



Chino Valley Flyers

Official Club Newsletter



February 28, 2023

Volume 26 Issue 2

www.chinovalleyflyers.org

"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:

"I have no yesterdays, time took them away. Tomorrow may not be, but I have today."

Unknown

Support our Local Hobby Shop

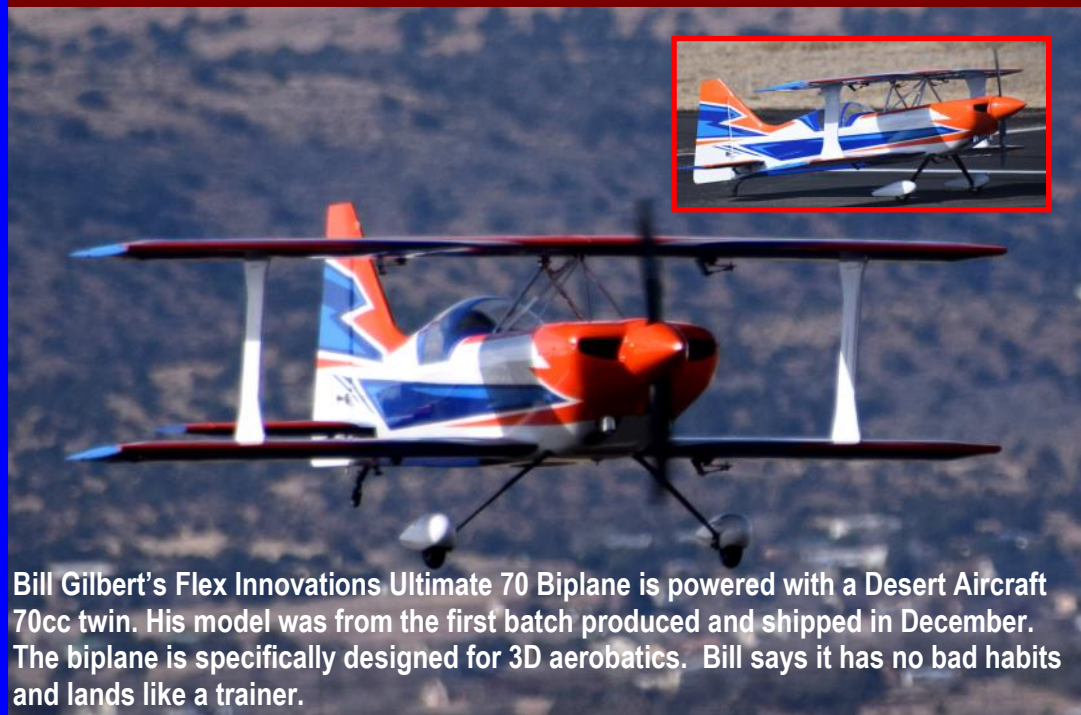
They support Us



Also, Check out:

RCBATTERY.COM

Bill Gilbert's Flex Innovations Ultimate 70 Aerobatic Biplane



Bill Gilbert's Flex Innovations Ultimate 70 Biplane is powered with a Desert Aircraft 70cc twin. His model was from the first batch produced and shipped in December. The biplane is specifically designed for 3D aerobatics. Bill says it has no bad habits and lands like a trainer.

Bryan Jones Profile Brodak Control Line P-51



Bryan's P-51B has a 48" wingspan with a LA40 glow engine for power. Finish is silkspan and butyrate dope.



Bill Gilbert: CVMA President's Message



Our extended winter weather continues to put a damper on our flying activities. But I hope those of you that want to, are taking advantage of the indoor flying opportunities at the two different venues available to us. It sure helps to keep the fingers and brain connected for when the weather turns favorable again.

Work on the Control Line area has progressed very well, with parking lot gravel laid down and the storage shed erected. A few more details like paint for the shed and the area will be looking really sharp! Congratulations to the CL crew who have expended a lot of effort in the improvements.

We plan for this year to improve our parking lot area and the drainage that is allowing mud to flow into the parking

area during rains. Additional gravel will be laid down and a deeper drainage ditch will be constructed to divert the runoff.

We are working with the IMAC organization to potentially hold the IMAC Nationals event at our field in July. This is in addition to the IMAC SW Region event we currently schedule in August. This is a great fund-raising opportunity for the club.

