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COMBAT AIR MUSEUM

PLANE TALK

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Celebrating Past Editions of Plane Talk

This edition is a little different from our normal newsy Plane Talk, about current happenings at the Combat Air Museum. Your editor in chief, Kevin Drewelow does a fine job with compiling the quarterly newsletter and keeping members up to date with volunteer efforts to build and improve the Museum's offerings to the visiting public, among other aviation articles.

We thought that this issue, arriving in your mailboxes between Christmas and the New Year, would be a welcome resumé of some past newsletter editions, mostly a word for word copy of aircraft or exhibit articles, or other items of interest to those of us who know the Museum best but, as recent members often wonder: "how did this exhibit arrive and when?"

All of the articles included in this edition were written and compiled by our previous editor and Museum Curator, **Danny San Romani** during his tenure. Danny retired as Curator in 2016 but continues to volunteer with us, most recently working hard to restore and prepare the F-86 Sabre in the collection for its painting into the Massachusetts Air National Guard livery it flew between 1957 and 1963.

Some of the images included may not be as crisp as we have come to expect, as we have had to dig through old photo albums for images of what condition some of our aircraft arrived in, at CAM. Take for example the story of our F9F Panther, which was recovered in a farmer's silo in Minnesota in 1983 and brought back to life, and the Navy's official records, in 2003; see **'The F9F Panther Story'**, beginning on page 2 of this edition. Another example is the article on **'The Firebee finds a New Home at CAM'** on page 10. Neither of those two aircraft were in any condition to be put on display, without major restoration work on the part of our volunteers.

We intend, once a year, to devote one quarterly edition to a similar resume of the past editions and the stories behind the acquisition or exhibiting of our aircraft and artifacts. Please let us know if you enjoy delving back into CAM's past.

Enjoy! *Dave Murray* ◆

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THE OFFICIAL NEWSLETTER OF THE

COMBAT AIR MUSEUM

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PLANE TALK, the official newsletter of the Combat Air Museum of Topeka, Kansas, is published quarterly.
We welcome your comments!
Newsletter Layout by Megan Garner

The Panther story
– *from discovery to recovery*

(Plane Talk edition: Aug 1983)

Grumman F9F-5 Panther BuNo 126226 sits in the Riverview Park in Marshalltown, Iowa. It has stood up pretty well to the weather but has been beat up very badly by vandals. Most of the cockpit interior has been removed. A walkway has been built to enable to enable kids to get on the craft. (D. Foy)

On June 22, 1983 a Grumman F9F-5 Panther rolled into Topeka and CAM. **Bob Schneider** had made the arrangements for the loading in Minnesota, where the aircraft was discovered. It was trucked to Topeka by member **Ralph Knehans**, a driver for the Topeka-based **John A Costelow Co.** Arrangements for the removal of the fuselage from the flatbed in Topeka were made by **Ervin Surrett**. Also involved in helping Ervin unload were **Gary Naylor** and Ralph. **The Topeka Army Guard** unit deserves a big 'Thank You' for contributing their time and equipment in unloading. Arrangements have been made by Bob for the transportation of the Panther's wings, canopy & other parts, to Topeka in the near future.

CAM wants to thank one of our members, **Mark Mohan** (Costelow Co.) for providing free transportation to truck back the fuselage of this Panther jet fighter.

The Panther returns to CAM, transformed

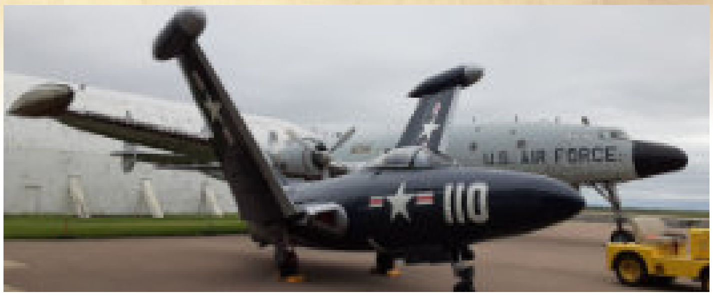
(Plane Talk edition: Oct 2002)

After a 13-month absence, our Grumman F9F-5 Panther, Bureau Number (BuNo) 126226, returned to CAM from Hawkins, Texas. It was almost unrecognizable compared to how it looked in August 2001, when it left here. During its time in Hawkins, **RRS Aviation**, owned and operated by Bob Schneider, a founder of both **Yesterday's Air Force, Kansas Chapter** and the Combat Air Museum in Topeka, performed the fairy tale transformation of an ugly duckling into a swan.

CAM acquired BuNo 126226 in 1983. Ralph Knehans had earlier learned about a Panther airframe at Elkton, MN, while driving a rig for his company, Costelow Co. After Ralph reported his findings, Bob began a series of phone calls and letters to find information on the jet fighter. He received assistance from the Wisconsin Air National Guard, who sent Polaroid photos and general descriptions of the airframe. BuNo 126226 (actually, its remains) was stored in an open storage silo in a rural area near Elkton, MN. The Air National Guard described 126226, as follows: "The aircraft at Elkton, MN is a F9F-5, SN 126226. You will find punctures throughout the fuselage and wing root. The cockpit is completely gutted. There appears to be an engine, (in a shipping container), stored next to the silo containing the aircraft."

In June 1983, the then Naval Air Systems Command approved the transfer of the Panther to CAM. Ralph drove to Elkton and picked up the fuselage on June 21, 1983. The

The Panther at CAM before its departure for Texas *(D. San Romani photo)*



The Panther returns *(D. San Romani photo)*

wings, tip tanks and engine would be collected later.

Museum volunteers, primarily **George Pisani**, did some restoration work on the Panther from about 1988-1991. Some technical manuals and other information were obtained for this work. George did a great deal of research and letter writing to get this information. Along the way, he acquired history cards for the aircraft that indicated 126226 might have served in the Korean War. After early 1991, restoration work virtually stopped on the Panther. In June, 1993, documents from the Naval Historical Center confirmed that it had served in combat in the Korean War while assigned to Fighter Squadron VF-51, attached to Carrier Air Group Five, aboard USS VALLEY FORGE (CVA-45). In March 1999, after a visit to the National Museum of Naval Aviation in Pensacola, FL by curator **Danny San Romani**, CAM received a phone call from Navy Inventory Control Point (NICP), Philadelphia, PA inquiring about the Panther. Danny had talked about the fighter with officials at Pensacola, and they had called NICP. To make a long story short, BuNo 126226 had fallen through the cracks when the control and accounting of stricken Navy aircraft transferred from Naval Air Systems Command to NICP. Basically, NICP was figuratively reclaiming the Panther. Since that phone call in 1999, CAM now completes an annual report to NICP regarding the jet.

Later that summer (1999) we began discussing the feasibility of completing the restoration of 126226. With this aircraft, we had a combat veteran from the Korean War, but it was stored in four different areas of Hangar 604 in a less-than-display condition. We felt that an outside restoration would be preferable to an attempt to do it in house. Board Chairman **Dick Trupp** began calling firms in the region that did aircraft restorations, mostly as a feasibility study. By September 2000, we decided to have the Panther restored through Bob Schneider's firm in Hawkins, TX. Dick also talked with Worldwide Aircraft Recovery of Omaha, NE where he obtained a cost estimate for transporting the Panther to and from Hawkins. NICP granted permission for the restoration of the Panther. From that point, we began working on the restoration contract specifications which were to restore the aircraft to its Korean War-era VF-51 markings.

