EAA Chapter 32 News

The official publication of Experimental Aircraft Association Chapter 32 - St. Louis, MO (Jim Bower, Editor)

June. 2020

June Meeting is Happening!

Hopefully, we will see you at the ARC on Saturday, June 20, 2020! 10:00 am. We will be practicing social distancing, so no handshakes, etc. See the President's Corner for details.

Newsletter Contributions and Deadlines

Anyone wishing to submit articles, advertisements, rants, etc. to the newsletter should send them to your friendly editor on or before the Saturday before the scheduled meeting. Send contributions to newsletter@eaa32.org.



President's Corner

by Bill Doherty

Greetings fellow aviation enthusiasts! I'll start by saying I think our time of isolation

needs to start coming to an end. Let's meet!

We will have our monthly meeting this coming Saturday at the ARC at 10:00AM. Weather permitting we'll try to have the meeting outside to minimize chances of any uninvited germs spoiling what's left of the summer. Plus, we'll be able to do one of our favorite activities, WATCH AIRPLANES FLY! If the weather is uncooperative then we'll meet inside. Either way we must make sure we maintain our social distancing. I've purchased some disposable masks and will have hand sanitizer available for anyone who wants it. We can't go much longer without interacting with each other. I've spoken to a few chapter members and the one thing I picked up on in each conversation is we're all eager to get out and get together again. Let's keep the meeting light and spend time catching up with and supporting one another this month!

Having said that I don't want anyone to feel like they're under any pressure to attend if you don't feel comfortable being around others due to the COVID 19 pandemic. We will all understand if you elect to stay home. If we can figure out how to livestream the meeting, we'll give it a try. I can't promise I can make that happen this month, but we will try to do that. That may hinge on whether we can have some kind of hotspot to link to the internet at the ARC. If we do figure it out, you may receive an email with info on how to join in from your computer or your phone.

I want to say a special thank you to both ArtZemon and Arthur Graves for offering to host online meetings via Zoom and GoTomeeting although I was unable to follow up with them and take advantage of their offers. Andrew Mallek has us already set up on Google to do these and has been utilizing it with Explorer Post 9032. Because we are both tax exempt organizations, we get this service for no charge. Cool, eh?

As we all know AirVenture Oshkosh 2020 has been cancelled and like Charlie Becker says in the June Chapter Video I guess we've all been going through the five stages of grief in some form or another. The good news is EAA is still planning on having a virtual convention July 21-25. It's called EAA Spirit of Aviation Week and will have online forums and the ability to interact with vendors along with other features.

There's more information here:

https://www.eaa.org/airventure

One of our Chapter's annual rituals at AirVenture has been the "Chapter Photo." We've always made an effort to get everyone attending to meet up, usually at the Brown Arch for this. In light of us not being together in Oshkosh, let's take a Chapter Photo at our July meeting in front of our ARC and as many chapter member airplanes as we can fit in! Perhaps chapter members could wear whatever Air-Venture 2020 swag we might purchase online. We can then send the photo to EAA headquarters so they don't feel so lonely without us! Explorer Post 9032 invited too! Social distancing of course as well.

Don't forget to check out the videos and webinars online. There's an important one about food service at chapter events in the age of COVID.

Here's the link to the webinars:

https://www.eaa.org/eaa/news-and-publications/eaa-webinars

Well, that's about all I have for the moment. I'll see you on Saturday! Until then stay vigilant and fly safe!

C.A.V.U!!!

Bill Doherty,

Interim President

EAA Spirit of St. Louis Chapter 32

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STOL 750 Slow Progress

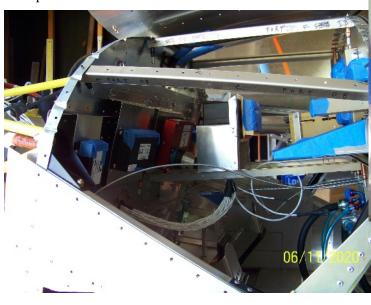
Arthur Graves

I hope all is well in your lives. Our plane is coming along slowly. The wings and fuselage went much quicker when we just had to drill and rivet with a lot less head scratching. Developing a design to cram all this equipment into a tiny space and make it maintenance friendly is an adventure.

