

Teaball supercomputers, intel and radar helped US pilots over Vietnam

By Dennis Smirl

Our guest for the June meeting was Mike Hankins, an associate professor at Kansas State University. His specialties include history, military history, the history of science and technology, and airpower and aviation history. A native Texan, Mike was born and grew up in Dallas, and has had a life-long fascination with aviation and aircraft.

Mike earned a master's degree from the University of North Texas in 2013. His thesis is titled, "The Phantom Menace, the F-4 in Air Combat in Vietnam." In his thesis, he examined the way airpower doctrine shaped the development of the F-4 and other combat aircraft.

Currently a doctoral candidate in history at Kansas State University, he is researching transformative processes regarding the use of airpower. In addition, Mike's interests include other areas, such as art and pop culture history, religious history, and ancient history with a particular emphasis on the Roman Republic.

For our meeting, Mike's presentation concentrated on the "Teaball Solution" and American airpower during the final few years of the war in Vietnam.

Mike began by reading a couple of passages from "Fighter Pilot" by Robin Olds, taking us into the front seat of a Phantom in a fierce aerial battle as related by General Olds. He then moved to an overview of aerial combat in World War II by presenting us with statistics on air-to-air kill ratios for both the European and Pacific areas of conflict. During WW II, the USA maintained an average ratio of eight enemy kills for every loss of an American fighter aircraft. This aerial superiority continued into the Korean conflict, where the ratio increased to (depending on sources quoted) somewhere between 10:1 and 15:1.

The numbers weren't as good in the sky over North Vietnam. Even though we were employing the F-4 Phantom — our state of the art fighter aircraft of the late '60s and early '70s, the best our forces could manage was a ratio of 2.5:1. Part of this was due to the formidable nature of the MiG-21 Fishbed fighter, especially when it was equipped with the Atoll heat seeking air-to-air missile, a reverse-engineered copy of our Sidewinder. A second problem came from American pilots operating

"Teaball," con't, on page 11



Gene Howerter and Mike Hankins (photo by Dave Murray)

Inside This Issue	
From the Chairman's Desk	2&3
2017 Kansas Chocolate Festival Winged F Run & 4K Walk	Foot 5K/10K 4
Relatives of Daniel Forbes visit CAM	4
New sign points I-70 drivers to CAM	5
Donations to CAM through Topeka Gives set new record	5
A Night at the Museum	6
CAM receives M61 Vulcan cannon and wo	orks of art 7
Museum Notes	8
Area youth explore aviation through Young Aviators class	9
KDOT Magic Camp introduces girls to CAM	aviation at 10
1-108th Aviation Regiment Headquarters Con	npany holds

change of command ceremony at CAM Back Cover

Combat Air Museum

Topeka Regional Airport
Hangars 602 & 604
7016 SE Forbes Avenue
Topeka, KS 66619-1444
Telephone (785) 862-3303
FAX (785) 862-3304
www.combatairmuseum.org
Provided by

Rossini Management Systems, Inc.

Email: office@combatairmuseum.com

Museum Director
Kevin Drewelow
Office Manager
Nelson Hinman, Jr.

Board of Directors

Gene Howerter - Chairman

Dave Murray - Deputy Chairman

Tad Pritchett - Secretary

Wes Barricklow

Les Carlson

Stu Entz

Ted Nolde

Bill Stumpff

Dick Trupp

Mike Welch

Museum Hours

January 2 - February 28/29
Mon. - Sun. Noon - 4:30 P.M.
Last Entry Every Day is 3:30 P.M.
March 1 - December 31
Mon. - Sat. 9 A.M. - 4:30 P.M.
Sun. Noon - 4:30 P.M.
Last Entry Every Day is 3:30 P.M.
Closed New Year's Day, Easter,
Thanksgiving, Christmas Day

Newsletter Layout & Design

Toni Dixon 785-865-4221

Plane Talk, the official newsletter of the Combat Air Museum of Topeka, Kansas, is published bi-monthly.

We welcome your comments.

