



The ThunderWord

Thunderbird Field EAA Chapter 1217

April 2020

Scottsdale, Arizona

PRESIDENT'S CORNER

Greetings from my corner of the hangar! It has been a trying time for all of us dealing with trying to stay well and avoid getting sick. Some members have had to deal with the economic fallout of layoffs and unemployment. It is mind-blowing to see a robust economy tank in one short month!

To concentrate on the positive side of things many of us are finding an abundance of time to work in our workshops, garages and hangars on projects and planes. The governor's orders didn't close down the airports or access to our hangars. It is a great place to social distance as long as everyone is respectful of each other's personal space.

What it did close down was our monthly Chapter meetings and is forcing the postponement of our annual May Day BBQ until the fall. With the Copperstate Fly-In moving to spring time, October would be the perfect time to have our annual BBQ without overlapping any fly-ins. There was a time in March where we had guest speakers lined up for the next four months, something that has never occurred before. All have them have agreed to talk at later dates.

Remember the Chapter has a Facebook page so if you want to see interesting aviation videos you should check it out. If you aren't a member of Facebook you probably have an abundance of free time to figure it out, and the word that pilots like to hear, its free! We also have a website: ThunderbirdField.com that has announcements of upcoming events and Chapter happenings.

Besides some newsworthy articles in this month's newsletter, we are going to have pictures of how you're practicing social distancing. For next month, send in your pictures and we can add more content.

On a personal note, since American Airlines has way too many pilots for the number of planes, I have taken a paid voluntary leave for the summer. The plan is to dive head first into getting collection of flying machines back into the air. The RV-8's quirks have been fixed by replacing the backup battery and the Cub is flying. Between updating ForeFlight and all the Garmin updates sometimes having a little extra free time is a good thing.

Curtis

APRIL CHAPTER MEETING

Due to ongoing concerns about the Corona Virus we will not be having our monthly meeting in April. It is a trifecta of issues. First being the health of our attendees, second the guest speakers not wanting to do a talk, and the Governor's stay at home order which bans group meetings. When this chaos is over we will resume meetings when it is safe to do so.

VIRTUAL CHAPTER MEETING

For one of our cancelled EAA Chapter meetings Dan Muxlow had lined up Mike Lavelle to come back and talk to us. While we can't hear him in person he sent along this update on what he is up to. There is also a link to a YouTube video of his talk. While not as cool as a real meeting his narrative is an entertaining substitution.

This year marks the 80th Anniversary of the Battle of Britain. Historic Flight Foundation (HFF), located in Everett and Spokane Washington was going to have activities with aircraft displays and flying to commemorate this historic event. Also, part of those activities would have been a live presentation centered around the topic of The Battle of

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**Michael Saperton and his wife Barbara recently joined our Chapter.
Michael enjoys flying his Piper Comanche based at Deer Valley.**

Britain during the summer of 1940. Of course, all that has changed due to our world battle against Covid-19. However, at Historic Flight we felt we could still bring you a version of these talks through the internet.

We will offer three pre-recorded programs on the Battle of Britain. The link below will take you to the YouTube location of the first presentation called, The Battle of Britain - "The Dowding Factor". This is essentially an overview of what Air Chief Marshal Sir Hugh Dowding accomplished establishing an integrated system of new fighters, RDF (Radar) and personnel that allowed the British to stay in the war against Germany. Following this first presentation will be the story of the design and development of the "Just in Time Fighters", the Hurricane and the Spitfire by long time aero-engineer Barry Latter. After that David Leadnicer, who is an aerodynamicist by profession, will investigate the performance of the combatant's aircraft. David will a look at the advantages and disadvantages of key combatant aircraft on both sides.

For those of you not familiar with HFF, you can visit our website and sign up for Historic Flights E-Blast, announcing upcoming events. After this series on the Battle of Britain, we will have two additional series, each with three sessions. The first will be the National Air Races 1920 -1940 and following that the focus will be on long distance pioneering flights, both transcontinental and Transoceanic, after Lindbergh's epic May 1927 flight to Paris.

For all of us involved with this project at Historic Flight, it is new adventure. Far different than the friendly confines of a hangar full of friendly faces. It was very strange sitting in a chair looking at the laptop, seeing nothing in front of you and because it was recorded having no audience feedback whatsoever. My wife did walk-in and wonder what I was doing. She was sure the quarantine got to me. She just shook her head and turned around.