The attached pictures show the current state of our project. Plugs, etc. that must be kept free from debris are taped over.

position. Note the Auto Pilot control panel to the right of the big screen. We decided to install all three servos now while it is open.

This photo shows the instrument panel in the closed



The above shows a side view with the instrument panel closed up. From the left on the firewall is the ADSB-IN, Engine Monitoring System, UL Power

Engine Control Unit in red. Beyond that is the com radio and the transponder with ADSB-OUT. On the shelf behind the network hub is the Dynon backup battery. At the far end of the instrument panel you can see the radio stack power panel with added arrestor ears.



Below shows the instrument panel open for construction and maintenance. Note the fire wall through hull fitting for the wires from the EGT, CHT, engine oil pressure and temp above the EMS. Also note that the radio stack power panel is dropped down on to the arrestor ears so as to clear the maintenance hole when the instrument panel is swung open.

The next step is to wire up this whole affair which may take me a while. The kit comes with cables. but only one end is made up. I get to wire the plugs on the other ends after I cut the wires to length. It will be like old times on the MetroLink trains. I expect it to be awhile before you get the next progress report.

Until then, we wish you fair skies and tailwinds!

Dave McGougan's Kitfox Project

Despite an exceedingly long commute from his new home in Eureka, Dave is making great progress with his Kitfox 2.

I have two photos of my fuselage as I install the new plexiglass windshield. I ordered the windshield early on and it survived the flood. It uses a model 3 pattern which does not fit well on a model two, causing much trimming. I think I will have to hit it one more day to finish it up. The next stage is to get it on its wheels. Then start working on the braking system.

I made some more progress. The windshield is installed and the next part is to get the fuselage on the floor on its gear so we can drag it around. I got it all to line up but now need replacement bolts. Looks like I lost my bag of bolts, maybe the flood maybe the fish, but they are gone. I need to find an AN conversion chart, right now I am measuring each hole, going to Dickey Bub, measuring bolts, matching nuts, etc. hoping I get it right. But this is really fun now and it is starting to









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"Is That Your Final Answer?"

mr. bill



Recently I was with a group of aviation people and I was introduced to a young lady who was going for her Private Pilot Certificate. As the conversation continued, the lady stated that it was going to be windy the day of her check ride. I asked, "What is your wind limit?" She answered, What do you mean? I stated, What is too much wind? She then said, Well, you know. It will be too windy. I asked again, "What are your personal wind limitations?" Well after that question the conversation was over. I was not trying to be a jerk but I was trying to determine WHAT her wind limits were.

With every student pilot we set headwind and crosswind limits in their logbook so they KNOW when they CAN fly and when they CAN NOT fly.

As an instructor I was trying to have this person STATE their limits. It is exactly what the FAA Designated Pilot Examiner (DPE) will ask in their exploratory way to determine if you will be A SAFE PILOT WHO THEY SHOULD ISSUE A PILOT CERTIFICATE to.

So, how do you answer the question? Initially one could say, well the crosswind limit of the B-737-NG is 33 knots. The B-737 MAX crosswind limit is 32 knots. These are demonstrated limits accomplished by a test pilot. Usually the winds are a steady speed of 25 knots and may be gusting up to 40 knots, so we as pilots can and will "attempt" the landing.

According to the 1981 Cessna SKYHAWK Model 172P Information Manual of 30 May 1980, page 1-7:

<u>Demonstrated Crosswind Velocity</u> is the velocity of the crosswind component for which adequate control of the airplane during takeoff and landing was actually demonstrated during certification tests. The value shown is not considered to be limiting.

So, as we turn to the SPEEDS FOR NORMAL OPERATION SECTION (PAGE 4-3) we learned that the

Maximum Demonstrated Crosswind Velocity:

Takeoff and Landing...... 15 KNOTS

Getting back to the original question asked: What are your wind limits? If I were the one asked this question by a DPE I would have to say "No more that the demonstrated 15 knots per the Cessna manual." That is a different story with the Boeing jet. With the big jet as long as the limits were not exceeded we would give the landing attempt the "old college try."

So much for theory and talk, HOW do we do this landing? Well it is basically the same for each airplane. On short final have all your aileron and rudder crosswind correction in place (and holding the controls) by 100 feet above the runway so you know THEN that you can handle the crosswind you are landing in. If at 100 feet you find that you do NOT have enough aileron or NOT enough rudder to keep the nose straight THEN the only option you have is to go around. Be careful here because the controller could ask you what winds you need to land in.....and magically the winds are below the velocity you need. Several times that has bitten an airline crew and controller. The winds are 13 knots in this video.