From the Chairman's Desk

By Gene Howerter, Chairman, Board of Directors

I would like to thank all of you who have been so kind to the Combat Air Museum (CAM) by purchasing either an individual or family membership. We've always produced this newsletter for you as part of your membership to keep you informed as to what is taking place at CAM. You are very important to CAM and we appreciate your support. We currently have 500 members and we look forward to your continued association with CAM. \$30 for an individual annual membership and \$40 for a family is the same that we have assessed for most of our forty years. Many members like to tack on a little extra when paying their dues, for which we are grateful. We thank you for supporting the Combat Air Museum with your membership.

I would like to share some of my thoughts and reflections on the Museum's past 40 years, specifically the story of CAM's F9F-5 Panther. This is one of three Grumman "Cat" aircraft in the Combat Air Museum. To me it is one of the more fascinating historical stories relating to an airplane in our collection. Years ago, when I was the Museum curator, our good member Ralph Knehans informed me he had located a Panther near Elkton, Minnesota. Ralph was sure CAM could acquire this aircraft if we were willing to transport it, so we decided to do just that. We worked an agreement with the owner and all went well with the transfer. Ralph was a truck driver for a large microwave tower construction company whose owner was always willing to assist the Museum. While returning from a trip, Ralph loaded the Grumman and brought it to Topeka.

This Panther had been on display in a park in Marshalltown, Iowa like many aircraft were in the late fifties and sixties. It was another example of over-ambitious or bored youths vandalizing such an aircraft. The city management of Marshalltown said, "This plane must go." The plane was now a disaster, not fit for public viewing, so the kind gentleman who acquired the plane from the city took pity on it and said he would take it. I have learned over the years the proper way of dealing with these former military aircraft is to contact the military officials and let them deal with disposal. However, the kind soul moved it to his farm and promptly stored it in an open trench silo. Give him credit: we would have never seen this plane at CAM had it not been for his decision.

I wish you could have seen the look on my face when Ralph and the Panther arrived at the Museum for unloading. All I could think was we must get rid of this unsightly pile of junk. Only God would be able to bring this plane back to life! After unloading the plane we placed it in the rear of hangar #604, waiting for a time when some Museum volunteers who worked for Trans World Airlines in Kansas City felt they could help bring the bird back to life. They did get a start on some sheet metal work but eventually called it quits, so the "bird" sat around without much attention for approximately two decades.

We finally realized that if there was any hope for the Panther we would need to consult the Museum's founder and aircraft restoration wizard Robert R. Schneider. Bob had an aircraft restoration facility in Hawkins, Texas. Rarely would Bob admit he was not up to a task when it involved aircraft restoration, so in August of 2001 we made arrangements with our friends at Worldwide Aircraft Recovery Services, Ltd. in Omaha, Nebraska to transport this pile of aluminum which looked like a Panther to Texas for its resurrection.



COMBAT AIR MUSEUM

Bob and his professional team of skilled mechanics, which included Edwin "Freck" Haire, started working on restoring this former Navy jet aircraft. Together they spent more than a month just banging out dents from the airframe. By September of 2002, a little over a year after it arrived in Texas, Bob's team completed the job and the plane looked wonderful in its original US Navy Fighter Squadron VF-51 color scheme. Once again, you should have seen the look on my face when I received photos by e-mail after the final paint job was completed. Yes folks, God does perform miracles as you'll see in the photos in this article.

Danny San Romani, our curator at the time, carefully researched the Panther's history and learned we had restored a real crown jewel. I have always found the Grumman Panther to be one of the most beautiful and attractive Navy planes ever built. Here's what we learned about this particular Panther and its storied history.

The Navy accepted Panther Bureau Number (BuNo) 126226 from Grumman Aircraft Engineering Corporation at Bethpage, Long Island, New York on October 14, 1952. The Navy flew the aircraft directly to North Island Naval Air Station in San Diego where it went aboard the aircraft carrier USS Valley Forge, CVA-45. 226 then flew combat missions over North Korea with US Navy Fighter Squadron VF-51, the "Screaming Eagles" from 2 January until March 1953, when a barrier engagement during a carrier landing damaged it. VF-51 was attached to Carrier Air Group Five where the Panthers spent lots of mission time in the tactical support role, hence our Panther returned to the ship on numerous occasions with both bullet and shrapnel wounds. 226 continued to serve in various naval and marine squadrons until the Navy declared it obsolete and struck it from the inventory in 1959.

