

The future of technology: change is inevitable

By Dennis Smirl

Chairman Gene Howerter called the August CAM membership meeting to order at 12:15 p.m. He shared a few items of business with us, and then introduced the day's speaker, Lt. Col. Dave Young of the Kansas Adjutant General's Department. Colonel Young's presentation covered the major geopolitical, technological, and fiscal challenges facing the people and the government of the USA over the next two decades.

Colonel Young began with a very interesting video that outlined some of the challenges our nation is facing at the present time, and the kinds of challenges we will all be facing in the near future. After the video, he moved into a prepared briefing.

In the first part of the briefing, Colonel Young talked about the major disruptive changes that are heading our way. These changes include basic transformations in economics, the Federal budget deficit, the fact that the yearly interest on the national debt will soon exceed the entire military budget, the changes in the worker to retiree ratio and the frightening prediction by the General Accounting Office that the current economic model in the USA is unsustainable and will eventually result in economic disaster.

Colonel Young moved the presentation into the area of technology, beginning with the startling fact that because of advances in technology, forty percent of today's jobs will no longer exist twenty years from now. Some of the forces involved include Artificial Intelligence (AI), man/machine integration, genetic engineering, nanotechnology, robotics and 3D printing. He accompanied these comments with visual images



Lt Col Dave Young emphasizes a point (photo by Dave Murray)

that showed geared mechanisms, the size of which are measured in nanometers. He suggested that some of these incredibly tiny machines could be programmed and equipped to repair the human body from the inside, making surgery as we know it extremely rare or perhaps totally obsolete.

"Technology," con't on page 11

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Bill Stumpff

Museum Hours

Dick Trupp

Mike Welch

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

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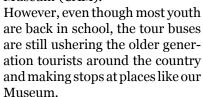
Plane Talk, the official newsletter of the Combat Air Museum of Topeka, Kansas, is published bi-monthly.

We welcome your comments.

From the Chairman's Desk

By Gene Howerter, Chairman, Board of Directors

It is safe to assume summer in Topeka is in the rear view mirror and fall is upon us. The seasons have a definite effect on establishments such as the Combat Air Museum (CAM).



Our contact at Diamond Tours shared with me that they ask all people on their tours to fill out a questionnaire after each tour ends. I was overjoyed when she told me our Museum always scores a five, their top rating on the questionnaire. Diamond tours will visit CAM two more times before the end of September. We love having bus tours no matter what time of the year it is. Our tour guides always make a special effort to give their very best from the time our visitors step off the bus until they depart. Thank you, tour guides, for the wonderful job you do. I also encourage any local area members who have a desire to volunteer to contact the Museum and sign up as a tour guide. We will provide training, encouragement and opportunities to shadow other tour guides before you lead a tour on your own. I promise this will be a rewarding experience as you interact with people from all over the country and around the world. The same can also be said for anyone who desires to help in our gift shop. We could really use several new volunteers for our gift shop. If you can only work one day a month it would help us a lot. Please give



this some thought and call for details - we need you!

Even though summer is nearly over, we are not slowing down here at the Museum: several activities still remain on our calendar. We will host the Kansas Chocolate Festival Winged Foot 5K/10K Run and 4K Walk on Saturday, September 30. This will be the 13th version of CAM's Fun Run/Walk, always held on the last Saturday in September. Trust me, it takes a lot of preparation to sponsor a 5K/10K run and 4K walk.

October 7, 2017 will be our second year working with the Museum of the Kansas National Guard as our two museums present Girls in Aviation Day. Last year about 200 Girl Scouts and their advisors attended this wonderful informative event. The Northeast Kansas and Greater Kansas City Chapters of The Ninety-Nines International Organization of Women Pilots are helping with the event. Once again, thanks to a generous grant from the Kansas Commission on Aerospace Education, admission to CAM and Girls in Aviation Day will be free

The museum will also be hosting the Sheep Dog Impact Assistance Turkey Trot Race charity fun run on November 23rd. Yes, Thanksgiving morning at 8 o'clock! Their website states "Founded in 2010, Sheep Dog Impact Assistance (SDIA) is a national non-profit organization that exists to engage, assist and empower the men and women who make up our nation's military, law enforcement, fire & rescue, and EMS

COMBAT AIR MUSEUM

professions – society's protectors, our 'Sheep Dogs.' We provide continued service opportunities and outdoor adventures which offer physical challenges and the camaraderie that is often missing after a shift or tour of duty ends."

