



The ThunderWord

Thunderbird Field EAA Chapter 1217 September 2022

Scottsdale, Arizona

PRESIDENT'S CORNER

Greetings from my corner of the hangar! Last month Mike Rutledge talked about his aviation career focusing on his time assigned to the "Night Stalkers" of the U.S. Army 160th Special Operations Aviation Regiment (Airborne) where he flew the MH-47G. Mike's presentation gave us a look into the mission and training this elite group of warriors does every day to assure our freedom. Thanks to Chapter Vice President Terry Emig for getting Mike to talk.

Hopefully one of these days the hot weather will break and we won't have to get up so darned early to squeeze in a flight before it gets hot and rough.

See you around the aerodrome!

Curtis

SEPTEMBER CHAPTER MEETING

The September meeting of Thunderbird Field EAA Chapter 1217 will be held on Thursday, September 15th beginning at 7 pm. The location is the Thunderbird Room in the Scottsdale Airport Terminal building. The address is 15000 North Airport Drive.

This month's guest speaker will be Ernie Copeland from the FAA Scottsdale Flight Standards Office. Ernie is the FAA Safety Team Program Manager and is going to talk about preventing pilot deviations and runway incursions. He will bring everyone up to date on the FAA's online tools for improving pilot safety. There will be something each of us can take home to make us safer pilots.

Guests are always welcome.

BLACKBIRD FACTS

THAT CAN WIN YOU A BEER

One of the more interesting planes to ever take to the skies was the Lockheed Blackbird. Below are some interesting facts.

There were four major types:

A-12 Single-seat reconnaissance aircraft operated by the Central Intelligence Agency (CIA).

YF-12A Interceptor capable of launching air-to-air missiles. It had a pilot and a Fire Control Officer (FCO).

M-21 Mothership for the D-21 reconnaissance drone. It had a pilot and a Launch Control Officer (LCO). The mated combination was called the MD-21.

SR-71 Dual-seat reconnaissance aircraft operated by U.S. Air Force. It had a pilot and a Reconnaissance Systems Operator (RSO).

There were also trainer versions of the A-12 and SR-71. These were called the TA-12, SR-71B, and SR-71C. They had a second cockpit for an instructor pilot.

D-21 This was an unpowered, ramjet-powered drone that launched from a pylon on top of the M-21 mothership. It was designed to fly at speeds of Mach 3.5 and altitudes up to 90,000 feet while carrying a camera over hostile territory. Film packages dropped from the D-21 were recovered in mid-air by a C-130 crew.

D-21B This was a later model, built after an accident precluded further use of the M-21 as a launch platform. The D-21B was designed for launch from a B-52H.

The Blackbird was constructed of about 85-percent titanium with stainless steel and some aluminum. Its construction also consisted of other alloys and 15% composite materials, primarily asbestos-silicone laminates.



SR-71 Family Photo

What was the SR-71C?

It was a trainer built from the front half of a static test SR-71 fuselage, the aft section of the first YF-12A, and a new instructor's cockpit. It replaced the second SR-71B that crashed on 11 January 1968.

When did the Blackbird last fly?

SR-71A (61-7980/NASA 844) last flew on 9 October 1999 at the Edwards AFB Air Show

and Open House to 80,100 feet and Mach 3.21. It was the last flight of any Blackbird.

Was the YF-12A a prototype for the SR-71?

No. The YF-12A was a separate variant of the Blackbird, all models of which were developed from the original A-12. The YF-12A was a prototype for an interceptor version. The production model, had it been built, would have been known as the F-12B





Virgin Galactic Delta Class Space Plane

ANY SPACE COWBOYS OUT THERE

If you are looking for an interesting career or career change have you ever thought of building Space planes? Virgin Galactic announced in July that it has selected Phoenix Mesa Gateway Airport as the site where it will assemble its next class of rocket ships.

Officials with the aerospace and space travel company have signed a long-term lease for a new final assembly manufacturing facility. The new facility will be capable of producing up to six spaceships per year and bring hundreds of aerospace engineering and manufacturing jobs to Mesa.

The plant will build the Virgin Galactic Delta Class space plane. The Delta Class ships are designed to fly weekly, supporting the company's target of 400 flights annually from Spaceport America in New Mexico.

