



# Chino Valley Flyers

Official Club Newsletter



February 29, 2024

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www.chinovalleyflyers.org

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

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## BRIAN SUTTON'S PIPER CHEROKEE



### Quote For this Month:

**"There are no strangers here, only friends you haven't yet met."**

*W.B. Yeats*

## Bob Vaught's Electric Powered Chopper



**Get a T-28  
From Horizon  
Hobbies For  
Our Club Races  
June 15, 2024**



# Bill Gilbert: CVMA President's Message



We are in the doldrums of flying due to the weather; it's that time of the year where temps and winds are a challenge.

This is a good time to prepare for the upcoming flying season; maintaining and repairing our beloved flying machines, perhaps acquiring or building something for the new events you may want to participate in this year. We have a wide variety of offerings from Indoor Flying, T-28 Racers, STOL, Combat, Gliders, or just a pleasurable Build and Fly.

Practicing on a simulator is also a great way to keep the brain and fingers connected prior to the upcoming good flying days. Also, if you were

ever interested in another discipline that you have no experience in, the simulator is a great way to get some exposure. Helicopters or gliders for example.

Be aware that the Remote ID (RID) requirements go into effect March 16<sup>th</sup>. If you plan on flying outside of the airfield environment (FRIA), a Remote ID module will be required to remain in compliance with the regulations. Alternately, you can fly models weighing less than 250 grams and not be required to comply with the FAA's RID regulations.

We need flight instructors; If you are an accomplished pilot and enjoy teaching others, this is a good

opportunity to get more involve with the club and new members. We have many potential new members throughout the year needing instruction.

Without instructors we cannot service these new members, or existing members needing refresher training. Please volunteer if you can help out.

See you at the Field.

*Bill*



## Flight Instructors

Randy Meathrell:  
Control Line Flying

Bill Gilbert:  
Helicopters

Jeff Moser  
Gliders, Multi Rotors

*Our Club really needs good overall flight instructors so members if you have that skill please step up, we have many new*

## WHAT AIRCRAFT HAS THIS COCKPIT?



See Page Eight

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*







## MARK YOUR CALENDARS

### Chino Valley Flyers Events for 2024

May 18	Spring Fling Fun Fly
June 15	T-28 Warbird Races
July 20	Glider Endurance Event
August 17	STOL Races
August 31	Combat Event
September 21	Steve Crowe Fun Fly
October 19	Annual Build & Fly Challenge
November 16	Fall Swap Meet Fun Fly
December 3	Annual Christmas Party

**SAFETY  
OFFICER**

***SAFETY FIRST***  
***RICK NICHOLS SAFETY OFFICER***

**SAFETY  
OFFICER**

Just a few notes for this month's column. Over the last few years, I have been stressing the importance of not flying over the hill to our east past our runway and for a good reason. There are exit ends of the Compass Firing Range past the hill that live gunfire can pass over. We have been asked by the range not to traverse over that hill while the range is operational.

I have learned that some members, even senior members, are not even aware that there is even a shooting area beyond the Police Range to our South. I invite all our members to take a short ride up the shooting range road and learn the directional situation of the proximity of both the Police Range and the Compass Training Center range to our flying area. The Compass Range includes 3 shooting lanes at the top of and beyond the hill. This area over the hill can be very hazardous to people in that area searching for downed airplanes. We

have been told by the range to not go into that area as *"they do not want to have "anyone killed" because of gunfire or ricochets"*. I cannot say it any plainer than that!

I have stressed over and over and written about this subject many times, also stressed many times about calling out our flying intentions, "landing, taking off, touch and go, and so forth". I have talked and written about fire, rattlesnakes, and many other types of safety precautions. I have preached all of this in my monthly article and at monthly meetings, and for now I am out of words that I can come up with for this monthly newsletter.

I will be taking a hiatus from the monthly newsletter for a while until I can come up with some fresh stuff. I will continue to bug you and correct you at the field relating to Safety Issues.

