

# COMBAT AIR MUSEUM

## → → → Plane Talk → → →

The Official Newsletter of the Combat Air Museum

Topeka Regional Airport Topeka, Kansas

June / July 2016 • Vol. 32, No. 3



*Colonel Jarrod Frantz of the 190th ARW and Cari Anne Cashon, Miss Capital City 2016, happily took their turns as servers.*

## 23rd Pancake Feed draws a record attendance

*By Gene Howerter*

The last Saturday in April each year is always a big day at the Combat Air Museum. Twenty-three years ago we held our first Pancake Feed fund raiser at CAM. One of my most memorable aspects of this early event was not just sore hands, but serious blisters from stirring pancake batter. After a couple years and more blisters, we hired a pancake professional to help out, a big help, but funds earned from the event dropped considerably. Then an answer came along. Being a member of the Topeka Tourism Alliance, one of our fellow members happened to be Mr. Bob Carmichael, owner of Perkins Family Restaurant, Topeka. As I remember, Bob said "Let me help your organization out. I will come and serve your pancake breakfast for you." This was the beginning of something really special. We are now at a place in the progression of this event where it would be impossible to carry on without Bob's support.

**"Pancakes" con't. on page 6**

## Welcome to Kevin Drewelow

With this issue we welcome Kevin Drewelow as the Director of Combat Air Museum. He was hired May 3 by the Board of Directors. Kevin, a retired Senior Master Sergeant of the 190th Air Refueling Wing, Kansas Air National Guard, is no stranger to Combat Air Museum. He has been a resource and point of contact for CAM over the years while with the 190th ARW. He was a quality assistance inspector with the 190th. During his relatively short time in retirement, Kevin has been active with the Museum of the Kansas National Guard, also located at Topeka Regional Airport.

Kevin is active with the Experimental Aircraft Association and is associated with the Dawn Patrol in Missouri from whom came most of our replica World War I fighters suspended in Hangar 602. Kevin assisted Dawn Patrol members in the assembly of the replica Taube upon its arrival at CAM in May 2006.

Kevin's job as Director encompasses the curatorial duties. Danny San Romani resigned as curator at the end of March and remained in the office until May 31. Kevin will assume his duties on June 1. Danny remains with CAM as a volunteer, and his future workplace will be Hangar 604, where he will focus on the F-86H Sabre. →

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**Museum Hours**

January 2 - February 28/29

Mon. - Sun. Noon - 4:30 P.M.

Last Entry Every Day is 3:30 P.M.

March 1 - December 31

Mon. - Sat. 9 A.M. - 4:30 P.M.

Last Entry Every Day is 3:30 P.M.

Closed New Year's Day, Easter,

Thanksgiving, Christmas Day

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Your comments are welcomed.

# From the Chairman's Desk

*Gene Howerter, Chairman, BOD*

*As promised in the last issue of the Combat Air Museum's "Plane Talk," the following is part two of my Elton H. Rowley article. I think you will be impressed when you read what E.H. Rowley accomplished after signing on with Boeing as Chief of the Engineering Flight Test Program. We will always remain blessed that Elton was a distinguished member of the Combat Air Museum, a good volunteer, and a man who spent time often working on his scratch built "Jenny," which he donated to our museum.*

*Note: This is a press release from The Boeing Company sent out at the conclusion of WW II. No words or language has been altered for historical purposes.*

**BOEING WICHITA****FOR RELEASE SUNDAY, MARCH 10, 1946**

Wichita, Kansas March 9 --- This is the story of an airplane --- the saga of "Sweet Sixteen." No rows of painted bombs for blasting Jap cities are on the sides of her sleek nose, no rising sun flags for Jap fighters shot down. Yet to this one plane goes just as big a share of victory as that carried by the great squadrons of her sister bombers thundering over the vast expanse of the Pacific.

During the war, this story couldn't be told --- she was a plane that had "Secret," "Confidential" and "Restricted" stamped all over her. She, her flight crew and her ground crew were a mystery to most of the workers at Wichita Division plants of Boeing Airplane Company. But now, that story can be told.

"Sweet Sixteen" was No. 42-6206, the 16th airplane of the total of 1,644 giant B-29 Superfortresses to leave the big double doors at Boeing-Wichita Plant II. The Army bought her and sent her to Smokey Hill Army Air Field at Salina, Kansas and then recalled her to perform experiments

never before undertaken by any B-29. She had a good background for her job, too, as she had been a test plane at Smokey Hill.

She arrived back home November 8, 1943 and immediately was assigned to the Boeing-Wichita engineering flight test department. From the fuselage came all gun turrets, all surplus equipment, all armor plate that would be used in a regular warplane. Into the fuselage went over three miles of extra tubing, twenty-five miles of extra wiring; into the rear bomb bay went a floor supporting great racks of pressure-indicating manometer tubes. The entire seating arrangement was changed for test personnel.