We recorded these programs from our home or were we are currently located. For me, it is a 1932 Arizona, Ranch, now a non-profit

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Many of you might have taken a ride with Breezy Bob when he was in town with his Breezy years ago. He and his wife Vikki stopped by for a visit last month. They now live in Montana.

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called Cattle Track Arts and Preservation. I am staying in one of the building that started life as a chicken coop. It has been modified to make life confrontable but still referred to as the "Chicken Coop". This first program was recorded from the Coop. I suspect the others will too!

Obviously, these will be different from live presentations, but Historic Flight wanted to help keep our members, friends and those interested in aviation history something to weigh-in on and participate. This was our attempt to keep things positive while we ride out the storm.

Here is the YouTube link:

https://www.youtube.com/results?search_query=Mike+Lavelle+Battle+of+Britain

If that doesn't work you can always type into the YouTube search window, "Mike Lavelle April 2020

Battle of Britain:" That will take you to the same place.

Keep well, stay safe, and see you at a future meeting!

Regards
Mike Lavelle

IMPORTANT ELT INFORMATION

By Curtis

In an effort to make things as complicated as possible I decided to install a 406 ELT in my motorglider. Since it is certified as a glider there is no requirement to have a transponder, ADS-B or an ELT. After getting the unit from Vans Aircraft parts department I read the directions and learned some interesting facts about continued operations after installation.

1- The main power supply battery has to be replaced at the manufacturers required interval, usually **2 years** and noted in the airframe logbook.

2- There is a requirement to register and update NOAA with information about aircraft color, type and contact information if it goes off. Every **2 years** they will send you a notice for you to update and confirm the information you gave them. Also if you buy a new plane with a 406 ELT you need to update the information.

3- A small battery in the panel mounted indicator needs to be changed at five year intervals and noted in the airframe logbook. The remote-control panel indicator (RCPI) battery is a single Duracell PX28L 6 volt Lithium battery, or equivalent. Alkaline batteries may be used such as Eveready A 544, or equivalent. Under normal operating conditions, the Lithium battery must be replaced every **10 years**. The alkaline batteries must be replaced every **5 years**. If the ELT is activated for an unknown period of time, the battery must be replaced.

4- There is an audio warning module that has a small battery. This battery must be replaced every **10 years**. The expiration date must be entered in the aircraft airframe log book

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HISTORY

The model E-04 121.5/406 MHz ELT is designed for use in aircraft used for general and commercial aviation. Older generation ELT's were very limited in their ability to aid searchers to rapidly locate, and identify a downed aircraft. Often it took several passes of the orbiting satellites to get an approximate fix on a downed aircraft. The older generation ELT's gave rescuers no information on type of aircraft, owner/operator, or contact information. The new generation 406 MHz ELT's provide much better, and faster location accuracy. Along with providing information to search and rescue organizations about the aircraft type, ownership, and emergency contact information. Location accuracy with older

generation ELT's was limited to about a 15 - 20 mile radius, and could take several hours to provide accurate location data. For new generation 406 MHz ELT's without GPS position information, the average time to process, and identify the aircraft location is 1-2 hours, with a search radius of about 2 miles or less. With GPS information, the time to locate the aircraft position is 10 minutes or less, with an accuracy of about 300 feet. The model E-04 ELT may be installed without interfacing it to the aircraft GPS system

INTERSTING FACTIOD

In airplane the ELT should be mounted horizontally. In helicopters it can be mounted horizontally or up to a 45 degree dose down alignment.



New Cessna Sky Courier

CESSNA'S NEW PLANE

Cessna says, as well as the first prototype, five additional flight- and ground-test articles will be involved in the SkyCourier development and certification campaign, although a timeframe for the aircraft's validation and entry into service has not been disclosed.

The high-wing type will be offered in various configurations including freighter, passenger or combi - all based on a "common platform" with a 2,720kg (6,000lb) payload. The Textron Aviation design called for an unpressurized aircraft for "high utilization",

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and to deliver “a combination of robust performance and lower operating costs”.