Our Editor has a lot of resources to draw from to fill in for me.  
Rick



We often don't think when we do something automatically. The old "THINK" sign has a lot of meaning.

# MEMBER'S FLYING MACHINES SIGHTED AT THE FIELD

*Don Ferguson's Open Frame Aircraft*



*Brian Sutton's United Air lines C-18.*



Runway cracks now sealed.

Brian Sutton's brought three planes, the weather was superb for a change.



*Rick Nichols' Cessna 150 above, at right Rick prepares his big red Seniorita for another flight.*



*Todd Mollerup at the control line circle.*



Cool control line pilot.



*Bob Shanks' EDF U-2 Dragon Lady photo by Rick Nichols.*



*Dave Domzalski's Avenger*





# Member's Models Sighted at Our Flying Field

John Dora's Glider



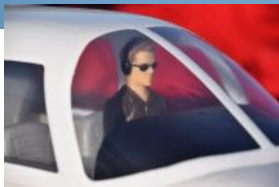
Rick Nichols' Radian



Dave Domzalski's nice yellow Pitts.



Nice close up of Dave Domzalski's Avenger, look at the superb detail.



Brian Sutton's Piper has a cool pilot and a local Prescott restaurant's "Lazy G Brewhouse" nose art sticker.



Matt Mrdeza's Hanger Nine Ultra Stick



Club member *Randy Meathrell* sent your editor this modeling cartoon. It certainly tells a lot about the value of our hobby.



"The time he has spent on that model has prevented him from seeing 178 murders, 76 burglaries and 148 assaults on TV."

# Is The Tesla Battery for Vehicles Practical? \*

Most likely almost all of our members whether they fly gas, glow or electric have some lithium batteries for either powering their planes, receivers or other on board devices. Many members use lithium batteries for powering their planes, some have sold all their gas and glow equipment since there is considerable power packed into these small batteries.

However, one needs to be aware of just what's needed to manufacture lithium batteries. The battery depicted at right is a Tesla battery for vehicles. A lot of this information is available at various Internet web sites. This information was part of an email sent to your editor. Here's what goes into making one of these batteries according to general information available on the Internet.

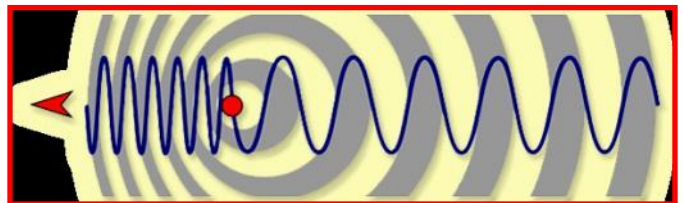
## The Process Requires:

### 12 tons of rock for Lithium extraction.

5 tons of Cobalt minerals  
3 tons of minerals for nickel  
12 tons of copper ore

### Over 250 tons of soil has to be removed to obtain:

12 kg of Lithium  
30 pounds of nickel  
22 kg of manganese  
15 pounds of Cobalt  
100 Kg of rams  
200 kg of aluminum, steel, and plastic.



The Caterpillar 994A is used for earthmoving consuming 1000 liters of diesel in 12 hours. Not to mention all the other support equipment needed. Finally, a "zero emissions" battery is produced for a car. One has to ask the question: **Does this sound like one of the biggest money-making scams in history or not?**

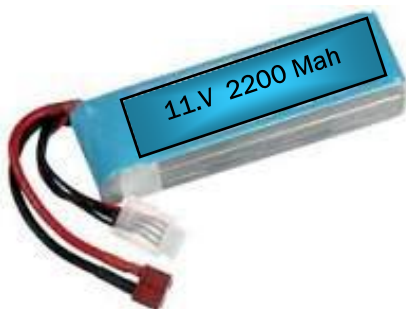
Of course this battery for automobiles pictured above, is a far cry from our smaller lithium batteries we use in RC and control line flying. And we are all aware of the many safety issues that must be observed using lithium batteries to power our models. There have been some major fires in a variety of lithium powered vehicles autos and buses.

