator. He was the Curator at the McGee Farm Civil War Museum in Mobile, Alabama. Jem has already completed the inventory of all memorabilia in our hangars with help from several volunteers. The inventory of items exceeds 8,000, not including the several thousand books and related materials in our library.

Expansion plan update: The VAC has contracted with Michael Baker International, Inc. to prepare preliminary drawings for our planned expansion from which we will be able

to prepare a construction budget and timetable.

A Stem program is in the works in order to create a "Teaching Museum" that presents programs covering Science, Technology, Engineering and Math. We have a core group of talented volunteers who have the experience, background and knowledge to man the classes. Bill Teixeira is currently rounding up all the materials and information necessary to prepare a marketing plan that can be sent to schools and other groups who work with youth programs.

Don Leathers, Museum Curator for many years, has resigned his position and moved to Ohio to be near his family.

Don wore many hats in addition to being the Curator; his talents will be sorely missed.

Good luck and blue skies.





Executive Officer's Report

Bob Boswell, Executive Officer
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I would like to take a moment to reflect on some of our major activities this past year and look forward to events for the new year.

2018 has been a year of considerable growth for our Warbird Air Museum. We have partnered with several travel and hospitality organizations and this expanded marketing program brought in an increased number of both local, national and International visitors. Our Second Saturday Breakfast each month was changed to a Fly-In and Drive-In event and this has boosted attendance. Our electronic billboards at both the Domestic and International baggage claim area of the Melbourne Airport and our Discount Coupons in both Brevard County and Orlando Visitors Guides continue to bring in additional visitors. And finally, the increased number of individuals and organizations using the Warbird Air Museum as a venue for their event has provided additional exposure. Many of the event attendees have returned with family and friends to visit the museum. All these additional visitors have provided increased Gift Shop sales, and this is good.

The 41st Space Coast Warbird Airshow in April was one of our best productions to date. Many thanks to all those members and volunteers who planned and provided this first-class event for the public. Unfortunately, this show was sandwiched between two other air shows, so attendance was very low.

Our Flag Ship, the C-47 Tico

Belle, had a busy year supporting parachute drops, air shows and other events. The Tico Belle also flew to and participated in the Sun-n-Fun Air Expo in Lakeland, FL and the week-long EAA AirVenture in Oshkosh, WI.

Our Veterans Weekend Open House this past November was one of our best and possibly our largest attendance ever. On Saturday we almost ran out of food. Thanks to the men and women who prepared and served on the food line. Thanks also to all those who provided support from the various car clubs, the Rat Patrol, the Radio Control Aircraft Club, the Model Club, the Train Club, the local Blood Bank "Red Bus", the Tour Guides, the many volunteers and our veteran pilots who stood by our display aircraft and provided first-hand flight experiences to the visitors. The VAC supports a local food center and our visitors were generous with their can goods donation this year.

The Gift Shop organized a very successful Yard Sale that was well attended and profitable. Additional support was realized as many of the yard sales visitors chose to tour the museum and then made additional purchases in the Gift Shop.

Once again, this year we supported the Air Sports Parachute Team in their annual Surfing Santa parachute drop at the Cocoa Beach Pier. This was an all-day event with multiple parachute drops from our C-47 Tico Belle.

The December weather cooperated and our Christmas

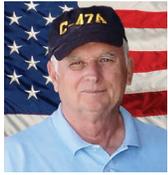
Dinner this year was well attended. Happy Hour with hors d'oeuvres led to a wonderful catered dinner. Following dinner, there was a ticket drawing for the opportunity to select a donated gift from those on the display table. Attendees brought in a wrapped gift to support our "Toys for Tots" program.

The restoration team has added several new aircraft to the museum display this past year. They completed the forward cockpit of the Boeing B-52D. This may be the only actual Vietnam Linebacker B-52 cockpit open for the public where they can sit in the pilot's seat, listen to intercom and radio transmissions recorded during an actual bomb run, and imagine what it was like to fly this heavy bomber on a combat mission.

Looking to the future, Commander Norm Daniels talked about our need to expand our facility in the last issue of Unscramble. We do not have the ramp or hangar space to accept any more aircraft. Additionally, we have become such a popular venue for various events, we must have better designed and designated hangar to host these events. This would free up space for aircraft in our main and Vietnam hangars. We now have our museum expansion engineering document in hand and are developing a plan to fund and implement this required expansion. Expect to hear more about this soon.

The Space Coast Warbird AirShow 2019, again a 3-day event, will be held 15-17 March. We hope to recover our 2018 lost attendance and will be asking all our members and friends of the VAC to help with sponsorships and donations. Gates will open at 2:00 pm on Friday with a late

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Facilities Officer's Report

Tom Etter, Facilities Officer
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Notes from three months ago showed that I had little to say. We spent most of our time on the C-47. We moved the S2F into the Vietnam Hangar until we have more time to work on it. Changed out its two main tires. We replaced the F/A-18 left main with a new tire and stopped its leaking. Roger Tonovitz has joined us as a very strong volunteer and most often is helping Joel McGinley in the Motor Pool. Tom Wilke has taken on, with Richard Jones, most of the mowing tasks (our C-47 crew regard these two as superheroes as we hate mowing). We also have David, Allen and Val who are going to help out more in the future. We re-positioned the aircraft in the Vietnam Hangar to allow easier movement of aircraft for events.

Two months back we helped restoration move the B-52 into place. The logic of its site is that if one looks out from the cockpit, we see a ramp with a B-57, a taxiway, the runway and in the distance the jungle, much like it would have appeared in Guam during Vietnam (Guam still is a main B-52 base). We added lockers in the Main Hangar in an effort to clean up the SW corner from clutter. We have fixed two of the short aircraft jacks, replaced the F-86 tow bar, supported the yard sale and open house and a dance contest. We have worked on ADS issues, compressor failure, Joel got the silver and yellow forklifts and the big one as well fixed, fixed man-lift hydraulic lines, crane hoses and

repaired a main hangar door.