SCALE B-29

Tom Hobgson from Kokomo Indiana has an ambitious project he is working on. It is a 35% scale Boeing B-20 Stratofortress. The plane has a 50-foot wingspan, 40-inch fuselage diameter, 2 seats in tandem and it powered by four Honda Fit engines. He is about ten years into the project and is working on it full time. The airframe is aluminum with a carbon fiber greenhouse and nacelles. If Tom's name seems distantly familiar it is because he has done a series of YouTube videos on making things out of fiberglass.

September 2022

AIRBUS ZEPHYR

The high-altitude drone, Zephyr, met a sticky end, just hours before it would have broken all records for the longest-ever continuous flight.

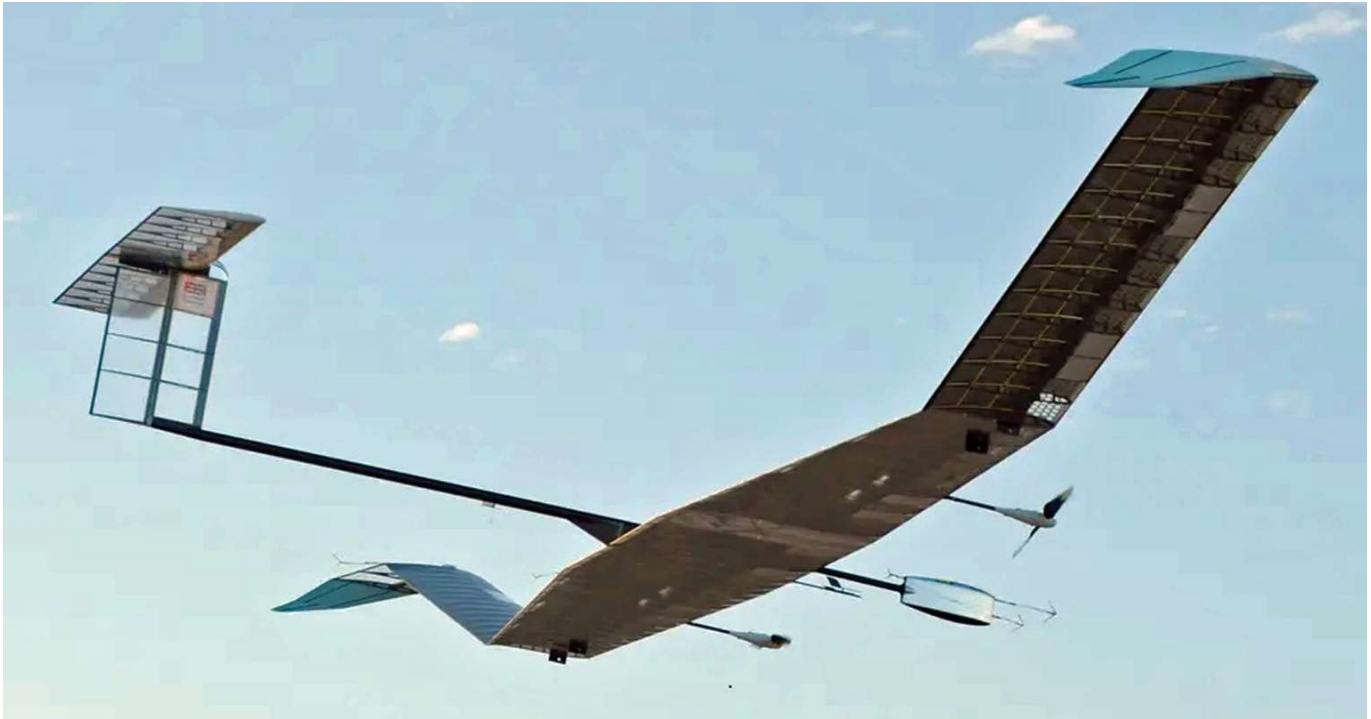
On August 19th, the infamous solar-powered drone Zephyr was lost over Arizona, following an extended flight that had lasted for 64 days straight. It came within hours of breaking the record for the longest flight in history. Despite the aircraft being lost, the developers and the US Army gathered critical data from the aircraft during its flight, which will help the military further its high-altitude operational goals.

On August 19th, ground controllers directing the Airbus drone Zephyr lost contact with the vessel. The Airbus Defense and Space team had previously flown the drone on several long-distance flights, many of which lasted over two weeks. This flight had lasted for more than 64 days.

