

COMBAT

AIR MUSEUM PLANE TALK



July-September 2024
Vol. 40, No. 3

His Father's War



Back Row (L-R) John B. Gregory Jr - Navigator, Leonard D. Hansen - Co-Pilot, Watson E. Shepherd - Pilot, Milton Cohen - Bombardier, David E. Kirkpatrick - Top Turret/Engineer
Front Row (L-R) Earl F. Hinnah - Tail Gunner, Daniel Cahen - Radio Operator, Thomas E. Eade - Waist Gunner, (FNU) Greene, William T. Berry - Ball Turret Gunner

Earl Hinnah's crew (95thbgdb.com)

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PLANE TALK

COMBAT
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THE OFFICIAL NEWSLETTER OF THE COMBAT AIR MUSEUM
COMBAT
AIR MUSEUM

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Newsletter Layout by Megan Garner

MUSEUM HOURS

January 2 - February 28/29
Mon.-Sun. Noon - 4:30
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

Your membership is important to us! Join the
COMBAT AIR MUSEUM



From the Chairman's Desk

By Gene Howerter, Chairman, Board of Directors

We are having a wonderful Sunflower Summer here at the Museum. For those of you who don't know, the state of Kansas sponsors a program for Kansas families called Sunflower Summer. Parents, grandparents and their youngsters who register with the program receive free admission to over 220 attractions across the state, including the Combat Air Museum; the Kansas Tourism Division of the Department of Commerce then reimburses us for their admission. Dave Murray, our Chief Financial Officer, crunched the numbers for June and found we had more paying visitors this year in June - 2,370 - than in any previous June since we began keeping records in 2006! This number broke our old record set 18 years ago, thanks in part to a tremendous Sunflower Summer turnout. As Sunflower Summer will remain in effect until the middle of August, we expect one of our best years ever for summer CAM attendance, which helps the Museum's bottom line. Be sure to spread the good news that Sunflower Summer is still in full swing and we look forward to seeing all of your family, friends and neighbors at the Combat Air Museum.



I would also like to thank Brian Rodehorst, publisher, and Kathy Graham, editor, of the Topeka City Lifestyle magazine, for the story about the Combat Air Museum they published in their June issue. The article entitled "A Flying Good Time" was well written and informed people in the Topeka community of some of the things we offer at the Combat Air Museum in the way of education each year. This same article ran nationwide in other City Lifestyle magazines, giving us some welcome exposure across other states. You can find the article at <https://citylifestyle.com/topeka/issues/2024-06>.

We hope to see you at the Museum soon! ♦



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His Father's War

By Kevin Drewelow

Combat Air Museum member Dan Hinnah spoke at our June membership luncheon about his father's experiences during World War II as a tail gunner in a Boeing B-17G Flying Fortress over Europe.

Dan began by pointing out that before D-Day, bomber crew members stood a 77% chance of being killed or captured before completing their ever-increasing number of combat missions and rotating back to the United States. 16 million Americans served in World War II; 350,000 of them were in the 8th Air Force, of which 26,000 were killed in action and a further 35,000 became prisoners of war. Dan said the crew members assumed they weren't going to survive and, remarkably, that thought helped them climb back into their aircraft mission after mission.

Earl Hinnah was a 21-year-old Missouri farm boy when he received his draft notice. He enlisted with two friends in the Army Air Corps in October, 1942. He went through a series of training bases where he became a mechanic on the Bell P-39 Airacobra. Knee surgery delayed his repeated requests for an overseas assignment, but his persistence paid off and by February of 1944, he was assigned to a B-17 crew; after more training, Earl and his crew arrived at RAF Horham in Suffolk, England on July 11, 1944 and were assigned to the 412th Bomb Squadron of the 95th Bomb Group.

The fighting was brutal and losses were high; Earl's new crew began as tail-end Charlie but by their sixth mission on August 25, they were the lead aircraft in their formation of 60 aircraft. The night before, Earl had written to his girlfriend

that given the number of aircraft being shot down on each mission, there was no way to complete the 30 missions required to return home. The next day, Earl's crew led a raid on the synthetic fuel factory at Politz, Germany, midway between Hamburg and Lübeck. Just after bomb release, the crew felt a dull thud. The left inboard and right outboard engines were shut down and propellers feathered, the right inboard engine was shut down but the propeller was windmilling, and the left outboard engine was on fire but running! The aircraft commander, 2nd Lieutenant W.E. Shepard, ordered the crew to bail out but quickly changed his mind when he learned their only waist gunner had a severed femoral artery and would not survive the jump. Crew members applied a tourniquet and prepared for what awaited them.

Lt. Shepard planned to land on a Luftwaffe air base, but the stricken Fortress came down short of the runway; a wingtip dug into the ground and the impact broke the fuselage in two pieces, ejecting the crew members. All nine members of the crew survived. They were quickly apprehended by German soldiers who, after a brief discussion, decided to spare their lives. The officers and enlisted crew members were separated and sent to the rank-designated prisoner of war camps.

Hinnah and the other enlisted men were transported in cattle cars to Stalag Luft IV in northeastern Germany. They stepped out of the rail cars and had to run the two miles to the camp, with guard dogs and bayonets providing the necessary motivation! German interrogators knew everything about them and escape was impossible. For the next five months, their day began with roll call at 7 a.m., one meal per day of a piece of bread and some thin soup, and then they were locked in their huts at 4 p.m.

In early February of 1945, the airmen could hear the sound of Soviet artillery coming closer. On February 6, the Germans began a forced march of the prisoners west to avoid the advancing Russians. The march went on for three months with no supplies and the immediate execution of prisoners who could not keep up. The prisoners subsisted primarily on anything they found along the way. When the Germans provided food, it was meager and very questionable. 1,500 prisoners died during the march. The German soldiers received very little to eat and many were older men with physical and medical issues. Some of the prisoners occasionally carried weapons for the guards when they were struggling! When the procession neared Hamburg, the Germans



Earl flew on this B-17 on 8/16/44 (95bthbgdb.com)

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“BNMACH3”

By Kevin Drewelow

You may have seen it around town: a Kansas personal license tag that bears the cryptic inscription **BNMACH3**. I knew what it had to mean *but who was driving it?!* I never had the pleasure of meeting retired Air Force Lieutenant Colonel Don Mathers, but when I later learned of his career and experiences, his tag reminded me *it ain't braggin' if you can back it up*.

