



The ThunderWord

Thunderbird Field EAA Chapter 1217 January 2020

Scottsdale, Arizona

PRESIDENT'S CORNER

Greetings from my corner of the hanger! At the last monthly meeting, that was way back in November, rocketman Bob Heninger entertained us with stories of his passion for building large unmanned rockets.

After Bob's talk the next time I see a NOTAM for unmanned rockets I will give them a wide margin.

I hope everyone had a great holiday season and can now start escaping to the hangar or workshop to get back to having fun with our planes, and that one helicopter dude.

It was great to see so many of you at our 21st annual Holiday Party. It looked like it was going to be a washout but the clouds parted at noon and it was a beautiful evening. A big thanks to Alan Travis for opening up his antique car collection to Chapter members for a private showing before the party.

See you at the January meeting for our first meeting of the new decade.

Curtis

JANUARY CHAPTER MEETING

The January meeting of Thunderbird Field EAA Chapter 1217 will be held on Thursday, January 16th, beginning at 7 pm.

The location for our monthly meetings is: The Scottsdale Airport Terminal Building, 15000 North Airport Drive, upstairs in the Thunderbird room. Our plans for a silent auction have been moved to February's meeting.

This month's guest speaker will be Channel 3 ChopperGuy Bruce Haffner. Bruce is going to give us a virtual tour of his airborne television production studio as well as talk about some of the cool stories he has reported on. Bruce

is a high energy guy and it promises to be a great presentation. Chapter 1217 VP Terry Emig is the one to thank for setting up this month's speaker.

Guests are always welcome!

FUTURE GUEST SPEAKERS

Now that we have this cool meeting venue, it's time to get some great presentations!

For the February meeting we have USAF Major General (Ret) Mark Musick coming to talk about his book "Boxes: The Secret Life of Howard Hughes" We will get an in-depth view of the research that went into writing the book.

March will bring back one of our favorite speakers Mike Lavelle. Mike is down from Seattle to escape the rain and is going to talk about "Boeing's Transition to Jets". His talks are always entertaining and informative. Thanks to Dan Muxlow for lining up Mike to talk.

Also in the works is local pilot Travis Foss who will talk about flying a DC-3 from Arizona to the Normandy Celebration, as well as a talk from Otteson Propellers on their company's history and what they do.

HOLIDAY PARTY

Everyone had a great time at this year's Chapter 1217 holiday party. What started as a rainy cold day was no problem to our hosts Bill and Pam Unternaehrer who moved the party indoors. There was live music and plenty of food and drink to go around. Thanks to the Unternaehrers for opening up their home for the party.

COPPERSTATE FLYIN & EXPO

Come join your flying friends at the 2020 COPPERSTATE Fly-In and Buckeye Air Fair. It will be held on February 6 through 9, 2020,

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Hours: 8am to 5pm, Thursday through Saturday, and 8am to 4pm on Sunday

This year we have expanded our event to include an extra day on Thursday, February 6th. This extra day is to allow our Vendors to set up, those wanting to fly in early to get a better parking spot and allow us to have our COMPETITION DAY

All this means is that you'll have more fun with more to do and see when coming to COPPERSTATE this year! We know your time is valuable, but we know that if you're an aviation enthusiast, there's something for everyone. Visit www.Copperstate.org for more information.

Buckeye Municipal Airport
3000 S. Palo Verde Rd
Buckeye, AZ 85326

Save the Date!
February 6-9, 2020

Copperstate Fly-in & Expo

Airborne Thrills!

Kids Zone
All day fun includes a bounce house, zip line, carnival rides and more with the purchase of a bracelet.

Great Food
Enjoy great, local food vendors offering a variety of choices including burgers, fry bread, BBQ, tacos, hot dogs and a variety of snacks, drinks and desserts.

SciTech Festival
Our 6th Annual Sci-Tech Fest celebrates Science, Technology, Engineering and Math with a variety of interactive booths.

Friday 2/7
Field trip, V.I.P. Reception

Saturday 2/8
SciTech Festival, Kids Zone & Air show

Sunday 2/9
Kids Zone & Air show

BUCKEYE, AZ For more information, visit buckeyearfair.com

TRADE-A-PLANE STOPS PRINTING

After 82 years of continuous print publication, the iconic Trade-A-Plane ceased printing after the December issue and converted entirely to a digital format. As digital competition has eroded Trade-A-Plane's dominant position in aviation classified and display advertising, the print version was no longer viable.

In addition to Trade-A-Plane, two other advertising publications the company owns in the construction field: Rock & Dirt and Tradequip, will also cease print in favor of digital formats. For many years, Trade-A-Plane was printed three times a month at the company's Crossville, Tennessee, headquarters. But for at least the last two years the printing has been done offsite.