In this last month, we worked on the C-47, moved aircraft for at least 4 parties, helped lift an engine off a Huey body, sealed some holes in main hangar roof, sealed holes in two containers, mounted a brochure box and supported the SNJ engine swap. I have been sick much of this month and I appreciate how the C-47 crew Charlie, Terry, Roger, Lenny, Jim Towe, Charlie Meyer, Marvin and Norman have backed me up; super job by a super crew. Throw in the direct support of Joel, Roger, and Pete Peterson and we have a super crew plus.

We are entering a new era with our museum. The events brought to this venue by Virginia Taylor have become a major source of revenue for the VAC. It has required constant movement of aircraft by the C-47 crew, major clean-ups by John and his wife, schedule changes and additions for the Docents providing tours, parking assistance by Jerry Kerr, Dan McAlexander, Larry Champion and others. Staff requirements have increased for setting up, closing down and security by Patti Champion, Lorraine Juhl, Pat Kerr, Joanne and many others that I know more help. These events have become so big and numerous the airport will no longer permit car parking on the taxi-way further complicating our events and staffing needs for these mostly night-time events. We will be working with Virginia to approach these events

in a more consistent manner. We cannot allow smoking around the aircraft and have to enforce that, we cannot allow incursions onto taxiway or runways by guests, and we will control our parking with improvements. We will not have the Restoration Hangar open for most evening events, we will not be moving fabric aircraft to the outside locations or between hangars, and we are building a more obvious fence outlining our safe areas. Most vehicle ingress will be via the North Gate as well as egress. This very small and quiet group of workers have made these venues successful; for the most part, they are the same group that put on the VAC events.

While I tout the C-47 crew I work with daily, we have other groups of dedicated volunteers that quietly serve in restoration, tour guiding, PX sales, and administration/sales; how does one say thank you effectively when all serve so well? Well, we now have another group to thank which I call "Venue Support". Perhaps this group will create a patch or uniform or a better name allowing them to stand out and be recognized? Or perhaps, we somehow recognize it is our same group, just with added new tasks? Our PR experts, Lynn Foraker and Bob Boswell, could probably address the question better?

I hope everyone had a great Christmas and all will have a healthy, prosperous New Year.

Thank you to all.



Maintenance Officer's Report

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WHAT HAPPENED!!! I'm not ready yet. It's hard to believe that 2018 is coming to an end. Before this year comes to an end, I would like to say that I wish all the best for the Holiday Season and if you are traveling, please be safe. I suppose it's time now to start thinking about 2019 to set the new year agenda. Don't forget to think about your New Year's Resolutions. Perhaps one of your resolutions could be more volunteer work here at the VAC, we could always use more help.

C-47 made the trip to the Stuart Airshow to represent Valiant Air Command. TICO BELLE showed to all what she is made of and what her capabilities made to our warbird history. Her performance throughout the airshow was outstanding. Although at the end she was leaking air on the right main tire, decided it best to replace the inner tube before returning back to TIX. All worked out well returning home.

In the past newsletter, it was mentioned that TICO BELLE will always need TLC. Well, we found during our run-up checks that the magnetos could use an inspection checkup. Found that the engine oil seal was leaking oil into the mag. We replaced the seal and installed an overhauled magneto. TLC steps in and decided to check the opposite engine and again found engine seal leaking into one of the magnetos. Yep, replaced seal and magneto. With that being accomplished, decided to inspect the complete ignition harness system on both engines, checked and corrected any

questionable items. Both engines feel much better now, that's what the engines are saying every time they're running now.

Saturday the fifteenth, 75 Santa Clauses showed up on our ramp with a parachute attached. TICO BELLE along with two other aircraft, Twin Otter and Sikorsky Helicopter, made four trips each to a drop zone over Cocoa Beach. TICO BELLE loads were 15 to 18 Santa's per trip. Aircraft movement on the ramp was a jigsaw puzzle, like that on a deck of an aircraft carrier. The bottom line went well for all aircraft and the jumpers. So that means Santa will be making his trips come the 25th.

Work has finally started on the TBM engine with inspecting and cleaning the engine case inside and out for any foreign objects and corrosion, also lubrication and purging of engine fuel pump and carburetor. Sorry to say not much will be done during the holiday season. The goal is to start the installation of all fourteen overhauled cylinders starting January third.

Now if you really like to see more action going on, you need to take a look at the restoration hangar where you can see a bunch of beavers hacking away at their aircraft. The painting, sanding and repairs continue for the Tom Cat (F-14). Nose landing gear and right main gear are completed with paint; primer on the left main gear. One can walk in there any time and see progress being made on her. Now let's talk about the F-11, they have taken her completely apart,

wings, tail feathers, landing gear, canopy and you name it, they even split the fuselage in half. There can't be anything else that can come apart on her. I sure hope the workers know how it goes back together. Well, I do have a lot of confidence in their ability. Wonder how many parts will be left over? Maintenance goes on and on, much work needs to be done, such as the S-2 Tracker, OV-10 Bronco, UH-1 Huey, H-13 M.A.S.H. helicopter, MUTT jeep, plus much more. To do this right I would have to be writing a book. If you feel like getting involved on any of these projects, please visit our website and click on the volunteer site. Love to see you come aboard.

Happy Birthday to Joe Reus (Our 96 year old Grumman Gremlin)





Operations Officer's Report

Leigh Lewis, Operations Officer
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I have only been on the job for a few months and they are bugging me to write an update. so here goes my aviation friends.

After Oshkosh, for which I was a willing participant, we came back and dove into the BEST and most productive upgrade of my 6-year experience with VAC. Our operations and maintenance teams came under the microscope of the FAA and the aviation community. I can say as of this date we are in full compliance with FAA.

