



UN-SCRAMBLE



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

2nd Quarter Review - April, May, June • 2023

A-12 Warthog taking evasive action at Air Show



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

Closed Thanksgiving, Christmas and New Year's Day

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

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

Statement of Purpose

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

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

Future Events • July, August, September • 2023

July 1	Costal Car Rally & Show 5 - 8	Sept 9	Fly-In / Drive-In Breakfast, Museum, 8-10
July 4	Independence Day	Sept 11	Patriot Day
July 8	Fly-In / Drive-In Breakfast, Museum, 8-10	Sept 12	VAC BOD Meeting, 12 Noon (Tuesday)
July 11	VAC BOD Meeting, 12 Noon (Tuesday)	Sept 15	POW/MIA Day
Aug 12	Fly-In / Drive-In Breakfast, Museum, 8-10		
Aug 12	VAC BOD Meeting, 12 Noon		
Sept 2	V J Day		
Sept 4	Labor Day		

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



Commander's Report

Norm Daniels, Commander
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Greetings to our members, volunteers, and friends. During the first quarter of 2023, the VAC signed up new members with a record number of membership renewals. COVID issues appear to have dissipated at least for the time being and people are getting out and about. Other venues within Brevard County are also reporting increased visitation. We have installed a user-friendly guest touchpad in our Gift Shop that allows visitors to fill in the blanks as to name, where they live, and other information that allows us to follow up and capture information that we use to help secure grant funds. We can track those visitors who live in the county, out of the county, and out of the country.

The expansion plans for the new Event Center/Hangar combination are almost complete with a target date to break ground this August. As reported in the last issue of the UnScramble the City of Titusville has approved our site plans with minor comments. Stormwater plans have been completed and submitted for approval by St. John's Water Management District and the City of Titusville. The growth of North Brevard over the last several decades has caused concern over stormwater runoff carrying pollution from fertilizers, pesticides, other chemicals, and septic tank leakage flowing into the Indian River Lagoon and damaging the life it supports. Major funds from various entities for Lagoon cleanup have been announced.

Bob Boswell, XO is in the process of planning an airshow for 2024 with some twists as well as continuing to concentrate on booking future events in our hangars that include Corporations, businesses, weddings, and other large social and showcase events.

Tracy Bohrmann, Finance Officer continues her role of "lion at the gate" overseeing all financial issues to ensure that we are compliant with all requirements necessary to continue operating as a 501(c)(3) IRS approved entity. This along with: *Continued on pg 3*



Robert D. Kison

February 19, 1938 - March 30, 2023.

Bob passed away at home March 30, 2023, at the age of 85. He is survived by his wife.



After college Bob received his Naval Aviator wings on April 26, 1961, and spent two tours in Vietnam with over 200 carrier landings. After he left the Navy in 1964, he was employed by Northwest Airlines flying the Lockheed Electra, Boeing 727, and Boeing 747, all as Captain after initial training.

Bob was actively involved in the Valiant Air Command for several years. He also initiated the Fist of the Fleet Association with members from VA-25 and VFA-25.

Bob was interred at the Cape Canaveral National Cemetery Thursday, April 13. In lieu of flowers, please consider a donation to St. Francis Reflections Foundation (hospice), Fist of the Fleet Association, Valiant Air Command, or Titusville Playhouse.



The Official Newsletter of the Valiant Air Command

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

Editor: Phyllis Lilienthal

Unscramble Crew: Louise Kleba and Lorraine Juhl

Photo Credits: Bob Boswell, Randy Black, Norm Daniels, Marvin Juhl, Lorraine Juhl, Phyllis Lilienthal, Hawk Moore, Peter Stetson and Larry Titchenal

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

Commander's Report

Continued from pg 2

accounts receivable/payable, bank reconciliations, cash management, and all other accounting responsibilities.

Richard Jones, Personnel Officer as well as resident IT expert along with Louise Kleba-recording secretary provides the Board Members with current member information and the status of running programs as well as continuing his personnel role in assisting the Board in recruiting, wage and hour issues including oversight of Board Members.

Our Administrative Assistant, Louise Kleba, continues to keep up our member database providing new members with packages that include membership cards, a member certificate, a C-47 decal, and four guest passes (a new program that started this June 2023 for all members) and renewing cards and guest passes for those who continue to support us annually. In addition, she continues to administer the formation of pilot records and cards that allow them to participate in airshows across the country. Louise also receives and distributes voicemail messages received at the VAC to the appropriate departments. Because Kenita Bushee is on medical leave, she has adopted some of Kenita's duties ordering supplies, keeping up with the tour forms and distribution, sending letters of acknowledgment to people who donate goods and monies to the museum, and assisting our Executive Officer as needed on preliminary airshow planning. Add to that, Louise helps with the minor Volunteer issues onsite (changing phone numbers and addresses for members and volunteers as necessary) and provides our volunteers who work onsite with photo ID badges. Louise is also Recording Secretary for Board meetings and keeps meticulous minutes of those events. Speaking of events, you will often find her at onsite events manning our Membership Table where people can sign up, renew, donate, or talk to her about issues with their membership. When she has time, she assists Phyllis with proofreading the UnScramble each quarter.

Marvin Juhl, Procurement Officer as well as aircraft restoration chief continues progress on the restoration projects as follows: C-337, F-104 Starfighter, Fouga, and the Seabee. Just completed this June is the UH-1 Huey Helicopter which was moved into the Vietnam Hangar next to the Vietnam War Memorial.

Leigh Lewis, Flight Operations Officer continues to make the "right call" as to what events our C-47 Tico Belle and C-45 Beechcraft should be participants in. While we would like to accommodate those who want to have

our aircraft perform (flyovers for funerals, weddings, and other events). Leigh makes the recommendation to the Board as to what is feasible and reasonable before a decision is made. The cost of maintenance, parts, fuel, and insurance are governing factors.

Christopher (Hawk) Moore, Facilities Officer continues attacking a growing number of corrective actions to ensure that our hangars, rolling equipment, oversight of projects, and aircraft moves in and out of hangars to accommodate clients' requests while safeguarding our assets. All this was accomplished with a dynamic volunteer crew.