We've kicked off "Workshops" after our membership meetings to share more specialized knowledge and experiences. The first topic was "Introduction to Helicopters" conducted by me.

Some other topics we have requests to explore further are Indoor Flyers, Gyros, Covering, etc. We're looking to the members to volunteer and lead these 30 minute workshops. Please get involved. Let's share

our knowledge with the rest of the club and keep the members growing within the hobby.

See you at the field,

Bill



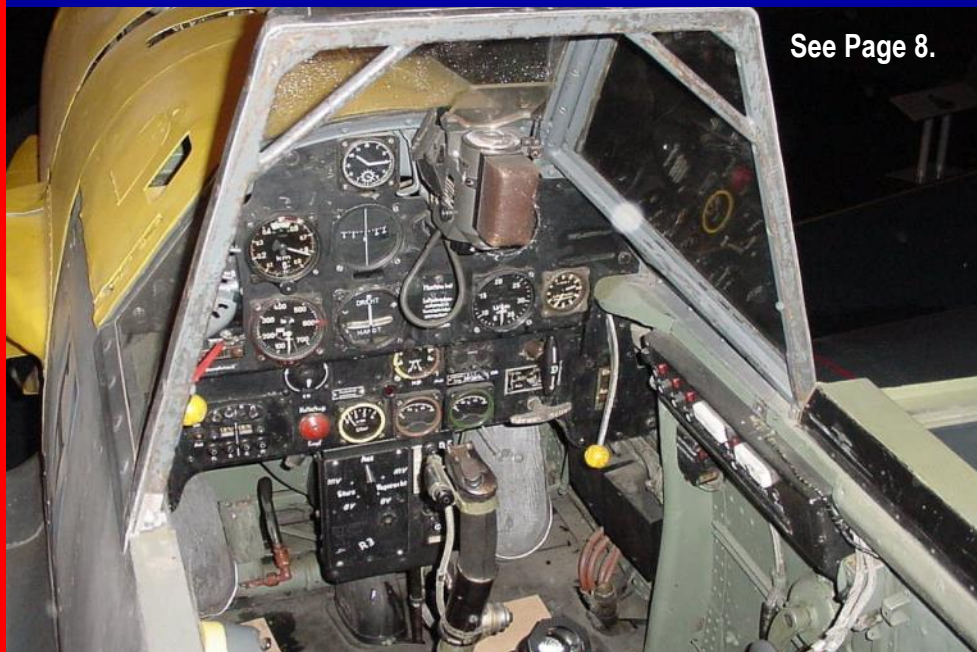
Flying this winter at our field.

Flight Instructors

Introductory Pilot Mentors

- > Al Marelo Chief: Flight Instructor
- > Randy Meathrell: Control Line Flying
- > Marc Nelissen: Basics
- > Jack Potter : Gliders
- > Bill Gilbert: Helicopters

WHAT PLANE HAS THIS COCKPIT?



See Page 8.

President — *Bill Gilbert*



Vice President — *Mark Lipp*



Treasurer — *Don Crowe*



Secretary — *Bob Steffensen*



Safety Officer — *Rick Nichols*



Chief Flight Instructor — *Al Marelo*



At Large Member — *Dan Avilla*



At Large Member — *Gary Cosentino*



Newsletter Editor — *Bob Shanks*





Our Club is growing: Please wear your name tag members so we can all get to know all the newer members and who is who when flying.

CLOSE & LOCK THE GATE if you are the last one flying.

MARK YOUR CALENDARS

Events for 2023:

- ◆ [May 20, 2023](#) — Spring Fling Fun Fly & Swap Meet
- ◆ [June 17, 2023](#) — E-Warbird Races
- ◆ [July 4, 2023](#) — Pot Luck & Town of Chino Valley Fire works (watch from the field)
- ◆ [July 22, 2023](#) — Glider Endurance Contest
- ◆ [Aug 12, 2023](#) — STOL Races
- ◆ [August 18-20, 2023](#) — IMAC SW Region Shootout at Chino Valley
- ◆ [September 16, 2023](#) — Annual Steve Crowe Memorial Fun Fly
- ◆ [October 21, 2023](#) — Seventh Annual Build and Fly Contest
- ◆ [November 11, 2023](#) — Fall Swap Meet and Fun Fly
- ◆ [December 8, 2023](#) (TBD) — Christmas Banquet

SAFETY: ALWAYS A CRITICAL ISSUE

It's been a long cold winter with just a few nice days sprinkled here and there. It has also been cold in your workshop so as warmer spring weather comes make sure you go through each of your airplanes looking for dried out glue joints, inoperative servos, (yes, they need to be replaced once in a while), loose covering materials, loose firewall and motor mounts, missing screws, etc.