Our club members are quite safety minded in how these batteries are used to power our models. So, hopefully there is more research and development ongoing in lithium and battery design for general uses by the public. At the present time, there are a lot of questions as to whether they are at all practical for vehicles used for long trips and everyday usage.

A lot more research needs to be done on all types of battery development, design and usage.



*This article is part of various email opinion items. How lithium batterie are made is easy to access from a variety of science sources found on the Internet..*





## What is the coolest line a pilot has said to passengers? \*

It was late at night on an Icelandic Airlines flight to Reykjavik (the old “hippy express”). Most of the passengers were asleep, the cabin lights were down low. I gazed out at the window and noticed sparks coming from one of the engines. Suddenly it burst into flame.

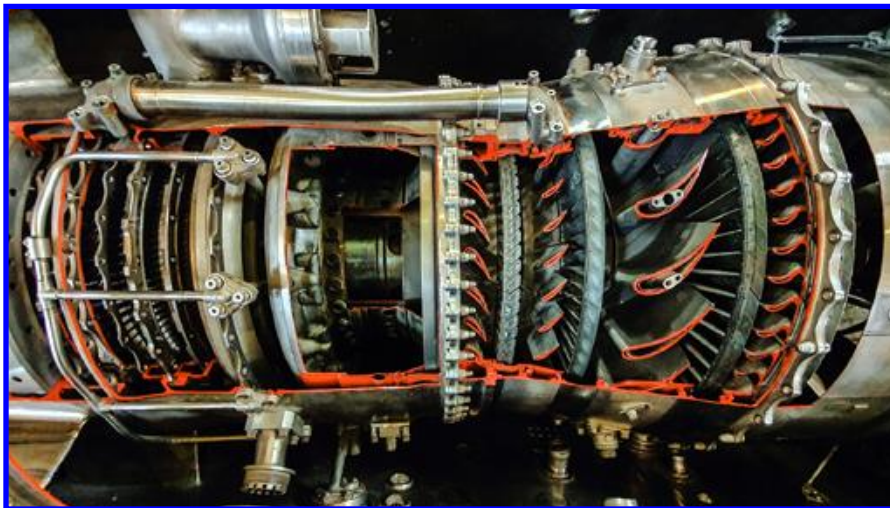
I turned to my partner and shook her awake. “Do you get nervous on airplanes?” “Nah”, she said. “I love flying; a piece of cake”. “Look out the window”, I said.

As she looked out the window, she saw one of the engines burning and screamed. The cabin became awake, full of anxious passengers. The engine was spitting long, nasty flames now.

The captain’s voice came on throughout the plane’s cabin. He spoke in a confident, calm matter-of-fact voice, “Good evening. As some of you have noticed, one of our four engines is having a problem. This plane can easily and safely fly on just three engines. You will be completely safe.”

“We will be taking a slight detour to Gander International Airport in scenic Labrador to address our engine problem. Accommodations and food are being arranged. I believe you will have a pleasant stay. If you wish, go back to sleep and enjoy the rest of the flight.”

The engine stayed burning for a while, casting red shadows throughout the cramped cabin. Most of us settled down for a cold drink or two. **My partner’s fingernails dug into my palm.** “I hope he’s not bull--- us”, she said. **He wasn’t.**



*The average jet engine is extremely complex and typically consists of about 40,000 parts. So, it's no surprise that it can take up to 50-60 days to disassemble an engine.*

*After a full overhaul, the jet engine will be as good as new and ready for thousands more hours of running time.*



\* <https://www.boldmethod.com/learn-to-fly/aircraft-systems/how-does-a-jet-engine-turbofan-system-work-the-basic-steps/#:~:text=The%20Basics,of%20the%20engine%2C%20creating%20thrust.>

## Name the Plane Cockpit: Focke Wulf-187

The twin-engined fighter was a concept few countries pursued in the early days of flight. The type only started serious development in the years directly preceding the outbreak of the Second World War, with planes such as the American Lockheed P-38 Lightning entering service. Most officials across the globe agreed that two-engine fighter aircraft would be rendered unnecessary by cheaper and lighter single-engine designs. In the early 1930s, Germany had no plans to develop such an aircraft either.