The aircraft series has undergone testing by Airbus in Arizona for multiple years, and the current model is the newest in its class and is formally known as the Zephyr 8'

Thanks to ADSB data being tracked by hundreds of users they were able to track the final movements of the Zephyr. Flying under call sign ZULU82, it had spent most of the past two months in the southwestern parts of the

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Airbus Zephyr

United States, cruising around at altitudes of some 60 - 70,000 feet.

On its final day of operations, it was tracking around over the vast Arizona Desert, about half way between Phoenix and Mexicali, Baja California. Flying slightly lower than was typical, at some 45,000 - 50,000 feet, it had completed an S-shape maneuver at around 50-60 knots when something went catastrophically wrong. ADS-B data shows a vertical descent rate which rapidly increased, topping out at a speed of 4,544 feet per minute. Although unconfirmed by Airbus, it does seem that the Zephyr met a rather unglamorous end.

The Zephyr drone is unique not only because of the high altitudes at which it can fly, but also because of how long it can continuously remain airborne. Its capability for such long flights is thanks to its use of solar power. The solar panels on its upperside continuously absorb sunlight during the day, providing sufficient energy to power its propellers during the day and also at night. Flying high in the stratosphere, the aircraft remains above the majority of terrestrial weather. This allows it to receive uninterrupted radiation from the sun for as long as possible. Despite being over 82 feet

long, the ultra-light craft comes in at only 166 pounds.

Throughout its operation, Zephyr has set multiple records. It set the record for the longest unmanned flight on a previous flight in 2018. The aircraft set a new record for the highest altitude reached in its class at 76,100 feet.

SMALL CONTINENTAL GROUND ADJUSTABLE PROP

Many Continental C-90 / 0-200 operators would like to have the option to install a ground-adjustable propeller on the small Continental. An Italian company, GT Propellers, is developing a robust and very safe 2-blade monolithic hub, machined from solid high quality aircraft grade alloy and blades made from wood/composite with stainless-steel leading-edge protection. Easy blade pitch adjustment and removal. Various blade profiles, ranging from the modern scimitar to the classic designs and spinner styles and sizes are available. More information is available at:

<https://www.facebook.com/GtProp/videos/1064605416977534>



Ground-Adjustable Prop for C-90

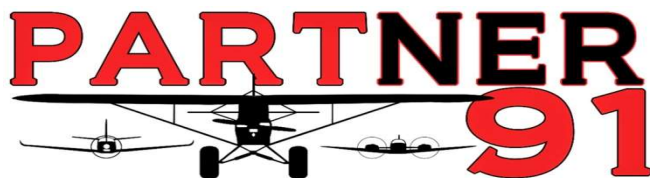
It is important to note that damping comparisons between wood versus metal or artificial composite props is like day vs night!

If you want to have trouble-free relaxed flying hours on your airframe and at the same time safeguarding your engine, this is the best solution for you. Less maintenance costs and if, unfortunately, you experience a prop-strike it is easier and less costly to repair.

The company is in the process of jumping through all the regulatory hoops required for certification. More information can be obtained by e-mail at: Info@gt-propellers.com

GT Propellers
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Tel. +39 0541 69 33 99
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S/N 1662. Grove gear, Rotax 912UL 80HP, 685 TT
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Transponder, antenna and encoder \$500-,
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Appareo Stratus ESG ADS-B transponder, Stratus
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tire, \$80, 4 Barry engine mounts 94510-41, \$400⁰⁰,
Dynon D-10A EFIS w/ remote compass & temp
probe, \$2,000⁰⁰, Charlie Spinelli, 206 678-5678,
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CURTIS F11C-2 "GOSHAWK"

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AIRCRAFT TOOLS

I have some aircraft tools that I acquired through a
friend. I would like to sell them. Dan Burdett
480-600-2865

MISC GOODIES

LONGEZ AND SONEX

Two airplanes for sale at Thunder Ridge air park
(AZ28), a 180hp LongEz and a 120hp Sonex.
Contact Bertha Partin at bmpartin@gmail.com

THATCHER CX-4 PLANS & 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>

RV-4 PARTIALLY BUILT KIT

\$13,500 Lycoming 0-290-D2, kit for \$3,000 or
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Engine built up for RV project never completed.
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