Along her sides and top, and even on racks supported by the floor, went panels containing scores of gauges and indicators, a Brown recorder to keep a constant check on temperatures, a wire recorder to preserve the oral records dictated by the flight crews, a photo recorder and batteries of movie cameras.

And into the front bomb bay for possible emergency use of the crews went the first pneumatic snap-opening bomb bay doors to be installed on any B-29. This occurred long before the electrically-operated doors were replaced by snap-openers on production Superfortresses.

In short, the B-29 "Sweet Sixteen" became a flying laboratory performing at home the tests and experiments that enabled other Superforts overseas to show Japan the real meaning of air power.

During the many months from late 1943 to early 1946, "Sweet Sixteen," under the supervision of E.H. Rowley [Elton Holcomb Rowley], chief of the engineering flight test unit, and flown by such experienced Boeing pilots as Bob Lamson, Jack Jones and Jack Peacock, rolled up more than 535 hours in the air---mostly at high altitude, even to 40,000 feet.



*The Sweet Sixteen and her flight-test group. Elton Rowley is seventh from left in the middle row. - Time Before Space*

While carrying out this long experimental program, "Sweet Sixteen" was powered by 26 different 18-cylinder, 2,200 horsepower Wright Cyclone engines. These great power plants consumed 440,000 gallons of 100 octane gasoline and 12,000 gallons of oil. And while they were pulling the B-29 up to 40,000 foot altitudes, the instruments and cameras inside were taking down the facts the Army Air Force needed in its offensive against Japan, as many as 15,000 separate readings on one flight alone --- this flight lasting seven hours. And flying the airplane, watching over the delicate instruments, and noting mentally their own observations were the trained men of the Boeing-Wichita engineering flight test department, in their own way just as much a part of the Pacific as . . . the boys at their positions in combat Superforts.

"Sweet Sixteen" was a trouble shooter all right, a necessary part of the Twentieth Air Force which for the first time in history of war was sending against an enemy nation great fleets of swift, pressurized, long range, heavy bombardment planes --- designed, engineered and built by Boeing for the sole assignment of crushing Japan.

There was a time, for instance, when a hurry call for help came from the 20th Bomber Command in the China-Burma-India theater. The extreme temperatures there were causing precious gasoline to boil and gush out the vents of B-29's, especially after attaining 20,000 foot altitudes.

The CBI temperature conditions were simulated at Boeing-Wichita where the crew used a steam-heated apparatus to preheat 3,500 gallons of gasoline, then pumped the fuel into "Sweet Sixteen's" tanks and took off for high altitudes to note the reaction. The tests were repeated until the engineers found a method of preventing loss of fuel --- a method immediately adapted successfully to other Superforts in the C-B-I.

Then the control cables started giving trouble. At high altitude, the temperature ranges down to as much as 85 degrees below Fahrenheit and the metal skin of the B-29 shrinks, this shrinkage in the wings amounting to as much as one and one half inches. But control cables did not

shrink that fast. Thus, with slack controls, the bombardier was deprived of a steady platform from which to release his explosives. After tests in which hydraulic tighteners failed to work correctly, the engineers solved the problem by inserting into the cables a metal corresponding more closely with that used in the fuselage.

Of "Sweet Sixteen's" 16 major experiments, four of the most important were carried out at high altitude. They were the power plant performance test, requiring 135 hours of flying and eight months for completion; the propeller feathering test, 130 hours; the oil cooler and inter-cooler performance, 80 hours; and the ADI, or water injection test, 71 hours. And then there were tests for oil tank pressurization . . . , C-1 autopilot, fuel tank electronic fuel gauge, propeller anti-icing, wing and nacelle pressure, battery vent, cockpit glass, general cooling and others.

Tedium, physical and mental strain --- even exhaustion --- were the conditions under which "Sweet Sixteen's" crew worked so that the boys at B-29 bases could carry on with safer equipment, more efficient and effective equipment. They were checked by Wright Field's best medical officers, and underwent thorough examinations by Boeing doctors every three to six months. These tests were complete --- they had to be because every man was a specialist in his own field, had to perform his job.

There was danger in what this flight test crew did, plenty of it. Three times while at extreme altitudes the gunner's sighting blisters blew out and the airplane decompressed immediately. Split-second usage of emergency oxygen masks saved the crew members.

Another time, during a propeller feathering test, the governor failed to take hold and the prop on the left outboard engine ran wild. Rising to a screaming crescendo, the tips of the 16½ foot blades were soon exceeding the speed of sound. Those at the Wichita airport heard the scream from high above that day and knew what it meant, but they couldn't see the airplane because "Sweet Sixteen" was on an altitude test. Only the quick action of pilot Jack Jones brought the bomber and crew back safely. He put the plane into a stall and feathered the wild propeller.