The Garmin G1000 NXi-equipped SkyCourier has a maximum cruise speed of up to 370km (200kt), and a maximum range of 1,700km. Both freighter and passenger variants will

offer single-point pressure refuelling to “enable faster turnarounds”.

Textron launched the program in 2017 on the back of an order from FedEx for up to 100 aircraft. They will replace the Memphis-based freight carrier’s turboprop fleet of Cessna 208 Caravans and ATR 42s.



John Davis is building his fourth RV. Here is a picture of the rear fuselage going together. The wings and tail are done and in his hangar at DVT

KNIFE DISCONNECTS

A NEAT AVIONICS TRICK

By Ian Brown

I learned this nice little technique from an avionics tech who was doing some work on my RV-9A. It’s hard to find really great methods of joining wires that don’t become a reliability issue. My experience with plastic connectors has been the source of reliability problems that could have been avoided, so let me introduce knife disconnects.

These connectors are designed to be crimped onto the conductor and snapped together, and they are extremely vibration resistant.

The crimping is quick and easy, and the connectors can be disconnected as required. It would be normal to heat-shrink insulation over the joint, but my contact at Shenandoah Avionics, Todd Ott, suggested just tie-wrapping the ends of the shrink tubing, allowing the tie-wraps to be snipped off and the tubing to be slid back for servicing and disconnecting. That’s a much easier job, no heat gun required, and the insulating tubing can be reused.

Knife disconnects come in different sizes and are color coded: red for 16-22 AWG,

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blue for 14-16 AWG, and yellow for 10-12 AWG. At the time of writing, the red ones, which you are most likely to use in avionics,

are 43 U.S. cents each from Aircraft Spruce. Buy some — you'll be glad you did.



Chapter member Stephanie Frazier completed her tailwheel signoff and got a taste of landing at remote runways

ADOT'S AERONAUTICS GROUP

It's been little more than a century since the Wright brothers flew the first flying machine just outside of Kitty Hawk, North Carolina, and modern air travel is almost unrecognizable from its humble roots.

Today, the Aeronautics Group handles the business end of airport development in Arizona. "The Aeronautics Department was set up in statutes in 1963," former Aeronautics Group Manager Michael Klein said. "From 1963 to 1965, the Grand Canyon Airport was designed, built and open for business. Then the governor decided we needed a joint transportation agency." From that time until 1974, the Aeronautics Department acted in the capacity of Arizona's aviation agency, Klein explained, and was solely responsible for air travel in Arizona. In July 1974, the governor merged the Aeronautics Department and the Arizona Highway Department — together making the Arizona Department of Transportation. From

then until the early 2000s, the Aeronautics Division, as it was known then, took care of aircraft registrations and oversaw operations at the Grand Canyon National Park Airport.

The Aeronautics Division functioned mostly autonomously. Anything having to do with aviation went through that division. Then in the early 2000s, the Aeronautics Division was reorganized within ADOT: the aircraft registration unit was sent to the Motor Vehicle Division, the airport development group was sent to the Multimodal Planning Division and the Grand Canyon National State Park Airport was organized under the Administrative Services Division. Klein, who spent 11 years as an airport development consultant and 18 years managing four commercial service airports before coming to ADOT, still remembers his time with the Aeronautics Division. "My time there was one of my most enjoyable and productive years. My time with ADOT gave me the greatest amount of

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Instrument Panels that Jack Pollack has fabricated for his Bakeng Duece

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satisfaction and enjoyment.” Nowadays, the Aeronautics Group is dedicated to dispersing grant funding to eligible capital improvement projects at qualifying airports. There are 67 airports in their system and \$20 million to allocate each year. That funding is usually divided four different ways: • Matching FAA grants for runways, taxiways, aprons etc. (90% FAA / 5% ADOT / 5% airport) • Funding airport improvement projects directly (90% ADOT / 10% airport) • Funding pavement maintenance (90% ADOT / 10% airport) • Conducting planning studies, including economic impact studies of airports.

According to the last Economic Impact Study (2013), aviation contributes \$58 billion to the state annually. Nearly 17% of all Arizona jobs are related to the aviation industry — that’s about 410,000 jobs generated, with an annual payroll of \$21.1 billion. Keeping Arizona’s airports in good working order is critical to supporting one of Arizona’s most important economic assets.