In August 2001, 126226 was transported to Hawkins. Prior to the Panther leaving Topeka, and throughout its restoration, Dick had actually found a few pilots who had flown 126226 in Korea. **Ernie Thabet** was his first, and from Ernie, he found others. From **Lee Boles**, of Eugene, OR, we obtained a number of excellent color photocopies of VF-51 and VF-53 Panthers aboard the USS VALLEY FORGE taken during their Korean deployment. Lee wrote that another pilot, **Bob Kaps**, lived in Wellsville, KS, about 50 miles southeast of Topeka. Lee also wrote that the squadron's maintenance officer, **Thomas Hayward**, went on to become an Admiral and Chief of Naval Operations. In July of this year Lee donated his VALLEY FORGE cruise book and the cockpit flight chart he flew with, on missions over Korea. The cruise book has a photograph of 126226 in it.

For the next 13 months, RRS Aviation slowly transformed the Panther back into its former self. A number of major parts had to be acquired or fabricated, including a windscreen, canopy, horizontal stabilizer, elevator, rudder sections, ejection seat, and almost all trailing edge control surfaces for the elevator and main wings.

On Tuesday, September 18, 2002 BuNo 126226 arrived back in Topeka with **Marty Batura** of Worldwide Aircraft Recovery driving the truck. Bob Schneider and **Edwin Haire**, an RRS employee, also arrived. The fuselage was offloaded and CAM volunteers assisted Marty, Bob and Edwin in reassembling the Panther. As other parts and items are found, they will be installed on the Panther.

CAM celebrates the restoration of the Panther

(Plane Talk edition: Dec 2003)

Saturday, September 13, 2003 was a great day at CAM when nearly 300 people attended the dedication ceremony for our restored Grumman F9F-5 Panther. Four former pilots of US Navy Fighter Squadron VF-51, attached to Carrier Air Group 5 aboard the USS VALLEY FORGE (CVA-45), who had flown BuNo 126226 from November 1952 to June 1953, attended the event.

The pilots included Bob Kaps, Lee Boles, Thomas Hayward and **Herschel Gott** of Los Altos, California. Also in attendance was a former member of the ship's company of VALLEY FORGE, **Vonley Davidson** of Abilene, Kansas. Hayward, retired four-star Admiral and former Chief of Naval Operations, was the keynote speaker for the event. Dick Trupp was master of ceremonies.

Admiral Hayward spoke not only about events in Korea with VF-51, but also compared today's Naval Aviation, its aircraft and capabilities with the Naval Aviation of the 1950s. After Admiral Hayward's remarks, Dick recognized each of the pilots and presented them with an artist's **(Robert Jones)** print of BuNo 126226.

Dick asked all veterans in the audience to please stand. Among the several veterans who stood and responded was **Mr. Lloyd Reynolds** of Baldwin City, KS. Mr. Reynolds told the audience he was a member of ship's company of VALLEY FORGE when the first naval response to North Korea's invasion of South Korea took place in July 1950.

Continued on page 9

Sharing the experience of going *Mach*-3

(Plane Talk edition: Apr/May 2006)

Donald Mathers, Lieutenant Colonel, US Air Force (Retired), Topeka, was our guest speaker when he spoke during our February 2006 Membership Luncheon. His topic, the Lockheed SR-71 Blackbird and its predecessors, was especially interesting, as he had flown in this world famous, records-setting Strategic Reconnaissance aircraft.

Colonel Mathers attended navigator training in Harlingen, Texas and flew in KC-97 and KC-135 tanker aircraft, including tours at Forbes Air Force Base (AFB) and Schilling AFB at Salina, Kansas. He commented that upon assignment to Schilling, he bought a home. That was on a Friday. On the following Monday, it was announced the base would be closed.

Other duty assignments had Colonel Mathers in Hawaii, McConnell AFB, Wichita, and at Offutt, AFB, Omaha (not necessarily in that order). His assignment to Beale AFB, California and the 9th Strategic Reconnaissance Wing (SRW) was to be a unique tour of duty. Colonel Mathers became a part of the initial group of Air Force personnel who put the SR-71 Blackbird into operational status. Beale AFB became home of all the Blackbirds and also the 903rd Air Refueling Squadron (ARS) with its KC-135Q tankers. The KC-135Qs were specially outfitted to refuel the SR-71 and its predecessors, the CIA's A-12 and M-21 reconnaissance aircraft, and three USAF program YF-12As interceptor prototypes.

Colonel Mathers was assigned to the navigation training section of the 9th SRW. He first flew in a Blackbird in 1967, going Mach 3.1 (3.1 times faster than the speed of sound) at 81,500 feet altitude. Colonel Mathers said that at that altitude, you see a black horizon.

There were three SR-71 versions. The SR-71A was the most prominent. It was a two-seat reconnaissance aircraft with a pilot in the front cockpit and Reconnaissance Systems Operator (RSO) in a second, tandem cockpit. Colonel Mathers was an RSO. Two SR-71Bs were built. They had a stepped-back cockpit behind the front cockpit and were flown as trainers. There was a singular SR-71C. Colonel Mathers said that, built as a trainer, it was somewhat a composite Blackbird and not flown much.

At this point, Colonel Mathers went briefly into the history behind the SR-71. Many, and perhaps most of us, have heard of Area 51 or Groom Dry Lake. the secret Air Force/Government test location/air base in Nevada. At one time called home-plate, Colonel Mathers referred to this site as "the ranch" during his presentation.

The A-12 was designed as a follow-on to Lockheed's very successful U-2 reconnaissance plane built for the CIA. The need for a follow-on was created shortly after the U-2 began its overflight of communist bloc nations in 1956. Lockheed designers. including **Clarence "Kelly" Johnson**, and US officials were surprised at the ease in which Soviet radar systems acquired and tracked the U-2s before and after they entered Soviet air space. Johnson and others felt the U-2 could fly within vulnerability for about two years, requiring the study and design of a follow-on reconnaissance platform, and soon. As it turned out, the U-2 overflights of the Soviet Union lasted until May 1, 1960 when CIA pilot Gary Francis Powers and his U-2 were downed over the Soviet Union.

The CIA wanted a high speed, high-flying, long-range reconnaissance aircraft with a lower invisible radar cross section. In late 1958 President Eisenhower gave the go ahead for the hardware development for such an aircraft, funded from the CIA's special (secret) Contingency Reserve Fund. In 1959 the Convair Division of General Dynamics and Lockheed responded to a General Operational Requirement for developing and designing the next "spy" plane.

By July 1959, the CIA gave official approval to Lockheed to proceed with its A-12 design, and in August, Lockheed and its "Skunk Works" were officially awarded the contract to build the next CIA reconnaissance aircraft. Photos of the A-12 look remarkably like the SR-71, only the A-12 was a single seater. Although the SR-71 became a major rework of the A-12, it had so many changes it was a significantly different aircraft.

Titanium was used in building the A-12's airframe, a first for industry. Then there was the special fuel, lubricants and hydraulics. The windows took three years and two million dollars to develop.