Terry Rush, Maintenance Officer. Terry is one of our accomplished pilots and his role is to verify that all maintenance procedures for our flying aircraft are met and that all parts and pieces necessary to keep aircraft current with FAA requirements continue to be met including log books. While on medical leave John Mackinson has been appointed acting Maintenance Officer to ensure that there is continuity to maintenance requirements.

David Shores, Marketing Officer, has proven that targeted advertising to various demographic areas does increase visitation. He has been aggressively utilizing social media platforms to make sure our message is delivered. Additionally, David has orchestrated and overseen many media events in the past few months showcasing and selling to audiences what we have to offer.

Our PX continues to thrive thanks to Maureen Larney, Manager, and her team for bringing in new merchandise and increasing selections including straw hats to help visitors ward off the hot sun on their heads as they move about the property.

A special thank you to Phyllis Lilienthal for her continuing to produce, edit and format UnScramble.

Jem Golden, Curator along with Malcolm Carter and Christine Reynolds has outdone themselves in displaying and adding correct nomenclature to our growing number of artifacts. Our memorabilia collections are noteworthy and documented to tell the story. Visitors have commented favorably on the scale and scope of our memorabilia collections.

Kathy Lowe, Director of our STEM programs has taken a position at a Savannah, GA banking institution. We have two volunteers who have stepped up to fill her shoes. Our programs for young people have worked so well that we have a growing number of parents wanting to enroll their children in our programs. We continue to offer these learning programs at no cost to parents.



Executive Officer's Report

Bob Boswell, Executive Director
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Thanks to our new I-95 Air Museum signage and additional media advertising we have enjoyed a strong attendance at our museum. We also hosted multiple tour groups each week from many diverse groups including schools, both local, from Florida, and even from neighboring states. The good visitor count is helping us with both the main building roof repair project and our expansion with the new multi-use hangar/event center. The new building will be located next to the Vietnam Hangar adjacent to the new south parking ramp. Actual construction for the new combined hangar/event center is planned to start in August or September.

The new south ramp has been a wonderful addition for aircraft display and event parking. We no longer need to ask the airport to close "A" taxiway in front of the museum so we can park aircraft for our monthly fly-in breakfast. We maxed the ramp out during a recent club fly-in. We need volunteers to marshal aircraft at the Saturday breakfast and other events. If you have experience in Flightline activities or would like to learn, please go to the website and sign up.

Speaking of breakfast, we have had great attendance at our second Saturday each month, Early Bird Breakfast (8-10:00), from both drive-in and fly-in visitors. Jolene Clark, our Events Coordinator, and Caterer, has re-organized the service line and the result has been a great meal without the long wait times we have had in the past. On their way out, several customers commented on the good food and service.

Our museum has become a favorite location for both private and corporate events. We have events scheduled all the way to April 2024 and most of the weekend dates have already been reserved in December for holiday celebrations. Our Member Appreciation Christmas Dinner is scheduled for Saturday, December 16th. There is also a Member Appreciation Dinner, in planning, with a USO theme on Saturday, September 30, in the Vietnam Hangar. Looking further ahead, the Annual Veteran's Day Weekend Open House will be on Saturday and Sunday, November 11th, and 12th. This is always a popular community event with planes, trains, local clubs, and Veterans organizations with their displays. No fly-in/drive-in breakfast that Saturday,

however, we will have a hamburger and hot dog lunch. Keep checking our website for additional information about museum events.

We have also implemented several membership support initiatives including the ability for our volunteers to earn through work hours credit for the cost of an annual membership. A new program was started to provide each member with no-charge museum entrance passes their guests can use. Also in planning is a new program offering the opportunity for members to fly in one of our aircraft. A March 23-24 2024 AirShow at the Space Coast Regional Airport is being considered. We are actively looking for sponsors.

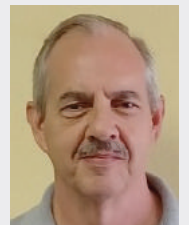
A bit of history: June 26 was the 75th anniversary of the Berlin Airlift. Our C-47 Skytrain joined many other aircraft on that date in 1948 flying needed supplies of food, fuel, and other essentials to West Berlin that had been cut off from ground transportation by the Soviets. After almost a year of continuous airlift from East Berlin, the Soviets realized their attempt to cut off West Berlin was a failure and ended the blockade on May 12, 1949. The success of this airlift, providing life-saving supplies to over 2 million West Berliners, came at the high cost of 76 casualties from aircraft crashes. Shortly following the successful ending of this lengthy aerial supply event, the North Atlantic Treaty Organization (NATO) was established. Our C-47 flagship, Tico Belle, continues flying several missions each month including dropping parachute teams as military combat reenactors and participating in flyovers as part of funerals at the Cape Canaveral National Cemetery and other locations.



Dave Courtney

June 15, 2023.

The Valiant Air Command has regrettably lost another reliable volunteer. After a short illness, Dave Courtney passed away 15 June 2023. Dave joined us as a Docent in May of 2022 and served 215 hours over the past year. We currently have no further information. Please remember Dave and his family at this difficult time.





Procurement Officer's Report

Marvin Juhl, Procurement Director
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The GOOD, The BAD, The UGLY, *soon to become the QUEEN*

This aircraft is one that we've had here a few years, all who looked at it thought it was the ugliest aircraft in our fleet to look at, let alone how to spell or pronounce it correctly. It was called a ~~Fewga, Fuoga,~~ Fouga CM-170 Magister. So a decision was made, send it to restoration where its ugly paint job can be and currently is being stripped to its bare metal. Upon its complete make-over, it will be set up for display where all young and old can enter the cockpit for photo shots as one of the sexiest aircraft in the fleet, well maybe second to the F-14. So, this article will be your history lesson as to what VAC's ugliest aircraft is capable of.

Fouga Magister was designed in response to a French Air Force need for a two-seat jet trainer in the late 1940s. France was the first country to produce the jet aircraft making inexpensive pilot training possible, the FOUGA CM-170. Thanks to its technical qualities the Fouga was the first training machine in which a pilot could go through a complete training course, from the beginning right through to mastery of the combat aircraft covering: basic training, advanced training aerobatics, blind flying, night flying, gunnery, bombing, etc. The maiden flight of the prototype took place on July 23rd, 1952. In addition to the French Air Force Fleet, fifteen or so other countries have used the Fouga Magister.

