





### December 31, 2023

"To create an interest in, further the image of, and promote the hobby/sport of model aviation"

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### Quote For this Month:

"Never give up on a dream just because of the time it will take to accomplish it. <u>The time will</u> <u>pass anyway</u>."

Earl Nightingale

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### Volume 26 Issue 12

www. chinovalleyflyers.org

## Shel Leibach's X-Caliber Turbine's Tail Camera View of Our Runway



Photo Compliments of Shel Leibach

## Bill Gilbert's Extreme Flight Turbo Bushmaster



Bill's plane is an Extreme Flight 100" wing span Turbo Bushmaster. It is powered by an Extreme Flight 40cc XPower electric motor and Castle Creations Edge 120A ESC putting out 4,100 watts into a 22" x 10" propellor. He uses 12S batteries for motor power and 2S batteries provide servo and receiver power. It features a "live wing" with flaperons and crow for both STOL and 3D capability. The plane has 6" air-filled tires for excellent ground handling.

## Bill Gilbert: CVMA President's Message LVERS

I hope everyone is enjoying the Holiday Season with friends and family!

We had our final club event of the year, the Annual Christmas Banquet. A good time was had with club friends, a gift exchange, and an opportunity to recognize members that have made a difference to our club this past year.

See page 7 in this issue for Dr. Bob's write up on club awards winners. Thanks to all of you for helping make our club the best it can be!

Even though it's not officially winter yet, it sure feels like it is! Cold and breezy mornings are curtailing our flying.

Fortunately, our indoor flying season is just about to ramp up. Time to get your indoor planes dusted off and batteries

ready. It's sure to be a good place to keep our skills sharp as we wait out the wintry conditions.

Don't forget building; it's a good time to get started on a project for the annual Build and Fly competition. Or just build, upgrade or repair your aircraft for spring; time goes by fast!

We have some enhanced events coming up next year, this is a good time to get your aircraft for those tuned up.

thank you again for the support shown to the club this past year, including the new initiatives, and with wishes for even greater flying enjoyment at the club in the coming year! Happy Holidays,

**CAN YOU NAME THIS AIRCRAFT?** 

Bill

See Page 8







President — Bill Gilbert



Vice President — Jeff Moser



Treasurer — Don Crowe



Secretary — Bob Steffensen

Safety Officer — Rick Nichols



At Large Member — Dan Avilla



At Large Member— Gary Cosentino



Newsletter Editor — Bob Shanks







### **CVF Official Newsletter**



MARK YOUR CALENDARS
Events for 2024

### Next Year's Events Under Development



## SAFETY DFFICER

Everyone already knows the definition of a "good landing" is one from which you can walk away from, but very few know the definition of a "great landing" It's one after which you can use the airplane another time.

It's easy to make a small fortune in aviation. You start with a large fortune.

Asking a pilot what he thinks about the FAA is like asking a tree what it thinks about dogs.

Takeoffs are optional. Landing is mandatory.

Aviation is not so much a profession as it is a disease.

There are three simple rules for making a smooth landing. Unfortunately, no one knows what they are.

The three most common expressions in aviation are, "<u>Why is it doing</u> <u>that? "Where are we?" and "Oh shit</u>".

Flying is the second greatest thrill known to man. Landing is the first! A male pilot is a confused soul who talks about women when he's flying,

# SAFETY FIRST

and about flying when he's with a woman.

No matter what else happens, fly the airplane. Forget all the stuff about thrust, drag, lift and gravity, an airplane flies because of money.

### FLYING RULES TO LIVE BY

- 1. Try to stay in the middle of the air.
- 2, Do not go near the edges of it.
- 3. The edges of the air can be
- recognized by the appearance of ground, buildings, sea, trees, and interstellar space. It is Much more difficult to fly there.
- 4. When landing at night turn on your landing light. If you don't like what you see, turn it back off.

Wishing you all a very Merry Christmas, Happy Hannukah, Holiday or whatever you celebrate and a Happy and SAFE New Year.

## OFFICER Merry Christmas

Members



## WWII CURTISS-WRIGHT AT-9 JEEP TWIN ENGINE TRAINER

Many times modelers who still like to build RC and control line planes, look for the unusual model to build. The WWII AT-9 Jeep is a good example of a very different aircraft. As a test model, perhaps it would make a good profile design as a foam constructed build for either RC or control line. Two brushless motors could be easily used for power.

The Curtiss-Wright AT-9 Jeep was a twinengined advanced trainer aircraft used by the United States during World War II to bridge the gap between single-engine trainers and twin-engine combat aircraft. The AT-9 was of a low-wing cantilever monoplane configuration, had retractable landing gear and was powered by two Lycoming R-680-9 radial engines.