This summer we formed a Capital Projects Committee to identify and prioritize repairs and upgrades in and around our property. This committee is turning plans into action. The second and fourth Friday of each month is a work day here at the Museum: "Fix-It Friday." We accomplished a lot on our first work day in September. It is our goal to

complete many more projects before this year ends. We welcome anyone who would like to assist.

Over the years in our Young Aviators education classes, one youngster attended a class every year, from age eight through 12. At one stage we joked with his mother that she had paid so much for five years of classes that she almost owned a portion of the Museum! Elijah Elliott is now way past the eligible age for the CAM classes, but he and his mother Denise have not lost touch with our Museum. In addition to helping with the organization of the Young





Auburn Troop 117 scouts paint buttresses on hangar 602 (photo by Kevin Drewelow)

Aviators classes, Elijah has shown additional interest by helping out with projects at CAM to satisfy a community service requirement for a merit badge. And Elijah, along with some of his fellow Boy Scouts, scoutmaster and parents, recently painted the buttresses on the south side of hangar 602. Elijah planned and completed this project in his pursuit of his Eagle Scout award. This was one of the projects the Capital Projects Committee had on their list. Elijah, thanks for a job well done!

We have received several inquiries from local and out of state businesses about renting our Museum facilities this fall. Although this is good for the Museum, it also requires additional work and planning by all of us who help regularly here at CAM. Again, please consider volunteering often. I think you will find your experience to be rewarding.

As we close out our fortieth year of dedicated service as a museum, I want to thank again all who have played a part in our endeavor to share the legacy of what aviation and military history has left us. Please keep spreading the word about the Combat Air Museum and don't hesitate to drop by for a visit as often as you wish. We hope to see you at the Museum soon!

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Your membership is important to us. Join the Combat Air Museum. Learn more at www.combatairmuseum.org

CAM and partners to host 2nd annual Girls in Aviation Day

By Kevin Drewelow

The Combat Air Museum (CAM) and its partners hope to open more doors to aviation for young ladies at our second annual Girls in Aviation Day on Saturday, October 7.

The Northeastern Kansas Chapter of the Ninety-Nines International Organization of Women Pilots has joined

the Museum of the Kansas National Guard (MoKNG), CAM and the Girl Scouts of Northeast Kansas and Northwest Missouri to bring their aviation experiences and expertise to local girls. Members of other Ninety-Nines and Women in Aviation Chapters, along with area civilian and military aviation organizations and schools will also support this popular event.

The day will begin at the MoKNG where area Girls Scouts will hear from civilian and military women pilots and maintainers, participate in aviation-related STEM activities and tour the indoor and outdoor aviation displays at that museum. They will then travel to the Combat Air Museum where they will join with the public to view static display civilian and military aircraft, meet the pilots and participating exhibitors, hear comments from and ask questions of other women in aviation, tour the Combat Air Museum and fly our flight simulator. Thanks to a generous grant from the Kansas Commission on Aerospace Education, admission to the Combat Air Museum will be free.

Women in Aviation International (WAI) is a nonprofit organization dedicated to the encouragement and advancement of women in all aviation career fields and interests. WAI members held the first Girls in Aviation Day in September 2015 and it is now commemorated around the world annually.

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Girl Scouts and Lt Col Deirdre Gurry

Upcoming Events

September Saturday, September 30

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

October Saturday, October 7 Girls in Aviation Day

Monday, October 9

Membership Luncheon Bob Dole Education Center 11:30 a.m.

Our speakers for the October Membership Luncheon will be some officers

currently

attending the

United States Army Command and General Staff College at Ft. Leavenworth, Kansas. They will recount their personal experiences and take questions.

November Thursday, November 23

Thanksgiving

Sheepdog Impact Assistance Turkey Trot for Heroes 5K Run, 1-Mile Fun Run/Walk, Virtual 5K begins at 8:30 a.m.