The list goes on and on members so practice some very thorough preflight checks this Spring before flying that plane that has been hibernating in your cold workshop.

Also inspect all propellers for cracks and rough areas. You might want to even double check the balance on the props you are currently flying with on your models.

Of course the next safety item to really check out is your workshop and tool placement. Make sure your shop is clean

and orderly and you might want to even review some of our past safety issues that our Safety Officer [Rick Nichols](#) wrote. He is still our safety officer but this month's safety article is being put together by your editor.

When your new AMA journal for the month arrives turn to the monthly "[Safety Comes First](#)" column as your first article to read.

Also, make sure you wear your name tags since we have so many members either on your hat or around your neck or both places so we know who is who. We have a very collegial and helpful club so get to know the new folks and be a support to them. Also, as Rick always tells everyone, "[we are all safety officers](#)" so use diplomacy and a problem solving approach to potential safety issues you might see developing.

Also think through things before you tackle a problem, don't do as this guy in

the picture below is doing, yes that's a chain saw! The caption read, "[no hard hat, no safety glasses no hearing protection, and no gloves](#)" but that certainly is not the major safety issue in that picture! We also are at a higher altitude so use sun block and protect your ears as well. It will be getting warmer eventually.



Control Line Flying Popularity Increasing in Our Club



A wind sock bird checking out the field's Control Line area wind conditions.



Three 2022 AMA Control Line Combatants

SCRAM! Control Line Combat Model



<https://www.stevensaero.com/product/scram-control-line-combat-model/>

The U.S. Stevens AeroModel Company located in Colorado electrifies the 1/2A control line combat class with its Scram. Glow power can also be used.

Control Line Combat might be an event we could have in the future since we now have so many members interested in control line flying. Step up and get involved if interested.



AMA Control Line combatants from 2022.



Rick Nichols' C/L plane is all set up for control line combat .

One of the very popular events held by clubs across the country is Control Line combat. This is also a very exciting event the AMA runs each year. Similar to our RC Combat event, the flyers try to cut the trailing crepe paper flyer only as they go around in a circle, a wild and very exciting event not only for the flyers but for those watching.

Our club is gaining numbers of members interested in control line flying. On some days there are more members at the two circles flying control line than are flying RC off the main runway.

As control line flying popularity grows within our club, perhaps some of our club members will look at getting a C/L combat event set up. Small Half A foam combat models like the Scram above would be a great start to gauge the popularity for this event. Our RC combat event we have held in the past has been very well attended and very popular, with a lot of member participants. If interested in running a C/L combat event, contact one of our club officers.

For more information and some interesting control line history check out this AMA web site:

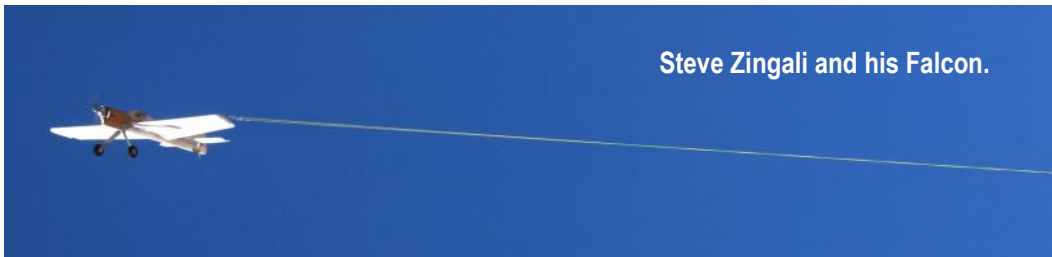
<https://amablog.modelaircraft.org/amamuseum/tag/control-line/>