The AT-9 was purposely designed to be less stable and proved to be difficult to fly or land, which made it particularly suitable for



teaching new pilots to cope with the demanding flight

characteristics of a new generation of high-performance, multi-engined aircraft such as the Martin B-26 Marauder and Lockheed P-38 Lightning. A total of 491 AT-9s were built before production ended and a new production run of 300 of the generally similar AT-9A commenced.

Because of its difficult flying characteristics the AT-9 was not offered for sale to civilians after the war, although many non-flying examples were given to ground schools for training purposes.

The Jeep served from 1941 through the War; but was phased out of production from 1943 after just less than 1000 had been built. The bigger twins from Cessna and Beechcraft could carry more equipment for training on more modern systems. When high performance training was needed actual combat types were often available. The little Jeep's only role came to be introducing multi-engine trainee pilots to a highly demanding aircraft. And the AT-9 really took twitchy too far; it was the only type not sold as surplus after the War. All surviving examples were ordered scrapped; today only two survive, one at the US Air Force Museum in Dayton, Ohio and one at the Pima Air and Space Museum in Pima, Arizona. Both were rebuilt from wrecks.

Its name would not have seemed as odd during the War as it does today. From the 1930s "Jeep" was sort of funny slang for any unknown machine, maybe like "thingamajig" from the 1970s. Obviously the light duty 4 x 4 truck came to "own" that name to the current day, but in the 1940s it was anything but obvious as to what a



"Jeep" actually was. So it was a funny name, for a light aircraft whose main function was to be difficult to fly.

The AT-9 would teach trainee pilots how to handle a multi-engine aircraft with more challenging flight characteristics and high landing speed. There seems to be no particular data on crashes, and this was a late step in pilot training. But the Military decided it would be foolish to put this difficult type of plane to handle in civilian hands post-War and the majority were scrapped.



control line planes, make sure you check out our C/L area especially when the weather is nice and you see activity there. Stop by and take a test flight around the circle.

We have over a dozen or so members who are flying a variety of control line models.

At far right is a *Jeff Moser* flying one of *Steve Zingali's* control line versions he cut out of foam using his CNC.



## The Central Intelligence Agency (CIA) is Broken It Doesn't Protect the U.S. From Surprise Attacks \*

Based on an Article from Hillsdale College's "Imprimis" Publication By Bob Shanks, Newsletter Editor

A former CIA Operations Officer, Dr. Charles S. Faddis, recently wrote an article for the Hillsdale College *"Imprimis"* publication entitled *"Why the CIA No Longer Works – and How to Fix It"*. He outlines briefly the history of the CIA as created primarily to protect the U.S. from possible surprise attacks such as occurred in WWII at Pearl Harbor and recently the 911 attacks on our country when



four airliners were hijacked crashing them into four U.S. targets. There was not a single intelligence source reporting the possible 911 attacks. These attacks killed almost 3,000 Americans. Bin Laden and Al Qaeda fully understood the capabilities of American Intelligence. Bin Laden had no cell phone, he communicated with his organization via couriers dealing with them face to face. There were no emails, no text messages, or phone calls for U.S. or foreign intelligence to intercept or track. Agent Faddis further stated it took the CIA almost a decade to get a source within Al Qaeda to help track Bin Laden's location even though this was of the highest priority for the organization.

This writer, having spent a career in the intelligence field, and now a member of the Chino Valley RC Flyers serving as the newsletter editor and photographer, I felt this article really is related to RC flying from the perspective and fact a lot of intelligence and images are gained using various drones, jet aircraft as well as satellite imagery. (See cover digital photo on page one of this issue of our field taken from a RC turbine model.) Most of the commands I served with in intelligence always had a CIA officer assigned for access to share critical intelligence as needed.

The photograph above accompanying this article is a sample of a low attitude RF-4C Phantom film image of a POL gas and oil storage site taken with a low pan 180-degree scanning film camera. Of course, these days images are generated in real time using digital imaging devices on drones, aircraft or satellites in space. A low altitude image can show much more detail generally than images taken from high altitude or space. Flying at low altitude and fast while having many advantages is also fraught with many hazards in a combat environment. One clear advantage with real time digital combat communications is the fact that critical information can be relayed quickly using satellites.

### So, What's the Solution to Fixing the CIA?

Faddis says there are two reasons the CAI is broken; one is bureaucratization and politicization. Faddis, goes on to say the CIA recruiters now seem to only look at academic degrees and language proficiency. Faddis feels that the CIA recruiters act as if anyone can be taught to conduct espionage, which is not true. He points out that *"A new CIA director must make it crystal clear that there is no longer business as usual."* He further states that there should be zero tolerance for any involvement in domestic politics by agents and that senior officers should be removed immediately if they are involved in politics. There should be no "foot dragging" or slow rolling cases. The CIA must return to its roots to keep the U.S. safe.