The A-12s and YF-12As were built in Burbank California, then crated in sections and trucked to the flight test location, all under a heavy cloak of secrecy. They were then reassembled and prepared for flight. The first A-12 flew April 25, 1962. But over five years passed before the plane flew its first operational 'hot' mission. During that five-year period the YF-12 made its first flight in August 1963. The SR-71 made its first flight on December 22, 1964.

President **Lyndon Johnson** made two announcements regarding the SR-71 family in 1964. The first in February 1964, announced the existence of an experimental jet aircraft, the A-11. He also said the aircraft could fly at 2,000 miles per hour at 70,000 feet altitude. The A-11 existed only as a model and step in Lockheed's design to the A-12. It was never an airplane. Five months later, in July, LBJ announced to the world the existence of Lockheed's Mach 3-capable reconnaissance aircraft for the Strategic Air Command. He called it the SR-71 and said it could fly over 80,000 feet and was powered by J58 engines. He further

The Don Mathers/SR-71 exhibit *(D. Murray photo)*

announced the program was first initiated in 1963 and flight testing would begin in early 1965.

The first SR-71 - an SR-71B trainer - entered the Air Force operational inventory in January 1966 with the 4200 Strategic Reconnaissance Wing. Six months later, this Wing was reorganized into the 9th SRW and all SR-71s began flying with the 1st and 99th Strategic Reconnaissance Squadrons.

Colonel Mathers then talked more specifics about the SR-71s. Like their predecessors, they were built of titanium and other composite materials. He said the plane was 93% titanium and the rest was Teflon-like radar absorbing materials. At Mach 3.2, skin temperatures reached 500 degrees Fahrenheit, and titanium was the best metal to handle the temperatures and the expansion and shrinkage experienced with high speed/high altitude flight.

The cockpit glass was also specially made to withstand temperatures over 600 degrees F. Colonel Mathers said there was a lot of roundness in the SR-71's construction. The designers of Lockheed's famous Skunk Works thought this approach was best for producing a lower radar cross section (RCS).

Two Pratt & Whitney J58 turbojet engines were used in the SR-71As, specially modified for use in the Blackbird. As stated previously, they burned JP-7 fuel, which had a high flash point. Air inlets for the engines were spiked and moveable. They shrank or retracted under high speeds to keep a proper airflow into the engines for fuel efficiency and to counter stalls. Colonel Mathers said that you did not want to stall a SR-71. The spiked air inlets were apparently sensitive enough to move in or out as the aircraft turned to compensate for differences in inlet air pressures. If an "unstart", or loss of thrust, occurred in an engine, the spike would immediately extend out to restart the engine.

Colonel Mathers spoke of the full pressure altitude suits they wore and that the process of dressing was orchestrated in order to get into the suit, boots. gloves and helmets. Once dressed, the pilot and RSO would lie down in a recliner until they arrived at the airplane. He said every new SR-71 member had two flying suits.

A typical reconnaissance bay payload would include three cameras and electronic, magnetic and radiation sensors. There was also side-looking radar. The SR-71 could photograph 100,000 square miles in one hour. With ASA 8 film, a resolution of 2 inches was possible. The navigation system was a star-tracking system with a 61-star chart. This system produced an accuracy of one-half mile after 24 hours at Mach 3.2. The Blackbird had a turn radius of 175 miles. This meant maneuvering in and around the area of Beale AFB was somewhat restricted. There were limited exit avenues from the base because of the sonic booms generated by the SR-71. He said phone calls came frequently to the base with the caller complaining of no eggs, no milk, roosters not interested in hens, and at least one house being knocked off its foundation.

Colonel Mathers said training for SR-71 duty consisted of 1 month's training to a combat ready status. Twelve simulator missions were flown, then 100 hours minimum flight time in an SR-71 before deployment. The pilot also had to fly three SR-71B check rides.

During its career, the SR-71 set over 25 world records for speed and altitude. Most, if not all, still stand. The aircraft was officially retired in September 1989. Colonel Mathers said a project named AURORA was thought by many at the time to be a follow-onto the SR-71, but actually that project served as a cover for the Northrop B-2 bomber. In 1994 three Blackbirds were placed briefly back into service as Congress felt the US was lacking in its strategic reconnaissance capabilities.

In 1997, President Clinton signed an order that ended all funding for the SR-71 program.

We recently received the first quarterly issue of Logbook Aviation History, published by Aviation Antiquities Service. This issue had an article on the SR-71 and listed the disposition of the 32 aircraft built, including the SR-71Bs and SR-71C. Twelve of the SR-71s were destroyed during the program's history. Of the remaining aircraft, according to the listing, two SR-71As are operational with the US Air Force out of Edwards AFB, California. One SR-71A and one SR-71B are operational with NASA, and one SR-71A is in Lockheed's Plant 42, Palmdale, California in the Reserve Fleet. All other SR-71s are in museums.

What kind of impression did serving with the SR-71s leave on Colonel Mathers? His car tag reads BN MACH 3. Enough said? We truly appreciate Colonel Mathers talking to us about what it was like to be around and fly in one of the world's greatest aircraft of all time.

It is still a fascinating plane. ◆

X-Hunters find missing jewel at a 1948 Crash Site

(Plane Talk edition: Dec 2002)

On October 16, 2002 Senior Master Sergeant (SMSgt) **Keith Fulton** of the **190th Air Refueling Wing** (ARW), Kansas Air National Guard came by the Museum and gave curator **Danny San Romani** an artifact to go in the Major **Daniel Forbes** case. The artifact is a star sapphire stone from a ring Major Forbes was wearing the day he and four others died in the crash of a Northrop YB-49 Flying Wing near Muroc Air Force Base, California.


Wedding photo *(D. San Romani photo)*

The stone remained lost for almost 50 years until it was found in October 1997. The YB-49 crash occurred June 5, 1948. **Chris Sanders**, **Tony Moore** and **David Perry** found the star sapphire. They were at the crash site with **X-Hunters**, an organization that focuses on the recovery of pieces of aviation history, including the searching of crash sites.

Sanders, Moore, and Perry were digging in the YB-49 site and sifting the desert sand when the stone appeared in a shovelful of earth. After doing further research on the YB-49 and crew, Chris Sanders felt that the sapphire may have belonged to Major Daniel Forbes. This was partly based on earlier statements that Forbes' ring mounting had been recovered after the crash, without its stone.

Armed with this information Chris Sanders eventually came into contact with officials at the 190th ARW. He talked with SMSgt Fulton and Colonel **Mike O'Toole**, the 190th's Commander. They told Sanders that Major Forbes' widow, **Hazel Bartron**, lived in Topeka and that they could act as a liaison between him and Mrs. Bartron. Sanders sent them a photograph of the star sapphire. SMSgt Fulton and Col. O'Toole made arrangements to visit with Hazel Bartron and talk about the stone. When they showed her the photo of the star sapphire, she excused herself from the room. When she came back in, she was carrying a ring with an identical, smaller stone. She went on to say that she and Forbes each wore a star sapphire ring before their wedding.

As the *Wings Over Topeka Family Freedom Day* at the 190th ARW, Forbes Field was being organized, SMSgt Fulton planned and arranged for a ceremony in which the star sapphire would be returned to Hazel Bartron. She agreed to this but only if the other members of the YB-49's crew were also recognized at the ceremony. So, SMSgt Fulton began a search for living relatives of the remaining crew who also died in the crash. Those other crewmen were: Major **Glenn W. Edwards**, co-test pilot; **Clare C. Leser**, aeronautical engineer; **Charles H. La Fountain**, aeronautical engineer; 1st Lieutenant **Edward L. Swindell**, flight engineer.