Crosswind landing results in almost crash / Boeing 737 hard touchdown + go around, Prague (LKPR)

Can you see how the pilot did not set up for the crosswind landing and just bounced it on and off the runway? If they were set up at 100 feet with all the control corrections in position the landing would have been more controllable.

Q? Why is there a difference in the crosswind limits of the two B-737 models?

A: The 737 MAX winglet, called a Split Scimitar Winglets (SSW) which has a upper vertical winglet and a lower vertical winglet which hangs down. Because of the lower winglet (which provides a 1.6% fuel savings) the wing is prevented from being lowered for the cross wind correction. Because of this the B-737 MAX is landed using the crab method. As the pilot flares over the runway in a crosswind crab the pilot just presses the upwind rudder to straighten out the fuselage and lets the airplane settle to the ground.

Q? What percentage of the military is served by women?

A: 15 percent of the military are women.

A Bird Dog, the USS Midway, and a Damn Gutsy Pilot

Freedom has a unique connotation, amongst those who did not have it and later earned it, has a taste all of its own. For South Vietnamese Air Force Maj. Buang-Ly he earned freedom for his family of five children, wife, and himself.

On 29 April, 1975, one the most remarkable flights to freedom

occurred. The fledgling nation of South Vietnam was fighting for its very existence and was days away from surrender. The US presence in the nation had dwindled to a handful of CIA officers, military advisors, and a US Embassy contingent split amongst various locations throughout downtown Saigon. The order to evacuate had just been given and the race to freedom for the South Vietnamese whom had supported US interests was on.

Amongst the many heroics of the day both by US and civilians alike, is the flight of a O-1 Bird Dog and the subsequent un-arrested carrier landing for a fixed-wing aircraft, a first in US Naval History. Piloted by Major Buang-Ly, who had picked up and stuffed his family into the two-seat cockpit, the O-1 Bird Dog



The note dropped from the Bird dog.



Evacuation from the Defense Attache Office Compound, Saigon, Republic of South Vietnam

made its way off the coast of South Vietnam in search of a US aircraft carrier that he could land his family laden plane on. Believing that aircraft carriers were in the area, Major Buang-Ly made the gutsy decision to go for it.

With an hour's left of fuel, Major Buang-Ly finally found the USS Midway, currently recovering US helicopters landing and taking-off as fast as they could. Flying over the deck of the Midway Major Buang-Ly dropped

three notes, the first two had fluttered off the deck, but the third he had stuffed into the barrel of his pistol and the note finally made it onto the deck of the USS Midway. His message, "Can you move the Helicopter to the other side, I can land on your runway, I can fly 1 hour more, we have enough time to mouve. Please rescue me. Major Bung, wife and 5 child"



RVN Huey being pushed over the side to make way for Major Buang-Ly

The USS Midway's Commanding Officer, Captain Larry Chambers ordered the deck cleared. Upon approach, Major Buang-Ly carefully brought the 0–1 Bird Dog for a perfect landing.

As the deck crew rapidly secured the 0–1, Major Buang-Ly and his family tumbled out of the aircraft. Bringing to an end one of the most incredible escapes

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to freedom in this century. Major Buang-Ly and his family would continue to reside in the United States and most recently were recognized during the Fall of Saigon ceremonies.



Buang-Ly, the former CO of the USS Midway, and extended family

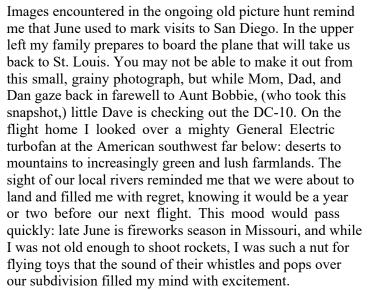
A2Z Aircraft

Do you need something from Aircraft Spruce? Would you like to support EAA32 and save some money at the same time? Of course you would!

Just go to https://a2zaircraft.com/ to place your order for anything that Aircraft Spruce sells. You will get a discount and EAA32 will get a donation.