The plane's most distinctive feature is its butterfly tail configuration, "V-tail", which came about from the glider that Fouga has fitted with a jet engine for testing. A conventional tail was tried but found to be aerodynamically inferior at higher speeds. A keel fitted under the rear fuselage functions to reduce the negative dihedral effect of the butterfly tail during rudder applications. Provision was made for the installation of a pair of 7.62 mm guns upon the aircraft's nose, which included a 200-round ammunition box for each gun and the ability to collect both links and cases. Underwing hardpoints could be used to hold up to four rockets or a pair of 110 lb. bombs. First flew in 1952 and entered service with the French Air Force in 1956. In all 929 were constructed. After the Magister was retired several found their way into civilian hands, particularly in the United States.

SERVICES:

Israeli Air Forces used the FOUGA and its indigenous copy, "called the Tzokit". It was used both as a basic and advanced trainer. It was delivered to the Israeli Air Force Flight School in 1960 by "Bedek Aircraft", later to become the Israel Aircraft Industry, and became its standard training aircraft. The Fougas with their cannons and light rockets and bombs at the start of the "Six-Day" War in 1967, 44 Fougas were used as light ground-attack aircraft in Sinai as the IAF's purpose-built attack aircraft. Four pilots were killed during the first sorties into the Sinai, all from hits by anti-aircraft fire. The major contribution to the war effort came on the second day of the fighting, June 6th, on the Jordanian front. When the IDF began the conquest of Jerusalem, the Fougas were instrumental in holding back Jordanian armor which was heading towards the city, destroying over 50 tanks and over 70 other armored vehicles. For the remainder of the war, the Fougas participated in attacks on all fronts, attacking Jordanian and Iraqi positions in the West Bank as well as Syrian posts on the Golan Heights. By the end of the war 6 pilots had been killed in action, and 7 aircraft were lost.

The Finnish Air Force Fouga CM-170 that's in our possession initially came from the Finnish Air Force before coming into the U.S. The Finnish Air Force had a total of 80 Fougas. They served from 1958 till 1988. The Fouga was nicknamed Kukkopilli ("Rooster Whistle"), referring to the distinctive sound of the aircraft's jet engines.

Katangese Air Force used the Fouga in 1961, during the Congo crisis as a light attack aircraft against the UN forces. Secretary-General of the UN Dag Hammarskjöld, has been claimed to be shot down by a Katangese Fouga.

Moroccan Air Force used the Fouga aircraft in the Western Sahara War (1975-1991) against the Polisario Front rebels, but with heavy losses.

Salvadoran Air Force had 12 second-hand Fougas that came from Israel and France and used them against the Farabundo Marti National Liberation Front (FMLN) in the Salvadoran Civil War (1979-1992).

'Silver Swallows', the plane's long wings and butterfly tail made it the symbol of aerobatic flights. During the 1980's the plane was upgraded, the engine was replaced and additional technical improvements were installed until it became an almost completely new aircraft – the Magister – still in *Continued on pg 6*

Procurement Officer's Report

Continued from pg 5

operation and they were also often seen at Air Shows throughout Ireland and abroad performing as the 'Silver Swallows' Aerobatic Display Team from 1986 - 1997. The 'Silver Swallows' Display Team's Fouga Magister aircraft were drawn from the Light Strike Squadron of the 1st Support Wing, based in Baldonnel outside Dublin. Their international display debut was on July 26, 1990, at RAF Brawdy in Wales. The Gaelic text on

the side of the aircraft reads "Beag ach Fíochmhar" meaning "Small, but fierce". At their first and last ever visit to the Royal International Air Tattoo (RIAT) at RAF Fairford in 1997, the team was the winner of the Lockheed Martin Cannestra Trophy for best flying demonstration by an overseas participant.

This is only part of its history being told, remember that there were 15 countries plus that use the Fouga Magister. If any of you aircraft gurus know additional history worth telling, we would love to hear from you!



Cockpit to be removed, cleaned, painted and then reinstalled.



Stripping the bottom in progress, the two openings on the nose are for the mounting of 7.62 mm guns, yes we do have the mock-up guns on hand.



Stripping the paint to bare metal in progress





P R Officer's Report

David Shores, Public Relations Director
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Our ad on Yelp has generated 416 leads 553 page visits to our Yelp ad and 51 visits to the VAC website this year.

The Thrillist Magazine did a great write up on the museum as part of an article on driving the Space Coast.

Great Outdoors did a comprehensive story about the museum.

I represented the museum at the first of 4 trade shows. The show was attended by 48 travel agents from all over the country. The second trade

show was for local hotel employees and went well.

Senior Living has filmed a segment on the Red Baron and will be putting it on their website.

We are renewing the contract for our sign in the International Terminal of Melbourne Airport. It is the only sign in International Baggage Claim.

Groupon continues to add \$700-\$1000 per month of revenue to the Museum.

We have created a new video for the museum which should be completed by 6/23.

We were included in Florida Today's article "35 Things to Do in Brevard County".

We had an article on Brevard Cultural Alliance's website.



Our ad at the international baggage claim at Melbourne Airport

Curator's Corner

By Jem Golden

Well we have been busy as bees this past quarter. Along with Malcolm Cator and Christine Reynolds, we accomplished the following:

- The lobby of Memorabilia Room was re-arranged in order to set up the new flight simulator.
- A new display was set up which shows fabric from three of our aircraft artifacts: the Douglas World Cruiser, the NC 4, and the first Army Transport to fly across the continent.
- Three special displays were created to honor World War Two pilots. The items in these displays were donated by the families of the flyers.
- With the help of John Bodjack we now have two of our WW2 radios in operational status. John has done a fantastic job with our electronics section.

These radios can be seen in the Banana River display.

- A display was set up depicting the homefront efforts of civilians during WW2.
- Work is continuing on the Mash display in the Vietnam Hangar.
- A new display is being set up depicting the exploits of VP8 and their role in surveillance of the Ho Chi Mihn Trail during the Vietnam War.
- We are constantly receiving donations of military uniforms, flight suits, decorations and books. Most of these are used in our displays.
- Our department provided a set of flight goggles for Snoopy. He will now be able to ride in the Red Baron Pizza aircraft without discomfort.
- We plastered the new air conditioning cover with various photos of planes and aircraft carriers. This adds a little color to that area.