Don was born in Gardner, Kansas in 1932 and graduated from Topeka High School, Topeka, Kansas in 1950. Four years later, Don graduated from Washburn University in Topeka with a bachelor's degree in business, married Rebecca and was ready to take on the world. He joined the Air Force and completed navigator training at Harlingen Air Force Base in Texas. The Air Force assigned Don to the Strategic Air Command (SAC) and he served as a navigator on Boeing KC-97 Stratofreighters and KC-135 Stratotankers at SAC bases around the United States, including Omaha, Wichita, Salina and Topeka, among others. While speaking to Museum members several years ago, he said he was transferred to Salina's Schilling Air Force Base in 1965. He also said he bought a house on a Friday; three days later, the Air Force announced it would close Schilling!

All those hours spent navigating SAC tankers around the world soon led Don to a very different kind of flying. Allied and Warsaw Pact nations had aircraft and missiles to deliver nuclear weapons and we needed to know how many of each and where they were located in the Soviet Union. Lockheed's gifted engineer, Kelly Johnson, had designed the subsonic, high-altitude U-2 reconnaissance aircraft which both the Central Intelligence Agency (CIA) and Air Force had been flying over the Soviet Union and China collecting photographs and other intelligence since 1956.

As early as 1958, certain

government officials were already talking with industry about developing a supersonic, higher-altitude reconnaissance aircraft. The Soviets had developed greatly improved radars and surface-to-air missiles that were threatening the U-2s. It would be some time before satellites would be capable of such flights, so a next-generation aircraft was needed. Kelly Johnson began preliminary design studies involving a wide range of ideas regarding airframes and propulsion.

Johnson's designs evolved and by late 1959, the A-11 design bore a resemblance to the aircraft known today as the Blackbird...but we're getting ahead of ourselves. Lockheed was already considering building the aircraft from titanium, using Pratt & Whitney J58 turbojets and making the aircraft stealthy. Pressed by a competing Convair design, Kelly and his team made some changes that became the Lockheed A-12. The Air Force gave Lockheed the go-ahead to construct the revolutionary aircraft. It's important to note that, lacking computers at the time, Lockheed engineers used slide rules to design this revolutionary aircraft!

The first problem was obtaining enough titanium to construct the fleet of aircraft, and the Soviet Union was the world's largest supplier of titanium. The U.S. government set up an elaborate network of buyers through foreign nations and shell companies to obtain titanium ore. All of the Blackbird aircraft were 93% titanium so they needed lots of it! As titanium is difficult to machine, engineers had to develop new metalworking techniques. Later in the program, engineers found that spotwelded components assembled in the summer were corroding while spotwelds made in the winter did not. They soon discovered the city of Burbank added chlorine to the water in the summer to fight algae; chlorine attacks titanium, and Lockheed had been using city



Lt Col Don Mathers
(Mathers family)



Lockheed SR-71 (NMUSAF photo)

water to clean parts after spotwelding. They then switched to distilled water!

To reduce radar reflection, radiation-absorbing composite materials were used in various locations on the aircraft, as well as shapes that deflected, rather than reflected directed energy.

The A-12 was designed to cruise at three times the speed of sound...Mach 3...at altitudes exceeding 70,000 feet above sea level. Aircraft skin temperatures at these conditions would exceed 600°F, the airframe would grow 3-4 inches, and the windows were made of quartz 1.25 inches thick!

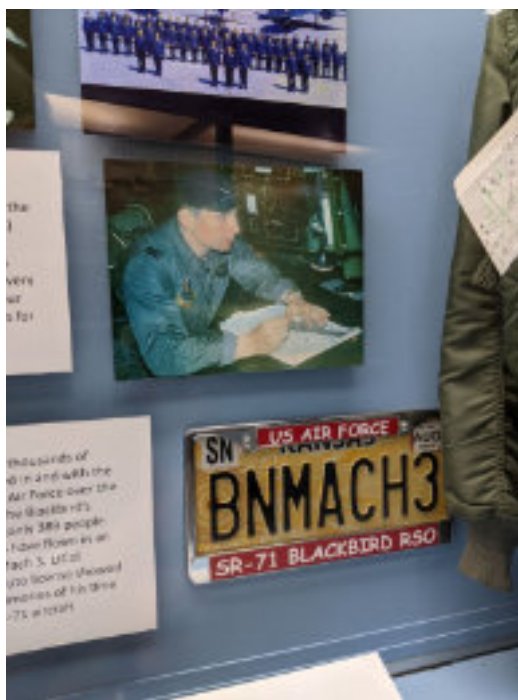
Lockheed selected the Pratt & Whitney J58 turbojet engine to power all of the A-12/SR-71 family of aircraft. The J58 produced over 25,000 pounds of thrust and, like the aircraft it powered, operated unlike any other turbine engine. The J58 required new alloys and machining techniques to construct it. It used a unique fuel which had to serve as a heat sink for the aircraft and not explode; this fuel required a special chemical to help it ignite at startup. The J58 operated like a normal turbojet up to Mach 2 and required movable inlet spikes to keep the airflow thorough the engine subsonic. Above Mach 2, some inlet air was directed around the engine to the afterburner, where fuel was introduced and ignited, much like a ramjet engine. The J58 was designed for prolonged flight in afterburner.

A total of 15 single seat A-12s were built and the CIA used them over North Vietnam and Korea; the final A-12 mission flew in 1968. Six of the black jets were lost; the remaining aircraft are in museums today. Their service ended early because the mission had transferred to the Air Force flying the two-seat SR-71 Blackbird.

The Air Force was interested in the potential of an improved A-12 and contracted with Lockheed in 1962 to expand the aircraft's potential.

Lockheed called it the R-12 and stretched the airframe to accommodate extra fuel, equipment and a navigator. These changes increased capabilities which slightly reduced its altitude and airspeed when compared to the A-12.