**"Chairman's Desk" con't. on page 15**

## In Memoriam Olivene Albrecht

1929-2016

March 27, 2016

Topeka, Kansas

Membership Number 4065

8-year Member





*Left: Gene Howerter presents Certificates of Appreciation to Simeon Sykes, Ethan Sparks, Jeremy Wells, and Natalie Brodine, with Susan Sittenauer. - photo Dave Murray*

*Right: The students toured through the Museum after the luncheon. - photo Susan Sittenauer.*

## Members get updates on CAM activities and see two History Day presentations from Seaman students

*By Dennis Smirl*

The April 11 Membership Meeting at the Combat Air Museum was well attended with most of the seats at the dining tables filled. The covered dish luncheon was, as usual, excellent, tasty, and holding a few surprises. Everyone present enjoyed a good meal, and there were seconds for those who had a healthy appetite.

Chairman Gene Howerter called the meeting to order at 12:10 with a huge list of important items to share with the membership. He began with a quick introduction of our guests, which included our presenters for the day.

Following that, Gene began with a reminder that those of us who shop at Dillon's are advised to enroll in their donation program. Every dollar spent at Dillon's by our enrolled members means a bit of extra money for the Museum.

Gene's next item was the yearly Pancake Feed, scheduled for Saturday, April 30. He asked for volunteers for a whole raft of jobs, and told the membership when the Panther, the Thunderstreak, the Phantom, and the Harvard would be moved outside. Other jobs included floor cleaning followed by setting up the tables and the chairs. The highlight of the day would be the dedication of new nose art on one of the KC-135Rs from the Kansas Air National Guard. The subject of the nose art was "Patriot Guard" and it was expected that a large group from the Patriot Guard would be present to share delicious pancakes, sausage, coffee, and juice and then help with the dedication. He finished with a reminder to bring salable items for the Fly-In Market and baked goods for sale.

The next item on the agenda was a reminder that volunteer help is always needed. Gene listed just a few areas, including Gift Shop, tour guides, hangar maintenance, outdoor maintenance, and aircraft restoration.

A huge event for the Museum is scheduled in September. The Topeka Downtown Chocolate Festival will be held on

Saturday, the 24th, and it will feature the Museum's 5k and 10k Winged Foot run/walk. Co-sponsored by Visit Topeka, the run will begin at 8:00 A.M. About 200 participants are expected. A new feature will be chip timing/electronic timing, which should make for much easier and more accurate scoring. The Museum is in the process of seeking donations/premiums for the participants in the event.

Dick Trupp talked about a new display in the room with the Oriskany display. It is a partial outer "envelope" of the U.S. Navy's Macon airship, complete with Curtis Sparrowhawk models and the "trapeze" that was developed so that fighters could be carried, launched, and recovered by the crew of the Macon.

The EC-121 project is on schedule, with many of the jobs complete, but lots of work still to be done. Spring is a good time to make some real progress on this restoration, and more volunteers are needed.

Finally, our guest presenters were introduced. Susan Sittenauer brought four students (two teams) from Seaman High School to "beta test" their presentation. The first team of Ethan Sparks and Simeon Sykes did an excellent video presentation of The Crisis at Central High: The Little Rock Nine Students, the crisis at the high school at Little Rock, Arkansas in 1957. The second presentation was developed by Natalie Brodine and Jeremy Wells and covered the preventative work of Dr. Eugene Lazowski during WWII. His work with the typhus vaccine saved over 8,000 lives. Both presentations were of excellent quality, and the presentation about Little Rock has advanced to national level competition.

The meeting was adjourned at 1:30 P.M.

We later learned from Susan that Ethan Sparks and Simeon Sykes qualified for the Nationals and will be heading to the University of Maryland at College Park in June.

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## Hey volunteers, this restoration project needs YOU!

The restoration work taking place on the Lockheed EC-121 Constellation needs volunteers. This is the largest aircraft in our collection and work is being done on the inside and on the outside of the plane. We would love to tell you it is all cushy, clean work. The fact is, you will break a sweat

Some people look at the size of the plane and feel it is too much. Do not do that. Look at what needs to be done one square yard at a time, or one item at a time. No specialized skills are required. Work a few hours, a morning or an afternoon. It is a big task, but it sure is not going to get done with a couple of volunteers working on the inside and one volunteer working on the outside.

Please get involved. For interior work, call Stu Entz at 221-2121. For exterior work, call Wes Barricklow at 640-9156. Or call the Museum at 862-3303.