The Museum will be open during the race

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Museum Notes

By Kevin Drewelow

Museum outreach: CAM participated in Teacher Appreciation Night at the Topeka Zoo. The Topeka Alliance of Museum Educators (TAME) hosted its annual event to make area teachers aware of its members' venues and educational resources available at those locations. Museum members Chuck Watson and Kevin Drewelow staffed the CAM display where numerous children donned Chuck's helmet, oxygen mask and other Museum artifacts for "hero" photos. CAM also had an information booth at the Falley Scout Reservation during the Jayhawk Area Council Jamboree. In August we gave PowerPoint presentations about CAM to civic clubs in Topeka and Council Grove. On August 9th Dave Murray and Kevin presented to the Council Grove Rotary Club and the day after, Dick Trupp and Dave appeared before the Topeka Cosmopolitan Club at Topeka Country Club. The purpose of these presentations is to spread the word about CAM to the general public and to find more volunteers for the Museum.

CAM on TV: A production team from KSNT Channel 27 spent several hours at CAM recently shooting a promotional segment that is now airing on KSNT and their sister station KTMJ channel 43. You may recognize CAM volunteer Jack Vaughn in one shot, pointing upward while standing next to our Meyers OTW biplane.

190th ARW donates raft, life support items: The 190th Air Refueling Wing donated a 20 man raft and other aircrew life support items to CAM. Staff Sergeant William Voss and Senior Airman Travis Gould of the 190th

Above: TV and Navy veteran Jack Vaughn

hard at work

Below: Two future pilots visit CAM display

(photos by Kevin Drewelow)

Aircrew Flight Equipment Section delivered the time-expired raft to CAM, where we'll put it in the life support display on the north wall of hangar 602. After they saw the display, they brought some other time-expired items for the display. It is interesting to compare and contrast the modern and vintage equipment. The time-expired items cannot be reused and would otherwise be thrown out. SrA Gould is a CAM member and avid uniform collector. He has loaned some pieces from his collection to our Museum where they are on display.

"Museum Notes," con't, on page 6





"Museum Notes," con't. from page 5

"Betty's Biscuit Bomber" visits CAM: Several CAM members felt like they'd traveled back to 1985 as a green C-47 landed, taxied to hangar 604 and shut down. It wasn't "Kilroy" but "Betty's Biscuit Bomber," a C-47 based at the Estrella Warbirds Museum in Paso Robles, California. The crew, which included CAM member Hector Camacho, had departed Wichita that morning and was on its way to an airshow in Michigan.

CAM's resident artist preparing winter works: Volunteer Chuck Watson is a retired high school art teacher, aviation enthusiast and accomplished aviation artist. Chuck is often found leading tours or instructing visitors on the flight simulator, but we spotted him sketching some

Above: CAM members (L-R) Nick, Hector and Dan

Camacho with "Betty's Biscuit Bomber"

(photo by Dave Murray)

Below: SSgt Voss and SrA Gould visit CAM

(photo by Kevin Drewelow)

of the collection's aircraft on canvases that he'll turn into paintings over the winter. Chuck works in oils and you can see several of his works in our Museum.

Say "Cheese!" Saturday, August 26 was a beautiful day, a great day to take photos on our flightline. The Seaman High Schools boys' soccer team took advantage of the weather when they visited CAM for team photos.





"Museum Notes," con't. from page 6

Several members of our tow team turned out to position aircraft for the team. The boys and their parents enjoyed their time at CAM .

Have you flown in a Ford lately? Some CAM members did when one of two Ford Trimotors from the Experimental Aircraft Association visited Forbes in July. Operating from the ramp of the American Flight Museum, the "Tin Goose" offered rides daily over three days and kept quite busy. The Ford departed Forbes, climbed to 1000 feet, flew around West Ridge Mall, followed the river to Billard Airport and then turned final for Forbes. All agreed it was time and money well spent!