A fire in 2013 stopped the presses for several weeks, but the company resumed printing until it became no longer economical to do so. Cosby Harrison has been concentrating on digital advertising, giving both buyers and sellers more rapid information delivery and flexibility. It also owns the popular WeatherTAP online weather service.

Trade-A-Plane was famously launched in 1937 by Cosby Harrison after he crashed a Laird Swallow and found no ready sources to buy repair parts. It began as a simple broadsheet newspaper with just classified ads and no editorial. Some years later, it evolved into the familiar tabloid format.

The last print issues were delivered in December, with the full digital transition completed for January 2020 advertising.

BLACKFLY PERSONAL AIRCRAFT

"Opener" the company that designs and builds the all-electric BlackFly personal aircraft, has been named the presenting sponsor of the Innovation Showcase at EAA AirVenture Oshkosh 2020. The 68th annual Experimental Aircraft Association fly-in convention is July 20-26 at Wittman Regional Airport in Oshkosh, WI.

The Innovation Showcase at EAA AirVenture is focused on research and development in the aviation and aerospace industries. It

welcomes cutting-edge companies that seek to bring their new products to the public and the aviation marketplace.

"Opener has an unparalleled leadership position in new technology driving personal flight," said Dave Chaimson, EAA's vice president of business development and membership. "They have been a part of the Innovation Showcase at EAA AirVenture Oshkosh for the past two years and have been a prime example of the innovative aviation technology we've been introducing at AirVenture. Having them as the presenting sponsor of this area will bring even more companies to Oshkosh who are interested in highlighting the newest and best in aviation."

Opener spent the last 10 years in stealth mode, designing, developing, and testing new innovative technologies, which have now evolved into an all-electric, vertical takeoff-and-landing vehicle, BlackFly. Opener made its public debut in July 2018, shortly before displaying BlackFly at Oshkosh that year. A BlackFly v2 is now on display in the EAA Aviation Museum in Oshkosh.

Only 20 exhibitors are selected from all applicants to be included in the Innovation Showcase. Any aviation-related product or service that demonstrates unique, forward-looking technology is invited to apply for complimentary exhibit space in that area. In 2019, nearly 75 companies applied for this area at Oshkosh.

LOCAL AVIATION LEGEND

PUT TO PASTURE

Honeywell has retired its Convair 580 test aircraft after 67 years of service in flight, leaving behind a legacy of testing and helping bring to market some of the most advanced safety features in modern aviation. AlliedSignal acquired the venerable aircraft in 1992, and when the company merged with Honeywell in 2000, it remained in the test fleet until its final flight a month ago.

In Honeywell's flight test fleet, the Convair 580 was a workhorse in many areas because the aircraft's design made it capable of holding

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All-Electric BlackFly Personal Aircraft

gear usually meant for installation on larger commercial aircraft. Its traditional passenger interior was stripped to make room for multiple data centers and servers to record information collected during test flights. Honeywell engineers used the recorded data to create what are known today as the Enhanced Ground Proximity Warning System (EGPWS), the Traffic Alert and Collision Avoidance System, and the IntuVue RDR-4000 Weather Radar System.

To test the accuracy of IntuVue and other radar systems, test flights were performed during real-life and highly dangerous scenarios. During the summer months, pilots would test the IntuVue RDR-4000 Weather Radar System by flying the Convair under and directly into thunderstorms over the Everglades and off the coast of Florida. The IntuVue RDR-4000 Weather Radar System is the world's first airborne 3D weather radar. It is fully automated, allowing pilots to focus more on detection and analysis versus controlling the radar manually.

In addition to flying through thunderstorms, Convair pilots would fly directly toward mountainous terrain to test that the warning

signals in the EGPWS were activating when the aircraft was too close to dangerous terrain features. Once the aircraft was near, pilots would hear warning signals such as "PULL UP" and "TERRAIN."

"You have to have confidence in your aircraft to be around mountains, thunderstorms, and volcanos, because you're flying so close to terrain, you'll experience a lot of turbulence. Thankfully, the Convair is a heavy-duty aircraft and has very reliable engines," said Randy Moore, chief test pilot for Honeywell Aerospace who has flown the company's 580 since 2004. "I always thought of it like a 1952 Chevy pickup. That's what the Convair was like."

There are estimated to be fewer than 100 Convairs left flying. This aircraft was initially certified on January 15, 1952, as a Convair 340, not a 580. It was first put into service by United Airlines on September 2nd of that year, and it had an uneventful run until late 1964. On December 30, 1964, the old gal experienced a forced landing after both engines stopped because of fuel starvation. The plane landed safely in a field in a small

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Honeywell's Convair 580 Test Aircraft

town northwest of Los Angeles, and none of the 43 passengers or crew on board were injured.