After the Panther returned from its Texas restoration, we decided the aircraft deserved a dedication ceremony. Retired naval aviator and then-Museum Wing Commander Dick Trupp got the ball rolling. To our amazement approximately 300 people attended the Panther dedication ceremony on September 13, 2003. Dick received responses from four former service members who recalled flying our Panther with VF-51 over Korea during the war and were willing to speak about those experiences at the dedication ceremony. One of those who attended was former Chief of Naval Operations Admiral Thomas Hayward, who took the lead in sharing his recollections of the past. Others included Lee Boles of Eugene, Oregon and Herschell Gott of Los Gatos, California. We were surprised to learn of another VF-51 Panther pilot, a gentleman who lived only a short distance from our Museum in Wellsville, Kansas by the name of Bob Kaps.

Kaps recalled, "I was fortunate in many respects in my career... not through any talent on my part, but I got to go all the way through training with Neil Armstrong and then through an 11 month cruise in Korea with VF-51 and Neil at my side." While speaking with Air and Space Magazine shortly before he died in December 2012, Kaps said, "If you met Neil it was just like speaking with the guy next door."

Once, after Kaps and Armstrong returned to the Essex after a mission, they found Saturday Evening Post correspondent James Michener, notebook in hand, in the wardroom ready to write. Michener later based his novel,



Above: Caption: Bob Kaps (front row, far right) Opposite page: CAM's F9F in an Iowa park

"The Bridges at Toko-Ri," which would become a movie in 1954, on his time spent aboard the USS Valley Forge and the Essex talking with these pilots. "In particular we would have a post flight interview with him," Kaps related. "I flew on a lot of important missions simply because I was the squadron commander's wing man," Kaps said. "I had lots of good and harrowing experiences to relate."

Keep in mind, Bob Kaps was not only a pilot who flew our Panther, he was also a member of our Museum. I can tell you he learned a lot from Neil Armstrong as Bob was also a person who did not have a down side when he was around us at the Combat Air Museum. I can still see him sitting under the Museum's Jenny, cleaning away while having a quiet conversation with two friends doing the same. He was never too important to pick up a cleaning rag and polish an airplane, yet you would never guess he had put his life in danger numerous times flying the Grumman Panther which was only a short distance behind him

Every time I walk past Panther #126226 in our hangar at CAM, I always envision not only Bob Kaps and Neil Armstrong, but two other famous celebrities who flew combat missions over Korea in Panthers: Ted Williams and John Glenn. Imagine it, all of them sharing their experiences after a harrowing mission over North Korea which could have cost them their lives. I want to thank Ralph Knehans for taking a profound interest in the Panther in the silo, and for envisioning what it was going to be, once again.

Join the Combat Air Museum!

2017 Kansas Chocolate Festival Winged Foot 5K/10K Run & 4K Walk

By Gene Howerter

2017 will be the 13th anniversary of the Combat Air Museum's run/walk. This event raises money to help see the Museum through the upcoming long winter when we experience fewer visitors. I encourage each of you who has supported our event in the past to do so again, and if you have never been a sponsor, please consider doing so this year. The minimum sponsor fee is a suggested \$100 donation. In return, if you respond by August 31, we will print your name on the back of our official race day shirt and give you one of these unique shirts. This is a tax deductible donation minus the cost of the shirt or any other consideration you may receive. We're seeking seven new \$100 sponsors, so please help the Museum and become a sponsor soon.

This year's event, as usual, will start at 8:00 a.m. sharp on September 30 at the Museum. We have a certified race course and will use chip timing; however, we will not time the walkers. Consider registering your friends and family for the event. Walking is fun and good for your health as well as a great way to support your Museum.

After the event concludes, participants can look forward to bananas and chocolate-themed food and drinks, as well as a drawing for prizes. Our corporate sponsors this year include Visit Topeka, Mars Chocolate, Shana Cakes and Hy-Vee.

We need lots of help the morning of the race. Please call the Museum at 785.862.3303 early in August and say "Sign me up as a helper." You'll find full details on our web page at www.combatairmuseum.com including a registration form and information on registering and paying fees online. We need your support and look forward to hearing from you soon!