Member's Flying Machines: RC & Control Line



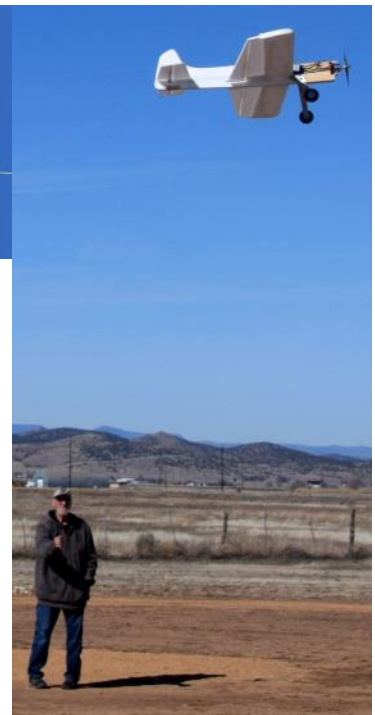
Bill Gilbert's Big gas powered Mamba.



Steve Zingali and his Falcon.



Rick Nichols helps Randy Meathrell get his Flight Streak in the air.



Harold Ellis' P-63 King Cobra.



Randy Meathrell's "black nosed" Falcon.



Rick Nichols' Stuntman pulling a crepe paper tail, anyone for combat?





Matt Mrdeza's UFO

Flying Activity at the Field



Control Line area now graveled.

Photos by Jeff Moser

The control line area has now been graveled and looks very good. The next addition will be a storage shed that is now being constructed.



Rick Nichols standing just outside the circle watching Jeff Moser's Messerschmitt model as it goes around.



Control Line models ready to go.



Randy Meathrell flying his Falcon.



Steve Zingali at left launches his UFO. This photo is of Steve's flying wing.



Frank Sanders' Hummer



John Stewart's superb gas powered Spitfire as he lands it. His comment, "so much prep work for an 8 minute flight." However as most of us think, quite well worth the time.



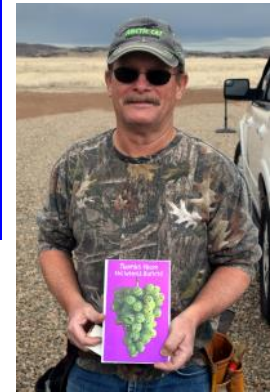


Nothing But Control Line Flying



After a lot of work by the control line fanatics we now have a "cool" shed next to the circles and it looks good as well as enhancing the fields total appearance from the road. A huge thank you to **Jeff Moser at right, who did a lot of extra work at his home shop as well as at the field.**

Just below are the assembly progress photos as the shed progressed then below are some "cool" control line flying the next nice day at the field. We have had so few good flying days since this has been such a cold and fun filled weather adventure winter (Not)!



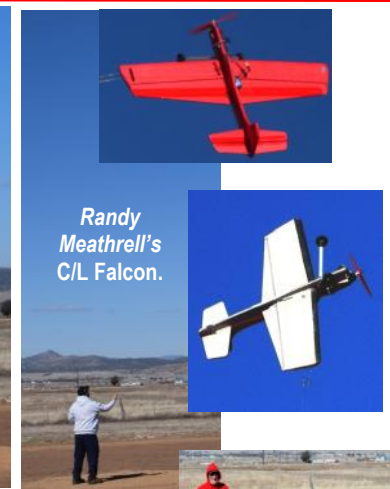
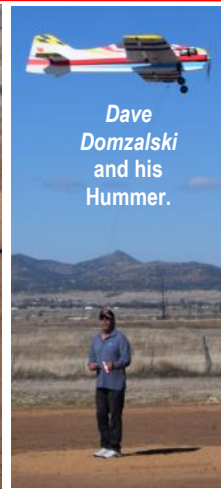
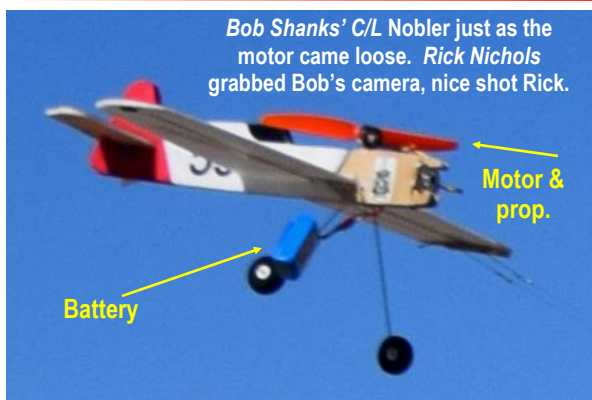
The shed relative to the main RC runway and cabanas.