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## Upcoming Events

### June

#### Monday - Thursday, June 6 - 9

Young Aviators Class  
Bob Dole Education Center  
9am – 12:30pm

#### Monday, June 13

Membership Luncheon  
Bob Dole Education Center  
11:30am

The Reverend Larry Thomas will speak about surviving a 1962 crash of a US Navy WV-2 (EC-121) Warning Star during landing at Naval Air Station Patuxent River, Maryland.

### July

#### Monday – Thursday, July 11 – 14

Young Aviators Class  
Bob Dole Education Center  
9am – 12:30pm

There is no Membership Luncheon in July.

The next luncheon will be  
Monday, August 6, 2016.

→ → →

*Become a member today*

## Calendar of Events

### 2016 Events

#### June

6-9 – Young Aviators Class  
13 – Membership Luncheon

#### July

11-14 – Young Aviators Class

#### August

1-4 – Young Aviators Class  
8 – Membership Luncheon

#### September

24 – Winged Foot Run/Walk

#### October

10 – Membership Luncheon

#### November

24 – Thanksgiving; Museum is closed

#### December

12 – Membership Luncheon  
25 – Christmas day; Museum is closed.

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*Photos clockwise: The line was long...,  
...and it got longer.  
Attendees filled the chairs.*

### **"Pancakes," con't. from page 1**

This year's Pancake Feed saw what is believed to be the largest attendance ever. We served more than seven hundred people. A previous year we were close to serving that number, but the past few years we had only served about six hundred attendants. Let me suggest that the next time you go out for breakfast, go to Topeka's Perkins Family Restaurant on Wanamaker Road and thank Bob for his support of the Combat Air Museum.

Besides a great breakfast, guests were entertained with live song and dance. Two music groups performed: The Bluemont Singer Revival and the Soul-Full Singers, members of Topeka's Countryside United Methodist Church. Dance routines were performed by the Beverly Bernardi Post Conservatory of Dance.

Special guests this year included Miss Topeka, Michelle Page, and Miss Capital City, Cari Anne Cashion. Celebrity flippers included representatives from local police units, military units, state and local elected officials, sports and coaching entities, and other distinguished persons. Nurses from the Washburn School of Nursing were on hand as part of their training, donating their time for free basic health checks of the Pancake Feed guests.

Also on hand for the event were members of the Rolling Thunder Military Vehicle Preservation Association, and members of the Topeka Civil Air Patrol. Two members of the Foundation for Aeronautical Education, Greg Inkmann and Jay Stevenson, delighted the audience with in-hangar flights of their radio controlled super light vapor aircraft and drones.

This year's Fly-In-Market Sales was a smashing success. Again this year many items were donated for sale by members of the Museum. This year's sales should produce a nice gain for the Museum. Thanks to all who donated items and helped with this venture, as well as all of our members who lent a hand in support.

The morning concluded with the dedication of a newly painted nose art on a KC-135 tanker from the 190th Air Refueling Wing (ARW) which was open for public viewing on the tarmac in front of Hangar 602 during the morning event. Many Patriot Guard bikers from across the state of Kansas were on hand for the dedication. This included the chapter from Mulvane, Kansas, which is considered to be the first Patriot Guard chapter in the state. Major Joe

**"Pancakes" con't. on page 7**





*Top: The popular Soul-Full Singers of Country United Methodist Church.  
Row two: Fifteen tables held items for the Fly-In Market.  
While larger items occupied the floor.  
Left: CAM member Susan Naylor, left, and Shawnee County Commissioner Shelly Buhler were busy serving our guests.  
Below: Marlene Urban, left, and Betty Frantz were ready and willing to collect monies from purchases.  
- photos by Don Thun*



**"Pancakes" con't. on page 8**



### "Pancakes," con't. from page 7

Blubaugh, Wing Executive Staff Officer from the Kansas 190th ARW at Forbes, was in charge of the dedication. Presenters included Colonel Jarrod Frantz, Commander of the 190th ARW and Terry Houck, a Vietnam veteran who founded the Patriot Guard with his wife, Carol Houck; and 190th Senior Airman, Skylar Caldwell, who was primarily responsible for creating the KC-135 nose art. The nose art is a wonderful painting of Patriot Guard bikers standing in line formation, each holding a US flag. A rifle with its barrel down and between a pair of boots and with a helmet on the butt of the rifle is in the left of the nose art with the Patriot Guard to the right. An inscription Patriot Guard is printed above the painting. Standing guard for our fallen heroes is written in a scroll at the bottom.

This was a great event. Remember the date for next year: the last Saturday in April 2017. I would love to see you all at next year's CAM Celebrity Pancake Feed.

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**- all photos by Don Thun except where noted**

Opposite page clockwise: The Bluemont Singer Revival includes CAM member/volunteer Dan Pulliam at left. The Rolling Thunder chapter of the Military Vehicle Preservation Association brought several vehicles for display.