Finance Officer's Report

Tracy Bohrmann, Finance Director
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The museum is having a great year so far. Visitor attendance is the highest it's been since before the pandemic. We book tours on a regular basis, and we have large special events booked into 2024. Overall, the museum is on very solid footing and positioned well for the future despite the effects of a long-running pandemic.

The C-47 has been flying with increased frequency and is flying more reliably than ever. Her primary source of revenue is dropping parachutes for the round canopy groups throughout Florida. While she is by no means required to earn her keep, she is making a nice dent in the cost of operation. The success of this operation is due in no small part due to the efforts of Leigh Lewis, Terry Rush, Mike McCann, and Mark Adema as an excellent flight team. A huge part of the reliability and safety of the aircraft is due to the work of John Makinson, a world-class A&P mechanic and warbird specialist. John's diligent work has made a world of difference and the C 47 is running reliably and capably.

The PX is performing better than ever with Maureen Larney heading up the team, along with Rich Cariseo, Sheryl Sanford and Lorraine Juhl completing the team. Under Maureen's leadership, the PX is able to serve a high volume of visitors and she and her staff are friendly and professional.

I would like to thank the Family of Robert Hamilton. Robert was an excellent volunteer who worked here for many years. When he passed away recently, he generously directed a donation to the Valiant Air Command to continue the work of restoring aircraft, and will be put to very good use.

The efforts of Norm Daniels, Bob Boswell, David Shores, and I have enabled us to secure a large capital improvement grant from the Brevard County Board of Commissioners and an additional large grant from the North Brevard Economic Development Zone for the Events Center expansion. Funding at this level is extremely hard to obtain and requires adherence to stringent reporting requirements to assure funds are not diverted or misused. These grants are helping the VAC grow

while continuing to maintain all our other activities. Ron Davis is the unsung hero of the local and state grants we have been receiving for our various other programs. Without his diligence and ability to withstand an aggravation level that would have driven other people mad, he has quietly been working away to help keep up the level of funding we need to improve our offerings to the public, such as the STEM program.

One thing that has been hanging over our heads, literally, is the main hanger roof. The roof is decades old and has held up for many storms over the years, but the storm in November was the final straw for it. We are finally able to replace the roof and ensure the main hanger is as safe as can be for decades to come. The majority of the roof replacement funds come from the insurance company which deemed our roof as unrepairable so we should not be out of pocket for hundreds of thousands of dollars.

The overriding principle Norm and I have always worked from is to do things right so people who come after us to run the Valiant Air Command do not have to deal with shoddy or incorrectly done fixes that will not stand the test of time. We balance this guiding principle with the need to get the best financial deal possible and one that meets the financial constraints of the VAC. To achieve this, we put in countless hours and work very hard to ensure the future of the Valiant Air Command and make the best decisions we can for the health of the overall museum.





Facilities Officer's Report

Hawk Moore, Facilities Director
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The Facilities team continues to stay busy with supporting event setup, aircraft movements out of the hangars and on the tarmacs, event tear down, aircraft movement back into the hangars, facilities infrastructure work, and support to other VAC teams.

Tom Etter, David Shores, Terry Nies, Roger Tonovitz, Joel McGinley, Jim Bowers, Larry Dickinson, Charlie Meyer (flew the coop as a snowbird), Greg Goetz, Curt Reus, Rob Shaw, Bob Walter, and Ray Roberts provided outstanding support to the team over the past quarter. Large event support included the April, May, and June Fly-in / Drive-in breakfasts, the Quinlan Celebration of Life, Cocoa Beach Air Show (with volunteers on the beach selling beverages and aircraft launchers and recovery experts for the Tobul Corsair and Moonbeam McSwine P-51), Mustang Club of America, Classic Car Club of America, All Docents Meeting (22 April), Scout Troop Tour, Bella Title "Top Gun" Themed Meeting, STEM Cookout, Stilettos on Steel Women's Motorcycle Club, World Outreach Church aircraft film, Providence Christian School tour, the short-term support the "hangaring" of the 1947 AD-1 Skyraider "Bad News" in the Vietnam Hangar before the Miami Air and Sea Show, and the Perduto Wedding.



AD-1 Skyraider "Bad News" photo courtesy of Tom Etter

Tom Wilkey, a Restoration Team member, continues to do an excellent job mowing, edging, trimming, and watering our grounds. Ray Roberts, a new volunteer did an outstanding job transforming the landscaping in front of the museum by pulling weeds, adding many bags of his donated mulch, and fixing/

realigning the pavers along the sidewalk. The Facilities Team helped with some of the cleanup.

Roger Tonovitz continues quietly to do a myriad of behind-the-scenes things and projects under the radar. He empties the trash for the entire museum at least once a week. He designed and built the superb wood partition for the two new HVAC systems at the back of the Main Hangar. Rob Shaw and others helped assemble the partition. David Shores helped Roger paint the partition. The partition is secured to the wall with two hasps, and it can easily be moved with the lockable wheels he installed. Moving the partition requires two personnel since the partition is a little top-heavy on wheels. The Museum Curator team of Jem Golden, Malcolm Cater, and Christine Reynolds added historical posters and pictures to the partition. Great job!

Roger rebuilt and re-covered the blue scooter's seat. He resealed all the concrete wall penetrations from the new HVAC lines. Roger has also done a lot of re-organizing and clean-up in the Motor Pool so that the team has access to everything.

Joel continues to stay on top of all the VAC's vehicles . . . a herculean task with the age of much of our equipment, and their constant use. Joel and Hawk bought (at Costco at huge savings after Bob Boswell found the prices) and installed six new batteries into the MASH golf cart. The cart now has a much greater range/runtime. Joel removed and repaired the motor/brake from the XL4 mobility scooter. He also fixed the key switch that was worn/broken and would not stay on. He replaced it with a phono plug soldered by Docent John Bodjack. Joel readied three golf carts for the big Bella Title meeting on 5/4 and all were used to shuttle roughly 140 event attendees to and from the event to Tico Road overflow parking. However, the 6-pack cart has a repeat brake problem. The left-rear tire skids and will need work. Parts are nearly nonexistent.