+ + +

Relatives of Daniel Forbes visit CAM



Left to right: Nick, Erin and Dan Tutcher (photo by **Kevin Drewelow**)

By Kevin Drewelow

People come from all over the world to visit the Combat Air Museum, but it was a rare pleasure for our Museum to host a family related to Major Daniel Forbes, the namesake of our airport, in late May.

Dan Tutcher now lives in Houston, but he grew up in Osage County and was in the area to attend his 50th high school class reunion. He had visited CAM years ago, but was eager to bring his family, especially to see our display about his cousin, Daniel Forbes.

He told us he was born six months after Forbes, Captain Glen Edwards, Lieutenant Edward Swindell, Charles LaFountain and Clare Lesser perished in the crash of a Northrop YB-49 "Flying Wing" in California on June 5, 1948.

Danny San Romani and Kevin Drewelowtold the Tutcher family about the development of our Forbes exhibit and allowed the family to look through the photo album Major Forbes received after participating in an atomic bomb test on Bikini Atoll in 1946. Family members also got to see the footlocker and contents that belonged to Major Forbes. We pointed out that 2017 marks the 75th anniversary of the establishment of the former Topeka Army Air Field/Forbes AFB/Forbes Field. Dan was pleased and impressed with the display; he and his family then took a quick tour of the Museum as it was late in the day.

A few weeks after his visit, Dan sent a check to CAM for \$5,000. We were quite surprised by its arrival and extremely grateful for his generosity. His largesse will allow us to make some much-needed improvements on our aging hangars and other Museum needs.

+ + +

Upcoming Events

July

Monday-Thursday, July 31-Aug 3
Young Aviators Class
9:00 am - 12:30 pm
Bob Dole Education Center

August

Monday, August 14

Membership Luncheon

Bob Dole Education Center 11:30 a.m.
How will rapid advancements
in artificial intelligence, robotics,
genetic engineering and
nanotechnology change our world?
Lt Col Dave Young
of the Integrated Initiatives Office
for the Adjutant General of Kansas
will address the major geopolitical,
technological and fiscal challenges
facing the United States
during the next two decades.

September

Saturday, September 30 **Kansas Chocolate Festival Winged Foot** 5K/10K Run and 4K Walk

+ +

New sign points I-70 drivers to CAM

By Kevin Drewelow

Thanks to the generosity of a Topeka pediatrician and the hard work of some Museum volunteers, a new sign now alerts drivers on westbound Interstate 70 of the existence of the Combat Air Museum and how to get there.

Two years ago, Museum board members saw the need for a sign east of Topeka. Board member Dick Trupp contacted Dr. Camille Heeb, who owns a farm east of Topeka and just inside the Shawnee County line near Stubbs Road on the north side of the interstate. Dick explained the Museum's need to have a sign on westbound I-70 from Kansas City, and Dr. Heeb invited Dick and Dave Murray to visit her farm to look for a suitable location. Fred Schaefer manages the farm and took Dick and Dave out on the property near the interstate. They found the right spot, but what about the applicable laws and required permits?

Board member Bill Stumpff had the pleasure of wading into the red tape. He learned that Shawnee County fees for satellite surveying and a permit would exceed \$1,000, but wondered if the county might provide some relief for a non-profit organization like CAM. Bill spoke with a representative of the county, who explained Shawnee County considered the sign as a directional sign, not an advertising sign. The county has different standards and requirements for the two categories. It required two meetings, but in the end, the county waived the fees.

Chris Knoebber, owner of B&B Signs in Topeka, has been a longtime supporter



CAM's new sign on westbound I-70 (photo by **Dave Murray**)

of the Combat Air Museum. B&B produced the sign you see in the photo, but that was the easy part. In late June, while preparing to set the posts for the sign, B&B encountered a thick layer of rock just below the surface, which required assistance from a specialized company to drill holes through the stratum. They then set the posts and installed the sign.

We always ask visitors how they learned about the Combat Air Museum. Within two days of the sign's placement, visitors began mentioning the sign on the interstate east of Topeka. Next time you're headed west on I-70 and approach mile marker 187, glance to the right to see our new sign.