The additional equipment included a variety of cameras,



BNMACH3 license tag (K. Drewelow photo)

side-looking radar, and a high-resolution side looking radar mapping system, among other systems. The aircraft was also equipped with a variety of threat detection sensors and jammers. Unlike the A-12, where the pilot navigated by using an inertial navigation system and a periscope that looked down at the ground, the SR-71 had a navigator who used an astro-inertial navigation system, also known as a star tracker or, later in its life, R2D2 after the "Star Wars" character. The star tracker knew the location of certain stars and with an accurate chronometer, knew its location on earth to within 300 feet! The navigator also operated most of the cameras and sensors and was known as the Reconnaissance Systems Officer, or RSO.

The pilot and RSO both wore full pressure suits during flight due to the extreme altitude at which they operated; in the event of cockpit depressurization, the suit would save their lives.

During a press conference in 1964, President Johnson announced the existence of a new high-speed reconnaissance aircraft called the SR-71. For years, people have opined that Johnson inadvertently transposed the letters, but someone saw the actual speech and the aircraft was listed as SR, some suggesting that SAC Commander General Curtis LeMay preferred "Strategic Reconnaissance" to "Reconnaissance Strike," hence the change.

In 1966, the first Blackbird arrived at Beale Air Force Base in California and was assigned to the 4200th Strategic Reconnaissance Wing (SRW), later redesignated as the 9th SRW. From Beale, SR-71s routinely deployed to bases around the world to fly missions. They operated from Kadena Air Base on Guam, where the locals called the jet the "Habu" after a local poisonous snake, which it resembled; the nickname stuck after that. The Blackbird also routinely operated from Royal Air Force Base Mildenhall in Great Britain.

The SR-71 was absolutely dependent upon inflight refueling to accomplish every mission. A former SR-71 pilot told the author that the Blackbird could fly at Mach 3 for about an hour and then the crew was eagerly searching for their next tanker

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Museum Notes

By Kevin Drexelow

CAM Celebrity Pancake Feed...Our annual Celebrity Pancake Feed was quite successful, drawing 466 people to enjoy all-you-can-eat flapjacks while benefitting the Combat Air Museum. Well-known area personalities from many disciplines volunteered their time to serve breakfast to our visitors under the watchful eyes of Bob Carmichael and Domingo Gallardo of Perkins Restaurant and Bakery. Prior to the event, Lamar Advertising donated some electronic billboard displays in the city to help spread the word.

We always tow a few of our aircraft out of our north hangar to make room for tables and chairs, but this year was a bit more interesting than most. We could not leave our aircraft outside due to expected severe weather over the weekend. Scott Gilchrist is the manager at Million Air, the fixed base operator at Topeka Regional Airport and a great friend of our Museum. He allowed us to move our aircraft to the large hangar north of the terminal for the night, or so we all thought. The severe weather stayed in the area for six days and we were able to finally retrieve our aircraft on May 3! Million Air was kind enough to once again donate their space and services to assist our Museum and we're grateful for their support!



(l-r) WIBW's David Oliver, State Senator Brenda Dietrich and CAM's Susan Naylor serve pancakes (K. Hobbs photo)

Army Reservists train on our Chinook...Last December, Army Reservists from Delta Company, 7th Battalion, 158th Aviation Regiment based at New Century AirCenter in Olathe visited CAM to conduct some training on our Boeing CH-47D Chinook that isn't often available on their newer CH-47F models. A small team of Reservists came to CAM on May 15 to prepare our Chinook for another training visit. Three days



Reservists install the aft transmission (D. Lamere photo)



(l-r) Topeka Mayor Mike Padilla flips pancakes under the watchful eye of Domingo Gallardo of Perkins (K. Hobbs photo)

later, many of the Reservists who had been here on the December visit returned and installed the aft transmission. Beyond Q, a local veteran-owned Kansas City style barbecue restaurant, provided lunches at cost for the Reservists.

Our Chinook, serial number 85-24346, was assigned to the Reserve unit when a structural crack ended its flying days. Museum member Deb Lamere was the crew chief assigned to 346 when it flew in Iraq in 2005-2006 with the 101st Airborne Division; five years ago, she was overjoyed to see "her" helicopter again and is now leading its restoration effort. While our Chinook may no longer be flying, it is still serving by providing training opportunities which also further its refurbishment! We look forward to hosting the Reservists again soon.

Taps Across America...Combat Air Museum volunteers were busy on the morning of May 27 preparing to hold our annual Taps Across America ceremony. Our two most skilled tug drivers, Joe Wulfkuhle and Gary Naylor, were not available, and our friends at Million Air had our backs once again. Manager Scott Gilchrist offered their assistance at both towing and storing our aircraft for the duration. Line Service Manager Mike Palmer expertly towed our Grumman Panther, McDonnell-Douglas Phantom II, Republic Thunderstreak and Vultee Valiant. We appreciate Million Air's support!

The Combat Air Museum offered free admission after 1 p.m. Our Taps Across America program began at 2:30 p.m. with the Washburn Rural High School Junior Air Force Reserve Officer Training Corps (AFJROTC) honor guard posting the colors.



Captain Stroud playing 'Taps' (K. Hobbs photo)



Army Reservists work on 346 (K. Drewelow photo)

Lieutenant Colonel Jordan Clark, commander of the Kansas Army National Guard's Army Aviation Support Facility #1 at Topeka Regional Airport, gave a stirring keynote address. Retired Air Force Captain Herschel Stroud told the audience about Taps Across America and the history of the song. The honor guard from American Legion Post 400 provided a rifle salute and a ceremonial flag folding; they gave the folded flag to our special guest, retired Air Force Colonel Jon Boursaw, Citizen Potawatomi Nation District 4 Representative and a member of the Combat Air Museum board of directors. Col. Boursaw offered some remarks and Captain Stroud played "Taps" at 3 p.m. A medley of the songs of the armed forces followed, with veterans in the audience invited to stand during the playing of their service's song. The Washburn Rural High School AFROTC honor guard then retired the colors. We can think of no better way on this date to honor the memory of America's military members who have given their lives in defense of the nation.