Beverly Bernardi Post young dancers.

And younger dancers.

This page top row: Patriot Guard cycles line up in preparation for a nose art dedication ceremony on the KC-135R tanker in the background. - **photo Klio Hobbs**

Patriot Guard members lined up by the KC-135.

Row two: Unveiling the nose art, PATRIOT GUARD.

A smaller group with members of the 190th Air Refueling Wing, Kansas Air National Guard.

A modern day Minuteman stands guard. - **photo Klio Hobbs**



## Projects update

### Airship Aircraft Carrier Exhibit: The USS MA-CON (ZRS-5) and Curtiss F9C-2 Sparrowhawks

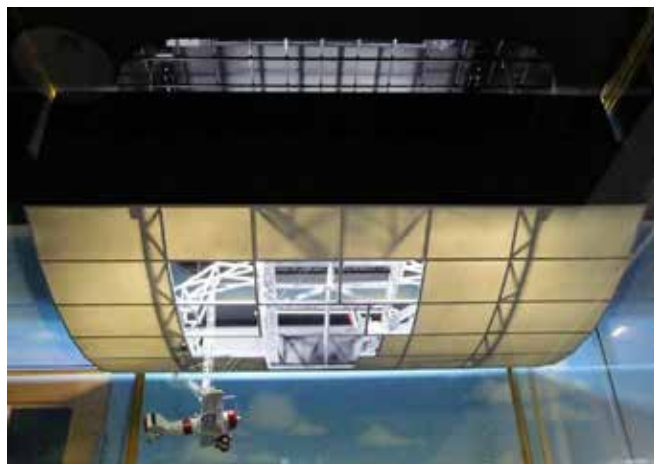
During April, Ted Nolde with assistance from Dick Trupp and other volunteers, moved a large exhibit case from inside the bay of Hangar 602 to inside the exhibit room by the library. Prior to the move, Ted and Dick spent some time cleaning the case and its four glass sides. Once the case was in position, Ted and Dick installed the exhibit that Ted has spent some three years building. It is a 1/48 scale diorama with the partial hull, trapeze assembly, and hangar bay of the 1930s US Navy airship USS MA-CON (ZRS-5) in flight. Also included are models of two Curtiss F9C-2 Sparrowhawk biplanes, one built by Ted, the second by Larry Mann. The Sparrowhawks are model kits. Ted scratch-built everything of the MA-CON, including all associated wires and rigging.

Viewers can look up into the hangar bay of MA-CON and see the interior framework of the airship and all the hooks and cables from which aircraft were suspended in the hangar bay. One Sparrowhawk is in the hangar bay. The second Sparrowhawk is hooked on to a trapeze that runs from inside the hangar bay to beneath MA-CON's hull. The intricacy of the diorama is a study to look at, once again reminding us of the talent and craftsmanship of our modelers. This is another must see among our exhibits.

From 1923 to 1939 the United States Navy flew four rigid hull airships. There were originally to be five, but one, built in Great Britain, was destroyed in flight testing before coming to the United States. Of the remaining four, one was built in Germany, the rest in the United States.

These airships had a rigid interior framework of Duralumin, an aluminum alloy. Independently filled gas cells for carrying helium were installed among the interior skeleton. Carrying crews of up to 80 personnel, there were living quarters for enlisted personnel, junior officers, and senior officers. There were mess rooms and a galley and other such amenities that would also be found on a surface ship, although all were somewhat more austere than a surface ship because of weight considerations. The exterior control car housed the airship's bridge including rudder, elevator, engines, and ballast controls and navigation equipment.

The airships were by no means small. The USS MA-CON and its older sister, the USS AKRON (ZRS-4), were 785 feet long with a diameter of just under 133 feet. They weighed some 240,000 pounds and carried 6.5 million cubic feet of gas. These airships were longer than the US cruisers and battleships of the time, but some 100 feet or more shorter than the existing US aircraft carriers. The AKRON and MA-CON carried eight engines with propellers. Besides their normal longitudinal aspect, the



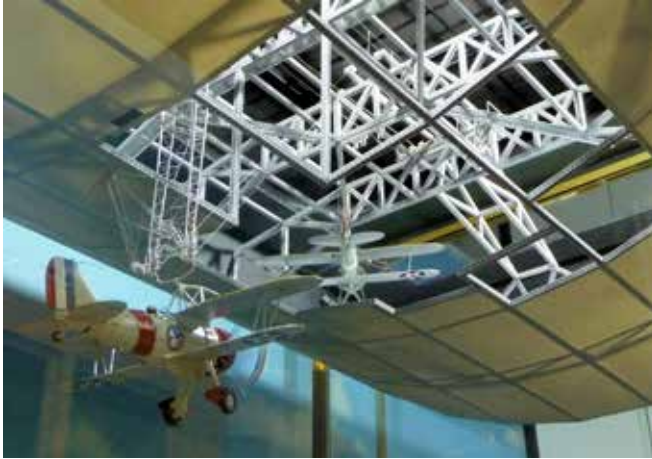
**Photos by Danny San Romani**

*Top to bottom: Ted Nolde's exhibit diorama of the hangar section of airship USS MA-CON with two Sparrowhawk scout fighters, one of which was built by Larry Mann.*