Jim Bowers fabricated a STEM engine stand for lawn mower engine mounting. It's easily moved to tear down and rebuild engines by STEM students. Joel helped Jim with engine placements on the stand and helped Dan McAlexander with a STEM session in April and assisted Dan again in May. Jim fixed one of the C-123 aircraft stands by cutting, bending, and re-welding to make the stand usable again. Jim also helped Joel with the big forklift starter (45lbs: I know since I've helped remove and re-install it in the past) by bench testing and fixing it before reinstalling it. Jim also helped Charlie Hammer with fashioning the F-104 tow bar components . . . one for Starfighter Aerospace . . . *Continued on pg 10*

Facilities Officer's Report

Continued from pg 10

and hopefully the other one for the VAC F-104. Larry "Picasso" Mathis was painting the Starfighter Aerospace F-104 towbar Safety Yellow on 22 June.

The team moved the F-104 from the Restoration Hangar to the north driveway. Charlie Hammer helped the Facilities Team move and line up our bomb loaders nicely behind the F-104 and spruce up the driveway. Facilities helped consolidate oil residues in used oil barrels after most barrels were emptied and then moved the empty barrels behind the Restoration Hangar. Curt Reus and Hawk tied down the H-19 rotor blade and then after Marvin pointed out the rope was cutting into one of the rotor segments, removed the rope, and then installed a rotor cover after Jim from Restoration installed a couple of grommets onto the cover. The H-19 is in the Restoration Hangar as of 22 June.

Bob Walter oiled the hinges on all fire doors, repaired one of the flag poles, and helped the Facilities team rehang the flag in the Main Hangar. He cut and trimmed hedges out front, caulked some of the upstairs library windows, cleaned all the entry/exit door tracks, removing mud and dirt, replaced lawn sprinklers broken out on the front lawn, and weeded some of the plant beds out front. Bob finished the PX emergency door painting and hopes to add a sign to the outside of the doors in the future.

The Facilities team loaded up three pallets of metal onto our blue trailer and received a \$333 check from Dominion Recycling. The team assisted with aircraft movements and F-4J placement for a commercial shoot in the back of Vietnam Hangar with our American Flag as a backdrop. The Facilities (Charlie Meyer) and Restoration Team (Pete Masaras) members continue to prepare NiCd batteries for correct disposal at a Melbourne facility. There's still more work required. Tom Etter, David Shores, and Hawk cleaned out the Main Hangar door tracks of dirt and debris. The team helped move the Fouga Magister into Restoration Hangar for restoration. The Republic Seabee was moved to the front for restoration after the O-2/Skymaster was moved and then returned to allow for aircraft movements. The team removed the termite-ridden tables from the back of the Vietnam Hangar and took them to the dump. Curt and Hawk disassembled derelict stands, removed usable wheels, and transported stands to Dominion Recycling for additional VAC revenue. Per Marvin's request, the team installed a tube for the S-51 and then re-installed the wheel with A/P Makinson's oversight since it is a

flyable aircraft. The team pulled out the ambulance per Mel Juhl's request, washed it, and then returned it to the Vietnam Hangar. Rob Shaw and Hawk went to Advent Lutheran Church in Melbourne to transport a manlift back to the VAC with Resto's Pete Jolly. VAC will assist with fixing the lift at church expense and be able to borrow it when needed. Curt, Joel, and Hawk installed three "Remove Before Flight" tags with safety wire and metal tape to the F-14 and F-16. Curt and Hawk applied silicon sealer to leaks over the conference room and library areas using the manlift after Joel helped us get the manlift started. Terry Nies, Curt, David Shores, and Hawk loaded up two hydraulic mules and a golf cart on the derelict trailer and took all to Dominion Recycling for a \$562.40 check for VAC.

Greg Goetz continues to do an outstanding job keeping the Main and Vietnam Hangar floors clean with aircraft movements and all events.

In May, Norm Daniels and Hawk Moore met with Space Coast Steel and TLC Engineering regarding assessing the underroof red-iron for the main hangar. Their price was extremely high (almost \$17K) for just the assessment. Norm asked the structural engineer for the Event Center to assess and provide a report to us regarding the main hangar red-iron. We hope to receive a scope of work or action plan on how to address the significant surface rust on horizontal metal under the roof. Also, some steel columns, at the base, where they are bolted to the floor require attention as corrosion has compromised their integrity. Some columns will receive a new bottom butt that replaces the first 5' of the column.

As of the drafting of this report, Norm hired a company to inspect, clean, and repair the Main Hangar column bases that are compromised by corrosion. Work is to commence the week of 26 June. The Facilities Team will move any displays and aircraft to allow the repair team access to the column bases.

We decided to move forward with Midwest Roofing to re-cover the Main Hangar roof. The skylights will be covered with metal skins, the valleys will be filled with fiberboard to flatten the roof, and then covered with a thermoplastic polyolefin (TPO) roof much like what Amazon and Walmart use on all their warehouses. The roof will come with a 20-year warranty. We will plan to move all aircraft out of ½ or ¼ of the main hangar while the work is completed.

As of the drafting of this report, VAC has provided a 40% payment for the roof work and Midwest Roofing has ordered supplies and materials. *Continued on pg 11*

Facilities Officer's Report

Continued from pg 10

Midwest Roofing plans to be on site the week of 26 June with metal trim samples and will provide an update on the proposed work commencement.

Genie man-lift update: Joel McGinley has been working with Pastor Dave (Advent Lutheran Church), Pete Jolley, Charlie Hammer, Frank Manion, and Jim Houck on replacing requisite parts to get the man-lift back into full operation. On 22 June, Joel received the requisite seals via UPS. After several weeks of troubleshooting, bringing the man-lift to operational capability is hopefully within sight.



Charlie, Jim and Dave *photo courtesy of Joel McGinley*

Jim Bowers and Joel McGinley changed the master control switch to get the big forklift running. Water had also collected in the bell housing of the starter.

Blue trailer: Jim Bowers has created a list of materials to beef up the blue trailer so that it can be used for a wide variety of things including the transport of the borrowed Genie man-lift to and from Advent Lutheran Church in Melbourne. The requisite bed parts were purchased on 22 June and Jim Bowers should commence work on 24 June. We may still need two 10-foot steel pieces.

Roger Tonovitz and team moved the speaker from next to the flight simulator up onto the ledge and railing after building a platform to attach it to. The team also extended the speaker wires to connect it up.



Jim Tobul's Corsair visited April 2023

Joel and Jim will provide us with a plan on how to proceed with the crane. There's concern with the age of 75%+ of the hydraulic lines with it being too dangerous to operate. They are looking at replacing the blown lines to get it operational to sell. Otherwise, we may try to scrap it.