D-Day 80th Anniversary...A showcase in the southwest corner of hangar 602 tells the story of a local fellow who was one of the very first Americans to parachute into France on D-Day and we highlighted his service in a post on our Facebook page to mark this important date.

Glenn Braddock, a native of Cherryvale, Kansas, jumped into France at 20 minutes past midnight on June 6, 1944. Braddock was one of 150 Pathfinders in the 101st Airborne Division to do so; their job was to set up navigation aids to lead



Glen Braddock in 2003 (CAM photo)

the aircraft carrying the main force of paratroopers to their assigned drop zones. Braddock was one of 18 soldiers assigned to the primary stick of the 502nd Parachute Infantry Regiment; Braddock and seven others set up and operated the navigation aids while the remaining troops served as security. Three members of his stick did not survive.

Braddock joined the Kansas National Guard in 1940, transferred to the 101st in 1942 and became a

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could hear both American and Soviet artillery nearby, so the Germans surrendered to the Americans. When the American soldiers saw the terrible conditions the former prisoners were in, they told the newly-freed airmen that they would turn their backs for half an hour so the former prisoners could bring justice on their former captors. One particularly brutal German guard and his dog were immediately dispatched. The airmen were quickly deloused, issued new clothes and taken for medical treatment.

Earl Hinnah, now weighing only 90 pounds, went to a hospital in Wales where doctors diagnosed a plethora of

physical ailments such as dysentery and internal organ failure. They were not prepared nor trained to address the mental health issues of the former prisoners. Earl and many others suffered from post-traumatic stress and depression and Earl didn't want to go home, having convinced himself only months ago that he would not survive the war. When he did finally agree to go home, he sailed to Virginia aboard a troop ship where he met a nurse who, he said, "talked some sense into me." Upon arriving in Virginia, he contacted his girlfriend, Marilyn, and told her he was coming home. They were married within two months, and they welcomed the birth of their son, Dan, several months later!

Dan said Earl didn't speak much about his wartime experiences, but he later allowed his granddaughter to interview him, and the recording of that interview gave their family a much better appreciation of Earl's service to the nation.

Interestingly, Dan learned to fly privately at Lincoln, Nebraska and served in the 155th Tactical Reconnaissance Group, Nebraska Air National Guard, at Lincoln, the same airfield where Earl took his initial aircraft maintenance training. Some of the original World War II "temporary" buildings were still there when Dan arrived in 1968. Dan went on to fly about 7,000 hours in Beech King Airliners and Citation business aircraft, instructed in the same types of aircraft and owned and managed Silverhawk Aviation in Lincoln from 2006 to 2015. He now volunteers at the Combat Air Museum as a tour guide. ♦



Gene Howerter and Dan Hinnah (l-r) (K. Hobbs photo)

Next Membership Luncheon

Our next membership luncheon will take place on Monday, August 12 at 11:30 a.m. at the Combat Air Museum. Museum member Chuck Atherton spent a year in Vietnam 1967-1968 with the 1st Cavalry Division (Airmobile). He spoke at our luncheon last December and gave a very compelling presentation. Chuck will talk about his experience with the Veterans Administration, the help he received from them and also about the many services available that some veterans may not be aware of.

Several military officers attending the U.S. Army Command and General Staff College at Ft. Leavenworth, Kansas, will speak about their careers and military experiences at our membership luncheon on Monday, October 14 at 11:30 a.m. at the Combat Air Museum. ♦



Chuck in Vietnam (C. Atherton photo)

In The Hangar: The Pratt & Whitney R-1535 Twin Wasp Junior Radial Engine

By Kevin Drewelow

Among the engines displayed along the south wall of our north hangar is a Pratt & Whitney R-1535 Twin Wasp Junior. It contributed to the growth of aircraft engines that made such a difference in World War II.

Pratt & Whitney built air-cooled reciprocating internal combustion radial engines; these had the cylinders arranged around the crankcase like spokes on a wheel and relied upon air passing over the fins to cool the engine. Their first engine, the R-1340 Wasp, which developed 425 horsepower, first ran in 1925. The R-985 Wasp Junior soon followed; both engines remain in use today.

Unlike their cousins, the more streamlined vee and inline liquid cooled engines, radial engines created more drag, which engineers constantly strove to minimize. One solution was to make a twin row, small diameter radial. Pratt & Whitney engineers combined two R-985s into a small diameter, twin row engine with 14 cylinders which became the Twin Wasp Junior. It first ran in October of 1931 and produced up to 825 horsepower at 2630 revolutions per minute. The Twin Wasp Junior was the second Pratt & Whitney twin row engine, after the famous R-1830 which powered a long and distinguished list of aircraft and which also remains in service today. Pratt & Whitney only produced 2,880 of these engines, a small number compared to most of the company's production of other models.

The Twin Wasp Junior found its way into a fascinating range of aircraft, from the Boeing 247 all-metal airliner to Grumman biplane fighters and many other military aircraft. The best-known aircraft powered by an R-1535 however, was Howard Hughes' H-1 racer of 1935. Hughes intended for the H-1 to be the fastest landplane in the world, and he achieved his goal that year by going 352 miles per hour in California.

The Museum's Twin Wasp Junior is an R-1535-11, serial number 572, which powered the Northrop A-17 Nomad, a military version of the company's Gamma aircraft. The Nomad was used for ground attack and featured perforated dive brakes and a rear gunner. Our engine has data plates from both Pratt & Whitney and from the US Army Air Corps. The Air Corps gave it serial number AC35-484 and accepted the engine on May 29, 1936. What happened to our Twin Wasp Junior between that day in 1936 and today is anyone's guess, but we're happy to share it and its story with our visitors. ♦



Pratt & Whitney R-1535 (K. Drewelow photo)



Northrop A-17 Nomad (USAF photo)

Museum Notes Continued from page 7

parachute rigger. He arrived in Britain in 1943 and volunteered to become a Pathfinder. He personally packed all 150 parachutes used by the 101st Pathfinders. He went on to make two more combat jumps, at Arnhem as part of Operation Market Garden, and into Bastogne on December 23 during the Battle of the Bulge.