*A Sparrowhawk hooked onto the trapeze. Ted scratch-built the trapeze and MA-CON hull section.*

*Opposite page top: A view into the hangar bay of the 1930s airship that was 785 feet long.*





propellers could be rotated to provide thrust in upward, downward, or reverse directions. Their maximum speed was given as 84 mph and at 60 mph they could cruise some 9,200 miles. The two airships were low altitude craft, operating at or below 5,000 feet. AKRON made its first flight in September 1931. MACON made its first flight in April 1933, shortly after the loss of the AKRON. Both were built by Goodyear-Zeppelin Corporation of Akron, Ohio.

Because of their size, the rigid airships carried USS before their respective names, USS standing for United States Ship. There were SHENANDOAH, LOS ANGELES, AKRON and MACON. What made the latter two airships particularly unique was they each carried an internal aircraft hangar for four small aircraft. The hangar area was 60 feet by 75 feet.

The ZRS designation broke down thus: Z stood for Lighter Than Air, R stood for Rigid, and S stood for Scout. AKRON and MACON were intended to operate with the surface fleet as scouts. The aircraft carried aboard were to augment the scouting mission much like aircraft catapulted off a cruiser or battleship. The aircraft were single-seaters with armament and carried fighter designations.

A fighter designation instead of a scouting designation came about because the airplane selected to fly with the airships was originally entered in a government competition as a conventional, aircraft carrier-based fighter. The US Navy put out a requirement for a very small aircraft for carrier operation. None of the proposals by three companies met the specifications, but the proposal by Curtiss Airplane and Motor Co., Inc., designated XF9C-1, met a particular requirement of the AKRON and MACON. It was small enough to pass through the hangar doorway. The XF9C-1 was fitted with a skyhook and did hook-on testing to an experimental trapeze installed on the USS LOS ANGELES (ZR-2) at Naval Air Station Lakehurst, New Jersey.

After several major design changes and a different engine, the F9C-2 Sparrowhawk was born. Six were built with the first flight in April 1932 and the first hook-on in

June to USS AKRON (ZRS-4). The fighter had a wingspan of 25 feet 3 inches, was 20 feet 7 inches long, and 10 feet 11 inches high. Its gross weight was 2,770 pounds. All six were initially assigned to AKRON until it was lost at sea in a severe storm with heavy loss of life off Atlantic City, New Jersey. Three crew survived. Seventy-three others, including Rear Admiral William A. Moffett, died. None of the Sparrowhawks were aboard AKRON at the time.

After its commissioning, the Navy assigned MACON to a new airship station at Sunnyvale, California, that was renamed Moffett Field. It completed 50 flights during a career that lasted only 19 months after its commissioning. The airship suffered some structural damage in a storm in April 1934 while crossing a mountain range near Van Horn, Texas. Temporary repairs were made, and the damaged areas logged, but permanent repairs were held off for a scheduled overhaul. On February 12, 1935, MACON was in a storm offshore, near Point Sur, California, and caught in a wind shear causing structural failure in the rear of the airship. This caused gas cells in the after section to deflate. The MACON initially rose in altitude until more gas vented from cells, then settled slowly into a calm sea and sank near Monterey Bay. Two lives were lost. One crewman jumped into the sea from too much height, dying from the impact. Another tried swimming to the wreckage to retrieve some personal belongings and drowned. Four Sparrowhawks sank with the airship, still inside its hangar.

The crash of MACON sealed the fate of rigid airships for the US military. Non rigid blimps would survive for a few more decades and are still studied, but the great airships were done. Three of the four had crashed with loss of life. SHENANDOAH was the first when it was torn apart in a severe thunderstorm near Marietta, Ohio, in 1925 losing 14 of its crew of 43. USS LOS ANGELES survived until 1939 when it was scrapped.

In February 1991 a team of people from the Monterey Bay Aquarium Research Institute (MBARI) located the remains of MACON in 1500 feet of water. The crumpled framework of the airship was recorded on cameras as were the remains of the four Sparrowhawk fighters, some still with fabric on their wings. A second, more detailed survey took place 25 years later, by MBARI, Stanford University, and the National Oceanic and Atmospheric Administration. On January 29, 2010, the wreck site was listed as the USS MACON Airship Remains in the US National Register of Historic Places.