CAM Capital Projects Committee gets to work: The Museum's board of directors recently established a

Capital Projects Committee to identify, prioritize and execute projects to improve our Museum's facilities. Director Kevin Drewelow chairs the committee composed of board members Wes Barricklow, Gene Howerter, Ted Nolde and Mike Welch. The committee initially identified 25 items and placed them under one of three priorities: Must Do, Important and Nice. Committee members have already completed a third of the list and have added new items. Sunflower Paving Company recently replaced the asphalt on the west side of hangar 604, which reduced water intrusion along the wall. Committee members removed a vent from the north side of hangar 602 which allowed water to enter the hangar and circuit breaker boxes! They also replaced rotted wood around the south personnel door

in hangar 602. The committee designated the second and fourth Fridays of each month as "Fix-It Friday." The committee members and any interested members will gather and work on projects on the committee's list. If you'd like to help, contact any member of the committee.

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Above: The EAA Ford Trimotor departing Forbes

(photo by Dave Murray)

Left: CAM member Josh Brazzle

enjoyed his flight

Projects Update

By Kevin Drewelow

Lockheed EC-121T Warning Star: Stu Entz and Tom Gorrell have been taking advantage of the relatively mild weather to make progress inside the EC-121. Stu crafted and installed a storyboard on which he will place information about the history and role of the EC-121 fleet and more about our own Warning Star, tail number 418.

Hiller OH-23 Raven helicopter: The indefatigable Bob Crapser continues to gain on the Raven. The early OH-23s had unique side doors which are hard to find, especially the left one, specially formed to enclose the collective control stick. Bob sourced some acrylic plastic and made some doors. They look pretty good and, most importantly, will keep people out of the cockpit.

Cessna T-50/UC-78 Bobcat "Bamboo Bomber": Steve Craig of Lawrence, Kansas, continues to look after the Combat Air Museum. Donating his MiG-15 to our Museum in 1995 was just the beginning of his generosity. In July he notified CAM he would like to donate the fuselage and left wing of a Cessna T-50/UC-78 Bobcat, a Lycoming R-680 engine and a postwar Link trainer. Over two trips, Stu Entz provided the truck and trailer while Wes Barricklow, Bob Crapser, Don Dawson, Kevin Drewelow, Gary Naylor and Danny San Romani provided the muscle that brought the Bobcat fuselage and Link trainer to CAM. We'll soon collect the wing. The Bobcat trained countless military aviators during World War Two to operate multi-engine aircraft. The fuselage is intact but uncovered, revealing the aircraft's inner workings and beautiful wooden construction, hence the nickname "Bamboo Bomber." It is probably best known as the first aircraft used by television character Sky King in the series of the same name. You'll find the Cessna in hangar 604.

Lycoming R-680 radial piston engine: Lycoming built the first R-680 in 1930 and built over 26,000 of these nine 9 cylinder 240 hp engines.



Above: Don Dawson's engine stand Below: Bob Crapser checks cargo straps on the Bobcat (photos by Kevin Drewelow)



Some of the aircraft they powered included the Stinson Reliant, Boeing (Stearman) PT-13 Kaydet and the Cessna T-50/UC-78. Don Dawson designed, built and painted a display stand for the Lycoming and it is now on display in our engine row along the south wall of hangar 602 in the southeast corner.

Postwar Link Trainer: This will likely receive a lot of attention this winter as it will fit nicely in the workshop. We understand the trainer was working recently and we hope to return it to service. It would be nice to locate it near our computer-based flight simulator so visitors could experience motion in the three axes of flight.

Aircraft cleaning: Jim Braun is no longer the Lone Ranger of aircraft cleaning, thanks to several volunteers. Bruce and Tyler Bevitt and Elijah Elliott recently spent some time at CAM removing the ever-present dust on several aircraft in our collection. Rob Schofield will soon spend some quality training time with "Gunny" Braun before he joins the ranks of our fleet maintainers. That work is never done and directly reflects upon our Museum. Thanks to all of you for stepping up and looking after our flying machines!





Top to Bottom: Stu Entz secures the Link trainer Tyler and Bruce Bevitt Elijah Elliott (photos by Kevin Drewelow)





A glimpse from the CAM collection - The Airco DH-2

"Technology," con't. from page 1

After having laid a background of the unbelievable changes headed our way, Colonel Young spoke specifically to the military and the challenges it will face over the next two decades. He began with the fiscal reality that US budget constraints will continue to demand a smaller and more flexible military. He talked about the composition of the military and how joint force operations will become even more commonplace and useful. Then he mentioned the possibility that the number of bases and posts will shrink as the military becomes more efficient and technologically adept. He revealed some unclassified facts about future weapons and equipment systems and added that many current military job classifications will disappear as technology and its applications improve. As part of that, he showed a video of robots doing amazing things. Two that were particularly fascinating included a robotic 'dog' that could move quickly over the roughest terrain autonomously and a two-wheeled robot that could move around in a workplace and never lose its balance.