Glenn Braddock visited the Combat Air Museum in 2003 and donated several of his artifacts, which remain on display. He passed away in 2010 and it is important to recognize his service today.

Young Aviators aim high at CAM...35 youngsters between the ages of 9 and 13 filled the seats in our two Young Aviators classes held in June and July. Several of the students had participated in past classes and came back for more! The classes introduce youth to aviation through a mix of activities at our Museum and around Topeka Regional airport.

They began by learning about the forces of flight and then built and flew foam plate gliders to learn how flight controls affect the flight path of the aircraft. Museum members and former skydivers Laraine and Rance Sackrider talked about skydiving and then help the kids make parachutes out of coffee filters, string and paperclips. The youngsters then dropped their parachutes from a very unique launcher Rance devised that must be seen to be believed! Each day, a number of students went to the flight simulator where Chuck Watson would supervise their first flight, reinforcing what they'd learned previously. Museum members and retired meteorologists Paul Frantz and Bill Newman introduced our Young Aviators to aviation weather.

The students took several field trips during their week. They toured a Boeing KC-135R Stratotanker and flew the boom operator simulator at the 190th Air Refueling Wing; visited the airport control tower and learned how controllers keep aircraft safe and separated; toured the Museum of the Kansas National Guard; climbed into a Sikorsky UH-60 Black Hawk helicopter and learned about the unit's missions at Kansas Army National

Guard Army Aviation Support Facility #1 next to our Museum; and visited the Metropolitan Topeka Airport Authority (MTAA) Fire and Rescue building where firefighters explained their dual mission of providing fire protection for aircraft and structures on and near Topeka Regional Airport. They witnessed demonstrations of radio-controlled and control line model airplanes and some even built and flew their own rubber-band powered balsa wood airplanes. Museum member and volunteer Deb Lamere made a radar demonstrator from circuitry and 3D-printed parts that showed the students how radar worked; costing less than \$40, it really sparked the interest of students and parents alike!

Eddie Thompson is an air traffic controller who enjoys supporting tour tours of the control tower. On one of our visits, he informed an arriving Coast Guard helicopter of our visit and requested a fly-by. The Coast Guard crew was happy to oblige; they flew near and hovered by the tower, then invited our class to meet them at the helicopter for a visit! The MTAA police officers who escorted us to the tower took us to the helicopter, but we had to wait as the U.S. Army Golden Knights parachute team taxied to Million Air, the fixed base operator at Topeka Regional Airport. The Coast Guard crew gave our Young Aviators a great tour of their Eurocopter MH-65 Dolphin rescue helicopter, which they were delivering to a unit in Washington after a major inspection. While we were at the Dolphin, Karen, a mother of one of our students and a CAM member, spoke with the Golden Knights and arranged a tour with them! When the kids finished their Dolphin visit, the Golden Knights waved us over. The kids got to board their de Havilland of Canada C-147A Dash 8 where they learned about the Golden Knights, their mission and training requirements. The crew and skydivers had as much fun as the kids!

The classes raised over \$2,470 for the Museum and ignited the imaginations of all of the students. Our Young Aviators program would not be possible without the support of parents and grandparents who volunteered to drive our students to the

various field trips, and to our partners on and near the airport who are willing to share their experiences with us: The 190th Air Refueling Wing; Army Aviation Support Facility #1; the Museum of the Kansas National Guard; the MTAA; Midwest Air Traffic Control Services; Million Air; the Foundation for Aviation Education; and the Topeka Control Line Association. We're especially grateful for the time and assistance so many members



Young Aviators and Coast Guard Dolphin (K. Smilgas photo)

New & Renewing Members

of the Combat Air Museum, as already mentioned, provided to benefit our Young Aviators!

The Hydra in the Hangar...Near the end of April, Danny San Romani and some other Museum members began to identify and inventory items stored in a variety of out of the way places such as behind our storeroom walls and on top of the offices, among others. To date, they have retrieved, researched and identified over 400 individual items. In some cases, the items proved to be components of a larger system. Some things were obvious, such as aircraft instrument panels from a Douglas A-26 Invader or a Chance-Vought F8U Crusader. Others took some research to realize their true identity, purpose and the aircraft that used them. For example, they found some AN/APX-1 components, one of the earliest systems used to identify friend or foe (IFF) in World War II. It helped prevent friendly fire and was installed on a number of World War II aircraft, such as the Wildcat, Hellcat, Corsair and Black Widow. They found a training aid that displayed a complete propeller governor next to an exploded view featuring the actual components. They identified a bomb toss computer. There were numerous radio receiver and transmitter components, some quite heavy! Danny's Saturday crew brought many skills to the quest: Joe and Tony Wulfkuhle, Gary Smith, Ken Rosenberry, Mike Pieropan, Deb Lamere and Mike Fewell all pitched in to move, research and identify these items. The ongoing research has often led them in many directions, which caused Danny to refer to this project as "the hydra in the hangar!" Their work continues!

Remington returns to CAM...

Remington Stiles returned from the Air Force Academy to spend a day at the Museum on June 26. He brought his sister Maggie with him and they immediately went to work dusting aircraft before we realized they were here! Remington's time in Topeka

was limited as the Air Force keeps their cadets busy throughout the summer. Remington will soon begin his senior year at Colorado Springs!

Siller Helicopters visits CAM...Duke Puharich of Siller Helicopters in Yuba City, California, visited CAM in late June and arrived bearing gifts. Siller operates a fleet of Sikorsky CH/S-54 Skyranes providing heavy lift capabilities across the United States. Duke is Siller's maintenance engineer and safety officer and had contacted us earlier in the month. He gave us a brand-new set of engine exhaust plugs for our Sky crane and provided a very informative tour of our supersized Sikorsky.