However, an aeronautical engineer by the name of Kurt Tank showed an interest. Kurt Tank was the main aircraft designer of the Focke-Wulf company, who developed most of the company's most famous aircraft. During WWII, he would go on to create the iconic Fw 190 and would later have an aircraft designation named after him, with the Ta 152 and Ta 154. He began work on the new twin-engine project, despite there being no current requirement for such an aircraft. Tank had his first chance to reveal his design at a weapons exhibition held at a Henschel plant in 1936. Tank showed off his innovative design, claiming the twin-engine layout would offer a great speed of 348 mph (560 km/h) if the aircraft mounted the newly developed Daimler Benz DB 600 engines. One of the attendants of the event was Adolf Hitler himself, who found the design particularly interesting.

But to the *Technischen Amt* (Technical Research Office), the design was unnecessary, as it was believed single-engine designs could perform just as well as the twin-engined concept. Another pre-war doctrine was that the current bombers would be fast enough to outrun the fighters of the enemy, and escort fighters wouldn't be needed. Tank, not happy with this response, took his design to Oberst (Colonel) Wolfram von Richthofen, the head of the Development section of the *Technischen Amt*. Tank persuaded him that technological advances would eventually allow the construction of more powerful fighters that would be able to catch up with the bombers which would thus require an escort fighter. Convinced by his claim, Richthofen agreed that it would be better to have a countermeasure now rather than later. Richthofen's term as chief was short, but in this time, he authorized three prototypes of Tank's twin-engine design. The design was officially given the name of Fw 187.

Work began on the Fw 187 soon after, but, to Tank's dismay, the requests for the DB 600 engine were turned down. Instead, he had to work with Junkers Jumo 210 engines, as DB 600s were only allocated to projects which were viewed as being highly important. The design work was handed over to *Oberingenieur* (Chief Engineer) Rudi Blaser, who was the one of the most experienced members onboard Focke-Wulf. Blaser had previously headed the design of the failed Fw 159 monoplane fighter, but he was ready to continue work and move on from his failure. Blaser wanted to achieve only one thing with this design: maximum speed. The first prototype Fw 187 was completed in early 1937. The Fw 187 V1 (designated D-AANA) was first flown by test pilot Hans Sander. In the initial flights, the aircraft reached speeds of up to 326 mph (524 km/h). The Luftwaffe was surprised to learn that despite weighing twice as much as the Bf 109, the Fw 187 was still able to go 50 mph (80 km/h) faster. They accused the team of having faulty instruments. Blaser was determined to prove them wrong and had a Pitot tube (a device that measures air speed using the total air pressure) installed on the nose of the V1, which would accurately tell the performance. Sander once again flew and confirmed the aircraft indeed had attained such a speed. Further flight trials showed the aircraft had superb maneuverability, climbing and diving. These great characteristics led Kurt Tank to name the aircraft his "Falke" or Falcon. This name became official as well and wasn't just a nickname the creator gave to his creation.

In the summer of 1937, the airframe had an impressive wing loading of 30.72 lbs/sq ft (147.7 kg/m<sup>2</sup>), something no other fighter could equal at that point. Further tests by Sander put the airframe to the extremes to try the limitations of the aircraft in diving. The rudder, during dives, was predicted to begin fluttering after 620 mph (1000 km/h), but Blaser was more cautious, and thought it would start at a lower speed. To counteract this, a balance weight was attached to the rudder. Blaser assured Sander that the aircraft would perform better in dives as long as he didn't exceed 460 mph (740 km/h). With the new weight attached, Sander took off to begin trials. Hitting 455 mph (730 km/h), Sander noticed the tail had begun violently shaking. With the tail not responding, Sander had started to bail when he reported a loud noise came from the rear. Sander's control over the aircraft had returned and all vibrations had ceased. Upon landing, it was found that the weight itself had been the culprit of the vibrations and the sound Sander heard was the weight breaking off the rudder.