Curt Reus used our man-lift to help a sign company representative measure the Vietnam Hangar for the installation of a "Warbird Museum" sign on the South facing side of the Vietnam Hangar over the South tarmac. He also helped the internet guy so he could do some work in the Main Hangar. Larry Dickinson and Joel McGinley assisted as well.

Rob Underwood was successful in trimming the drip lip off the no-fly F-8 nose tire replacement (closest size for a no-fly tire). The tire was installed the week of 1 June by a joint Restoration and Facilities team.

The Facilities Team has broken the code on how to successfully get the Titusville Walmart to load pallets of water onto the VAC pickup. In the recent past, the team had to hand-load cases from a pallet onto the truck from other companies and then hand-off load the cases into the Motor Pool. We've been able to get a pallet loaded directly on the VAC pickup, three times in a row, making the job much easier and safer than before. It may not sound like much, but if you've ever loaded and unloaded 48 cases of water from/to a pallet, it is quite tedious and hard work for us old guys.

A museum patron recently provided Joel McGinley with the port wing tip beacon globe from the F-101. A storm must have blown it off. Curt Reus and Hawk ground down a machine screw to the correct length to securely re-install it.

I'm sure I've missed a ton of little things, especially with me being out of town in May to Miami and a large part of June on a trip to AZ and another trip to the DC area. The Facilities Team does many things day in and day out to keep the VAC running as smoothly as possible. The VAC BOD and I appreciate everything they do behind the scenes!



P-51D "Moonbeam McSwine" visited April 2023

2023 Space Coast Air Show Photos



EA-18G Growler showing the "Can't catch me" end



EA Growler Pilots up close



Sea Rescue demonstration



Thunderbird nail-biter



The Thunderbirds showing off

April 29 (Sat)... The VAC Goodwill Ambassadors set-up at the YMCA Annual Healthy Kids Day Event, Titusville YMCA. VAC Military Vehicles were on display at the parking lot entrance



Sandy and Bob Boswell (Bob is taking the photo)



Curt Reus standing by, ready for questions



Memorial Day...
Norm & Barb Rathbone placing the VAC wreath at Veterans Park, Titusville



Charlie Conklin, DAV Member, will answer questions and help Veterans on Tuesday and Thursday, 10 am to 2 pm. The information desk is in the VAC lobby

May 13, 2023 Fly-in/Drive-in Breakfast

The Fly-in/Drive-in is always the 2nd Saturday of the month weather permitting
We usually get some very interesting aircraft fly in like the three below



Long-EZ



1946 Ercoupe



L-19 Bird Dog



Lorraine at the Membership desk



Maureen & Sandy at admissions



Jolene & Joel making omelets



Lynn, Norm, Patti & Barb at the hot food station



Cindy at the juice & coffee station



June 8, Volunteer Hot Dawg Day



I to r: Lorraine Juhl, Judy Lions and Joanne Baxter
The Easter Bunny was here



Chef Norm Rathborne and Sous-Chef Barb Rathborne
Patti Champion has moved



I to r: Lorraine Juhl, Easter Bunny, Patti Champion

The Easter Bunny came to the April Fly-in/Drive-in Breakfast. The Breakfast is every 2nd Saturday of the month, weather permitting. Come and see what you are missing.



Patti is a Lifetime VAC Member and a long-time, full-time VAC Volunteer. If you have attended any functions at the VAC you probably have been helped by Patti. She moved to Pownell, Vermont recently to be near her family. We wish her the best in her new venture. Good Luck Patti, you will be missed.

Bombing Rail Yards And Other Targets

John F. Piowaty, Lt Col USAF (Ret)

Some years ago, I read “Battles Lost and Won” by Pulitzer Prize winner Hanson W. Baldwin. In one of his footnotes a World War One veteran, David Figart, had written to Baldwin on the origins of so-called strategic bombing. I quote here pieces of what Figart wrote: “Major Raikes was the initiator of a series of bombing experiments on a railway in England which fitted in completely with my ideas. He had some magnificent photographs of the damage done to railways by bombs of various sizes dropped from various heights “

Raikes had written, “To further illustrate the general idea, I had a plane photograph the railway yards in Washington and the lines to Baltimore, with the result of English pattern bombing plotted indicating that while all the bombs from an airdrop might fall on the Washington yards, there would be tracks available on which transport could be detoured. But a single bomb hitting an isolated section of track between Washington and Baltimore would tie up traffic until crews and materials could reach the section needing repair.” Major Rakes went on to say that his report languished in bureaucratic waste paper until the day the Armistice was signed.

Figart went on in his letter to Baldwin: “When things began to get worse before the Second World War, I reminded both the U.S. and British War Offices of the existence of the report.” With Raikes report in mind, I wrote the following:

Figart’s plan languished until too late for World War I, and on through World War II, Korea, and finally on to LBJ’s North Vietnam bombing halt in March 1968. While the Figart Plan never saw the light of day even through 1968, his idea did germinate independently and bore fruit through the last year of World War II, mid 1944 to May 2, 1945. In those months, P-47s and to some degree P-51s brought German rail traffic to a virtual halt. Dropping off from bomber protection where the longer-ranging P-51s took over bomber escort, the Thunderbolts ranged free over Belgium, France, and Germany, shooting up everything that moved and even dropping bombs on runs straight down railway tracks. Its record of destruction includes almost 9,000 locomotives, over 80,000 rail cars, some 6,000 armored vehicles, and about 80,000 trucks!

The mass bombings in all our wars were expensive, dangerous, and inadequate to the task. Forty-seven thousand of the British Bomber Command and twenty-four thousand of the American 8th Air Force perished in the mass bombing of rail yards in Belgium, Holland, France, and Germany until mid-1944. Many hundreds of American aircrew died or became POWs bombing rail yards in Korea, and I can count many dozens of my fellow F-105 pilots who were killed or captured in futile strikes on the rail yards of North Vietnam. Too many of my one hundred-two missions there were flown against rail yards from Lang Son, seven miles from the Chinese Border, down southwest to the tiny and near worthless yard at Vu Chau that was defended as though it were Berlin; the heaviest concentration of flak I ever saw, heavy enough to kill Ward Dodge and Bill Frederick and to put Wayne Waddell in a prison camp for over five and one-half years. And, then further to the south down to the heavily defended Kep rail yard, the equally dangerous Bac Giang yard, and of course Bac Ninh, Mo Trang, Viet Tri, and all the others that carried the goods of war from China into the inviolate capital at Hanoi.