Still More Thoughts From the COVID Bunker





Here in the 21st century I have completed my little foam board bird, the last magical incantation being the precise charging of LiPo batteries, bringing to mind the Sorcerer's Apprentice: these things can bite if not treated with respect. With guidance from the interwebs I managed to charge my battery pack, put the transmitter and receiver on speaking terms, and then get the batteries to a proper "storage charge". Now to find a large and remote area to fly the thing.





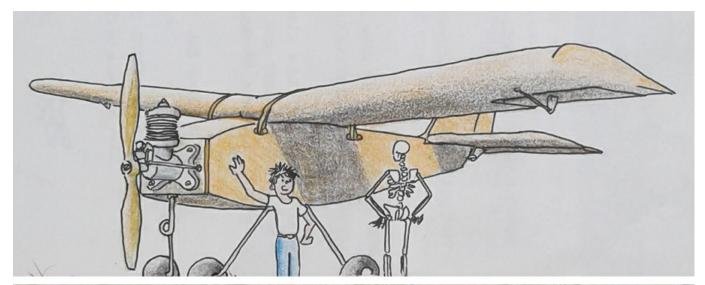
The EAA Virtual Flying Academy's patient lady robot flight instructor is still on the job, coaching me through level turns. Previously, in the digital skies, maintaining a given bank angle, altitude, and speed was never a concern. When a guy has to work the throttle, elevator, and keep a ball centered with rudder pedals a turn becomes more complicated. It's a good thing my teacher doesn't have a robotic arm or she might've clunked me a time or two in virtual exasperation.

I'll leave you this month with a couple of doodles relevant to my recent electric and foam-board airplane project. In one my kid self explains to a skeletal grim reaper of some kind that the death of fuel powered models is highly exaggerated. In the other he stands within a balsa framed and Monokote covered fuselage: I've always admired such structures and used to wish I could shrink down and fly miniature planes myself.

Time to wrap this one up. I've noticed that the hobby store has reopened and am seeing more Facebook posts regarding graduates of the flying school: looks like things are reopening. Hopefully that means we'll be seeing each other in person sooner than later.

Onwards and Upwards,
(Do335)Dave

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Some Childhood Memories

Jim Bower

Speaking for myself, and hopefully for our readers, I always enjoy a wonderfully illustrated article from Dave Deweese. Like most of us, he was bitten by the aviation bug at an early age. Glimpses of airplanes, building models, watching aviation-



weekend we got to have a campout on the base, complete with a guided tour. What a rush!

I am sure the constant stimulus of military hardware flying in close proximity to my home helped feed the fires of my aviation fetish.

related TV shows and movies (can you say "Sky King"?), and actual experiences all conspired to

shape our adult love of flying machines.

I was blessed as a kid to have grown up in a house that was on the final approach path to Naval Air Station Los Alamitos, in sunny southern California. This base was actually a Naval reserve training station, and hosted a wide variety of (at the time) current, slightly obsolescent, and soon-to-be scrapped



aircraft. (Sadly, it is now an ARMY aviation station, which makes me nearly as sad as knowing that my former digs at Miramar NAS now belong to the Marine Corps. At least it's still active.)

All during the late '50s, the entire decade of the '60s, and up until I left home in 1971, all the types of aircraft pictured (and some others) flew low right over my house on their way to land. I learned what they were, and some facts about their history. My scoutmaster was a Chief Petty Officer stationed at Los Alamitos, and one glorious



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A Year in Aviation Explorer Post 9032

Jim Hall

Walking across the unlit tarmac on that cold night to the large Quonset hut a dozen young men and women stepped through the open doorway into the lighted interior of the wooden framed hangar. It still smelled faintly of the recent flooding and the following cleanup efforts.

The first thing visible inside the cavernous room is the khaki green L-3 "Grasshopper" liaison aircraft. Leaning against the wooden propeller, the pilot shared that all the aircraft had just recently flown back to here and this one was the type of aircraft that had been used for various support roles, including shuttling intelligence information between bases.

Further back in the room, a lanky young man is encouraged to get closer and steps up onto the navy blue wing of the TBM-3E "Avenger" and lowers himself carefully into the cockpit while scanning the instrument panel and marveling at the controls. He finds himself looking beyond the huge round engine and imagines sighting down the runway for a takeoff from this remote airfield.