Several modifications were made to the V1 during testing. The frontal landing gear was switched out for a dual wheeled design at some point, but was found it offered no benefit over the single wheel and thus was reverted. The propellers were also changed from Junkers-Hamilton to VDM built ones. Weapons were eventually added as well, but these were just two 7.92mm MG 17s. The 2nd prototype arrived in the summer of 1937.



## PROJECT CONSTANT PEG: THE RED HATS AND RED EAGLES ❁

Project Constant Peg (Red Eagles) was a secret program to train US Air Force, Navy, and Marine Corps fighter aircrews to fly against Soviet-designed aircraft. The USAF's 4477th Test and Evaluation Squadron (TES), nicknamed the "Red Eagles," flew MiG-17 "Fresco," MiG-21 "Fishbed," and later MiG-23 "Flogger" aircraft. The Red Eagles gave American aircrews the skills and confidence to defeat these threats in aerial combat. They were also known as the Red Hats.

Established in 1977, Constant Peg applied lessons learned earlier in Southeast Asia. Over North Vietnam, the USAF and USN had faced high losses to enemy aircraft, air-to-air missiles, and surface-to-air missiles. These losses sharply illustrated training shortfalls and a loss of skill in the art of the "dogfight." Between 1972 and 1977, the USAF and USN started a number of specialized training programs to reinvigorate the fighter force, including establishing the first Aggressor squadrons. These squadrons flew USAF aircraft but employed Soviet tactics and flying techniques to simulate realistic adversaries. *Constant Peg improved upon this method of instruction—Red Eagles pilots not only used Soviet fighter tactics but also flew the same MiG aircraft that their students could one day face in combat.*



### Constant Peg Beginnings

Establishing a secret squadron of Soviet aircraft from scratch was no simple task. The concept was pushed by a group of pilots from the Fighter Weapons School at Nellis AFB, Nevada. Their plan gained support at Tactical Air Command (TAC) headquarters and was championed at the Pentagon by Maj Gail Peck and a handful of senior leaders. Maj Gen Hoyt "Sandy" Vandenberg, Jr., Air Force Director of Operations and Readiness, gave the final go-ahead and lent his "call sign" Constant to the program. Maj Peck completed the name by adding Peg, his wife Peggy's nickname.

A secret airfield was constructed on the Tonopah Test Range in remote Nevada. This site concealed two classified programs—Constant Peg operated MiGs out of the airfield by day and at night the airfield was home to pilot training for the secret F-117 Nighthawk stealth fighter.

### The Assets

In the late 1960s, the USAF secretly acquired and tested several MiGs in the classified *Have Doughnut and Have Drill Programs*. These tests provided the first complete technical breakdowns of MiG-17 and MiG-21 aircraft. The USAF and other members of the intelligence community acquired additional MiGs, and USAF maintainers skillfully restored them for flight. The MiG-17 and MiG-21 formed the backbone of the Constant Peg fleet until they were joined by the MiG-23 in 1980. The Red Eagles retired the aging MiG-17s in 1982 due to obsolescence and safety concerns.

### The Bandits: Red Eagle Pilots

Red Eagles pilots were selected primarily from the ranks of the Air Force Fighter Weapons School, Navy Fighter Weapons School (Top Gun), and Aggressor squadrons. From 1977 to 1988, sixty-nine pilots flew with the squadron and each received their own unique "Bandit" number. Red Eagles pilots eagerly improved the level of instruction and scoured classified sources to improve their proficiency with the MiGs.