SMSgt Fulton was able to contact a relative of each of the deceased crewmen. With the exception of relatives of Major Edwards, all said they could come to Topeka for the ceremony.

On Saturday afternoon, September 28, on a stage near the 190th's large maintenance hangar, the presentation ceremony took place. Officials of the 190th presented Hazel Bartron with the star sapphire in a velvet lined wooden box. Photographs of the crew of the YB-49 and the plane itself were exhibited on the stage. In attendance were **Cheryl Dodds**, niece of Charles La Fountain, and her husband **Bill**; **George Leser**, brother of Clare Leser, and his wife **Delores**; **Jan Barclay** and **Virginia Sand**, cousins of Major Daniel Forbes; and **Carol Swindell**, daughter of 1st Lieutenant Edward Swindell, and her daughter **Natalie**. Also in attendance were Chris Sanders, David Perry and Tony Moore, three of the X-Hunters. Sanders is a director with Disney and most recently directed the animated feature, Lilo and Stitch. He also did the voice of one of the animated characters. Perry is a flight engineer with DreamWorks Aviation. Tony Moore is in NASA Public Relations at Edwards AFB, CA.

In interviews prior to Family Freedom Day, Hazel Bartron indicated she might pass the ring onto a museum, and later mentioned Combat Air Museum. The star sapphire will be added to the Forbes exhibit at CAM. Additionally, Danny San Romani is working with SMSgt Fulton to have a plaque made commemorating all those who died in the crash, with their names engraved on the plaque. This will also be placed in the case.

Hazel Forbes Bartron Passes

(Plane Talk edition: Jun/Jul 2011)

Hazel Forbes Bartron, 90, widow of Major Daniel Forbes, Jr., for whom Forbes Air Force Base was named, died May 4, 2011 in Topeka. Hazel had a long association and friendship with Combat Air Museum.

Hazel, a native of Ohio, met Daniel Forbes at Wright Field, Dayton, Ohio, where she worked with the flight test division, and he was an Air Force test pilot. Forbes was a native of Carbondale, Kansas, about 10 miles south of Forbes Field and CAM. They were married on March 11, 1948. Three months later, Forbes and four other experimental aircraft test crew died in the crash of a Northrop YB-49 Flying Wing near Muroc Field, California. He and his crew were test flying the futuristic-looking bomber. On July 13, 1949, Hazel was in Topeka, a member of the reviewing party, during the formal dedication renaming Topeka Air Force Base to Forbes Air Force Base.

Hazel later married Robert Bartron, a career Air Force pilot.

Recovered Forbes Sapphire *(D. San Romani photo)*

They were divorced in 1969. She and her children moved back to Topeka, and Hazel became a caregiver to Daniel Forbes' parents, Hattie and Daniel, Sr. until their passing. Hazel and the children remained in Topeka after the elder Forbes' deaths.

CAM's initial collection of Daniel Forbes' artifacts and memorabilia came through member **Don Nisbett**. A new exhibit case was designed at CAM to hold some of this collection, and a portrait of Forbes was hung beside the case. In 2003, **Tom Witty** refurbished the exhibit to include the gemstone from Forbes' ring, found at the crash site in 1997. Forbes' wristwatch, found by his mother during a 1948 visit to the crash site, was also donated for the case exhibit.

On February 21, 2003, the Major Daniel Forbes, Jr. exhibit was rededicated, with Hazel taking part in the ceremony. SMSgt Keith Fulton, was master of ceremonies. He had gotten to know Hazel during the 1999 Forbes at Fifty celebration, and they became reacquainted during the return of the gemstone to Hazel. Their acquaintance became a friendship that lasted until Hazel's death.

Our last visit with Hazel was in October 2010. Four CAM members attended a private ceremony on October 24 at the Manor Care Home where Hazel was presented a Distinguished Flying Cross on behalf of her late husband to replace one that had been lost. We enjoyed our post ceremony visit with Hazel and her family. Truly an admirable lady from the Greatest Generation, Hazel will be interred next to Daniel Forbes, Jr. in the Overbrook, Kansas cemetery. ◆

X-Hunters plaque *(D. San Romani photo)*

Helen and Daniel Forbes' replacement Distinguished Flying Cross *(D. San Romani photo)*

Iwo Jima Mural is Dedicated at CAM

(Plane Talk edition: Apr/May 2005)

A ceremony honoring the 60th Anniversary of the raising of the United States flag atop Mount Suribachi during the battle for Iwo Jima and a rededication of a large mural of the flag raising mounted on the west wall of Hangar 602 was held on February 23, 2005 in Hangar 602. Colonel **Robert F. Tindall, Jr.**, AUS (Ret.) and survivor of the battle, was the primary mover in making this ceremony happen. He is also a member of the Topeka Chapter of **The Military Order of the World Wars** (MOWW). He organized the ceremony and was key in having repairs made to the wall mural.

The mural of the flag raising was once part of a square-sided tower that greeted visitors to the Kansas Free Fair, located where the Topeka Expocentre now stands today. The tower was erected in the summer of 1948 along Topeka Boulevard. It stood over 65 feet tall and was about 12 feet wide on each side. Its outer covering was all porcelain-coated steel plates. They were all yellow with the exception of the Iwo Jima mural and had red letters Kansas Free Fair on the sides. Below the mural was a large bronze plaque dedicated to the men and women who served the US in World War II. One of CAM's members, **Marjorie Roy**, was present at the 1948 dedication of the tower and took photographs of this event. She provided these to curator **Danny San Romani** a few years ago for reproduction and enlargement.

After the fairgrounds closed, the tower was dismantled sometime in the mid-1970's. Its panels apparently were stored in a farm shed or barn in Osage County, Kansas. **Mr. Gerald D. Curtis** donated the mural panels and bronze plaque to CAM in September 1993 on behalf of the Curtis family.

Nick Nickerson and **Martin Moyer** constructed a framework and installed the mural panels. A sloped footing was built at the base of the mural and the bronze plaque installed there. **Gene Howerter** covered the sloped base with artificial grass, and member **Joe Higgins** installed lighting for the mural. There were several spots of damage to the porcelain covering on the panels, apparently from dismantling the tower, and these were left unrepaired until this year. The porcelain is textured, with as many as four contoured layers of different colors in some places.

Colonel Tindall had a few sign companies come out last fall and winter to see if they could repair the damaged panels. He settled on **Mike Weinbrecht** of **Creative Signs, Inc.** Topeka, to do the work.

Mike, his son, and other employees of Creative Signs, began their preliminary repairs in January. They rigged a scaffold and plastic drop cloth over the mural so they could run a heater inside the makeshift tent. Mike did the majority of the repairs, especially the necessary sculpting of the textured layers. The work continued until the morning of the event, when final touchups and polishing took place. The change in the mural's appearance was just short of amazing. Mike's texturing, and matching of 57-year-old colors were right on the mark.