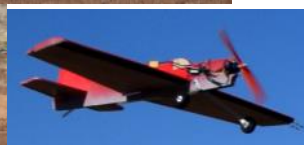
Here's the crew who got the shed up and ready. At far right is Jeff Moser with the finished shed. Above is Jeff with card and a little something for him to use at a local restaurant.

The Shed Team in photos above: **Frank Sanders, Steve Zingali & "Cooper" his helper, Jeff Moser, Randy Meathrell, Harold Ellis, Rick Nichols and Bob Shanks.**

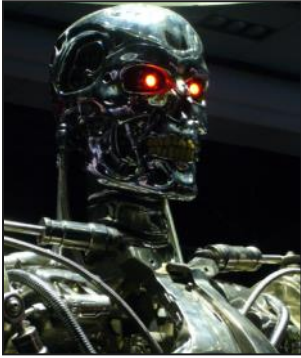
Bob Shanks' C/L Nobler just as the motor came loose. Rick Nichols grabbed Bob's camera, nice shot Rick.



Rick Nichols' red foam Falcon cut out by member Steve Zingali using his CNC.



How Will Artificial Intelligence (AI) Change Aviation? ✨



We all remember the Terminator movies and the fictional artificial intelligence programed *Skynet* that became self aware and was out to eliminate all humans, a very wild Sci Fi movie starring Arnold Schwarzenegger. Science is moving rapidly into the burgeoning world of artificial intelligence (AI).

Does a Skynet Exist in Real Life?

Actually there is a Skynet, it is a program run by the U.S. National Security Agency (NAS) that performs machine learning analysis on communications data to extract information about possible terror suspects. The tool is used to identify targets, such as al-Qaeda couriers, who move between GSM cellular networks. So there really is a Skynet program. The next question has to be what will Artificial Intelligence (AI) do and mean to the future of aviation?

One company, Lockheed-Martin, is investing \$100 million into F-35 controlled combat drones in their Project Carrera program announced in September of 2022. "What we're really focusing on is a systematic build up where we can evaluate that human and uncrewed (AI) systems interactions and understand how those behaviors build up over time" according to John Clark, Vice President of Lockheed's secretive Skunk Works advanced development cell. Lockheed's \$100 million investment in Project Carrera is split into these areas:

- \$20 million for upgrades to the F-35 and for the development of uncrewed assets.
- \$42 million for "teaming enablers" that include AI development, net-enabled pylons.
- Advanced waveforms such as 5G, and open architecture technology.
- \$38 million for "battlespace multipliers,"
- An interesting pot of money that includes low-Earth orbit satellites that will provide beyond line-of-sight communications between the fighter and drones.
- And "forward survivable platforms" that could include a "penetrating sensor".

US Air Force Flies with AI Crew Member

Signaling a major leap forward for national defense in the digital age, the Air Force flew with artificial intelligence as a working aircrew member onboard a military aircraft for the first time Dec. 15, 2020.

The AI algorithm, known as ARTUμ, flew with the pilot, U.S. Air Force Maj. "Vudu", on a U-2 Dragon Lady assigned to the 9th Reconnaissance Wing at Beale Air Force Base, CA. Air Combat Command's U-2 Federal Laboratory researchers developed ARTUμ and trained it to execute specific in-flight tasks that otherwise would be done by the pilot.

The test flight was the result of years of concerted effort within the Air Force to apply cutting-edge technology to military operations as it competes with other world powers in the digital age.

"ARTUμ's groundbreaking flight culminates our three-year journey to becoming a digital force," said Dr. William Roper, assistant secretary of the Air Force for acquisition, technology and logistics. "Putting AI safely in command of a U.S. military system for the first time ushers in a new age of human-machine teaming and algorithmic competition. Failing to realize AI's full potential will mean ceding decision advantage to our adversaries."

Both Airbus and Boeing Eyeing AI



Really, future AI pilots in the cockpit?