Here I’ve inserted my interaction in the fall of 1967 with a brigadier general from 7th Air Force Headquarters.

I was lounging in our small squadron snack bar one day with a couple of other F-105 pilot captains. We each had fifty or sixty missions marked on the front of our Aussie-type “Go To Hell” hats. Still don’t know where that sobriquet came from. Likely some puke from 7th HQ asked about our non-reg headgear and was told that as an answer.

The door was suddenly filled with the imposing figure of a general- Wow! A general in our modest little squadron at Takhli Royal Thai Air Base. Hell, we rated only a colonel as our commander. We had four of those birds, our Wing CO, Colonel John “The Big Kahuna” Giraudo, his Vice-Wing CO, Larry “Pick” Pickett, our Deputy for Operations, Colonel Bob White as our DO, and our Base Commander, Colonel Ollie Lewis. Colonel Giraudo had been captured in World War Two in Italy and again in Korea. Pick had flown P-40s in the CBI, and Bob White--also a WW II POW, and the first man to fly over 50 miles high in the X-15.

Anyway, the general stepped into the small room. “At ease, men. I’m General Wiser Than Thou from Blue Chip. (Blue Chip was the call sign of the 7th Air Force at Tan Son Nhut Air Base in Saigon.) I don’t remember the general’s name. With no preamble, he asked, “So, men, what do you think about our bombing campaign on the northeast railroad?” That rail line ran from Hanoi directly northeast in an almost straight line some 70 nautical miles up to Lang Son, seven miles from the Chinese border. There it made a left turn to the northwest for the run into China. There were two rail yards of significance on the line, at Bac Giang and Kep and a half dozen smaller ones. We’d lost dozens of Thuds on the rail yard strikes.

I gave him an immediate, “Not worth a shit, sir!” That sat him back on his heels, especially coming from a lowly captain who hadn’t even had the time to stand up. But, what the heck, I’d been up north dozens of times, and was sure he hadn’t.

“Well, what’s wrong with our operations?”

I was ready and my fuse was lit. I began. “You send us against rail yards, trying to stop the trains coming south from China, maybe twenty or thirty a day. In a dozen runs on the northeast rail line, I’ve never seen a train. They run at night or they are hidden out away from the rail yards in the daylight hours. Every rail yard has switches to connect the lines running through. Hit one track and they simply switch to another. Rail yards have everything right at hand for repair: extra rails, ties, ballast, the heavy rail-borne equipment hidden nearby, and ready labor.”

I was interrupted, “ But that’s what we did in Europe. We struck huge German rail yards.”

“We sure did, and thousands of B-17 and B-24 crewmen died and we never stopped the flow of war goods by rail. Later in the war, free-ranging P-47s brought rail travel to a halt by shooting up everything that moved. After turning their bomber escort over to the longer-ranged P-51s they dropped down to shoot up everything that moved. They destroyed nearly nine thousand German locomotives, over eighty-thousand rail cars, and untold hundreds of tanks and trucks. THEY stopped German transport - not the bombers.

“And, there’s more that’s wrong with Blue Chip’s tasking. So, we hit one rail yard, and even if we do put it out of commission for a day or two, traffic still runs on all the rest of the line. Loaded cars can be hand pushed on temporary tracks and be picked up by another locomotive once past the damage. If we do make hits on rail yards, often several bombs go into the same crater. No individual pilot is held responsible for his bombing accuracy or lack thereof, he just puts his nose down and drops on the rising dust clouds below.

And, because you keep sending us back, again and again, and I know, having been to the Kep rail yard at least five times, that’s where the big guns are. We get shot at, hit, killed, or captured for a plan that doesn’t work very well.”

The general huffed and puffed, “Well, Captain (my modest rank spoken with disdain) just how would you do it?” I had my answer ready.

“I would locate four sections of the line clear of SAMs and any anti-aircraft of 37mm or larger. Each section will be the responsibility of one flight of five Thuds, a Weasel and four following strike aircraft. Send one RF-101 or RF-4 to photo recon the rail line, avoiding the major yards and other heavily defended sites which we will also avoid. Detailed planning by each of the four 5-ship flights will ascertain exact compass alignment, terrain heights, best approach and departure headings, and roll-in points far enough from the target section to allow for precise alignment on roll-in. Flights will drop to a lower than our usual 2,000-14,000 approach altitude. Detail the crews to select SINGLE on their armament control panel and to drop their bombs with six quick pressings of the pickle button to get a longer spread of the bombs. With 25 aircraft dropping 150 M117 750-pound bombs, with greater accountability and delivery accuracy, I can see 50 or more cuts over many miles of a single-track rail line. Each strike pilot will be pre-assigned a numbered segment of his flight’s section corresponding to the pilot’s flight position. Following pre-strike fueling, each flight will assemble for approach to its assigned section, behind its leading Weasel. At five minutes from the respective roll-in points the Weasels will accelerate away from their strike aircraft, to begin their roll-ins on the assigned section, bombing as he runs up the line and observing any clusters of rolling stock. Attacks will be made from the echelon for a roll-in and attack down the line. If the Weasel spots rolling stock, he will call it out to the appropriate flight member for an attack. Segment assignment will put Lead farthest down the track, followed by the others with Number Four bombing the near end. Thus, Two, Three, and Four will not have their approach and target acquisition obscured by Lead’s bombs. Bomb release will be made from lower ground clearance than the usual 5,000-6,000 AGL and with a shallower dive than the usual 45 degrees, providing for greater accuracy. The shallower dive will compensate somewhat for the lower ground clearance. In my plan, each pilot will be responsible and accountable for his piece of his flight’s segment, any misses are his fault. And, by being able to come straight down the track in a shallow, lower bomb run, accuracy is well assured. And, by increasing spacing in the bomb fall by not using the usual ripple setting, doubling up of close impacts is avoided and more cuts become possible. The armament panel will be set for a single release, rather than ripple so that bombs will be released one by one down a stretch of track. To avoid blast damage, a detailed ballistics and lethal envelope study must be made to ensure safe clearance with a dive angle of 20 or 30 degrees.”