About 40 people turned out on a chilly February 23rd to attend the ceremony. Colonel Tindall presided over the proceedings. As people arrived, they viewed a videotape on the battle of Iwo Jima in the Jean Wanner Education Conference Center. Cadets of Topeka High Schools Marine Corps Junior ROTC provided the color guard. The ceremony began at 2:30 p.m., about the same time the famous flag raising occurred on Mount Suribachi. Those who fought at the Battle of Iwo Jima were honored as were those who raised the US flag.

The ceremony also included the presentation of a plaque to CAM stating that the mural is now on inventory with the MOWW as a world war memorial. Dick Trupp accepted the plaque and a letter of thanks from Colonel **Percival Pascua** of the Topeka Chapter 86, MOWW. This plaque will be installed next to the mural. ◆

Iwo Jima Mural at CAM ***(D. San Romani photo)***

Wings reattached to the movie mock-up of the *Messerschmitt Bf-109G*

(Plane Talk edition: Aug/Sep 2006)

For the first time in over a decade, the wings to our movie mock-up of the **Messerschmitt Bf-109G** were reattached to the fuselage. Using the muscles of a group of **Air Force Jr. ROTC cadets** from **Highland Park High School**, **Martin Moyer**, **Dale Allen**, **Zak Amos** and **Danny San Romani** got the wings positioned and attached on a Thursday morning in June. Things went pretty smoothly for the first three bolts in the right wing, but the fourth bolt was a bear. Eventually, with slow movements of the wing, the holes lined up and the bolt seated in place.

For the left wing, we decided to put the "hard" bolt in first, then the remaining three. This tact worked fine for the first bolt. The "hard" bolt went in easily. The remaining three gave us fits. Once again, the Cadet muscle slowly moved the wing in whatever direction the bolt handlers required, and eventually, the left wing was also attached.

The space for working with the bolts was rather limited in size. It was about 47 inches wide by 32 inches long, 42-1/2 inches high on the forward end and 32 inches high at the rear end. Yet two adults and two young people were in that area setting pin punches, lining up bolts, or attaching washers and nuts. Dale, Martin, Zak, and one of the Cadets managed to work in this small area to get the hardware in place.

Dave Houser continues working on the mock-up. He has applied German markings to the wings and fuselage and worked on the overall paint scheme. He had to repair a couple of small areas of wing damage, the result of being moved on sawhorses. Dave and Zak placed an upper torso and head of a male mannequin in the cockpit. They built a small platform to raise and support the mannequin at an appropriate height for a pilot, and the mannequin will eventually be outfitted in flight gear.

A recent discovery has Dave going back over fuselage areas he repaired before the wings were put back on. As the plane sat a couple of weeks with its new, winged configuration, the fuselage forward of the cockpit changed shape some and opened up previously repaired seams. It is a set back, and hopefully a minor one, but it has also prompted us to consider adding a step in the restoration process.

After the mock-up restoration is complete, and if the girders in Hangar 602 will support the weight, the Bf-109 will be hung in that hangar. Seeing that the addition of the wings has caused a different set to the fuselage, discussions are now taking place about hanging the competed mock-up several inches off the floor for a period of time to see what kind of new set takes place in its structure. Then we will make any necessary repairs or adjustments before hanging it 15-20 feet off the floor.

In the meantime, Dave will make his repairs and move onto the next steps in the restoration. **Dick Trupp** and **Darren Roberts** will be working on the paint scheme to make the mock-up appear as one of Luftwaffe Ace **Eric Hartmann**'s Messerschmitts. ◆

The Messerschmitt, wings restored ***(D. San Romani photo)***

The Panther

Continued from page 3

After the ceremony, **Jeanne Trupp**, **Jane Weinmann**, and **Margaret Carlson** hosted a reception in the **Jean Wanner** Education Conference Room. The room was decorated in a blue and gold motif, including the serving plates. Refreshments included a sheet cake with a reproduction of a photo with the restored Panther in the center. Another table held photos and memorabilia of VF-51 and USS VALLEY FORGE from the 1952-53 Korean deployment.

About one month prior to the ceremony, we acquired some more history about BuNo 126226. **Mr. Carroll Ferguson** of Fargo, ND had heard about the Panther through various sources, and he and a friend came to CAM to see the plane. Mr. Ferguson was a pilot of fighter squadron VF-53, a second Panther fighter squadron aboard VALLEY FORGE at the same time our Panther was aboard. He told us that both VF-51 and VF-53 flew the dash 5 Panther and often flew each other's aircraft. He left us a one-page report describing a combat mission on March 5,1953 when he was actually flying our BuNo 126226.

On this particular mission, as he was landing back on the carrier, the tail hook caught the arresting cable, as it was supposed to, but then the hook shattered before the plane came to a stop. The Panther and Mr. Ferguson engaged (crashed into) the arresting barrier of nylon and steel cable. This engagement ended BuNo 126266's flying for the rest of the cruise, and it was placed on the hangar deck and used for parts. Mr. Ferguson also gave us a copy of his flight log and Pilot's Individual Accident and Flying Regulation Violation Record, showing the date and circumstances of the March 5 flight.

Most recently, we received a copy of a magazine photo from Lee Boles. The photo was from a June 1977 issue of Air Classics magazine. It shows our Panther, BuNo 126226 when it was sitting in Riverview Park in Marshalltown, Iowa, badly beaten up by vandals. ◆

The Firebee finds a new home at CAM

(Plane Talk edition: Aug/Sept 2004)

On May 17, 2004 a crew of Museum volunteers traveled to Blair, Nebraska to pick up CAM's latest aircraft display. In truth, though, while the item of interest has the shape and all the control surfaces of a speedy little jet, it is actually a remote-controlled Ryan BQM-34A Firebee target drone.

The Firebee at Blair, Nebraska *(D. Trupp photo)*

Dick and **Jeanne Trupp** always traveled through Blair on their way to visit relatives in Nebraska, and the Firebee was seen mounted on a pole in front of an American Legion Post next to the highway. Having passed the drone a number of times over the years, Dick decided to contact the Post and see if they would consider releasing it to CAM. As it turned out, the Post is raising funds to build a Veterans memorial, and the new memorial is to go where the Firebee and a naval salute gun were on display. After a series of phone calls and letters between Dick and **George Jipp**, the Post Commander, the members of the Blair Post agreed to transfer the drone to CAM, as long as all costs associated with such a move were borne by the Museum. Through the help of Mr. Jipp, a local business offered to donate the use of its crane to remove the drone from its stand and to remove the stand from its concrete base.

Stu Entz loaned us the use of his trailer, and on a very rainy morning Dick, **Don Dawson**, **Martin Moyer**, and **Ted Nolde** departed for Blair. A week or so earlier, Dick and Martin drove to Blair to look over what tools would be needed to remove the drone from its perch and the stand from its foundation. They also carried penetrating oil to brush on fasteners and fittings to help break those loose.

Fortunately, the recovery crew drove out of the rain and had good weather to work on the drone. Removing it from its stand was pretty straightforward. The crane and its crew picked the drone from its stand and set it on a cradle on the trailer. Then they cut the studs and nuts holding the stand to its concrete base and removed it. So far, the operation had gone smoothly. Then our volunteer crew studied the drone to see how it came apart. At a length of 22 feet 11 inches and a wingspan of 12 feet 11 inches, the drone was too large to trailer in one piece although it would have looked pretty cool going down the highway that way.