Pilot-less jetliners may still be far off in the future due to several reasons, public trust in automated systems not being the least of them. However, this does not mean the software technology to support such operations has not developed in leaps and bounds. While there are several start-ups in tech-driven unmanned airborne vehicles, let's take a look at how the two main aircraft manufacturers use artificial intelligence in the quest for safe autonomous flight.

Both Airbus and Boeing are implementing Artificial Intelligence (AI) in the quest for more automated flight Artificial Intelligence (AI) is a divisive subject. Some herald it as the key solution to everything from Alzheimer's and cancer to food shortages and climate change. Others, more pessimistically or dystopically inclined, say it will be the end of humanity or, at the very least, take most of our jobs.

One thing is for certain, though; AI is here to stay, and it will have a massive impact on our everyday lives in the future. Aviation is often critiqued for having been slow on the ball when it comes to AI. However, things have begun to change, and its various applications will transform the aviation industry in the decades to come.



* Sources:

<https://breakingdefense.com/2022/09/lockheed-investing-100m-into-f-35-controlled-combat-drones-under-project-carrera/>
<https://www.af.mil/News/Article-Display/Article/2448376/ai-copilot-air-force-achieves-first-military-flight-with-artificial-intelligence/>

Page Two Cockpit:

**Messerschmitt
Bf-109**

F-35 Versus the F-16*

By Kris Osborne - The Stealthy Jet with Advanced Sensors and Weapons Wins

In this article by Kris Osborne, he looks at both of these iconic fighters dedicated to fighting all threats facing the U.S. This article is modified by the editor to fit the Newsletter.

More than five years ago, reports emerged citing Edwards Air Force Base Tests results of experiments in which F-16s were placed in air-to-air combat against F-35s to assess the ability of the much-discussed 5th-Generation fighter to dogfight. Citing certain findings from an actual test, multiple news reports said results showed an F-16 actually “out-performed” an F-35 in a dogfight. The reports inspired a large amount of discussion, debate, and uproar regarding the F-35. However, as can often be the case, key contextual elements of the discussion were often missed in writings about the circumstance and the actual aircraft used in the 2015 test.



F-35: Can it Dogfight?

Some asked the question “Can the F-35 truly dogfight?” “Does it need to be able to dogfight?” The answers to these questions are in fact quite clear. Yes it can dogfight but no it might not need to very often given the range, accuracy and fidelity of its sensors and on-board computer processing. However, what about the actual merits of the question itself? How well can the F-35 dogfight? Would it truly be out-performed by an F-16? An Air Force pilot who was there at the time says the answer is clear. No, the F-16 could not out-perform the F-35.

“I was at Edwards Air Force Base when the test pilots were there, and they were writing that original report. It’s been the narrative ever since and I want to say a few things about that... First of all, it should be noted the aircraft (F-35) was in its infancy stages and we were still just trying to learn how to fly the airplane. The entire CLAW (Flight Control Laws) hadn’t been delivered yet so the guys hadn’t really developed tactics, techniques, and procedures, etc. So, to say that the F-35 can’t Basic Flight Maneuver (BFM, a term for dogfight), I think is a gross overstatement. Honestly, you know I think it would be quite eye-opening to see an F-35 and an F-16 in a BFM engagement, depending on how it was managed. Certainly, the F-35 has some advantages that the F-16 does not, particularly in its helmet integration, along with its advanced weapons, which are a lot more beneficial in platforms like the F-22 or F-35”
-- Chris “Worm” Spinelli, F-35 Test Pilot, Lockheed Martin, told me in an interesting interview with F-35 pilots.

F-35: Does it Need to Dogfight?

While the F-35 certainly can dogfight, a fact that is quite well known, there is also much to be said about the added reality that, due to its sensor suite and computing technology, it may wind up being very unlikely that an F-35 will actually “have” to dogfight. It may be much more likely that an F-35 will kill enemies without itself being seen. Lockheed test pilot Chris Spinelli sums it up by saying:

“From my perspective, having the sensor suite that we have, having sensor fusion and MADL (F-35s Multifunction Advanced Datalink) all of those potential engagements should be avoided before we ever even get within visual range, let alone actually have to dogfight in the air, whatever the opponent is. The tactical scenario, more often than not, is going to be solved much further out, which is going to give us the advantage,”



Chris “Worm” Spinelli, Lockheed Test pilot

The F-35 office said simulated combat scenarios show four F-35s win encounters when pitted against a four-ships of F-16s. “The F-35s won each of those encounters because of its sensors, weapons, and stealth technology,” the statement said.