Veteran reunited with an old friend...It is always an honor and a privilege to be present when a veteran visits the Combat Air Museum and is reunited with an aircraft that they crewed, maintained or supported. Ron Knight has been to CAM before and returned with some family members to see his old friend, our Beech RU-8D Seminole. We took Ron to the aircraft and learned more about his time in South Vietnam. Ron spent 1966 in South Vietnam with the Army Security Agency's 138th Aviation Company in Da Nang as a radio operator on the unit's fleet of Beech RU-8Ds. Their mission was to support Marine offensive operations by flying ahead of the friendly forces to detect and locate enemy radio transmitters. They

Continued on page 13

New:

Robert Deever & family | Donna Needham & family | Roger Schaaf & family | David & Lisa Schmitt | Ed & Mary Sykes

Renewing:

Brent Allhouse & family | Bill Ankenbaier & family | SSG. David Baker, Ret | Jim & Mary Braun | Marty Braun & family | James & Susie Brewer | LTC Jordan Clark & family | Brian & Connie Bryant | John Capra | Ron Cates | Donald & Shirley Crenshaw | Michael & Tammie DeBernardin | Virginia "Kay" Foster | Paul & Betty Frantz | Tom & Diane Gorrell | Shawn Guinty | Dan & Janet Hinnah | Klio & Mary Jo Hobbs | Wm. Jeff Kahrs & family | Kathy Keck & family | Max Lorentzen | Mike & Karen Madden | Patti Mellard & family | Bill & Toni Newman | John Plumb | LtCol Thomas & Carole Rost | Danny San Romani | Earl Sadberry | Darrell Schmitz | Dennis & Marise Ann Smirl | Ronald Soldani & family | Joe Stellwagon | Capt. Herschel Stroud & family | Bill Stumpff | Larry & Diane Todd | Hannah & Denton Turley | Joe & Peggy Turner | Mark Washburn & family | Chuck Watson | Steve & Rosie Williams | Dustin Wise & family



Duke Siller and exhaust plug
(K. Drewelow photo)

Pilot's Notes: a Book Review

“Phantom in the River: The Flight of Linfield Two Zero One”

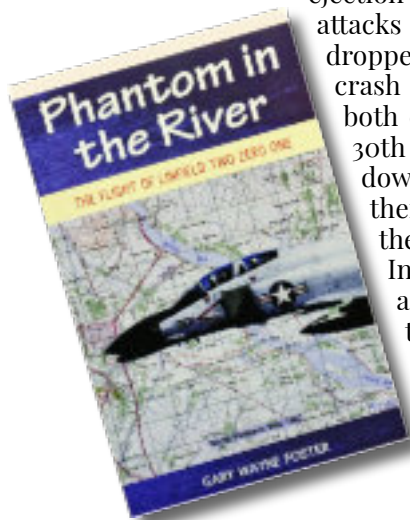
by Gary Wayne Foster

Reviewed by Chuck Watson

At only 215 pages, this book still tells a great story about a plane, a Navy crew, and a 1967 mission over North Vietnam in an interesting format.

Linfield 201 was a McDonnell Douglas F-4B Phantom II of VF-114 flying off the USS Kitty Hawk in 1967 on a strike mission to bomb the Thanh Hoa bridge south of Hanoi. Crewed by pilot Lt. Cdr. Ev Southwick and Radar Intercept Officer Lt. Jack Rollins, Linfield 201 was shot down just after finishing a flak suppression run on guns near the bridge that forced both men to use their Martin Baker ejection seats as their fighter headed towards the coast and possible rescue. Losing control and altitude, they punched out over a large river area and landed in muddy rice paddies where they were quickly captured and hauled off to start a nearly six-year stay in the infamous “Hanoi Hilton” prison. Surprisingly, the crewless Phantom glided into a mud flat without fire or explosion, giving the enemy forces an almost intact state-of-the-art American warplane.

Southwick and Rollins survived their torturous stay and were repatriated in 1973, but Linfield 201 was laboriously moved by river barges and canoes several miles upstream where it was hidden in a bamboo forest. It was eventually scavenged for parts before ending up as a museum relic in Hanoi where it still resides. The book takes pains to describe the development of the F-4, the Kitty Hawk, the ejection seats, the continuing attacks until the bridge was later dropped, and the people of the crash area. It ends in 1997 with both crewmen returning on the 30th anniversary of their shoot down to see the remains of their Phantom and the target they were sent to destroy. Included are over 50 black and white photos from 1967 through 1997 that help make this book a fascinating evening read. ♦



“Fly Navy: Discovering the Extraordinary People and Spirit of Naval Aviation”

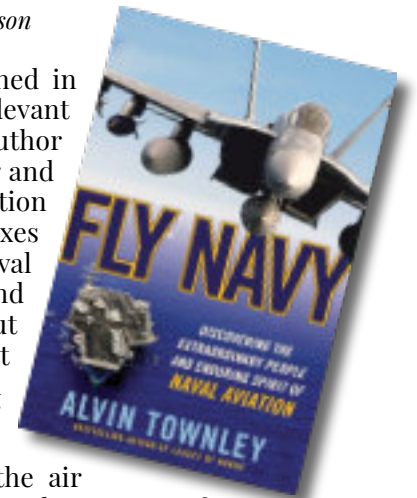
by Alvin Townley

Reviewed by Chuck Watson

Although first published in 2011, “Fly Navy” is as relevant today as when the author spent two years traveling and flying with naval aviation units then. Townley mixes small sections on naval aviation history and developments throughout the book, but for the most part he tells the personal stories of a vast array of naval personnel involved with putting planes in the air

from ships at sea. We read accounts of teenage recruits in training, aviators, chiefs, ships’ crew and commanders in all types of jobs and situations. The writer shares interviews with seamen and officers but really endeavors to convey the reasons behind their choices to join the U.S. Navy and the reasons they stay in the service, and how that creates the powerful force it is and has been.

Townley visited units on both coasts and overseas. He spent time on several carriers even during combat deployments during the war in Afghanistan. The book really tells the personalities of the men and women interviewed as well as vividly describing the stresses and actions involved in putting gray airplanes into the air. The author also spent time with the Navy’s Blue Angels who epitomize what Naval Air is all about, including comments from former Blues commander Captain George Dom, who was so welcoming to me during the 1996 - 98 years I spent following the team around. At 350 pages, “Fly Navy” is hard to put down and covers a lot of ground in a steadily shifting but enjoyable manner. Whether well versed on the brown shoe navy or a new fan thanks to the “Top Gun” movies as the author is, this is a very informative and enjoyable read. ♦



2024

Calendar of Events

Museum Notes *Continued from page 11*



Ron Knight and our RU-8D (K. Drewelow photo)

then transmitted the coordinates to higher headquarters who would schedule air or artillery strikes on the transmitters. It was our pleasure to let Ron sit in his "office" once again!