The aircraft flew with United Airlines until it was acquired in August 1966 by the original Frontier Airlines of Denver, where the company had it converted to a Convair 580 with Allison turboprop engines. The plane traded hands a few times in subsequent years before AlliedSignal purchased it in January 1992 and based it in Ft. Lauderdale, Florida. It wasn't until 2000 that AlliedSignal and Honeywell merged, passing the aircraft into Honeywell's ownership, and from there it sported N580HW as its tail number and flew primarily out of Phoenix.

Over the past few decades, innovations tested on the Honeywell Convair 580 have helped reduce the number of passenger fatalities to all-time lows. But with 67 years of flying experience, 67,000 total flight hours, and a staggering 103,000 landings, the time has come for N580HW to retire from its day job. It is expected to soon make its way to Kelowna, British Columbia, Canada, where Barry Lapointe, chairman and CEO of KF Aerospace, is planning an aviation museum where it would be displayed so others can share in its storied history.

HONEYWELL CONVAIR THE UNITED YEARS

United Air Lines Convair 340, registration N73102, was on a scheduled flight from Fresno to Los Angeles when it made a forced "dead stick" landing in Saugus, California. It was about 11 a.m. on Wednesday, Dec. 30, 1964. United scheduled the aircraft to fly nonstop from Fresno Air Terminal (FAT) to Los Angeles International Airport (LAX), a distance of 209 statute miles, 181 nautical miles. While in-route, flying over the town of Saugus in the Santa Clarita Valley, both engines stopped.

The flight was under the command of United Captain Wade. He had encountered trouble with one of the engines prior to takeoff in Fresno. A problem with the electric fuel pump prevented it from starting. With only one engine running, Wade obtained fuel pressure to start the other engine by using fuel "cross feed." Cross-feed is the ability on multi-engine airplanes to use a working engine's fuel pump to provide fuel to another engine. Both engines receive fuel from one tank, with fuel pressure created by either the good engine's mechanical fuel pump or the electric fuel pump.

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United Air Lines Convair 340, N73102

Two issues now coalesced into the sequence of events that led to the forced landing. One issue was incorrect instructions in the airplane's flight, maintenance and training manuals. Prior to this event it was thought that a check valve was in the system when fuel cross-feed was on, to prevent pumping fuel out of the tank feeding the good engine into the fuel tank of the other engine. It turns out, that wasn't accurate on the Convair 340 at the time. The United flight departed Fresno and climbed out over the San Joaquin Valley and the Tehachapi mountains without incident. As it arrived over the Santa Clarita Valley, Wade found the area cloudy with a low overcast. Below the overcast it was either misty or raining. Then both engines stopped.

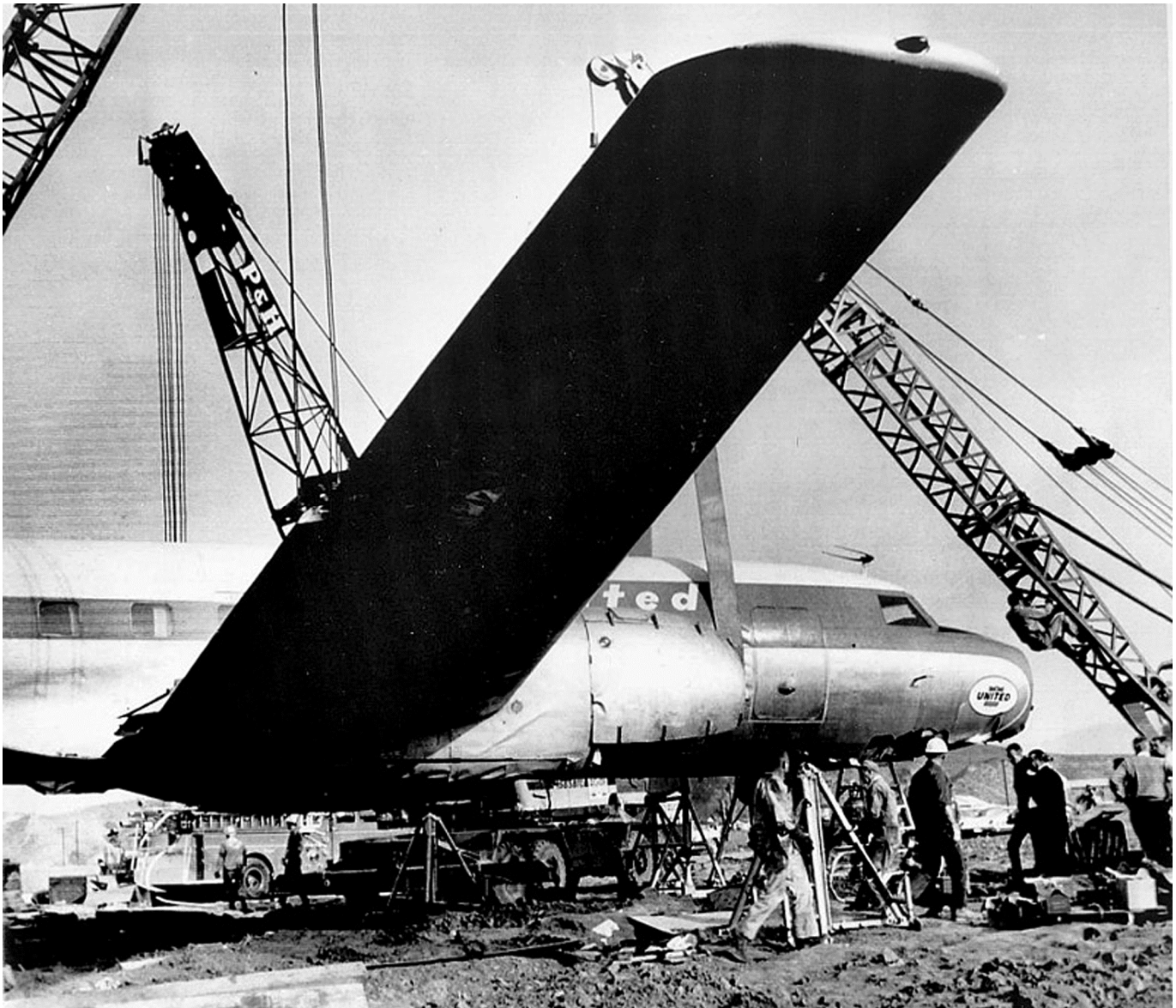
The cause of both engines stopping was fuel starvation, not engine failure. He popped out of the clouds in a valley, did a 180-degree turn to line up with the field on short final" (the last heading before landing),