I have been most involved with the TICO BELLE, but other operational aircraft will follow. Our teamwork (between Marvin and I) has been the key to our success thus far. We are so lucky to have such a dedicated team doing thankless work. There are too many names I would like to thank but YOU know who is doing the real work, even though RJ thinks that I sit in my beach chair and supervise. Marvin has secured (donation) new radios (Garmin), top of the line worth +\$30,000 and is in the process of installing them as we speak. We will

be installing new 2nd generation brakes, upgrading from 1930's shoe brakes. We are attempting to make the plane as close to WWII as original by removing the Queen of Denmark's panel interior that weighs in excess of 3000 pounds, making the plane more original, lighter and SAFER. Since we fly once or twice a month we are only using experienced Captains that swap seats to stay current. This will keep our crews at TOP currency. Our crew chiefs fill a crucial element to keep the plane safe. My job is to keep the flying planes flying and keep them safe. We have other projects in line equally as exciting, but we are limited to such few experienced mechanics that progress is one step at a time.

My special thanks for work beyond the call of duty goes to Charlie Hammer, Tom Etter, Jim Towe and Terry Nies, but as I said before there are more people deserving this kudo. My hat is off to these volunteers for all their incredible help...THANKS

The Valiant Air Command's Christmas Dinner was held December 14th. A scrumptious meal was served, great camaraderie was enjoyed and many door prizes were given to attendees. Hope you didn't miss it.



Even Tico Belle was at the party.



A table full of door prizes.



Joe Reus attended in his dress uniform; at 96 Joe still fits into his uniforms.

December 15th Tico Belle filled the air with many Santa Clauses and his helpers at the Annual Cocoa Beach Santa Drop



The B-52 Crew Compartment is restored and has been moved to its permanent display area



The Restoration Team

l to r: Ray Brown, Bob Westman, Larry Mathis and Pete Massaras
Missing from the photo: Don Hunter, Brian Delaney,
Bob Dambrauskas, Jim Brinckerhoff



Entrance to the crew compartment

The 2019 AirShow is almost here!

2019 SPACE COAST WARBIIRD AIRSHOW
MARCH 15, 16 & 17
SPACE COAST REGIONAL AIRPORT
TRUSVILLE • FLORIDA

GATHERING OF WARBIIRD

FRIDAY
AFTERNOON NIGHT SHOW
FEATURING SPECTACULAR NIGHT TIME AEROBATICS
GRAND FINALE FIREWORKS DISPLAY

SAT & SUN
FULL DAY AIR SHOW
FEATURING NONSTOP AERIAL DISPLAYS
WORLD CLASS AEROBATICS & HISTORIC WARBIIRD

SAVE THE DATE
DISCOUNT ADVANCED TICKETS AVAILABLE NOW!
www.valiantaircommand.com

FEATURING CLASSIC WARBIIRD ★ AEROSHELL AEROBATIC TEAM ★ MODERN COMBAT JET DEMOS
CLASS OF 45' ★ RING MASTERS DUELING AEROBATICS ★ LIVE PYROTECHNICS ★ MILITARY STATIC DISPLAYS

FRIDAY: Gates Open 2pm Show Ends Approx 8pm
SAT & SUN: Gates Open 8:30am Show Ends Approx 4:30pm

ADMISSION (at Gate) \$30 • \$10 (Children 5-12)
Advanced Tickets: \$16 • \$5 (Children 5-12)
Premium Upgrade Options Available

FREE PARKING & SHUTTLE SERVICE
Priority Parking: \$10

FOR AIRSHOW INFO & TICKETS VISIT: www.valiantaircommand.com/airshow

1953 Wright Bros. 1st Flight
1954 B-52 Stratofortress 1st Flight
1959-75 Vietnam War
1990 Gulf War
1991 Longest B-52 Strike Mission

B-52D Stratofortress s/n 55-095 Forward Crew Compartment

The Boeing B-52 Stratofortress, nicknamed the "Big Bird," is a long-range, subsonic, jet-powered, strategic bomber. Built to carry nuclear weapons, the B-52 replaced the Convair B-58. In active service with the United States Air Force since 1955, the B-52 initially served under the Strategic Air Command (SAC) and now Air Combat Command (ACC). Multiple B-52 variants, dropping conventional weapons, are veterans of many conflicts, including Vietnam and the Gulf War. Superior durability, adaptability, performance, and relatively low operating cost keep the B-52 in active service today. The United States Air Force plans to fly B-52s until the year 2040.

Signage for the B-52 exhibit

BRICK DONATION: If you would like to have a brick in the area by the Vietnam Memorabilia Room in honor or in memory of a loved one or loved ones, please contact our Executive Officer, Bob Boswell as soon as possible. We need to have a minimum of ten before we can have them done.

Tico Belle had an overnight guest.



A fun place to be • Try it next month

FLY-IN / DRIVE-IN BREAKFAST

*2nd Saturday Every** Month
Warbird Air Museum*

You can now fly-in or drive-in, pay \$12 for each person*, have a Chef prepared breakfast and then see the Museum FREE

Offer good day of the breakfast between 8 am & 10 am ONLY
Cannot be combined with other discounts



MENU

- Omeletes made to order • Pancakes •
- Bacon • Sausage • Fresh Fruit •
- Danish • Orange Juice • Coffee •

• Drive-in •

Warbird Air Museum, 6600 Tico Rd, Titusville, FL
(321) 268-1941 • www.valiantaircommand.com

• Fly-in •

Warbird Air Museum • Space Coast Regional Airport • KTIK

* Children (5-12): breakfast \$12, no breakfast \$5 - no sharing food • Wristbands will be issued

** Check the Valiant Air Command's official website or call the day before to check for any cancellation
www.valiantaircommand.com • (321) 268-1941