I rattled all this off rather quickly and I think I rather overwhelmed the general. He certainly got more than he’d bargained for. He gave a few Harrump’s and well’s, and hmmm’s and left.

Several months later, after I had finished my hundred missions and was doing ops analysis and reporting work, I checked the message traffic and there was MY plan, being ordered into “ . . . will develop plans for, and execute single ship strikes along the Northeast Railroad on relatively undefended segments of single track.”

I took the message to Colonel Giraud, our Wing CO. “Go for it, John. Get it planned out and let me know when you’ll be ready to brief it.” I got with Captain Rick Koehnke in the Weapons shop and we researched safe blast separation, dive angles, airspeed, and sight settings. I found plenty of relatively safe areas between Bac Giang and Lang Son and prepared target folders for four flights-maps,

flight plans, photos, etc. In my study I noted the major road paralleling the tracks and figured a second similar attack on the road would make a great follow-up strike.

The Wing informed Blue Chip that we were ready to go, and the strike was laid on. I got to do the briefing, and even though I was “officially” through flying combat, I got myself designated as the first of two spare aircraft. I briefed the mission. We all went to our planes, and before we taxied the mission was called off for bad weather. To my knowledge, the plan was forgotten and never used. I should add that the general could not accept a high school graduate OCS Mustang’s idea. “Ahh, but captain,” he had said, “you know that the 7th Air Force wants a high probability of success that takes a lot of bombs on target. A single strike won’t produce those results.”

“General, I’m not talking about rail yards. I’m talking about twenty-five Thuds dropping one hundred fifty-seven-fifties on low, shallow, straight runs-clear of enemy guns and SAMs. You’ll get results.”

He didn’t understand basic probability. “General, rail yard strikes do NOT produce a real probability of success. Just a lot of smoke. Trains still run through. Twenty-five individual strikes, while giving a very high probability of success of a single rail cut, give also a great likelihood of two cuts, three cuts, or even many dozens of cuts. And, because rail cars are necessary to bring repair equipment to the cuts, it will be a long time to re-opening the railroad.” The general left before I could give him a lesson in high school-level probability, but here they are, taken from a Weapons Planning manual I prepared for the Iranian Air Force when we were still allies.

SEPARATE ATTACKS ON IDENTICAL TARGETS

This discussion shows that where similar or identical targets are available, concentration of higher Damage Expectancy (DE), but only “overkill”; while spreading out attacks will give the same DE on at least one of the several targets, with some calculated DE to a second, some to a third, and so on.

Consider four oil pumping stations along a single pipeline. One successful attack will destroy a pumping station and shut down the pipeline. The commander has a Desired Damage Expectancy (DDE) of 95%. Operations planners have the following statistical data: (These probabilities from the 1960s, pre-dating employment of precision-guided weapons. Today’s numbers will be much higher, but the concept remains valid.)

To kill a target, you have to get there first:

For Probability of Arrival (PA)

Probability of No Abort $P_{NAB} = .95$

Probability of No Attrition $P_{NAT} = .92$

Probability of No Gross Error $P_{NGE} .85$

$P_A = P_{NAB} \times P_{NAT} \times P_{NGE}$

$= .95 \times .92 \times .85$

$= .7249$

For Probability of Damage. (PD)

On this target, with the type of munitions and tactics employed, $P_D = .70$

For Probability of Success, (Ps)

Ps is a product of the probability of Arrival times Probability of Damage: $.7249 \times .70 = 52\%$

How many sorties must we launch, then, to reach a DE of 95%? Using this formula for Probability of

Success (Ps)

$$Ps = 1 - (1 - Ps) n$$

We learn that three strikes do not reach the DDE:

$$\begin{aligned} Ps3 &= 1 - (1 - .52)^3 \\ &= 1 - (.48)^3 \\ &= 1 - .1106 \\ &= .8894 \end{aligned}$$

DE of 89% does not reach the commander's DDE of 95%.

A strike with four aircraft gives

$$Ps4 = 1 - (1 - .52)^4$$

Carried out as above brings DE of .9469 and we recommend that number of planes for the strike.

We now know that four sorties against one of the pumping stations will give a DE of 94.69%; but, what about sending three strikes against Station A and one strike on Station B? Three strikes gave a DE of .8894, and a single strike gave a DE of .52. Probability of failure to succeed on at least one station is contingent on missing both. Thus, Ps either A or B is found

$$\begin{aligned} Ps \text{ A or B} &= 1 - (1 - .8894) (1 - .52) \\ &= 1 - (.1106) (.48) \\ &= 1 - .0531 \\ &= .9469 \text{ for no loss in Ps on one station} \end{aligned}$$

In Strike One the average single ship success is $.9469/4 =$ about 24%. In Strike Two we have a likelihood of $(.8894 + .52) / 4 =$ shared success of over 35%--a significant improvement. Strike choice Three sends each of the four sorties to a discretely assigned target giving each a Ps of the above calculated 52%!

The likelihood of success against all four stations is very small at $.524 = .073%$ We can sum different outcomes of the mutually exclusive possibilities and give our commander all these probabilities:

PROBABILITY OF SUCCESS AGAINST

NONE	=	.053
1 only	=	.230
1 or 2	=	.604
2 only	=	.374
1, 2, or 3	=	.874
3 only	=	.270
2, 3, or 4	=	.343
1, 2, 3, or 4	=	.9469
All 4	=	.073

The concept remains valid today. Happy snaps don't win wars. Creating the most effective and efficient delivery of death and destruction does. Don't allow high-ranking ego or ignorance to piss away your lives and your capability to rain ruin on our enemies as was done to me and my comrades and those who went before.

John F. Piowaty, Lt Col USAF (Ret), F-105 Pilot with 102 missions over North Vietnam
Re-structured and written 1 May 2023

Coastal Auto Car Rally & Show



Presents the 3rd Annual **Get Ready! Get Set! Let's Jet!**



**At The Warbird Air Museum, Tico Road, Titusville FL
Saturday, July 1st, 5pm to 8pm**

General Admission: \$10 per person (18+) • Kids are FREE!
Vehicle Registration: RSVP \$20 or \$30 at the gate
Contact us to secure your spot: 321-615-1944

Artist's rendition of the future Event Center



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