Searches on the Internet for USS Macon will reveal sites about the airship with at least several showing images of the wreck site and its aircraft.

Again, for those of you who can, this is a must see exhibit by our library. Take the time to study the detail put into this effort. You will not be disappointed by any means.

**"Project," con't on page 12**



## **"Projects," con't. from page 11**

### **Airco DH.2 Replica**

On April 27 a crew of volunteers arrived at Hangar 602 to tow aircraft out of the hangar and move other items around in preparation for the Celebrity Pancake Feed. They were also present to suspend the Airco DH.2 replica from the ceiling trussing. Million Air Topeka provided their deicing truck with a lift bucket and driver Mike Feliciano to accomplish suspending the Airco.

In the first lift, Danny San Romani attached a beam clamp with a shackle and a wire pendant with a pulley to the designated support beam. The bucket was lowered to attach a lift cable and the suspension cable to the Airco's suspension rig, installed earlier by Don Dawson. Danny and Huw Thomas rode the bucket back up to the beam clamp taking the lift and suspension cables with them. They ran the lift cable through the pulley. One end of a chain was then attached to the loose end of this cable and the other end was attached to a tug. Don slowly drove the tug forward, and it lifted the Airco off the floor. A tag line attached to the plane's tail wheel support was tended by Wes Barricklow to control lateral movement.

When the suspension cable loop was raised high enough, Danny and Huw attached it to the shackle on the beam clamp. Don then backed the tug, lowering the Airco until the suspension cable bore the full weight of the plane. As the lift cable slackened, the wire pendant with the pulley was removed from the beam and the rig placed in the bucket. The bucket was lowered to just above the Airco's suspension rig, and Danny detached the lift cable. Mike backed the truck away from the plane and lowered the bucket to the floor. Our sixth World War I replica fighter was hanging from 602's ceiling.

As the final direction the Airco would face was being made, members of the volunteer crew began giving the plane "the look." You know, that look where one eye is closed and the other eye scrutinizes the subject. The question arose about the Airco's height off the floor and would it clear the vertical stabilizer of the F-4D Phantom when that plane was brought back into the hangar? The Phantom's main tires and nose tires leave marks on the floor, and we could tell where the tail fin would pass. An 18 ft. step ladder was set up and folks with a tape measure determined the Phantom's tail fin would not clear the Airco as it was positioned.

Don Dawson studied the situation and said that if the plane was rotated so its nose pointed due south, and people pulled on the tag line to move the whole plane to the north, and hold it, we could get the Phantom by safely. Three days later, Don's analysis proved correct. As the Phantom came into the hangar and its tail fin approached the Airco, volunteers pulled the Airco to the north while the tail went by. They then relaxed the tag line and rotated the plane with its nose facing in a northeasterly direction





**Photos by Dave Murray unless otherwise noted**

Opposite page top to bottom: The completed, 80 per cent replica of a Gnome Monosoupape rotary engine. Except for the aluminum tubes, it was all 3D printed with Legos type plastic, then assembled. Huw Thomas easily holds his and his students' creation.

A crew of volunteers roll the replica Airco DH.2 from Hangar 604 to Hangar 602.

This page top row: Huw Thomas and Danny San Romani ride the bucket up during the lifting phase of the DH.2

Huw and Danny attach the suspension cable to the beam clamp shackle.

Left: A view from above. - **photo Huw Thomas**

Below: The Airco in position.



**"Project," con't on page 14**



### **"Projects," con't. from page 13**

before tying off the line to the south wall of the hangar.

Now that the 2016 Pancake Feed is over we will decide whether to reattach a lift rig and raise the Airco, or just move it as we did when moving the Phantom back in. As it is, the Airco makes an excellent exhibit, and Huw Thomas' 3D printed engine is easily visible from the floor.

Prior to installing the engine and propeller to the Airco, an excellent article featuring Huw and his 3D printing project to create an 80% scale Gnome Monosoupape rotary engine appeared in The Topeka Capital Journal. This and another article written by Huw on the Internet have since been reported/posted on numerous websites.



### **Hiller UH-12**

Bob Crapser took advantage of a couple of excellent weather days in early May to paint large components of the Hiller helicopter. He applied top coats to the helicopter's crew cab and tail boom, and they are now done. Don Dawson assisted with the crew cab by raising it with the forklift from its roll around stand so Bob could spray paint the bottom.

Bob also remove the skid assembly from its roll around stand and he, Don and Danny San Romani placed it on saw horses inside the paint booth for Bob's next trip to Topeka. He lives about 110 miles south of Topeka.

The skid assembly is the last major component Bob needs to paint. There are small panels, covers and parts yet to do, but the major parts are about finished.