Ramp Marshals

Bob Westerman, James Cochran,
Tony DiCarlo, Art Pylar



A Waco fly-in



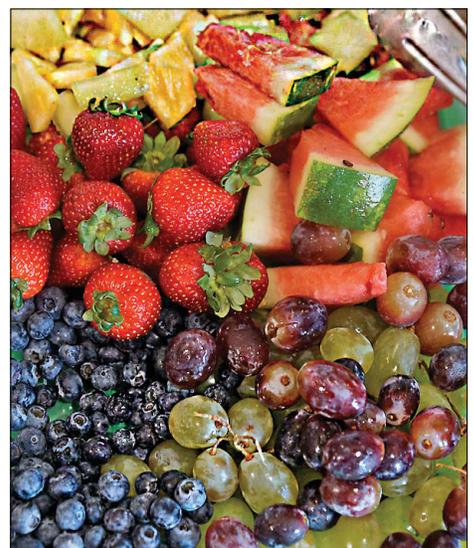
A twin Beech fly-in



Chef Matt from DIYM Catering



Sous Chef Linda Evans



Assorted fruit tray

Gift Shop News

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Hope everyone had a prosperous year in 2018 and that 2019 will be even better.

We're all getting ready for the AirShow and hope this will be the biggest and best. AirShow T-shirts, Hats & Tote Bags are in, and patches have been ordered and will

be in by the middle of January.

The ever popular wine bottle holders are in stock again.

All framed pictures on the back wall are on sale at 30% off. Some are one of a kind, so hurry on in before the one you might like is gone.

Discounted AirShow tickets are available on-line and in the Gift Shop.

Anita, Louise, Lorraine, Rich

These popular wine bottle holders are back in stock in the Gift Shop



Members get 10% off these holders and everything else in the Gift Shop

TRENDING - GET YOURS NOW

ZZZ Bears - Brand new item and they are in stock in the Gift Shop



Minutes before bed, mom tucks me in tight. Whispers "I love you" and turns off the light. And all I can think of is "YIPPITY YIKES!". Operation Bedtime tells the story of a young boy overcoming his fear of the dark with the help of a special bear - with the power to protect, the power to care!

Executive Officer's Report

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afternoon aerial performance, leading to a night show and ending with awesome fireworks. Saturday and Sunday the public gates open at 8:30 am. Radio Control Aircraft and Drone flights start at 10:00 am followed by a military reenactment and firepower demonstration at 11:00 am. The Rat Patrol of Military Vehicles will be at 11:30 and the para drop of the largest American Flag at any air show will signal the start of the afternoon aerial flights and demonstrations. There will be a spectacular reenactment of a Vietnam aircraft shoot down and pilot rescue. F4-U Corsair, P-51 Mustang, P-40 Warhawk, A-1 Skyraider, Mitchell B-25s, B-17 Flying Fortress, O-1 Bird Dog, O-2 Skymaster, AT-6/SNJ, T-34s, T-28s, UH-1 Hueys and AH-1 Cobras will fill the sky with exciting flights and demonstrations. Of course, there will be the high speed and loud jet demos to round out the show including a fly-by of the F-104 Starfighter. Do not miss this show.

In summary, the Warbird Air Museum is active and growing. We look forward to 2019 and the challenge to raise the needed funds for our much-needed expansion. The Warbird Air Museum continues to be a family destination and an ideal attraction for both local and out of town visitors.

Wishing everyone a Happy and Prosperous New Year!



North American's AT-6 Texan

Dr. F. J. Erik Kramer, VAC Historian

For more than six decades after its birth in 1937, the North American AT-6 Texan and its offshoots (the Navy SNJ and the Canadian Harvard) were used throughout the world as advanced trainers, artillery spotters (in Korea and Vietnam among other theaters), and even as counterinsurgency and fighter-bombers by numerous developing countries. The last known military use of the Texan was by the South African Air Force as a trainer in 1995, which gives it a working history of 60 years, a career virtually unrivaled in the history of military aviation.

The reason there are so many T-6s still flying is in part because so many were built. From 1937 to the early 1950s North American and other manufacturers produced about 16,000 Texans to satisfy the demand for advanced trainers.

The Texan was developed with the outspoken intention of creating an advanced trainer as the last step for pilots before they graduated to real fighters. With the introduction of the Texan, the stage was set for the most effective training system ever devised. The Navy used the rugged Navy N3N and Stearman/Boeing N2S (PT-17) for primary-, the SNV (BT-13) for basic training and the SNJ (the Navy's designation for the AT-6) for advanced fighter training. Thanks in large part to this lineup of training aircraft; the U.S. Navy graduated the world's best-trained Navy and Marine pilots the world has ever seen.

Versatility was key. For example, the SNJ was used by the Navy for gunnery training, carrier landing indoctrination and to provide all the skills needed by future Navy and Marine combat pilots to seamlessly allow them to step into single cockpits like Corsairs, Wildcats, Hellcats or any

aircraft then in use by the U.S. Navy. For example, Vought-Corsairs had their cockpit moved back several feet to allow more fuel to be carried, which greatly reduced the forward visibility. How to train these new Corsair pilots? A few trips around the airfield, flying the SNJ from the rear seat was even harder than flying the actual Corsair and problem was solved. The creation of the AT-6 resulted from, as so often happens in times of war, a combination of luck and pure necessity. North American had been building the BT-9, which sort of looked like the Texan but had a less powerful engine and fixed landing gear. The engineers knew that the design of the BT (basic trainer) had a lot more potential than just as a basic trainer and redesigned it as what is now known as the AT-6 Texan.

To get there, they installed a powerful 600 hp Pratt & Whitney R-1340 cubic-inch nine-cylinder radial engine, a Hamilton Standard constant-speed propeller; they switched to a narrow inward retracting landing gear and covered the rear of the fuselage with sheet metal, and the Texan was born. It is said that the Texan was great because it had three of the best families of components ever designed: airframe by North American, round engine by Pratt & Whitney and propeller by Hamilton Standard. This combination provided reliability and ruggedness.