Donations to CAM through Topeka Gives set new record

By Kevin Drewelow

The Combat Air Museum was one of 169 non-profit organizations to participate in the Topeka Community Foundation's fifth annual "Topeka Gives - a fun day of giving" event at Fairlawn Plaza Mall on June 6. Thanks to 19 donors, the Topeka Community Foundation had over \$83,000 to match donations on a proportional basis. The event set another record for money raised; Topekans donated \$595,665 at the event. The Combat Air Museum received over \$3100, another record amount. The money raised will support aircraft restoration, building maintenance and Museum operations. Thanks to all who took the time to support CAM at Topeka Gives 2017!



Mike Kozubek, Wes Barricklow and Gene Howerter staffing CAM's booth at Topeka Gives (photo by **Kevin Drewelow**)

A Night at the Museum

By Kevin Drewelow; photos by Klio Hobbs
Brack & Associates Consulting Engineers P.A. held their annual summer party at the Combat Air Museum on a beautiful evening in early June. They especially appreciated the work of our volunteers who provided tours and gave lessons on the flight simulator. Klio Hobbs photographed the event and shared some of the photos with us.





CAM receives M61 Vulcan cannon and works of art on loan from the Museum of the Kansas National Guard



Don Dawson, Danny San Romani and Gary Naylor after transporting the M61 Vulcan cannon (photo by **Kevin Drewelow**)

By Kevin Drewelow

"Would CAM like a Vulcan cannon?" Ed Gerhardt, president of the board of directors of the Museum of the Kansas National Guard and a retired brigadier general in the Kansas National Guard, called and posed that question to CAM Director Kevin Drewelow. General Gerhardt didn't have to ask twice: Kevin and volunteer Chuck Watson stopped by the Kansas Guard Museum to learn more.

The 184th Intelligence Wing, a Kansas Air National Guard unit based at McConnell AFB in Wichita, recently renovated their dining facility. The 184th had decorated the building with artifacts and artwork commemorating the unit's decades as a flying unit, operating aircraft from the North American O-47 in 1941 through fighters and bombers and finally Boeing KC-135R Stratotankers. The 184th ceased flying in April 2008 to become the first intelligence wing in the Air National Guard.

The 184th delivered the collection of artifacts and artwork that they no longer needed to the Museum of the Kansas National Guard. The Guard

Museum has a SUU-23 gun pod which was used on the F-4D Phantom II when they equipped the 184th Tactical Fighter Group. Since the SUU-23 contains a complete M61 Vulcan cannon, General Gerhardt offered to loan the second M61 to CAM. The 184th used it as a training device; mounted on a display stand, it is comprised of the receiver and six barrels and lacks the hydraulic or electric drive that spun the Gatling-style rotary cannon when fired.

The M61 dates back to the early Fifties and is still in use today. Aircraft in CAM's collection which used the Vulcan include the F-4 Phantom II, the F-14A Tomcat, and the F-105D Thunderchief.

General Gerhardt also offered to loan CAM 17 images and artwork, some of them original oil paintings of past 184th aircraft by our own Chuck Watson, who had the pleasure of flying on several of the aircraft he painted. We will soon have some of the works on display in our art gallery.

Projects Update

By Kevin Drewelow

Lockheed EC-121 Warning Star: Stu Entz and Tom Gorrell continue to restore the interior of the EC-121. Stu has received many photos and firsthand accounts from several former EC-121 crew members. If you're alone in the Lockheed and hear voices, don't worry: Stu has added a radio in the cockpit tuned to the Forbes air traffic control tower ground frequency. It's a great touch!

Hiller OH-23 Raven helicopter: Bob Crapser's time and attention to detail are evident when one views the little helicopter in hangar 604. We'll soon source a pair of doors and the lower portion of the front windshield.

North American F-86H Sabre: Danny San Romani has accomplished a lot inside the Sabre's vertical stabilizer. While awaiting parts, he has been inspecting and documenting the wide variety of parts and pieces in the Museum's storage area: aviation archeology at its best!

Lycoming R-680 engine mount: Don Dawson is a master of imagineering: he can make something out of nothing. When he donated the Lycoming, Steve Craig asked that we return the stand to which the engine was mounted. After

Danny delivered the engine to the shop, Don quickly separated the engine and stand. He selected only the finest scrap metal from our extensive stock and will soon have the Lycoming installed upon its new mount.