Finishing up, Colonel Young ran a short video about a laboratory where scientists have created a replicating bacterium. He mentioned that the same ideas are ready for use with viruses, and that to some extent, current flu vaccines are being genetically modified to enhance their effectiveness in shielding people from the flu. Finally, he told us that genetic engineering is being used everywhere, along with artificial intelligence, and that increased competition between nations and corporations will result in ever faster increments in technology.

A very active question and answer session followed, and then Chairman Gene Howerter closed the membership meeting.

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Introduce a friend to the Combat Air Museum

In Memoriam

Lt. Col. (USAF, Ret.) Raymond L. Miller 1930-2017 Topeka, Kansas CAM #2659

Lt Col Miller joined the Air Force in 1951. He flew B-29 Superfortresses in the Korean War and C-130 Hercules in Vietnam. After 20 years of service during a very demanding and uncertain period in our nation's history, he retired as a command pilot at Forbes Air Force Base in Topeka.

He continued working in banking and government before retiring. Lt Col Miller became a member of the Combat Air Museum in 1991 and spent many years volunteering in the gift shop.

2017 Calendar of Events

October

7-Girls in Aviation Day 9-Membership Luncheon

November

5-Daylight Savings time ends 23-Thanksgiving, Museum closed after Turkey Trot Fun Run/Walk

December

11-Membership Luncheon 25-Christmas, Museum closed

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Supporters

Supporters

New Members
Ron & Nancy Bond
Evan Goade & family
Henry Jones & family
Jeremy Seemann & family
Dan Waters

Renewing

Michele Borgarelli **Charie Broughton** Robert & Judy Crapser Mike & Wanda Dixon David Gurske & family John & Tanya Hamilton Chuck Hanna Paul Henson Nelson & Kathy Hinman Jr. Ralph Knehans Bill Knoebber Phil Lange Samantha Lowell & family Tyler Morris & family **Eliot Potter** Jeremy Rathburn & family **Gerry Sibley** RJ & Samantha Soldani Tom & Pat Thomas Larry & Diane Todd Mike & Carla Welch

Visitors

1457 people from 38 states and Australia, Canada, the Czech Republic, Great Britain, Ireland, Italy, Lithuania, Mexico, Nicaragua, Russia, South Africa and Switzerland visited the Combat Air Museum in July.

In August, 1145 visitors from 35 states and Australia, Canada, Denmark, Germany, Great Britain, India, Kenya, Mexico, Papua New Guinea, Portugal and South Africa toured your Museum.

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CAM recognized at 2017 Best of Topeka Awards ceremony

By Kevin Drewelow

Once again, the Topeka Capital-Journal's "2017 Best of Topeka" contest recognized the Combat Air Museum (CAM) as one of the top three museums in the Topeka area. This year, participants cast 323,000 votes which honored 270 individuals and businesses in 114 categories in and around Topeka.

On the evening of September 14, 2017, CAM Chairman Gene Howerter and Deputy-Chairman Dave Murray attended the annual awards ceremony held at the Prairie Band Casino and Resort north of Topeka. It is my pleasure to inform you that this time CAM moved from 2nd runner-up to 1st runner-up in the "Best Museum" category; the Kansas Museum of History took first place.

This is a real honor for our Museum. There are many museums in the Topeka area, which says a lot for our 1st place runner-up award. We congratulate the Kansas Museum of History for finishing in first place again. Keep in



Deputy Chairman Dave Murray and Chairman Gene Howerter

mind the Kansas Museum of History is a very large state museum which began in 1875 as the Kansas Historical Society; we are only celebrating our 40th anniversary this year. It is our goal to continue making CAM one of the best museum experiences in the Topeka area. Thanks to all who voted for the Combat Air Museum!