The Texan control system followed the typical military thinking of the era. The controls consisted of a combination of push rod and cables along with bell cranks to change directions. All pivot points were smooth ball bearing and there was zero slop in the control system. The ailerons had anti-servo tabs to remove the load under certain maneuvers. Before the Texan could be transferred

to civilian ownership the servo tab had to be disabled. The first thing the new owner did was to hook it up again. The velvet smooth ailerons were one of the high points of flying a Texan. The anti-servo tab acted as an aileron assist, which greatly reduced the force needed to move the aileron. The FAA figured that civilian pilots might get into trouble with almost zero resistance ailerons.

The AT-6 is a no-nonsense military aircraft. The cockpit is a cavernous pit. It is wide open. The metal parachute seat and controls are mounted on two metal rails with the naked belly way below. There is no upholstery, just green protective paint on everything. The AT-6 is anything but a pussycat. Under certain circumstances, usually, when flown by ham-handed pilots, the SNJ would revolt and take over the flight controls, sending the airplane into unexpected wild gyrations that instantly taught the embarrassed and terrified pilot, "Hey dummy, that's not the way I want to be flown." This happened to various pilots on more than one occasion.

Navy instructors told novice pilots that the SNJ flew like a big Cub and generally speaking, they were right. If you have flown a Cub, then you know what the rudder is for: it keeps the airplane from skidding around the sky. When tackling a Texan, modern pilots trained in Pipers or Cessna's are in for a rude awakening. After takeoff, you can't put your feet on the floor. You have to fly a Texan, not fly in a Texan. It demands smooth delicate inputs and will reward you with immediate reactions.

Not that all Texan pilots are created equal. Go to any air show and Texans of all ancestry land on their wheels. At this point, airplane drivers will be upset to hear that pilots, who learned the proper way to land an SNJ, do not make wheel landings. The only time when pilots resort to a wheel landing was *continued on page 12*

No. American AT-6

continued from page 11

when the wind was gusting hard down the runway. Crosswinds were better handled by making a full stall landing. The trick of landing an SNJ was to stall the airplane about a foot above the runway and let it fall, tail first, for a perfect three-point low-speed contact with the runway. Then you better keep full control of your fire-breathing monster until the tie-down chains are securely attached. To avoid any arguments, ask this simple question: "How are pilots do a wheel landing on a carrier?" End of discussion.

Once a former T-6 pilot, flying for the first time an SNJ didn't lock the tail wheel and when he opened the throttle the plane made two complete circles on the runway. The supervising instructor responded cheerfully with "Now, that was fun, suppose you lock the tail wheel first?" The visibility forward is rather restricted due to the huge cowled radial engine and the tail-low stance while taxiing. This is the biggest difference between modern aircraft and the Texan. Once in the air, you will find that the Texan is one of the smoothest airplanes you will ever fly. Just think about turning or climbing and the plane seems to read your mind.

After World War II the military discovered that it worked just as well to start cadets off in a Texan, first flight, first solo, first everything in a Texan. Cadets taught this way became great pilots and it saved the military a lot of money in inventory and in the time needed for instruction. The Navy finally adopted this method of teaching as standard procedure. Other airplanes followed the Texan including the T-34, T-28 and the T-34-C. The current flight trainer is the Beechcraft T-6 Texan II turboprop. This modified Pilatus is similar in many regards to the T-34 C. It was

named in honor of the outstanding service that the original Texan had provided for so many years to our armed forces. It is no surprise that the Texan is universally known as the Pilot Maker.

Today the Texan still lives on in great numbers worldwide. The type was operated by dozens of different countries, and presently airworthy and static examples still exist on six continents. There are an estimated 400 Texans of various designations flying in the United States alone. Every year at AirVenture Oshkosh, dozens of them show up, many of them participating in multi-ship formation fly-bys.

The bottom line is that pilots really respect the breed. You are never going to conquer the Texan. In fact, you will soon learn to expect anything to happen at any time. It never quits teaching you. It is very much like having a pet tiger. You don't own the cat. Instead, it allows you to pet it, love it and to feed it and take very good care of it. If you don't, you'd better look out.

The Texan legacy can never be repeated, as the circumstances that created the aircraft will never occur again. Combining versatility, ruggedness and economy, no other wartime aircraft has ever done more for its owner than the North American AT-6 Texan. It was just hard enough to fly to make it an excellent fighter trainer. It was such fun to fly that any pilot who flew it became part of the airplane. It provided trust, you knew it would bring you home and it did. Every Texan pilot in the world would start to feel the tingling nerves the sweaty palms as he turned from base leg to final. Every landing in a Texan is equal to a Ph.D. in aviation science. If you have been kind to your Texan, it will reward you with a smooth-as-glass full stall landing, tail wheel down seconds before the mains are down.

Remember, the T-6 Texan is

the world's most operated trainer aircraft ever. The T-6 was also license-built in Canada by Noorduyn Aviation and Canada Car and Foundry.

The T-6 mission was to provide pilots with combat training skills. It was used to train aviators of the USAAF (United States Army Air Force), NAVY, Royal Air Force and other air forces of the British Commonwealth during WW-II and into the 1970's. It is known by a variety of designations like AT-6 (US Air Force): SNJ the US NAVY, by the British- and Canadian Air-Forces as the "Harvard" and often since 1962 as the T-6. It remains a popular warbird aircraft. Also, it was used many times to simulate the Japanese ZERO fighter in WW-II movies.

The T-6 trainer had a very long career! It was introduced in 1937 when it started its active duty and retired in 1985, (Brazilian Air Force). The impressive number of 15,495 aircraft had been built in many variants! No less than 59 countries made good use of this excellent versatile aircraft.