An engine for our Bébè... Deb Lamere and Danny San Romani spent a hot and humid June afternoon validating the fit of the 3D-printed engine Deb has produced with the cowling. Deb has printed all of the parts and it is going through the post-processing phase. She is filing, sanding and cleaning the parts and will then apply glue, filler and primer where it is needed. After final sanding, it will be ready for paint.



Deb and Danny fit the engine (K. Drewelow photo)

Fix-It-Friday team projects... Our Fix-It-Friday team meets on the first and third Fridays to work on Museum infrastructure projects. Mike Welch and Mike Madden installed a new water fountain on the south wall of hangar 602, just in time for our hot weather! The team finished the landscaping work at the main entrance to hanger 602 and it

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August

12—Membership Luncheon, Brown Bag

September

14—Be Filled/CAM Truck Pull

21—Girls in Aviation Day

October

6—CAM Car Show

11-13—Thunder Over the Heartland Air Show at Topeka Regional Airport

14—Membership Luncheon, Brown Bag

November

3—Daylight Savings Time ends

28—Thanksgiving, Museum closed

December

9—Membership Luncheon—bring a covered dish

25—Christmas, Museum closed



Visitors

1,347 people from 32 states, Australia, Canada, Great Britain, India, Russia, Taiwan and Ukraine visited the Combat Air Museum in April.

In May, 1,525 visitors from 40 states, Puerto Rico, Washington, D.C., Canada, Costa Rica, India, Iran, Spain and Switzerland toured your Museum.

2,370 people from 40 states, Washington, D.C., Australia, Canada, Colombia, El Salvador, Finland, France, Guatemala, Indonesia, Italy, New Zealand, Peru, the Slovak Republic and Sweden visited the Combat Air Museum in June.

In July, 2,609 visitors from 39 states, Puerto Rico, Washington, D.C., Australia, Brazil, Canada, China, Denmark, El Salvador, Germany, Mexico, Nepal, New Zealand, Norway, Spain Switzerland and Thailand toured your Museum.

“BNMACH3” Continued from page 5

to fill their tanks. The Air Force converted 56 Boeing KC-135A Stratotankers to Q models to refuel SR-71s. The Q carried its fuel in its wings and JP-7 for the Blackbirds in the fuselage-mounted bladders. Many Q-models received CFM56/F108 engine upgrades, were redesignated KC-135T and remain in service today.

SR-71s flew all over the world, serving as the nation's eyes and ears through many crises until their first retirement in 1989. The story of the Blackbird's controversial retirement, reinstatement and final retirement in 1998 is beyond the scope of this article. The National Aeronautics and Space Administration (NASA) operated a pair of Blackbirds until 1999.

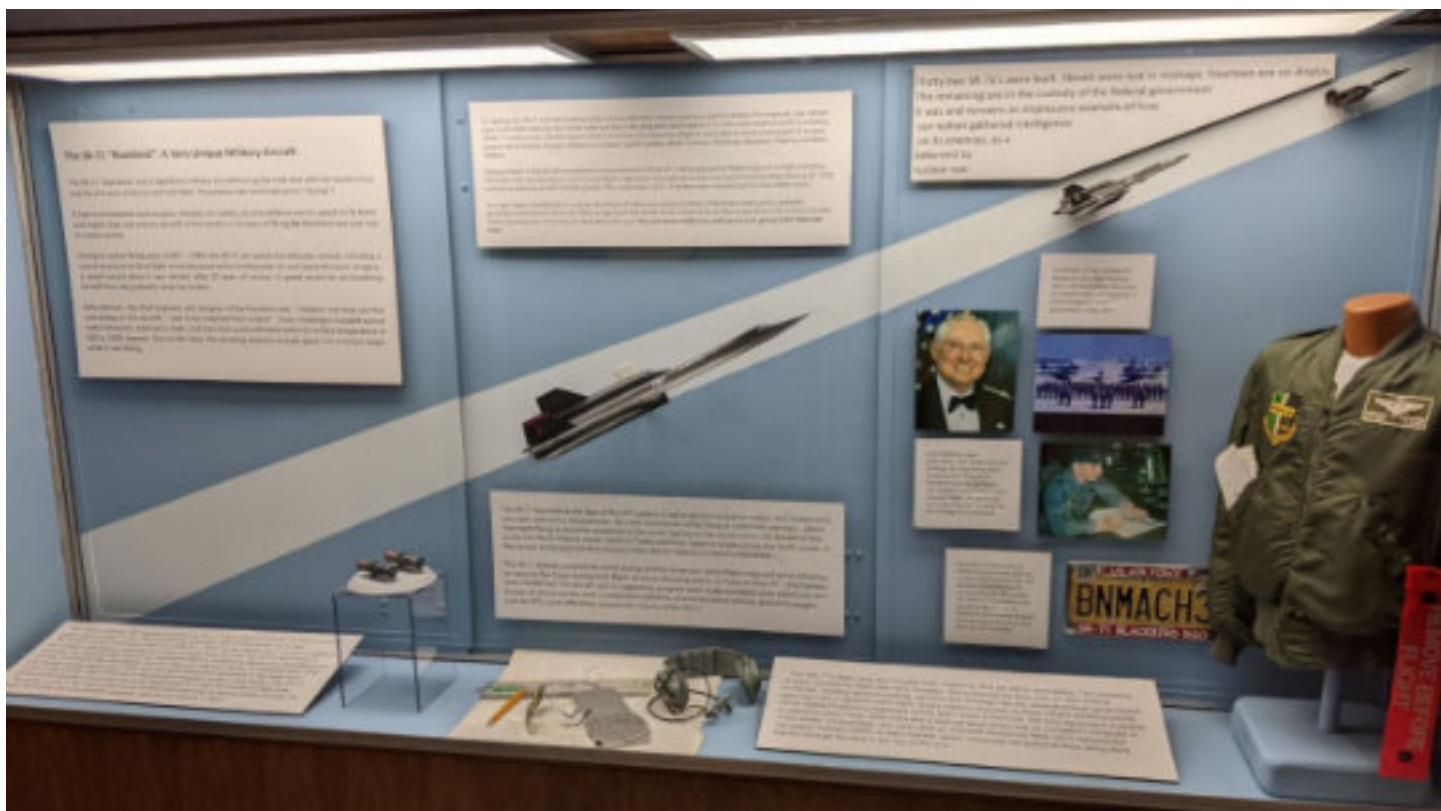
This is the extraordinary aircraft that Don Mathers met at Beale AFB where he graduated in the first class of Air Force SR-71 pilots and RSOs in May of 1967. Don's extensive navigation experience led to him being assigned to SAC headquarters at Offutt AFB where he spent four years planning SR-71 flights.