What is significant about these 2015 statements from the Pentagon’s Joint Program Office (JPO) is that they were from 6 years ago, and the F-35 has continued to evolve substantially since then, a factor which only reinforces their point at the time.

Years after these initial questions surfaced, the JPO has responded, saying F-35 pilots who have flown 4th and 5th-generation F-35s for years, reflected in great detail upon how an F-35 compares with an F-16 and F/A-18 when it comes to aerial combat.

The F-35 is indeed the superior fighter in all comparison scenarios (editor).

* By Kris Osborn - President & Editor-In-Chief, of the Warrior Maven magazine: <https://warriormaven.com/air/f-35-f-16>



The Quimbaya Artifacts: Are They 'Out of Place' in History? *

The study of ancient history is often filled with amazing findings and concepts often seemingly really out of place in history. An Out of Place Artifact is one that challenges the historical record in some way, shape or form. These can be items which seem too advanced for a particular civilization or in some cases, items which show a human presence, when no humans were supposed to exist.

What is interesting is the term is rarely used by scientists or archeologists, but widely accepted by those who believe in ancient astronaut scenarios, students of the paranormal, and UFO enthusiasts. The scientific community has refuted many claims and shown many items to be hoaxes. However, historical researchers are and should be investigating these objects in a rigorous

The Quimbaya artifacts are a group of small gold pieces estimated to be from the first or second century, they were found in Colombia, South America and crafted by the Quimbaya people. The overtly stylized gold objects measure between 2" and 3", with each piece customized to a unique look. Researchers have classified them as depictions of lizards, butterflies, birds, and insects common to the area, yet it's unmistakable that they also look like many of our modern-day flying machines, some complete with tail rudders and propellers. The existence of so many similarities to modern-day airplanes supports the "[out of place artifact](#)" theory: they seem far too advanced for the Quimbaya. Even though the Quimbaya produced many different types of gold objects, most of the attention is focused on the ones which appear too advanced for their early civilization.

One theory which gotten significant attention over the years is that some of the Quimbaya artifacts are scale models of airplanes or flying machines. [A major fact to consider before accepting this theory is that a few of the objects do not resemble any living creature ever known to exist. Although the concept of aviation dates back several thousand years, the concept of an aircraft only dates back to the early 1900's.](#) What's even more interesting is that two aeronautical engineers, Peter Belting and Conrad Lubbers used the dimensions of the Quimbaya artifacts to create large scale models of these artifacts, which proved successful in-flight testing. They proved that the designs fly with both simple single-propeller power and jet power.

One of the difficulties with proper classification of these items comes from the fact that they weren't discovered through normal archeological processes. They were looted in the late 1800's from an area known as the Central Cauca Valley. Archeologists have theorized that the items came from two tombs, but cannot say so with 100% certainty. The current collection of 123 items only exists because someone turned them into the Colombian authorities. It's almost certain that many similar items from the region exist in private collections throughout the world.

The Quimbaya civilization inhabited the areas around the Cauca River Valley on the western slopes of the Andes mountains. There is no clear evidence that pinpoints when the Quimbaya came into being, however most researchers agree it was sometime in the 1st Century BC. They were expert hunters, grew many different and diverse crops, fished, and had many industries including gold mining and goldsmithing. The Quimbaya civilization reached it's peak in the period between the 4th and 7th Century AD. Spanish Conquistadors began to colonize Colombia in 1509 which led to the end of the Quimbaya period.



These south American people were known for their spectacular gold work with highly detailed and unique designs. What makes their work unique is the fact that most pieces were made with an alloy of gold and copper. The Spaniards called this alloy Tumbaga. It has a lower melting point than either gold or copper alone, but is harder than copper when cooled and more malleable as it was being worked during the process. Tumbaga was very versatile and could be cast, hammered, plated, hardened, polished, engraved, embossed, and inlaid easily. Some samples of gold items contain almost no copper, while others are more than 90% copper and many contain other metals such as silver.

[Editor's Comment:](#)

So the question has to be what are archeologists missing or haven't yet been discovered? What was indeed happening in our world over a thousand years ago? Many think these designs are indeed more sophisticated than what historians thought was happening in ancient history. So what new discoveries are yet to be found or uncovered in future excavations?