COMBAT USE:

Syrian Air Force, Israeli Air Force and Royal Hellenic Air Force.

During the Korean War and even in the Vietnam War, T-6 aircraft were often used as forward Air Control Aircraft. The RAF flew the T-6 in Kenya against the Mau-Mau fighters (1950's). Other countries using the T-6 were i.e. France, Portugal, Netherlands, Argentina, Spain, and Pakistan. South-Africa Air Force flew T-6 in combat missions.

GENERAL CHARACTERISTICS

Crew; two (student and instructor). Empty Weight: 4,158 lb Loaded weight: 5,617 lb. Power plant: 1 x P&W R-1340-AN-1 Wasp radial engine, 600 hp (450 KW) Max Speed; 208 mph. Cruise Speed; 145-mph. Range; 730 miles. Service Ceiling; 24,200 ft. Rate of Climb; 1,200 ft/min Armament: Provision for up to 3 x 7.62 mm machine guns.



10-15-2018
Avon High School ROTC visits the Warbird Museum



Tour Guide - Dale Gray



Tour Guide - William Teixeira



Tour Guide - Gordon Hewitt



Tour Guide - Curt Myhre



Tour Guide - Ken Lathrop



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

A Tour Guide's View

By Bill Teixeira

This October was an exceptionally great month for me at the Warbird Museum; I spent time with ROTC Air Force Cadets (see page 18) from Avon Park High School who toured the museum on Friday, October 15 and we had a group of 21 Navy ROTC Cadets from William R. Boone High School, Orlando on Friday, October 26,

As a Tour Guide, I always want to share the stories of pilots who flew these War Birds; there is no greater satisfaction than sharing past history with students and cadets from High Schools or any young person exploring history of the past. Tour Guides understand the importance of sharing the past.

Volunteering at Warbird Museum in any capacity is just a moving experience for me and I am sure for all of you who volunteer.



NAVY Cadets from William R. Boone High School, Orlando FL

Curator's Corner

By Jem Golden

Remember when the "new kid" showed up for his first day at school? Well, I'm the "new kid." I have taken over the duties that were previously performed by Don Leathers. I hope and pray that I can fill his shoes and keep everything in proper order.

We have a very good museum. My goal is to build on the excellent work of Don and with your help and co-operation make it a great museum. Our first goal of inventorying the memorabilia section has been accomplished. This was accomplished with the help of several "volunteers" from the tour guides. We discovered that we have 4,541 artifacts in just that one room! By the time this goes to print, we will have the Vietnam section inventoried as well. Then all we have to do is get all of this information into the computer.

You may have noticed that the large display of Ford Island that was leaning against the wing of the F4F Wildcat has been removed. We removed this item because we already have two displays of Ford Island, only twenty feet away. Also, it was blocking the view of the aircraft and created a potential safety hazard.

We have several ideas for the main entrance and lobby area which we hope will improve our visitors "First Impression" of our museum. There will be a few changes to the Vietnam memorabilia section as well.

I fully expect several complaints to all of this as nobody likes change. It has been my experience that those who do the most complaining, do the least to help improve things. If you do not like what is taking place, then offer some constructive advice. Sitting around complaining will not help us make this a great museum. Volunteer to help out.



Bob Boswell VAC Executive Officer and Airshow Chairman represents the Warbird Air Museum at the ICAS (International Council of Air Shows) Convention in Las Vegas.

November 8th, Executive Officer, Bob Boswell received the 2018 Central Florida Humanitarian Award on behalf of the VAC. The award is in



recognition of the many contributions the VAC has made to the community.



2018 Central Florida Humanitarian Award
Valiant Air Command

These awards are on display in the conference room.

Sampling Nuclear Clouds

By Larry Champion

Long after the airborne testing of nuclear weapons was halted, our government decided to explore the peaceful use of the explosions and "Operation Plowshare" was born. These nuclear explosions were to be conducted underground or underwater. Among those peaceful purposes were mining and other excavation projects. I flew, planned, or otherwise participated in several of these projects. Among those projects that I worked on was a project to dig a new canal using a 'row-shot' of nuclear explosions. Another project resulted in a trip to Darwin, Australia, to study the feasibility of creating an 'instant harbor' using several small yield nuclear devices. The 'harbor project' never resulted in an actual test explosion, but the canal project resulted in a row-shot of 5 nuclear devices that was called "Project Buggy". (*"Project Buggy" article will be in the next Unscramble*)

On the 26th of January, 1968, I flew my first operation Plowshare mission against an "underground" nuclear test at the Nevada Test Site. That test was called "Project Cabriolet" and consisted of the explosion of one relatively small nuclear device buried 170 feet underground. At the time, I was assigned as a Navigator and Systems Operator on the RB-57 Canberra jet bomber. Among the missions of our Squadron was sampling the clouds of nuclear tests of various nations. We would fly through nuclear clouds "right after the fire went out" and gather gaseous and particulate samples of the radioactive cloud. In the cases of the underground tests, we would wait until the larger rocks fell to the ground and fly through

the highly radioactive "dust cloud". Occasionally the "dust cloud" contained some larger "dust".

The Cabriolet test was conducted after a long hiatus during which the political atmosphere was rather anti-nuclear. The test had to have Presidential approval and when we deployed to Nevada for training, we really didn't know if the test would ever occur. It had been scheduled and canceled several times. Most of the crews were betting that this mission would also be canceled at the last minute.

We deployed to Indian Springs Auxiliary Air Base for several weeks of training and familiarization with the mission. The only thing about the mission that was actually classified was the date of the test and probably the fact that it was actually scheduled to occur. I know that I was able to invite my parents out to watch some of the training that we did. I remember telling them that we were only training for the possibility of a test, and "if there were an actual mission" they should be careful not to get too close to the planes and not to pick up any stray paper that may be blowing across the ground. Among our unclassified missions was nuclear sampling, but because we weren't doing any atmospheric nuclear testing, we were only flying "training missions".