### **20 Millimeter Cannon**

Dick Trupp and Stu Entz transported four 20 millimeter M2 cannon from Washburn [University] Technical Institute (WTI) to the Museum May 9. The demilitarized cannon were acquired for the Grumman F9F-5 Panther in our collection. Students in WTI's Advanced Manufacturing Programs welding class welded each of the four cannon back together. The demilitarization of the cannon included being cut with cutting torches, and not in a precise manner. It was a challenge for students to align the parts and make an effective welding repair that kept the overall gun in longitudinal alignment and adjacent sections in alignment. What we have are the housings and barrels. There are no working parts on the cannon.

They will be sandblasted, prepped, primed and painted. The decision to place them inside the Panther or on exhibit beside the fighter is being discussed.

→ → →



**Photos by Danny San Romani**

*Top to bottom: Painting is complete on the Hiller's crew cab...*

*and the tail boom. The skid assembly is now in the booth.*

*The recently arrived, repaired 20mm cannon for the Grumman F9F-5 Panther.*



## **"Chairman's Desk,"** **con't. from page 3**

And now, after 28 months, the B-29 phase of Boeing-Wichita's engineering flight test program is ended. "Sweet Sixteen" has performed the task to which she was assigned – performed it well. There is not a blemish on her safety record --- not an accident, not an injured person. In a few days the Army will call for "Sweet Sixteen" and fly her away. When that happens the B-29 Superfortress era at Boeing-Wichita will come to an end.

But in "Sweet Sixteen's" place are other planes --- new models, models still on paper, and older models undergoing modernization. With the return of peace, Boeing-Wichita's engineering research and experimental flight test program enters another phase, assumes a more important place than ever before. Where "Sweet Sixteen" left off, new and even better things have begun. [End of press release]

*I would only add to this, any person living today and who has an interest in aviation can connect the dots to Boeing and realize what was to be its future in the area of aircraft design and production from 1946 to present. To me Boeing is still the number one aircraft manufacturer in the world today. And finally let me say, I cut my teeth in the world-of-work at Boeing-Wichita Plant II. Both of my parents worked on the Boeing B-29 production line during WW-II. My mother was a "Rosie" building electrical wire bundles for B-29's and my father installed engines on the right wing of B-29's. I spent four years working B-52's and two years developing the Boeing CH-46A helicopter for the Marines; from September 1960 to September 1966 at both Boeing's Plant II and Plant I respectively. Boeing training and schooling has served me well all the days of my life. I am proud to say I was a part of it. →*

## **Visitors**

During March  
the Museum had  
1,056 visitors  
from 27 states, Puerto  
Rico, and  
Japan  
Mexico  
Philippines  
Scotland

During April  
the Museum had  
714 visitors  
from 35 states, and  
Australia  
Belgium  
Canada  
Czech Republic  
Great Britain  
India  
Japan  
New Zealand  
Russia  
→ → →

## **Supporters**

### **New Supporters**

Josh Brazzle  
The Gresham Family  
Andy, Casi, Kayla, Megan, Sean,  
Emily & Matthew LeDuc  
Chris & Nicole Richmond  
Sandi Smith  
Rick, Luke, Jason & Jacob  
Stanton  
Huw & Marie Thomas

### **Renewing Supporters**

Tim Behrens  
Jim & Mary Braun  
Marty, Terry, Matthew, Andrew  
and Katherine Braun  
Stephen Buhler  
Bill Davis  
Michael & Tammie DeBernardin  
Mary Durall  
Phil Hotzel  
Paul, Cloeva & Eric Idol  
Scotty Larimer  
Donald & Nancy Nisbett  
Ted Nolde  
John Plumb  
Jeremy, Amber, Aiden,  
Alison & Bradyn Rathburn  
Thomas Rost  
Chris, Clarris & Adam Rundel  
Bill & Janice Stumpff  
Terry Wages  
Eric, Lyn & Mitchell Walther

→ → →

## **Guest speaker for next Membership Luncheon**

The scheduled speaker for the June Membership Luncheon is the Reverend Larry Thomas. He will relate the story of a plane crash he was in on August 9, 1962, in a US Navy WV-2 (EC-121) attempting to land at Naval Air Station Patuxent River, Maryland. Five of the crew died in the crash, but thirteen survived. Larry will show photos of the aftermath and describe what it was like to experience such a traumatic event.

→ → →

# **Join the Combat Air Museum!**



## CAM's 23rd Pancake Feed had lots to offer the record-breaking crowd. (Read more on page 1)



*Top: Bob Carmichael, City of Topeka Councilwoman Karen Hiller, and Command Chief Master Sergeant Von Burns of the 190th ARW busy with pancakes and sausage.*

*Bottom row: Washburn University School of Nursing students conducted blood pressure and glucose checks.*

*Guests could sit in the office of a Boeing KC-135R Stratotanker.*

**- photos by Don Thun**