Vehicles: Danny, Don and Kevin jacked the Northwestern aircraft tow tractor to inspect and clean the brakes. After finding the brake shoes and drums in good shape, they bled the brakes. Don took it for a test drive and said the brakes were finally working! He has been working on tuning the engine. It will be a pleasure to have our main tractor in good running order with safe brakes. We'll soon turn our attention to our other tractor. We planned to take CAM's 1952 Willys Jeep to the Downtown Topeka Rotary Club's Freedom Festival, but cancelled that plan when we found the brake light was not working. We participated in the Freedom Festival, where we found ourselves right next to the Rolling Thunder Military Vehicle Preservation Association. We learned a lot from them about maintaining and operating our vintage jeep and look forward to seeing them again!

+ + +

By Kevin Drewelow

CAM hosted some members of Heartland BMX for a photo shoot in June. Heartland provides BMX training, racing events and fun for riders of all ages at the track in Crestview Park in Topeka. The photos featured restored vintage bikes to be given away at an upcoming event. See more photos and learn about their organization at https://www.facebook.com/HeartlandBmx/

Longtime CAM supporter Steve Craig has donated some interesting artifacts to CAM. Stu Entz, Ted Nolde and Dick Trupp delivered a Curtiss JN-4 Jenny fuselage and a Lycoming R-680 radial engine from Steve's collection. The Jenny fuselage is displayed alongside our Rowley-Curtiss JN4D replica, where it gives visitors a better appreciation of century-old aircraft construction. Stu will lead a second team of volunteers to pick up the uncovered fuselage of a Cessna UC-78 "Bamboo Bomber," its left wing and a functional postwar Link instrument trainer. The Cessna will give visitors an appreciation of the systems and construction of the UC-78, used

as a multiengine trainer and transport in World War II and the first aircraft to appear in the "Sky King" television series. The Link trainer will be an interesting contrast to our computerized flight simulator. The old school Link has an advantage over its digital cousin – MOTION!

CAM, in partnership with the Museum of the Kansas National Guard and the Northeast Kansas Chapter of the Ninety Nines, will hold our next Girls in Aviation Day on Saturday, October 7, 2017. Over 200 Girl Scouts from northeast Kansas and northwest Missouri will begin their day at the Guard Museum and then move to CAM. We

Museum Notes





expect to have several military aircraft on static display, thanks to a grant from the Kansas Aerospace Education Commission. Look for more information in the next issue of Plane Talk.

Brigadier General Charles "Mick" Baier (KSANG, ret.) recently visited CAM. Baier commanded the then-190th Air Refueling Group "Kansas Coyotes" when the unit deployed to Saudi Arabia in August of 1990 after Iraq invaded Kuwait. He stayed for the duration of the Gulf War and became the first Air National Guard colonel to command a fleet of regular Air Force, Air Force Reserve and Air National Guard refueling aircraft; once the war began, six USAF B-52 were added to his fleet, another first for an Air Guard commander. The Kansas National Guard Hall of Fame recently selected BG Baier for induction later this year. Technical Sergeant Jake Meyer and Senior Airman Emily Amyotte recorded an interview with BG Baier at CAM which will be shown at his induction ceremony in November.

Senior Airman Travis Gould is another Kansas Coyote who has taken an interest in our Museum. A former Navy member, he now works in the 190th's Aircrew Flight Equipment shop, maintaining survival equipment, helmets and other gear. His hobby is collecting military uniforms, some of which he has loaned to CAM for display. One uniform is displayed in the Olathe Naval Air Station (ONAS) display.



Top: Heartland BMX photo shoot at CAM Center: Jenny fuselage next to CAM's Jenny replica (photo by **Kevin Drewelow**)

Above: 1940 vintage Lycoming R-680

(photo by **Kevin Drewelow**)



It belonged to Captain Otto Tronowsky, who once commanded ONAS. Tronowsky led an interesting life: born in Germany, he grew up in Oregon, joined and flew bombers in the Royal Air Force until America entered the war. He then transferred to the US Navy. He said the proudest day of his life was when he bombed his hometown of Kiel, Germany: he told a reporter "If we hadn't, we'd all be speaking German now!"