The Aeronautics Group continues today to work with Arizona’s airports to make sure they remain functional to their customers. Air travel is a vital part of Arizona’s economy, and ADOT is an important piece that helps the system work.

JACK PELTON OSHKOSH 2020

My fellow EAAers, I’m writing this to address the status of [AirVenture Oshkosh 2020](#). Today we are still planning to have the event beginning July 20, 2020. In that context, I wanted to let people know how we’re approaching the planning process for AirVenture, and to help people understand the timetable as we sort through ever-changing world events.

Certainly, the world has changed dramatically in recent weeks with the global COVID-19 pandemic, beginning internationally and now at extremely concerning levels within the United States. Most of you reading this are impacted by state-by-state orders to stay home and follow specific CDC guidelines on social distancing, hygiene, and other precautions to slow the spread of the virus. The circumstances have changed rapidly here as well, with Wisconsin enacting a stay-at-home mandate until April 24. We are supportive of those restrictions, and at EAA we have closed our headquarters, with all staff working from home and adhering to the most stringent standards possible. But thankfully, due to the technology infrastructure investments we have made, a majority of our employees continue to focus on their daily tasks, which include production of your monthly magazine, digital offerings, and of course AirVenture planning.

On a daily basis over the past several weeks, I have had countless calls, emails, and teleconferences with EAA members, volunteers, AirVenture exhibitors, sponsors, aviation manufacturers, our board of directors, and EAA employees. This is in addition to assessing the daily influx of CDC data and daily health guidance recommendations from local, state, and federal government.

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Bill Unternaehrer has been using his time wisely, installing a Garmin Panel in his Kitfox

We are also closely following and assessing many of the larger closures of world events. In the case of the Olympics, the world's athletes have already lost crucial training time because of restrictions imposed in response to the viral outbreak. It also is a completely international event. This meant the organizers were forced to make their "go/no go/go later" decision early on. The same holds true with the Democratic National Convention being held in Milwaukee, as they too look at every contingency, including allowing time for preparations to host the proceedings online if need be.

As we look at AirVenture, with our own similarly complex but also radically different set of circumstances, we have the rare luxury of making our decisions just a little bit later. While AirVenture 2020 planning began in earnest at the end of AirVenture 2019, the real onsite preparation work for our annual convention doesn't happen until May. That is when many of our dedicated volunteer work parties arrive in force and start the serious work to prepare the convention grounds. We have already identified those tasks that could be deferred until June, while still enabling us to have a safe and successful event in late July.

Currently our timetable for our next major decision point is not until May. In the meantime, we are continually preparing and

in planning mode, which includes a variety of "what-if" scenarios. The choices are: stay the course, delay, or cancel. Of course, the ability to delay would be dependent on volunteer support and exhibitor commitment, and probably could not be later than late April. Again, it is important to consider all options, but it is also possible that even as I gather and digest incoming relevant information, I may not have any significant updates over the next couple of weeks. We will understand a lot more when we get to the end of April. That is the time most stay-at-home mandates could expire.

I want to ensure you that as our AirVenture planning continues, I will keep you posted. I want to thank everyone for their patience as we weather the "storm before the calm." Frustrating as it is, we're in a holding pattern right now. The best thing we can do is keep a watchful eye on the conditions and make the best decisions as factual information comes in, to ensure the health and safety of everyone attending our event. As aviators, we know that this, like all storms, will pass, and whatever transpires over the next couple of months, EAAers will see it through with the mutual support and fellowship that have been the cornerstone of our organization for the past 67 years.



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LONGEZ AND SONEX

Tom Partin has decided to stop flying and has two
airplanes for sale at Thunder Ridge air park
(AZ28), a 180hp LongEz and a 120hp Sonex.
Anyone interested can contact Bertha Partin at
bmpartin@gmail.com

GLASAIR III

Lynn Babcock has decided it's time to sell his
Glasair III. This aircraft has every upgrade from
speed brakes to airconditioning and cruises at
220 kts. He is asking \$215,000. Lynn is the
original builder and the plane has been based at
Scottsdale Airport its entire life. 480-227-5945.

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CESSNA 172'S FOR RENT

Two IFR Cessna 172s for rent at Chandler.
Owned by Chapter member Pat McGarry. Contact
Chris Hoel for more information and to schedule
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