How the drone came apart was not obvious, and our crew studied the airframe assembly for a while. They removed one set of bolts with no effect. Then they got serious. Martin was on his back under the drone looking for attachment points, and Ted managed to crawl inside the drone's engine compartment (the engine is gone). As they studied the Firebee inside and out, Dick said that Martin, Don and Ted all seem to figure it out at the same time. They found two bolts and two pins that could be removed and started working on them. It soon became clear these bolt and pins held the airframe together. As the crew just about had the pins out, the fuselage shifted a bit and a pin and pin punch became jammed in one opening. That was probably just as well. As Don studied how the fuselage would eventually separate, it appeared that it may fold up as it came apart, with Ted still inside. It was also apparent that Ted was not made to fold up that way, so he removed himself from the drone. With Ted out, the pins were fully removed, and the drone's fuselage separated nicely into two sections with the wings coming off as a single unit.

A few other parts were removed so they would not be damaged in transit, and the three sections were secured to the trailer. The stand was left for another trip.

On May 27 Dick, Don and **Danny San Romani** traveled back to Blair to retrieve the stand. It was now at a local

Firebee's fuselage arrives at CAM *(D. Murray photo)*


The Firebee's new home at CAM *(K. Hobbs photo)*

business for sand blasting and painting. The drone is in hangar 604 until it can also be blasted, primed and painted back into its original color. As displayed in Blair, the drone was painted in an overall dark gray paint. This served quite well in protecting the skin of the drone but was an inaccurate color. The original international orange color is visible where the wing and fuselage sections joined, and this is the color the Firebee will eventually be painted.

The Ryan Firebee made its debut in 1958 as a subsonic, but fast (580 mph) remote-controlled, jet-powered target drone. In improved versions, it is still in use today and can fly at speeds of Mach 1.78. It can be launched from the ground or an aircraft. It has a self-contained parachute so it can be recovered, repaired, and flown again. Firebees are often intercepted and tracked with radar by fighter aircraft, but after so many missions, they are eventually targeted and shot down.

Once the preservation and painting are complete, the Firebee will take its place on the grounds outside of Hangar 602.

The Firebee Restoration
(Plane Talk edition: 2015)

Washburn Institute of Technology instructor **Eric Showalter** and one of his auto collision repair class students delivered the forward fuselage of the Firebee drone on March 13, 2015 and loaded the rear fuselage for transport back to the school.

On June 15, Eric's students had spray-painted and delivered the rear fuselage and tail assembly of the Firebee drone to CAM. Before the end of the week, Eric delivered a box of panels and other parts to finish off their part of the restoration work.

The forward fuselage, rear fuselage, and wings were all on their own roll-around stands. **Gary Naylor** and Danny San Romani moved an engine and the crew cab of the Hiller helicopter around some, and rolled the two fuselage sections down by the wings. After some measuring, they decided at least the wings of the drone could be mounted inside the hangar. For ease of assembly, the mating of the fuselage sections would be better done outside, using the forklift.

On the morning of July 3, Don Dawson, **Dave Murray**, Dick Trupp, Stu Entz, **Bill Stumpff**, and Danny San Romani mounted the wings to the rear fuselage, then rolled the two fuselage sections outside and fastened them together. With two of three roll-around stands now empty, they were stored outside and space was available to roll the assembled drone back into 604.

Dick had since installed the tail cone and ventral stabilizing fin to the drone, and Danny added a plate to the top of the rear fuselage for bird proofing. Dick also ordered some sections of bird preventer spikes to mount on the tail fin and pitot tube. There are several covers and panels to yet install and more bird-proofing to do before we mount the drone to its stand. The markings also will be applied.

Up to September 14, a concerted effort over a three-week period took place to prepare the drone for outdoors exhibit. Markings were laid out, masked, and painted on the drone by Dick Trupp, Ted Nolde, Don Dawson, **Gene Howerter**, **Wes Barricklow**, Dave Murray, and Danny San Romani. Later, a warning stripe was applied. Don and Danny worked on bird proofing and insect proofing the drone. The targeted insects are primarily wasps/mud daubers. The two also mounted bird spikes on top of the vertical fin and on the pitot tube. For those of you who may be wondering, bird spikes are not for spiking or spearing a bird. The spikes are angled and close enough to each other a bird has great difficulty, if any success, in alighting on them. Dick and Don also mounted the drone's nose cone.

After close of business September 29, the Firebee was staged outside of Hangar 604 for its short journey through a security gate and to the stand. Don attached one of our tow bars to the front of the carrier holding the drone, and we towed it to the site on the early morning of the 30th. Three ladders were placed around the stand and other preparations made before arrival of the crane.

J. B. Turner & Sons donated the use of a crane and two operators to lift the drone to the stands. By 7:15 a.m. the slings on the drone were attached to the lifting rig of the crane. There was a mixture of finesse and muscle power to get the drone off its temporary stand and then fitted to the permanent one, but by 8:10 am, the Firebee was bolted in place. Our volunteers included Dick Trupp, Don Dawson, Wes Barricklow, Dave Murray, Ted Nolde, **Paul Frantz**, and Danny San Romani. Later, Don and Danny mounted window screen around the engine exhaust opening through which the stand enters the drone's fuselage. ◆

Replica German WWI Taube in CAM's collection

(Plane Talk edition: Jun/Jul 2006)

CAM received a welcome addition to our collection of aircraft May 12, 2006 when **Mr. Dick Starks** of Parkville, MO donated his homebuilt, 52% scale replica of a German World War I Taube ("dove") to the Museum. Mr. Starks sent an e-mail to CAM during the first week of April, asking if we would be interested in accepting the Taube as a donation. **Gene Howerter** took it from there, answered in the positive, and kept up a continued e-mail contact with Dick over the next five weeks working out details of date, time, place of delivery and level of support we could give him in re-assembling the aircraft. Dick and his wife, Sharon, would trailer the aircraft to Topeka.

Dick and his wife, **Sharon Starks** had flown the aircraft in numerous air shows over the past couple of years, but told us it would be donated to us as a static display (without its engine), which was fine with us.

He is a member of a group known as the "Dawn Patrol" that fly scaled replica World War I aircraft out of an airport on the west side of Gardner, KS. Several members of the Dawn Patrol came to Topeka to assist with the re-assembly and take part in the transfer of the aircraft to CAM. Locally, **Kevin Drewelow**, a long-time friend of CAM and a good friend of Dick's, also came out to help re-assemble the Taube.

The Taube and Dawn Patrol members arrived about 10 a.m. and were soon offloading the plane from its trailer. Once the components were laid out in Hangar 604, assembly went quickly and smoothly. Dick said it normally took about 1-1/2 hours to assemble all the parts into an airplane. It took a bit longer this day, as the workers took time to tell onlookers about the plane and what they were doing, but it all went together without a hitch. Soon we had a new addition sitting on the floor between Kilroy and the F-14A Tomcat. It is a classy looking aircraft.

According to Wikipedia "The Taube was designed in 1909 by Igo Etrich of Austria-Hungary, and first flew in 1910. The Taube's unique wing form was modeled, not after any bird, but rather copied from the Alsomitra macrocarpa plant seeds (which may glide long distances from their parent tree). The first hostile engagement (<u>by any aircraft in the world</u>) was by an Italian Taube in 1911 in Libya, its pilot using pistols and dropping 4½ lb) grenades on Turkish trenches, during the Battle of Ain Zara. The Taube was also used for bombing in the Balkans in 1912–13. It was the first military aeroplane to be mass-produced in Germany."