Another group of eager youth walk further into the hangar and entering through the lower hatch, climb up to take positions inside the B-25J Mitchell twin-engine bomber. As they touch the various engine, navigation and armament controls they imagine taxing out with the engines growling and the aircraft shuddering as it does a run-up prior to lifting off from the ground.



Aviation Explorers, members of Post 9032 (all high school students) thoughtfully appeared to consider what it must have been like to have been a WWII military recruit, nearly their own age and looking at what their future would present to them. It was apparent that they appreciated the great briefing given that evening and the aviation history they were seeing and touching in the

Missouri Wing of the Commemorative Air Force hangar located at Smartt Field.

By February, 2020, some months after their visit to the MO CAF; AE Post 9032 members were sitting in the McDonnel Douglas (Boeing) Prologue Room surrounded by more recent photos and models of civilian and military aircraft and spaceships. This time they focused on a presentation by two aviation career professionals. Joe Malkowski AGI, CFI and David



Kleinschmidt, Ground School Instructor, who mentored the individual Explorers showing how to chart a flight path on MO Aeronautical Charts. The hands-on experience was well received and another aspect of aviation knowledge (aerial navigation) was shared.

In January, 2020 Jon Carney, meteorologist from the National Weather Service located in Weldon Springs briefed AE members on NWS functions and career requirements answering questions from the Explorers about his technical field of interest and what types of education and experience it takes to become a meteorologist.

Despite a first year of dealing with changes, Aviation Explorer Post 9032 managed to participate in many aviation career learning opportunities.

There were many creative ways to share aviation interests during this time and different ideas to explore in the future are welcome. Much resiliency has been demonstrated this past year as floods, ice and virus have rearranged many planned activities. But, flexibility is one trait that everyone involved in aviation has learned and all are willing to share.

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Determination and persistence will deliver new solutions for the challenges now being faced even as they have in our past history. There is no doubt that many of the young explorers will be instrumental in building a better, different world much as has been done before.

Aviation Explorer Post 9032 is a year old Aviation Explorer post based in St. Louis, MO. Supported by Learning for Life (BSA Affiliate) and sponsored by EAA Chapter 32. AE Post 9032 is focused on engaging youth groups, ages 14 to 20, in the world of aviation. This is done through a wide range of activities which include: flying aircraft, learning from aviation career field professionals, visiting museums, attending air shows, and building planes!

There are 10 post advisors from the Experimental Aircraft Association (EAA) Chapter 32's Aviation Resource Center; based at St. Charles County Airport (Smartt Field) who volunteered to mentor the (approx. 20 at this time) post members.

The timeline of Aviation Explorer opportunities made available so far is listed below.

2019/2020

Aviation Explorers members are invited to attend all EAA Chapter meetings and take part in Young Eagle events when available

Aviation Explorer Meetings are usually held in the ARC and Post members are given facility tours of past and present aviation projects and invited to participate in activities

AE meeting locations have been held at EAA Chapter 32 Aviation Resource Center, Smartt Field, Creve Coeur Airport and the McDonnel Douglas (Boeing) Prologue Room

AE Post Leadership to be recruited from within the post youth membership and they will help to establish future direction and gain leadership experience

EAA Chapter 32 sponsorship arranged by Dave Doherty with most AE Post meetings intended to be held in the ARC

Andrew Mallek (filling the lead Advisor role) has worked on helping to communicate activities; coordinating with GSLAC, Post Advisors & Members, Aviation Explorers Camp @ EAA Air Venture; drafted the AE Post Bylaws; led Google Meet virtual meetings and has established the AE Post 9032 Website at:

https://www.aepost9032.org/

Ongoing hands-on experimental aircraft learning with AE Advisor Chris Ward building a Zenith 750 Cruiser (many Explorers have already logged time getting experience in helping with this build)

Speakers and Tour Visits arranged by AE Advisors Libby Yunger, Jim Hall and other Advisors

Aeronautical Activities Coordination provided by AE Advisors Bob Murray, Jeff Stephenson, Rick May and other advisors

Aircraft Identification Slides with AE Advisor Burt Biermann

Planning rebuild of flight simulator led by AE Advisor Jon Thayer

AE Post Advisors Past and Present List: Andrew Mallek, Jim Hall, Bob Murray, David Allsop, Rick May, Jeff Stephenson, Jon Thayer, Chris Ward, Libby Yunger, Dave Doherty, Burt Biermann, Brett Cayer