"Captain Wade made a partial flap, gear up landing. He did an excellent job of making a dead-stick landing. None of the 43 passengers or four crew members was hurt." Very nice airmanship, indeed.

Jim Mosley, son of the manager of the Newhall Ranch, witnessed the forced landing. "The field was very muddy, and (his father) hooked up a caterpillar to a flatbed trailer and brought all the passengers to (our) home so they didn't have to wade through ankle-deep mud." Mosley reports that United Air Lines bought them a new carpet afterward, so terrible was the mud.

United mechanics from Los Angeles hoisted the airplane, lowered the landing gear, replaced the propellers and some other parts. Another United pilot made the take-off from the Saugus onion field and flew the airplane gear-down to San Francisco for an in-depth mechanical analysis of the ship.

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Convair being Rescued from the Muddy Onion Field

Mosley also witnessed the takeoff, "which although a shorter runway than normal, did clear the power lines by a good margin."

There is some question whether the forced landing occurred in a beet field, carrot field or onion field. Regardless of the crop, today the field no longer exists. Houses occupy the fields where vegetables once grew.

N73102 went on to fly with United until 1966 when it was sold to Frontier Airlines, which converted it to a model 580 turbo prop. It was just retired from flying for Honeywell International, which registered it as N580HW.

LOCAL PILOTS

PRACTICE FORMATION FLIGHT

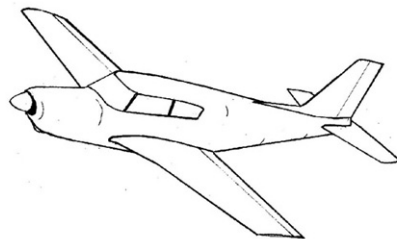
Jordan Ross took some shots of Lynn Miller in his RV-8 and Mike Lynch in his CJ-6 as they were practicing formation flight over Lake Pleasant last December 29th. Jordan was occupying the back seat of Tom Mitchell's T-34 when he took the pictures shown on the next page.



Mike Lynch in his CJ-6 and Lynn Miller in his RV-8 in Formation Flight over Lake Pleasant



Another View of the two Planes in Formation Flight



ThunderAds

ALASKA BABY BUSHWHEEL

tailwheel assembly, Like new. 6x8.5 tires
Used but in good shape, Jack Pollack 480
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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.

THATCHER CX-4 PLANS & BUILDERS MANUAL

New, never used, donated to our Chapter.
Curtis 602 710-4494

COOL PLANES FOR SALE

Only flown by little old ladies to church on
Sundays. [http://captainbillywalker.com/aircraft-
for-sale/aircraft-for-sale](http://captainbillywalker.com/aircraft-for-sale/aircraft-for-sale)

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
birdgangft@gmail.com

RV-4 PARTIALLY BUILT KIT

\$13,500 Lycoming O-290-D2, kit for \$3,000 or
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