### MiG Exposures

Due to the secrecy surrounding the Constant Peg program, the true nature of this specialized training was often kept from prospective students until the last minute. Many aircrew members were stunned when they spied their first Red Eagles MiG approaching during their initial flight training missions. A typical MiG exposure began with a radar intercept and a formation flight displaying the MiG's performance profile. This flight was designed to eliminate "buck fever," the pilot's shock at seeing a MiG up-close for the first time. The second exposure demonstrated basic flight maneuvers and gave the student pilot practice in one-vs-one defensive and offensive maneuvers. These exercises illustrated MiG strengths and weaknesses in relation to the pilot's own fighter aircraft.

The final stage of training incorporated lessons in two-vs-two air combat maneuvers and simulated dogfights where Red Eagles pilots would employ Soviet tactics. After each phase of training, the pilots engaged in extensive debriefs to reinforce the most effective methods of attack. The USAF's fleet of Soviet aircraft grew in reliability and numbers. The Red Eagles expanded their operations to include multi-aircraft vs multi-aircraft training sorties and participation in the USAF's large-scale Red Flag combat exercises held in Nevada.

\* <https://www.nationalmuseum.af.mil/Visit/Museum-Exhibits/Fact-Sheets/Display/Article/1682967/constant-peg-secret-migs-in-the-desert/#:~:text=Project%20Constant%20Peg%20was%20a,%2D23%20%E2%80%9CFlogger%E2%80%9D%20aircraft.>

## Chino Valley Flyers Monthly Review: February 2024 Meeting

The General Membership meeting, on Tuesday February 27, 2024, opened at 7:00pm with the Pledge of Allegiance. Club membership is now at 144 paid members. There were 25 members, by head count and 23 signed in for tonight's meeting. New member **Luc Bausch** joined us tonight. Luc is actually a former member from 1988... the early years of the club.

Minutes for the January 23, 2024 meeting were unanimously approved by members.

### President's Agenda

Treasurer **Don Crowe** presented his report. The Treasurer's report was unanimously approved by members.

President **Bill Gilbert** updated us on the remote ID which is required for non-FRIA flying, effective in March. Modules are available from Spektrum and Flight Test for \$99...the modules are transferrable to other aircraft in your hanger. AMA can authorize one-time sanctioned events at non-FRIA sites.

We currently have no basic "Apprentice" training...when talking to new prospective members...we need to ensure that we do not advertise "free

flight instruction. If you would like to instruct...please let one of the officers know you are interested.

### Field Maintenance

Minor repair and crack sealing is complete. Resealing of the entire runway will be scheduled when weather permits; the charging station repair is pending; we are discussing solutions to "strap" down the chairs so they do not get broken; and the crash fence has some pronghorn (?) damage and needs repair.

### Club Events

Indoor flying at the Toyota Center will be the 5<sup>th</sup>, 19<sup>th</sup> and 26<sup>th</sup> of March. We may have some April dates too. A "hamburger fly in" will be scheduled when weather permits; The combat event is coming up...EM **Mark Cotter** will be getting rules together soon; T-28 Warbird Pylon racing this year. The new T-28 is available at Horizon Hobbies for \$199 plus tax.

### Member Input

**Steve Zingali** asked if anyone had seen his prop cutter at the field. No one

present had seen it.

We broke about 7:27pm for a short break for cookies provided by **Bill Gilbert**. Thanks Bill!

### Show & Tell: Planes and Projects

**Steve Zingali** showed us his re-designed combat wing. Steve is taking orders for kits at \$35 each. **Luc Bausch** brought his 250 gram glider that he had designed and built.

### Door Prize and Raffle

**Don Crowe** won the door prize consisting of the proverbial glue, as speed square and a small airplane kit.. **John Meyer** had the winning raffle ticket for the Value Hobby 39" Easybird ARF.

A motion to adjourn the meeting was offered and unanimously approved about 7:55pm.

Respectfully,  
**Bob Steffensen Club Secretary**



**Steve Zingali** at left with his redesigned combat wing, **Luc Bausch** at right, showed his glider he designed and built.



**Photos by Rick Nichols**

### Door Prize & Raffle Winners



Door Prize  
Don Crowe



Raffle Winner  
John Meyer