2019 Specific

- April 20th Dave Doherty, as EAA Chapter 32 president, and the executive board questioned chapter membership to see if they want to sponsor an Aviation Explorer Post. The answer was yes and more than 10 future AE Advisors agree to take the required Youth Protection Program (YPP) training and help mentor
- April 23rd Aviation Explorer Advisor training is then provided by Greater St Louis Area Council, BSA (GSLAC) given at the EAA Chapter 32 Aviation Resource Center (ARC), even as flood water covers much of the Smartt Field's south end
- May 7th Aviation Explorer Post Advisors attend the BSA Roundtable in Cottleville
- May 14th AE Post attends Open House Recruitment at Discovery Elementary School
- May 21th Aviation Explorer Post 9032 & Advisor meeting held in St Charles County Airport Administration building at Smartt Field as flood water advances

CONTINUED on next page

- May 28th AE meeting phoned in; Smartt Field flooded
- June 4rth AE meeting moved to Creve Coeur Airport due to flooding at Smartt Field; flood water later impacts Dauster Field (Creve Coeur Airport)
- September 8th AE Post members invited to attend the St. Louis Spirit Airshow & STEM Expo including an after show Q&A meet with the Blue Angels
- October 29th AE Post 9032 visited the MO Wing of the Commemorative Air Force (CAF) located at Smartt Field. As CAF WWII Aviation historians; Gerry Spavale and Hubert (pilot of the L-3 Liaison aircraft) led the AE post through the hangars and talked with everyone about the aircraft, ground vehicles and aviation history they have on display there. Although the museum building was still awaiting post-flood rebuild all were invited into the hangars to see, explore the inside & outside of and discuss the B-25J Mitchell twin engine bomber, TBM-3E Avenger torpedo bomber, L-3 Liaison aircraft and ground support vehicles
- Nov 2nd These CAF aircraft (and others on that day) were flying and target dropping pumpkins during the St. Charles County Airport Open House.
 The EAA Chapter 32 Aviation Resource Center was open for the Smartt Field event and AE Post members were invited to attend and help
- 2020 Specific
- **January 14th** EAA 32 member Bob Murray demonstrated his avionics panel RV-10 project and explained the instrument functions and showed required installations
- January 28th Jon Carney, meteorologist from the National Weather Service located in Weldon Springs briefed on NWS functions and career requirements in the Boeing Prologue Room
- February 25th Joe Malkowski & Dave Kleinschmidt (aviation instructors) briefed on Aerial Navigation in the Boeing Prologue Room and mentored individual Explorers to chart a flight path on MO Aeronautical Charts
- April 14th AE Post Online virtual meeting re: attendance requirements of the Aviation Explorer Base at AirVenture & registration information (event later canceled). Postponed or waiting to be determined.

- March 29th presentation hosted by MOAHS (Missouri Aviation Historical Society) of Steve "Bull" Schmidt, T-7A Redhawk Chief Test Pilot for The Boeing Co. new date TBD
- April 28th Jimmy Johnson, restoration expert in antique aviation, to give the AE Post a unique tour and talk at The Historic Aircraft Restoration Museum located at Creve Coeur Airport new date TBD
- May 12th Traffic Control Specialist presentation
 & TRACON tour new date TBD
- July 20-26 Aviation Explorer Camp at AirVenture
 Postponed to 2021
- TBD STL Tower and Tracon Tours
- TBD FlightSafety International; St. Louis Facility Tour
- **TBD** October 2-4, 2020 Scoutfest 2020 in Forest Park, St. Louis, MO

In the Meanwhile

The Post Advisors have been discussing how to continue to provide meaningful program content while adhering to social distancing guidelines. Some ideas are listed below:

Online Flight Simulator Fly-Togethers (Hosted by Andrew Mallek; some Post members have joined in this activity already)

Virtual Museum Tours (the EAA and the National Air & Space Museums are among those that have much to offer)

Virtual Speakers/ Presenters (Astronaut Jim Lovell of Apollo 13, did a "Live Chat" and Q&A for the National Air and Space Museum on April 16th and different talks on other topics are coming soon)

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