* <https://www.thegypsythread.org/quimbaya-artifacts/>



Chino Valley Flyers February Club Meeting: Held at the Chino Valley Senior Center.



The General Membership meeting on Tuesday February 28, 2023 opened at 7pm with the Pledge of Allegiance. Club membership now stands at 135 paid members. Tonight there were 31 Members who signed in for this evening's meeting, there may have been as many as 35 as some may have not signed in; a nice crowd at the Senior Center. New Members **Nick Ullman** and **Al Weikart** joined us for the meeting tonight. Minutes for November 2022 meeting and the January 2023 "virtual" meeting were unanimously approved by members.

President's Agenda

Don Crowe presented the Treasurer's report for the past two months. His report was unanimously approved by members. President **Bill Gilbert** updated members on projects and maintenance: crack seal of the runway will be about \$1200; the culvert at the drainage ditch in front of the shed will be replaced with a bridge and the ditch improved for about \$600; and additional gravel will be spread in the parking areas at about \$2300. Members approved the expenditures for these projects, up to \$4450. While we have good cash flow this year, some funds will need to be pushed into 2024 for a bill of about \$7500 to reseal and restripe the runway.

A housekeeping note...the fire cart must be out and ready to go during all flying. When muddy, please drive around the runway and pit areas, not across the runway or through the pits. If you use a red (powder) fire extinguisher, notify the VP **Mark Lipp** and expect to pay about \$60 for the recharge. A new field map has been sent out to members for comments, and a copy is on the table in the back. All red areas, south of the runway are off limits for RC fling...Helicopters and CL excepted. Members approved the new map.

The STOL event (Short Take Off & Landing) has been moved to August for better weather; the Build and Fly event in October, with a new category for plans made with "alternative" materials, foam, etc. as well as the traditional buildup with balsa and covering. More emphasis will be on complexity of build and the maiden flight. Maidens were a great success last year. We have indoor flying at both the Toyota Center and the PHS Gym. Will try to get a float fly if not in this area...maybe North to the Williams area. We have an IMAC event in August and we have been approached to have a National IMAC event the last few days of July. After discussion of the National event members approved scheduling of that event as it will be good for the club. District Representatives of the AMA have been invited by VP **Mark Lipp** to the Steve Crowe Memorial Fun Fly. The Christmas Party is Tuesday December 5th...this year at the Centennial Room. Tickets will be in the \$40-45 range. More details later this year. We are also starting workshops, of about 30 minutes each, following meetings, for those interested in the subject presented. **Bill Gilbert** provided an introduction to helicopters tonight. Contact President **Bill Gilbert**, if you want to present future meeting.

Bob Steffensen was presented an award for "outstanding contributions to the Club in 2022". Also **Corky Stone** received an award for "outstanding contribution to the club in 2022" for extensive mowing to keep our field looking great! Safety Officer **Rick Nichols** talked about the choke that was not on the fire cart.

Secretary **Bob Steffensen** told members to sign in and to also sign up for Goody Duty at future meetings. We still have the months of April through July and October opportunities to provide goodies. Please step up!

Member Comments

Gary Cosentino asked members using 72mhz users to provide their frequencies to him for a frequency board he is making. **Bob Shanks** requested that members keep their emails up to date. **Mark Cotter**, coordinator for Toyota Center flying, apologized for the cancellation today and provided additional flying dates. A new schedule will be forth coming. We broke about 7:50pm for doughnuts and cookies provided by **Bob Steffensen** Thanks Bob!

Show & Tell: Planes and Projects

Harold Ellis showed his P63 CL build and a very nice Spitfire; **Randy Meathrell** displayed his Hummer EPP 3D that he converted from RC to CL; **Don Ferguson** built a nice 1909 Flyer bi-plane; **Lloyd Oliver** presented his American Flyer built from salvaged parts and a nice very versatile work stand.

Door Prize/Raffle

Larry Roberts won the door prize consisting of a craft knife neck strap and of course the proverbial glue. **Jenice Ellis** won \$55 in the 50/50 raffle and was presented the cash by VP **Mark Lipp**. A motion to adjourn the meeting was offered and unanimously approved about 8:17pm.

Respectfully, **Bob Steffensen** Club Secretary