Don spoke about his career and SR-71 experiences at the February 2006 CAM membership meeting. He passed away in

2014. Rebecca donated some artifacts related to his service to CAM a few years later. Stu Entz, a member of CAM's board of directors, took on the task of creating a display about the remarkable SR-71 and Don's involvement with the Habu. Larry Todd built the large SR-71 model and engines displayed in the case, located on the west wall in hangar 602. It was very timely as we heard some visitors talking about the recent movie "Top Gun: Maverick." One fellow said, "Wouldn't it be cool to fly Mach 10?" Another replied, "You know, we used to have an aircraft that cruised at Mach 3 – the Lockheed SR-71." The first visitor, who appeared to be in his late twenties, had never heard of the Habu. Stu's exhibit will help tell the story of the SR-71.

Don Mathers was only one of 389 people privileged to fly in a Blackbird during the type's service, and now you know why his license tag says **BNMACH3**.

(Danny San Romani contributed to this story. Museum members who wish to learn more about the Lockheed SR-71 can make an appointment to visit CAM's library to check out books related to Lockheed's Blackbirds.) ♦



New SR-71 display in hangar 602 (K. Drewelow photo)

Ways You Can Support the Combat Air Museum

Dillon's Community Rewards Program



If you shop at Dillon's and have a Plus Shopper's Card, you can help support the Combat Air Museum with just a phone call or a few keystrokes. Dillon's Stores donates millions to non-profit organizations. Our Museum benefits from CAM members who have registered with Dillon's Community Rewards Program. Enrolling in this program will not increase your grocery bill and will not affect your fuel points.



Enrolling in the Community Rewards program is a one-time event and no longer requires annual registration. If you've already signed up, no further action is required. Go to <https://www.dillons.com/i/community/community-rewards> to create a Dillon's account before enrolling in the Community Rewards program. You can also call 800.576.4377 and the Dillon's customer service representative will register you. You'll need to provide them with the Combat Air Museum's new five-character Non-Profit Organization (NPO) account number, **GA302**. Thanks to your generosity, each quarter the Museum receives a check from Dillon's that really helps us maintain the collection and facilities and provide the classes and service our visitors enjoy. Last year, Dillon's donated \$815 to CAM; that amount is less than the previous year because we have fewer donors than before. If you haven't joined, why not take a few moments now to do so: Dillon's and CAM will do the rest!

Volunteer

The Combat Air Museum exists solely upon the money we raise from admissions, donations and gift shop sales. We rely on volunteers to run our gift shop, and the need for these volunteers has become even more urgent. We'll train you for this crucial and enjoyable task. If you could spare one day a month, please call the Museum Monday through Friday between 9 a.m. and noon at 785.862.3303 and ask for Nelson, our office manager and volunteer coordinator.

Museum Notes *Continued from page 13*

looks great. Gene Howerter has devoted considerable time and effort watering and caring for the many plants. Mike Madden repaired the thresholds on two personnel doors in hangar 604, one of which had been allowing water to flow in during storms, but no longer! Nathan Benfield and Bill Stumpff have been mowing and trimming the grass at the Museum throughout the spring and summer.

Construction projects affecting CAM...The invasion of orange cones and barriers has reached Topeka Regional Airport and the Combat Air Museum. Contractors began resurfacing Forbes Avenue from Ormsby Drive, working their way north. The project has been delayed due to the replacement of some drainage structure south of our Museum, but it will soon progress north. As these words are written at the end of July, access to CAM is from the north, but that will change to access from the south via Ormsby or Evans. The Metropolitan Topeka Airport Authority (MTAA) has assured us that contractors will always provide one way into CAM

throughout the project. The Federal Aviation Administration has also decided to begin rebuilding Echo taxiway yet this year. Echo runs past CAM to our southern neighbors at the Kansas Army National Guard. That construction will dramatically reduce the space we usually use for upcoming events like Girls in Aviation Day, our annual car show and our September fundraising truck pull with Be Filled of South Topeka. Time will soon tell to what extent these construction projects affect our events, but we'll certainly be better off for the same events next year.

Sunflower Summer at CAM...Gene Howerter explained this program very well in his "From the Chairman" column elsewhere in this issue. Our gift shop operators received special training before, and all expected some difficulties after, the program began; however, it has been remarkably free of problems. As of the end of July, 1,875 Kansans had visited the Combat Air Museum through the Sunflower Summer program! ♦



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7016 SE Forbes Avenue
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PLANE TALK

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Visit the Combat Air Museum for fun, information and an educational experience.

COMBAT AIR MUSEUM **16**

A Combat Airman's Prayer



(nationalmuseum.af.mil photo)

Please, dear God, let me soar
O-er green and yellow fields once more,
Where there'll be no dirty clouds of black,
Bringing forth that anguished cry of "Flak!"
Where sight of speck out in the blue
Will not mean "Watch it-fighter at two!"
Where no screaming demon from out of the sun
Makes everyman jump, and with flaming gun
Endeavor to pay another life
To the devil who started this worldwide strife;
If you don't think this is too much of a boon,
Well, please dear God, please make it soon.

~ Anonymous