## Chino Valley Flyers 2023 Christmas Banquet



We had a good turnout for our 2023 club Christmas party. Our "Perpetual Award Winner" was Mark Lipp. He and his wife Jane were tireless workers at our events this past year. At right was our M.C. all decked out in his Christmas garb. (Are those pajamas Rick?)

Rick Nichols always keeps a little record of possible award winners for our annual banquet, below are the winners for this year. (left to right) Dave Domzalski, the pretzel and beer award for his flying pretzel; John Meyer and Dave Bates for being the number one EDF pilots for the club; Bob Steffensen for the most improved pilot award, he took advantage of the pilot refresher course; Randy Meathrell for parking his large SUV on top of a parking barrier at the control line circle; and Gary Costantino for Lost but Not Forgotten award, he never found his plane lost in the rolling hills adjacent to the field to the north. (Maybe Santa has it now!)





Dave Domzalski

John Meyer and Dave Bates

**Bob Steffensen** 

Randy Meathrell

## Name the Plane Cockpit: Antonov An-2

https://www.museumofflight.org/exhibits-and-events/aircraft/antonov-2-colt https://en.wikipedia.org/wiki/

First taking to the skies in August 1947, the Antonov An-2 has a record-setting production run and flying career that spans over four decades. The aircraft was the first design of the OKB-153 Design Bureau, led by Oleg K. Antonov and eventually based in Kiev, Ukraine. It was originally designed for civil utility uses, but its versatility allowed the An-2 to serve in a wide range of roles, including transportation, search-and-rescue, agriculture and forestry, geographical survey, fire bombing, and research.

Military versions served with Soviet, later Russian, armed forces and their allies. NATO assigned the code name "Colt" to the aircraft, but it is known throughout the former Soviet Union as "Annushka" (Annie).



The An-2 is one of the largest single-engine biplanes ever produced. It was particularly prized for its versatility and extraordinary slow-flight, short takeoff, and landing capabilities. In fact, the An-2 has no published stall speed, and pilots have been known to fly the plane under full control at 30 mph. This combined with its ability to handle extreme weather conditions and rough, makeshift runways made it an ideal workforce in undeveloped and remote operational environments.

In addition to its original factory in Novosibirsk in the former Soviet Union, the plane has seen production runs in the Ukraine, Poland, and China. It is equipped with a single 1,000-horsepower 9-cylinder Shvetsov ASh-62 radial engine. It has been produced in dozens of variants that span civil, military, and scientific uses.

The Museum's An-2 was manufactured in 1977. In April 1998, the aircraft, named *Polar 1*, recreated a 1928 transpolar flight originally made by Hubert Wilkins and Ben Eielson from Barrow, Alaska, USA to Spitsbergen, Norway. The recreation flight included a landing at the North Pole on April 13, 1998. The An-2 was donated to the Museum by owner Shane Lundgren and Air Berlin. In July 1999, Captain Lundgren, an Air Berlin pilot, flew the An-2 across the Atlantic and mainland United States to Seattle.

The chief advantage for the An-2 was that they could take off and land in small or improvised airstrips. They were also frequently used to drop supplies by parachute on isolated garrisons. At least one AN-2 was shot down on 2 December 1991 over Vinkovci, eastern Slavonia, by a Serbian surface to air missile (SAM) emplacement which purportedly launched a salvo of SA-6s at the aircraft.<sup>[16][17]</sup>

Following the shootdown, the flights over Serbian lines ceased, due to the presence of Serb SA-6's. The previous radar guided AA systems were avoided by keeping the airplane's speed below 140 km/h (87 mph), the speed of objects that radars were programmed to erase from the screen.

Reportedly, North Korea has operated a number of the AN-2s. The Korean People's Army Special Operation Force is known to use the An-2 to facilitate the infiltration of paratroopers. It has been speculated that in wartime, these aircraft



for sabotage operations.

During the ongoing 2020 Nagorno-Karabakh war Azerbaijan Forces operated unmanned AN-2 for surveillance and bombing of Armenian defenses,<sup>[19][20][21]</sup> however the type of the drone was unknown as of October 2020.<sup>[22]</sup> Armenian forces revealed footage of the alleged shootdown of Azerbaijani An-2, according to video evidence at least 11 An-2 have been destroyed, with 10 confirmed as shot down and one crashing after takeoff.

could possibly be used to deliver troops behind enemy lines

On March 2, 2022, Russian An-2s were observed being stationed at Seshcha Air Base, Bryansk Oblast. As the base is situated close to the border with Ukraine, it was speculated that the aircraft are to be used as part of the 2022 Russian invasion of Ukraine.

As you can see at left, this is a very large aircraft.