Among the planes that were scheduled to fly against the test was a WWII B-17 bomber that had been loaded with instrumentation to monitor any radiation that left the nuclear test site. That was my one and only opportunity to fly in a B-17. We had a lot of downtime waiting for Presidential approval and good weather conditions for the test. A test flight in the B-17

was scheduled and I was invited to fly with them. I was quite surprised at the somewhat primitive instrumentation and controls in the cockpit. The fuselage was filled with state of the art radiation monitoring equipment.

When the day of the test arrived, we still didn't have Presidential approval to conduct the test. Several planes were assigned to sample the test blast. We took off and flew in formation to our orbit point at about 1000 feet above the ground. Everything was "go" for the mission with the exception of Presidential Approval. As we orbited, waiting for the approval, the radio chatter was not very optimistic. My pilot had flown against several tests and he bet me that we would be going home without ever seeing the test. Thankfully, he was wrong...

We finally heard over the radio that we had approval to proceed and they started the countdown. We were probably about 10-15 miles from ground zero at the closest part of the orbit. The orbit would fly about 5 minutes outbound (at 360 knots, that meant the orbit was about 30 miles long) then we would turn inbound for 5 minutes, then back and forth for a very long time. I really don't remember how long we orbited waiting for the Presidential Approval.

Because I was a Senior Navigator with several thousands of hours of experience, I was assigned the lead ship of the test fleet. On this test, we had about ten aircraft that flew through the cloud in trail formation about a minute apart at less than five hundred feet above the ground.

When the blast occurred, we had just turned inbound. A great ball of fire erupted from the ground along with tons of dirt and rocks and boulders. *continued on page 16*

Sampling Nuclear Clouds

continued from page 15

We descended and continued inbound while the larger rocks fell to the ground. As we entered the “dust cloud”, we could hear the particles of dirt hitting the plane almost like a sandstorm. The crater that resulted from the Cabriole test was 117 feet deep and had a diameter of 181 feet.

I performed my job, opening the sampling doors and turning on the appropriate pumps to gather gaseous samples. While I was doing this, I was also responsible for calling out readings on our radiation instruments. Everything was recorded on audio tapes for replay after we landed. We had 2 primary instruments that I had to constantly read and call out on the tape. One of the instruments was called the RASCEL (which was an acronym that I can't remember), that gave instantaneous radiation levels in Roentgens. The other instrument was called the Integrator, which gave the accumulated radiation dose that we were exposed to during the mission. In those days we were allowed to accumulate twelve Roentgens of radiation dose per year and four Roentgens of radiation per event. We know now that that was way, way, way too much, but then it was deemed acceptable. Now, scientists worry about tenmilli-roentgens when we get a chest x-ray.

We always flew on “hot mike” which meant that everything that was said into the mike (including breathing, hiccups, burps, etc.) was recorded for posterity. After the mission, the civilian technicians and scientists would review the tapes with us. We were always kidded that the scientists could tell exactly when we entered the cloud because

our breathing rate increased rapidly with the excitement of the job. Breathe...breathe...breathe, breathe, breathe... A lot of jokes about what we were really doing then...

After the mission, the ground crews would meet us with a front-end-loader or a forklift with makeshift chairs on the forks so they wouldn't get too close to the “hot” aircraft. We would exit the plane onto this “taxi” and they would take us to the showers. Then we would walk to the showers, disrobe and the scientists (who were garbed in white suits and masks with tape over every flap, just like the ground crews) would take our flight suits and wave their Geiger counter wands over us. We would never see those suits again after a low altitude mission. (After a high altitude mission, our pressure suits were simply cleaned and we would wear them again. Those full-



After the mission, we were extracted from the aircraft by a forklift and brought back to the area where the scientists could wave a Geiger Counter over us to determine how radioactive we were.



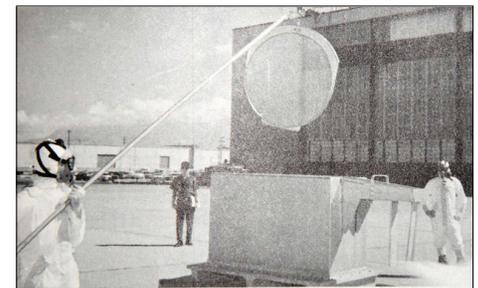
Scientists would remove the filter paper screens containing particulate samples from the sampling pods.

pressure suits were expensive). I always wondered why the scientists were so worried about contamination and sealed into their anti-contamination clothing while we were just in our normal flight suits. Yeah, we were just some of their test Guinea Pigs.

I'm not complaining. We were an all-volunteer Squadron and each of us knew what we were volunteering for when we applied for the job. We actually had to interview after we applied and were “selectively manned” for the assignment/missions. After the interview, we still had the option of refusing the assignment. I was proud to do the job then and I'm still proud that I had the opportunity to do the job. It was an exciting job to do and very few had the opportunity to do it. That Squadron had some even more exciting missions that were also all-volunteer that I got to experience.



Scientists would remove the pressure vessels containing gaseous samples of the cloud.