CAM has transferred and placed on a long-term loan our M114 armored personnel carrier with the Museum of the Kansas National Guard (MoKNG). The Kansas Army National Guard will repair and repaint it before placing it with the MoKNG's collection with appropriate signage acknowledging the CAM loan.

+ + +

left to right: TSgt Meyer, BG (Ret) Baier, SrA Amyotte

Area youth explore aviation through Young Aviators classes

By Kevin Drewelow

Summer vacation is literally flying by for the young sters in CAM's Young Aviators classes. "Headmaster" Dave Murray, retired teacher Chuck Watson and other Museum volunteers provide the children with a fast-paced and exciting four days of aviation activities, mixing classes such as the forces of flight, navigation and weather with field trips to tour military aircraft at the Kansas Air and Army National Guard units on Forbes Field, the air traffic control tower, and the Metropolitan Topeka Airport Authority Police and Fire Department, where, under supervision, the students get to operate a fire hose.

Young Aviator classes also teach the phonetic alphabet, aviation history, and aircraft structures and engines. Students tour the Combat Air Museum and spend time in the Museum's flight simulator, and can take an additional class where they learn about radio-controlled aircraft and assemble a hand-launched balsa wood glider with Greg Inkmann of the foundation for Aeronautical Education. Many of the children return to take the classes again while they can before they age out, as the class is limited to students between 8 and 12 years old.







Top: Young Aviators class 17-2 Right: Young Aviators class 17-3

KDOT MAGIC Camp introduces girls to aviation at CAM

By Kevin Drewelow

Twenty-five high schools girls spent Monday, June 5 at Forbes Field learning about careers in aviation, thanks to the Kansas Department of Transportation (KDOT)'s MAGIC Camp.

According to a KDOT press release, "MAGIC (Mentoring a Girl in Construction) introduces high school girls age 14 or older to trade skill occupations such as carpentry, safety, electrical and highway construction and gives them a chance to learn from women already succeeding in these jobs."

Lindsey Dreiling, Manager of Marketing and Outreach for KDOT's Division of Aviation and a member of CAM, told Plane Talk, "MAGIC camp is a free education camp designed to offer high school age ladies the opportunity to learn about the countless avenues of employment available to women in the transportation industry. During the camp's focus on aviation, the ladies started their day by learning about careers in aviation from the State Director of Aviation Mr. Merrill Eisenhower Atwater and Mr. Bob Brock, State Director of Unmanned Aerial Systems (UAS) and Deputy Director of Aviation."

"Next, the ladies climbed inside a UH-60 Mike helicopter for some hands-on learning, where they also heard from professional military women from the 1st Battalion, 108th Aviation Regiment, as well as the 190th Air Refueling Wing. The day's activities took them through the Combat Air Museum, where they each flew a Cessna 172 in the flight simulator and ended with a tour of the Forbes air traffic control tower."

Mr. Atwater said, "This camp provides an extraordinary opportunity for our community to inspire young people to imagine the art of the possible."

After their day at Forbes, the girls would spend the rest of their week visiting BNSF Railway, Topeka Metro, Home Depot, KDOT Research and Materials Center, Habitat for Humanity sites, and the Victor L. Phillips Company. At those locations, according to the press release, "They would participate in hands-on training and basic construction as well as learn about various modes of transportation and safety."

→ → → →

(Lindsey Dreiling contributed to this article)

Your membership is important to us. Join the Combat Air Museum.



KSARNG pilot Major Jacque Miller tells KDOT MAGIC Camp girls about the Blackhawk helicopter (photo courtesy of **KDOT**)

2017 Calendar of Events

August

14-Membership Luncheon

September

30-Kansas Chocolate Festival Winged Foot Run

October

7-Girls in Aviation Day 9-Membership Luncheon

November

5-Daylight Savings time ends 23-Thanksgiving, Museum closed

December

11-Membership Luncheon 25-Christmas, Museum closed

> > ·

In Memoriam

Robert Bunten, Jr.