At the beginning of the First World War, Taubes made up about half of Germany's air strength, and over 54 different variants, but the Taube was the least successful, of all variants, as a swift and maneuverable fighter and was soon superseded by aircraft of a more efficient fighter/bomber design. Its niche was more in observation and bombing.

The role that seemed better suited for Taubes of World War I was as nuisance bombers. They had good range and loiter time. In August 1914, one Taube would often fly over Paris for an hour at a time, dropping six-pound bombs and message containers or leaflets, demanding the city's surrender. They were the first aircraft to bomb Paris, and later, London.

The Taube reassembled, waiting to be suspended in midair ***(D. San Romani photo)***

Taubes also flew escort for Zepplin airship raids over England. When painted with a clear nitrate dope over linen, the Taube was almost impossible to see on a clear sunny day at altitudes of 6,000 feet and higher. Prior to the war, in 1913, one set an altitude record of 23,000 feet.

A full-sized Taube of World War I had a wingspan of 59 feet and was some 30 feet long. This Dawn Patrol 52% replica has a span of 30 feet and length of 17 feet, and the kingpost supporting all the wire bracing on the top of the wing is about 8 feet off the floor. The aircraft was a two-seater, with a pilot and an observer.

We are very fortunate that Dick Stark chose us as a repository for something he obviously put a great deal of time and effort in to create. The aircraft is just pristine looking and makes a wonderful addition to our collection.

Suspending the Taube in Hangar 602

(Plane Talk edition: Oct/Nov 2007)

Discussions about suspending the Taube replica from the rafters of Hangar 602 have been ongoing since last year. The Taube weighs in at only 600-700 pounds, without its engine

Member **Ted Nolde** spent part of one day crawling through the ceiling framework so he could calculate the load-bearing ability of the steel structure. Once that was done, he worked with **Don Dawson** on finding a beam clamp that would work and provide a large weight safety margin. **Martin Moyer** started scouting around for a lift/suspension system and found a suitable chain hoist through Federal Surplus Property.

A test lift was made on the Taube the first week of August to see how it would balance from the single point suspension Don installed on the plane. The lift was about 18 -24 inches off the floor but this was high enough to show us the plane came up in a beautiful level attitude.

Don ordered the beam clamp and associated hardware for the ceiling beam attach point. Once this hardware arrived, he made a test fit to a lower segment of the beam and added spacers as needed and got that assembly all ready to go. The Taube was rolled over from 604 and placed just inside 602.

The next day, **Million Air Topeka** arrived with a lift truck to get Don high enough to attach the beam clamp. Don and **Gary Naylor** attached the hoist hook to the lift point and took turns hauling on

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Kansas Cold War-era Titan Missile Silos exhibit

(Plane Talk edition: Nov 2002)

Another new exhibit went on display in September, 2002. Actually, it is a resurrected exhibit. Before the Gift Shop expansion a few years ago, there was an exhibit on nuclear-armed **Titan Intercontinental Ballistic Missiles** (ICBM). When we expanded the Gift Shop, the exhibit was taken down and stored. With completion of our new exhibit rooms this spring, we once again had room to put the Titan exhibit back on display. We tagged volunteer **Tom Witty** with the project, handed him the boxes of material, and asked him to come up with a plan for the exhibit.

Tom looked through the artifacts, then talked with curator **Danny San Romani** about what kind of story we wanted the exhibit to tell. **Mr. Kenneth Varney** had donated the artifacts to the Museum in 1986.

Mr. Varney was a Titan Combat Crew Member and a Missile Complex Commander of a Titan II complex with the 570th Strategic Missile Squadron (SMS) of the 390th Strategic Missile Wing (SMW), based out of Davis-Monthan Air Force Base (AFB), AZ. Although his artifacts dealt with a missile complex in Arizona, we felt we could make a Kansas connection because Titan II missiles were once based around Wichita, KS. As Tom and Danny further discussed the exhibit, former missile sites around Topeka came up, and later, former missile sites around Salina, KS.

Preliminary work at the Kansas State Historical Society, a review of historical information at CAM on Forbes AFB, and information from the Internet produced enough material that Tom and Danny felt a case could be developed with a theme on ICBM sites in Kansas. These sites included the Atlas E missiles around Topeka, the Atlas F sites around Salina, and the Titan II sites around Wichita. Suffice it to say, there was a period of time in Kansas history when these sites undoubtedly placed Kansas high on a target list of the former Soviet Union.

Tom sorted through the Varney artifacts and newly found information to select items for the exhibit. Once he had a general idea of the material he wanted to use, he selected and refurbished a case for the exhibit **Bob Crapser** aided the project by downloading images from the Internet on top photo quality paper. Tom contacted **Mr. Russell Wiedle** who provided information on the missile sites around Salina.

With materials in hand Tom began developing the story of ICBM sites in Kansas during the Cold War. In October 1961 the 548th SMS was active at Forbes AFB with nine Atlas E sites within a fifty-mile radius of Topeka. Also in 1961, the 550th SMS became operational at Schilling AFB with 12 Atlas F sites in a similar radius around Salina. In March 1962, the 381st SMW was activated at McConnell AFB and included the 532nd and 533rd SMS. Wichita had a horseshoe-shaped pattern of 18 Titan II silos to the east, south and west of the city. Like Topeka and Salina, the missile sites were within 50 miles of Wichita.

The emergence of the Titans signaled the end of the Atlas ICBMs. All Atlas missile sites were deactivated by 1965. The SALT II accords similarly spelled the end of the Titans, the last of these missiles being withdrawn from service in 1987.

Tom has these stories nicely laid out in the exhibit and also has specifications listed for each type of the Kansas ICBMs. Photo reproductions of missiles, missile sites, and squadron and wing patches are also presented in the case. Several of Kenneth Varney's artifacts illustrate a Titan II site, and a mannequin is dressed in one of his uniforms.

Come and see our latest exhibit. You will find that some silos in Kansas did not always stand above ground and did not always hold grain. ◆

Cold War deterrent exhibit at CAM ***(D. Murray photo)***

Replica Taube *Continued from page 12*

the hoist chain.

The Taube came off the floor just as it had during the test hoist, nice and level. **Zak Amos** and Danny San Romani were on top of the Museum offices and had passed down the tagline. This was attached near the tail skid and the lift continued. Once the Taube was high enough to clear the line of exhibit cases outside the Gift Shop, we used the tag line to spin the aircraft 180 degrees. The hoist hook turned easily and the nose of the Taube soon pointed toward the hangar doors.