EXCUSE ME, YOUR LABORATORY

### **MERRY CHRISTMAS AND HAPPY NEW YEAR MEMBERS**



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**Galley** Christmas



"I want Christmas off and Boxing Day and New Year's Eve and New Year's Day and Super Bowl and..."



"I don't think that's Airport Santa."



2 Ser. This is the only airline that doesn't charge for oversize bags and let's you bring eight emotional support animals. "Ohmygosh a bucket of perfect ice, how did you know?!" I dunno kids. There's a lot of air traffic up there. Looks like Santa's in a holding pattern.



Have a safe 2024

## A Pilot's Rage Against Autonomous Machines

https://www.flyingmag.com/one-pilots-rage-against-the-machines/

### By Sam Weigel writing for "Flying Magazine"

When I was a young child in Minnesota, before I fell in love with airplanes, I had a deep obsession with trains and wished to work on a railroad. Then my late grandfather inadvertently crushed my dreams with a throwaway comment about how he rarely saw cabooses anymore. It was true: Automation was eliminating fireman and brakeman jobs, paring the traditional five-man train crew to two. My disappointment didn't last long, as I soon transferred my affections to all thing's aviation. The presumption at the back of my young brain was that airplanes didn't run on rails and would be much harder to automate.

Of course, they already had been. Radio operators and navigators had been banished from the cockpit long before my birth, and though there were plenty of flight engineers working



at the time, their eventual extinction had been heralded by the Douglas DC-9 and Boeing 737. Yet, I suppose that my childish calculus has borne up reasonably well. I'm now 41, and with 24 years to retirement, I don't foresee my job being automated out of existence before then. I'm intensely skeptical about pilotless civilian aircraft larger than a few thousand pounds, because of he serious safety and security ramifications.

But what of the next generation, those in their teens or early 20s, who are currently deciding whether to go into aviation? I've been asked this question often. My usual response is that those who start today definitely face a greater risk of their jobs being automated away, but nothing is written in stone. Pilot replacement in transport-category aircraft faces significant technical, security, and political hurdles, and the issue may well be decided by how current pilots respond to the threat. What Is the Threat?

Pilotless aircraft represent the most extreme case of aerial automation and are indeed already ubiquitous in military and hobbyist/ light-commercial applications. Technological innovation has turned something as naturally unstable and difficult to fly as a quadcopter into literal child's play. Commercial aerial photography is now done almost exclusively by drones, and UAVs are also moving into other traditional light aircraft applications like traffic watch, fire and pipeline patrol, and fish-spotting. Aerial application (crop dusting) will be another natural drone specialty, once they're upsized a bit. There's been a lot of press about express package delivery by drone, and I do think they'll be useful for low-weight, high-value, time-critical shipments.

But I'm intensely skeptical about pilotless civilian aircraft larger than a few thousand pounds, because of the serious safety and security ramifications. A datalink-controlled airliner is a non-starter; the ability to remotely take over large fuel-laden aircraft would be the ultimate terror weapon for rogue state or non-state actors. Even the Pentagon gets hacked on a regular basis; they store their most sensitive material on air-gapped computers and networks (e.g. not connected to *anything* outside). An equivalent "air-gapped" pilotless airliner would be controlled by onboard computers only and would be entirely dependent on external sensors and signals vulnerable to jamming or spoofing. I think it would require a level of artificial intelligence that is still three or four decades off.

Yes, yes, I know: Garmin Autoland. It's a great tool for one very specific emergency, albeit a simplistic one—the critical nature of single pilot incapacitation doesn't require many decisions other than "where is the nearest runway, and how do I get there without hitting rocks?" This is a far cry from the processing power required for fully autonomous operation from pushback to landing under normal conditions, much less unforeseen emergency situations. How, exactly, do you program a Sully? I'm not saying it won't happen, it's just a long way out, and will be at the hands of technology that renders humans unnecessary for 90 percent of the tasks they currently perform.

The more realistic threat is single-crew operations. This is being worked on right now by multiple teams across the aerospace industry. The initial move is to eliminate augmented crews on long-haul flights by rotating the two remaining pilots for rest in cruise, leaving a single person at the controls for most of the flight. Airbus is furthest along on this with their "Project Connect," aiming to have single-pilot cruise ops in effect on Cathay Pacific A350s by 2025. The technological hurdles aren't great; the challenge is getting the world's aviation regulators to play ball. If they do, though, I think you'll see a big push for takeoff-to-touchdown single-pilot operations on new transport category aircraft designs within a decade. It'll be done on cargo aircraft first, and then on passenger aircraft starting with sub-100 seaters and moving up from there.

There's a logical paradox to single-pilot ops, however. It's only possible with automation that monitors for pilot errors and intervenes if necessary. However, if the automation isn't secure and trustworthy enough for *pilotless* operations, you still need to give the human ultimate veto authority. And that authority can be abused.