Flew Republic F-84G Thunderjets during the Korean War May 14, 1928 – June 2, 2017 CAM #5006

Introduce a friend to the Combat Air Museum.

"Teaball," con't. from page 1

with incomplete situational awareness due to inadequate radar coverage. The North Vietnamese enjoyed better radar coverage and could position their aircraft at extremely low altitude below radar coverage and then zoom up in afterburner to engage our aircraft from a 6 o'clock position. A third problem was lack of intelligence integration. At the time, intelligence knew the North Vietnamese were employing improved aerial combat tactics but they weren't passing that sensitive information to our combat units. Pilots and their commanders felt betrayed and morale suffered as a result.

The Air Force teamed with the National Security Agency (NSA) to develop a solution that became known by its radio call sign "Teaball." It was a ground-controlled intercept radar system integrated with a pair of NSA supercomputers called "Iron Horse" that gave our pilots close to real-time knowledge of the position of North Vietnamese MiGs.

Mike amused us with a comment about the "Iron Horse" supercomputers, suggesting that they had almost as much processing power as the cell phones that many of our members now use every day. Still, Teaball, backed by "Iron Horse" was said to have saved the Air Force as much as \$40 million (in 1972 dollars) in aircraft and the lives and safety of dozens of air crew members, particularly as airborne search and rescue could reach downed air crews with greater precision in far less time.

In finishing his presentation, Mike talked about the Lockheed EC-121, and the importance of their mission in locating enemy fighters and sending that data to "Iron Horse" to be processed and communicated to American aircraft so they could avoid ambushes. He then tracked the development of the concept and its current utilization in the Boeing E-3 Sentry Airborne Warning and Control System (AWACS) fleet.

After a lively question-and-answer session, Chairman Gene Howerter adjourned the formal portion of the meeting, and Mike stayed on, addressing questions in one-on-one encounters with interested members.

+ + +

Supporters

New Members

Bob Carmichael
Pat Casey
Ron Cates & Marna Walker
Leslie Johnson
Bill & Becky Shaffer & family
Robert & Barbara Scofield

Renewing Members

Wes & Shervl Barricklow & family Bruce Bevitt & Tyler George Catt **Christy Cheray** Chad & Jessica Colgan & family Virginia Foster Paul & Betty Frantz & family **Richard Gates** Randy & Linda Hemm Raymond & Chervl Kulp **Becky Mathers** Larry Morgan Clint & Amy Patty & family Carl & Betty Quarnstrom Capt. Hershel & Jacque Stroud George Upton Dr. Rees & Kathy Webber & family

+ + +

Vísít our websíte

at www.combataírmuseum.org

Visitors

states and Canada,
China, Denmark, France,
Great Britain and
Switzerland visited the
Combat Air Museum
in May.
In June, 1202 visitors
from 40 states and
Australia, Canada,
Germany, Great Britain,
India, Mexico, Republic
of the Philippines and
Russia toured
your Museum.

+ + +

1-108th Aviation Regiment Headquarters Company holds change of command ceremony at CAM

By Kevin Drewelow

Regiment Headquarters and Headquarters Company (HHC) of the Kansas Army National Guard held a change of command ceremony at the Combat Air Museum on Monday, June 12.

Lieutenant Colonel Todd Loughney, commander of the 1-108th, presided as Captain Bryan Koyles turned over command of the 1-108th's HHC to First Lieutenant Roger Bell. Family members, friends and soldiers of the HHC attended the brief but significant ceremony, the first such event held at CAM in our forty years.

Captain Koyles and 1Lt Bell visited CAM earlier and asked about holding the ceremony

Members of the 1st Battalion, 108th Aviation in hangar 602, and we were only too happy to oblige them. The 108th has long supported CAM by hosting tours for our Young Aviators classes and providing static display helicopters and crews for various events, so it was a pleasure to return the favor. After the ceremony, 108th members enjoyed touring the Museum and were especially interested in the Bell UH-1 Huey and Sikorsky CH-54 Skycrane which once equipped the Kansas 1LT Bell addresses the gathering Army National Guard unit at the south end of Forbes Field. LTC Loughney was pleased with the location and looks forward to partnering with CAM in the future.





(photo courtesy 1-108th Av. Reg.)