The lift continued until the plane reached a height thought best for viewing. Volunteers were on the Art Gallery balcony to check the Taube's height and position. We rotated the plane's nose at an angle away from the Art Gallery railing. The volunteers on the Gallery deck said they could see into the cockpits and get a good overall view of the plane in this attitude, and this was the position chosen. Gary Naylor came up to the top of the offices and performed some beam walking to secure the tagline. A second line was tied to the lift chain. We pulled it up and out of the way and tied it off above the offices as well. A very large thank you to everyone involved in the replica's acquisition to the hanging of this aircraft exhibit. ◆

The Tomcat *Arrives*

(Plane Talk edition: Dec 2003)

A major acquisition occurred October 24, 2003 when Grumman F-14 Tomcat, Bureau Number 161615 was flown to Forbes Field for delivery to Combat Air Museum. After several years of requests and follow up requests, particularly by Board Chaiman, **Dick Trupp**, CAM finally acquired an example of this famous contemporary fighter. BuNo 161615 in on loan to CAM from the National Museum of Naval Aviation in Pensacola, Florida. Navy Lieutenant Commander **Marcell Padilla** with Navy Commander **Dave Asjesas** the Radar Intercept Officer flew BuNo 161615 in from the Naval Strike and Air Warfare Center (NSAWC), Naval Air Station, Fallon, Nevada. In a shortened version, Naval Air and Strike Warfare School is the US Navy's Top Gun school.


F-14 Tomcat arrives at CAM Oct 2003 *(D. San Romani photo)*

This two-seat supersonic (1,500 m.p.h. plus) fighter served 20 years in the US Navy. It was delivered to the Naval Plant Representative Officer in October 1983 and to its first squadron in December 1983. It flew with five more squadrons before going to NSAWC and Top Gun in November 2001.

The Tomcat is a swept-wing fighter. With wings fully extended for slow, maneuvering flight, its span is 64 feet. For supersonic flight, the span is 38 feet. Then, for stowage aboard a carrier, its wings are put in an over-sweep position with a span of 33 feet. For space conservation in our hangars, we will exhibit the plane in its over-sweep configuration. Its length is 62 feet. The 33' x 62' configuration is similar in size to our F-105 Thunderchief, but the Tomcat weighs in at 40,000 pounds empty- some 11,000 pounds heavier than the Thunderchief.

Before landing, the crew did some passes in high-speed configuration, then a couple of touch and goes to burn off fuel before taxiing to Hangar 602 and shutting down. The arrival received front-page coverage in the **Topeka Capital Journal**, and both LCDR Marcel and CDR Asjes patiently answered many questions from the media, volunteers, and onlookers.

Later in the day, **Don Dawson** and **Bob Crapser** towed the Tomcat to a more secure area of Forbes Field until a demilitarization team could arrive to make the aircraft safe for exhibition. Fortunately, this team was due to arrive October 28 from Naval Station Oceana, Virginia Beach, Virginia. Don and Bob quickly came to the conclusion that we need to lengthen our tow bar, as one had to lean to the left, the other to the right with the nose of the jet in between. Turning meant one or the other ducking as the nose passed over their heads.

When the de-mil team arrived, we pulled the RU-8D and Kilroy (C-47) from 604, towed the Tomcat back down the flightline and rolled it in the hangar for the necessary work. The de-mil team consisted of four government contractors from **Titan Corporation** and two active-duty Navy personnel.

BuNo 161615 is an F-14A series of the Tomcat with Pratt & Whitney TF30 turbofan engines. In 1979, 79 of this same make and model Tomcat and engines were sold to Iran. Shortly thereafter, the Shah of Iran was deposed and the Tomcats suddenly became potential adversaries to the United States. Although it has now been 24 years, apparently the aircraft is still considered a potential threat. Therefore, the engines were removed from 161615 for transport to Virginia Beach, where they will be crushed and ground up. We are working on a scheme to come up with appropriate plugs for the engine intakes and exhausts. The ejection seats were pulled and their rocket motors and a number of other charges called squibs removed, then the seats were reinstalled.

The cockpits were left intact, other than a few items removed before the fighter left NAS Fallon. All weapons sensors were taken off at Fallon as well, so the plane has a slicked down appearance. Hydraulics and cooling oils were drained, and avionics boxes, the weapons radar, and liquid oxygen bottles were removed for shipment back to Virginia. Several other items also covered by fuselage panels were removed. When the work was completed, the only things that looked like they were missing were the engines and their afterburner cans. The aircraft looks complete otherwise.

During the week of November 3, **Don Dawson**, **Bob Crapser**, **Dick Trupp**, **Martin Moyer**, **Amos Page** and **Stu Entz** respotted aircraft in Hangar 604. The result is that the Tomcat is on exhibit in 604 with only the T-33 having to go outside. The T-33 is on exhibit on the asphalt between 602 and 604.

Come out and get a close up look at an example of one of the premier fighter aircraft in the world, now on display at CAM.

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Tomcat's 2nd demilitarization – cockpit *(D. Murray photo)*

Tomcat's 2nd demilitarization – cannon *(D. Murray photo)*

Further Demilitarization of the Tomcat in 2020

(Plane Talk edition: Jun/Jul 2020) by Kevin Drewelow

The Museum's naval aircraft have now been certified as being safe for public display, thanks to a team of contractors working for the National Museum of Naval Aviation in Pensacola, Florida. Due to a number of recent safety-related incidents involving aircraft at museums, the Navy hired **Potomac River Enterprise Solutions, LLC** to visit every naval aircraft on loan across the nation to identify and mitigate any hazardous materials remaining in the aircraft

The team arrived at CAM on April 29, 2020 comprised of veterans with experience in the necessary fields: airframe, power plant, avionics, armaments, etc. They inspected our Douglas TA-4J Skyhawk, Grumman F9F Panther, Grumman F-14A Tomcat and Sikorsky NCH-53A Sea Stallion. The Tomcat was first as it would require the most work.

CAM had hired a company to demilitarize the Tomcat shortly after its arrival in 2003. We soon learned they had missed several important safety items. The Potomac River team drained over 80 gallons of fuel from the jet. They opened the canopy to check the cockpit for radioactive components and then closed and sealed it. They ensured the actuating charges on the two fire bottles were spent and that the fire bottles were empty. The most interesting find, however, was that the General Dynamics M161 Vulcan 20 mm rotary cannon was still operational! The team made the weapon safe while not changing its appearance.

The Potomac River Enterprise Solutions team members spent a busy week at CAM and especially enjoyed the lunch that **Mary** and **Jim Braun** provided one day, a pleasant break from nonstop restaurant meals. They were friendly. professional and enjoyable to work with. They know old airplanes and enjoy museums and history. We enjoyed the time spent with them while they were here and CAM is better off thanks to their visit. ◆

Tomcat's 2nd demilitarization – nose radar *(D. Murray photo)*

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CAM sells its halftrack

(Plane Talk edition: Feb 2003)

The former US Army halftrack that sat between hangars 602 and 604 was sold in December 2002 to a local contractor and restorer of military vehicles, **Ed Crocker Jr.** of Berryton, KS.

CAM acquired the halftrack a number of years ago, exhibiting it in various areas around the Museum grounds. It had been greatly modified from its original configuration. The armor sides had been cut away from all around the vehicle's rear bed, and a large roller had been cut from the front bumper. There was no canvas for the top of the driver/passenger cab, leaving the area always exposed to the weather. The rear bed was void of any former weapons mounts. None of these removed items were with the halftrack when CAM acquired it, and none were ever produced or acquired in the years it was with the Museum.

The halftrack's condition and future prospects of ever being restored to a military configuration were discussed at a Board meeting. It was decided that Museum funds and resources would be better put to restoring aircraft and aviation artifacts than the halftrack. Its sale brought in $3,000 that went into the Museum's restoration fund.

Ed Crocker said this will be a long-term restoration and he would like to exhibit it at the Museum during future events. ◆