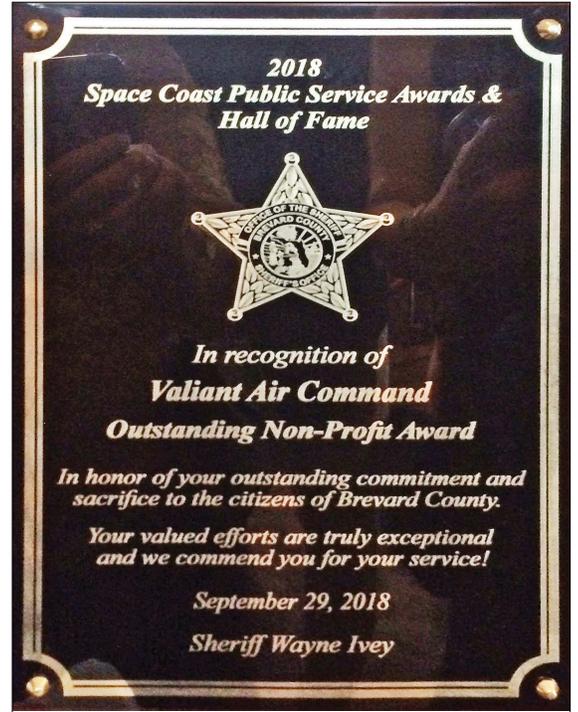


I'm sure you have heard the saying “I wouldn't touch that with a ten-foot pole”. Here, the particulate sample screen is inserted into a large lead box.

VAC receives Outstanding Non-profit Award.



l to r: Sheriff Wayne Ivey, Susan Ivey, Norm Rathborne, Barbara Rathborne, Bob Foraker, Lynn Foraker, Barbara Dunn, Joe Cross



Saturday, September 29th, members of the VAC attended the Space Coast Public Service Awards and Hall of Fame ceremony hosted by Sheriff Wayne Ivey and was presented by Space Coast Daily. The Valiant Air Command Warbird Museum received the Outstanding Non-profit Award.



Sheila Beryer from Space Coast Honor Fight presents an Award Of Appreciation plaque to VAC Commander Norm Daniels.



Bobby Patry, VFW Post 4228 Buddy Poppy Chairman, presented VAC Executive Officer Bob Boswell with a Certificate of Appreciation for allowing the post to distribute Buddy Poppies during our Veterans Weekend Open House. We helped them raise over \$3500. 100% of these donations will be used locally to help Veterans and their families.

4th Quarter Review - October, November & December 2018

10-11-2018 • Hot Dog Day and a Birthday...How great is that?



Bob Foraker was surprised with a Birthday Cake on Hot Dog Day. Bob went right back to cooking the hot dogs after cutting his beautiful and delicious cake.

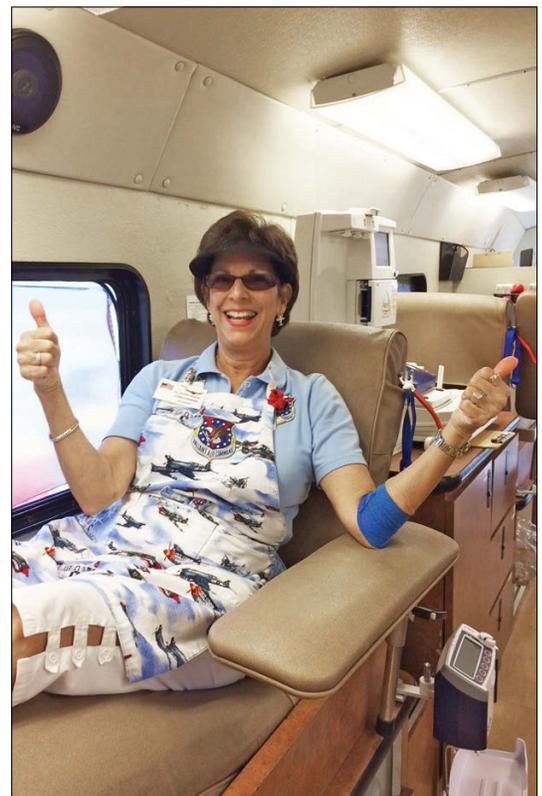
The hot dog serving team l to r: Bob Foraker, Patti Champion, Shirley Juhl, Lorraine Juhl, Violet Rice

One Blood's Big Red visits the VAC on Veterans Day Weekend

One Blood's Big Red Bus participated Saturday and Sunday in our Veterans Weekend Open House. They were able to collect 15 units of whole blood on Saturday and 11 units of whole blood on Sunday. Those donations will help save the lives of 78 patients in our local hospitals



Big Red Sunday Bus Team - l to r: Lourdes, Santiago, Leann



VAC member Lynn Foraker gives a thumbs up after giving blood on the Big Red Bus during our Veterans Weekend Open House

Valiant Air Command, Inc.

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

Website: www.valiantaircommand.com - Email: warbirds@valiantaircommand.com

Veterans Day Weekend Open House Photos

(Three pages of Photographs)

THE FUN PLACE TO BE



The local Corvette Club had a lot of eye candy for you to enjoy

THE FOOD CREW



l to r: Michelle Kidd, Patti Champion, Shirley Juhl, Lorraine Juhl, Joann Baxter, Joan Dorrel, Linda Hammer, Voilet Rice, Lynn Foraker, Bob Foraker, Barb Rathbone, Norm Rathbone

THE EATING CREW



Veterans Day Weekend Open House Photos

(Three pages of Photographs)

SO MUCH TO SEE



The ramp was a busy place with planes coming and going, plus doing fly-overs

A NICE COLLECTION



l to r: F-14 Tomcat, Stearman, Jeep (how did that get in here?) and L-5 Stinson

EVEN HAD AIRCRAFT PARKED ON THE TAXIWAY



A beautiful assortment of Warbirds

5 PLANE FLY-OVER



Thank you Spruce Creek guys

WWII MILITARY VEHICLES



Thank you Al Hughes - AKA The Rat Patrol

Veterans Day Weekend Open House Photos

(Three pages of Photographs)

SO MUCH TOO SEE AND DO



The petting zoo was a big hit



Did you ever pet an alligator?



One of the many train displays



Future pilots?



You could even donate blood



One of the many model plane displays



Get the latest theater information



I to r: Sandy Boswell, Kenita Bushee. Kenita donated the quilt to be raffled