



AMA Chapter #3798

Chino Valley Model Aviators Official News



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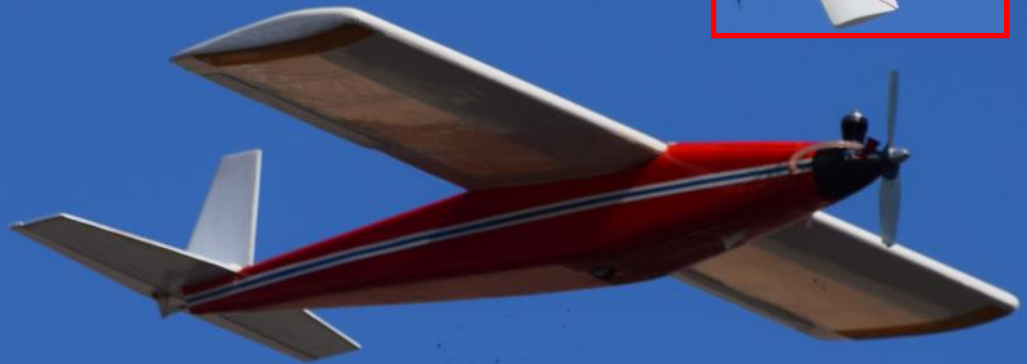
www.chinovalleymodelaviators.org

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

Randy Meathrell's 1/2A Quicksilver Racer

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This little Quicksilver is 45 years old and when flying sounds very "cool" and looks like it's new. It's a scratch build too. Hardly anyone seems to be building models from scratch these days. Great flying model, super job keeping it so pristine Randy.

Quote of the Month:

"Science fiction is any idea that occurs in the head and doesn't exist yet, but soon will, and will change everything for everybody, and nothing will ever be the same again."

RAY BRADBURY

OUR RUNWAY IS BEING INSPECTED BY AN EXPERT



"I'm not so sure about this runway, I think I will stick to the open field."

Support our Local Hobby Shop



Valley Hobby
Prescott Gateway Mall



Bill Gilbert: CVMA President's Message



We're had another very busy month with two back-back events, and then a member meeting. Whew! And we will be having the rescheduled Spring Fling Fun Fly & Swap Meet the first weekend of July. A pancake breakfast will be provided. Come out and join us!

We are having a nice surge of new members. These new members are taking advantage of the club instructors and training equipment program. They are all doing very well and we look forward to seeing them frequently on the flight line. Our instructors are doing a great job getting these new members up to speed, sometimes flying 7 days a week with them! We thank the instructors (Steve Shephard and Al Marello) for the great job they are doing!!

We are in the throes of fire season with this prolonged drought and windy weather. Be extra diligent at any signs of fire in case of a crash. Quick action with the fire

cart and extinguishers/water pump to put out any grass fire is essential. Hopefully we will have a monsoon season this year which will allay the fire concerns.

The concrete work for phase 1 of the expansion is pending a contractor to get us on his schedule. All the building trades are extremely busy, and our job being relatively small, is not being given priority. But, we've identified a new contractor that can save us a few thousand dollars on the cost.

Quite a bit of field maintenance has been performed over the last month; rebuilt fencing at pilot stations and airplane pits. Mowing, weeding, and weed spray around the pits have been completed. The tractor, weed sprayer, and water tank have been serviced. We still need some help from the members to repair the rusty assembly tables on the East end. Please contact Mark Lipp if you can help.

We've had a confirmation vote for

Mark Lipp as our new VP. Mark will primarily head up our field maintenance. Our previous VP (Doug McBride) stepped down to take care of some personal issues. Thanks for the hard work you put in for the club Doug, and we wish you the best!

Another piece of the FAA's UAS regulations fell into place; A knowledge test called **TRUST THE RECREATIONAL UAS SAFETY (TEST)** is now required. The test is available on the AMA website, it is free, it only takes 20 minutes or so, and it is a No Fail test. Please comply and take the knowledge test.

Let's enjoy some flying now that the winds have improved!

See you at the field!

Bill



CVMA Flight Instructors

- Steve Shephard
Chief Flight Instructor
- Al Marello-basic
- Jack Potter-glidors

CVMA NEWSLETTER

AMA Chapter #3789
Published Monthly

President — *Bill Gilbert*



Vice President — *Mark Lipp*



Treasurer — *Harold Ellis*



Secretary — *Bob Steffensen*



Safety Officer — *Rick Nichols*



At Large Member — *Dan Avilla*



At Large Member—*Dennis O'Connor*



Newsletter Editor — *Bob Shanks*



What Iconic Fighter Aircraft has this Cockpit?



See Page 10



2021 — MARK YOUR CALENDARS

July 4 - Pot Luck Fun Fly & Chino Valley Fireworks (watch from our field)

July 24 - Glider Endurance Contest

Aug 20-21 IMAC Southwest Region Shootout Held at our field.

Sept. 25 Annual Steve Crowe Memorial Fun Fly

Oct 23 Fourth Annual Build & Fly Challenge

Dec 3 Annual Christmas Banquet



BORN IN A BARN?

IF YOU ARE THE LAST ONE TO LEAVE THE FIELD **CLOSE & LOCK THE GATE.**



SAFETY IS ALWAYS A CRITICAL ISSUE

By Rick Nichols, Club Safety Officer

It is almost July 2021 and another month will have gone by without any significant safety issues. It kind of makes me wonder about my job security as your safety officer.

We are in a very dangerous fire season again this year. It is important that we use all resources and that we must be extra aware of fire dangers that are present every time we put an airplane in the air.

All of our airplanes present a possible fire hazard every time we depart the ground. I am asking each pilot to help with the following suggestions.

The combination to the hangar is exactly the same as the combination that you used to enter our gate. It would be helpful if the first pilot to arrive in the morning to open the hangar and position the fire/aircraft retrieval vehicle to its position at the west end of the cabana.

If you do not know how to operate this vehicle and its equipment, ask someone how to do so.

It should also be the responsibility for the last pilots leaving the field to secure the equipment in the hangar and lock it up. Also

lock the gate as you exit the field. Rattlesnakes have also been spotted on our field so it is important to have the vehicle handy for safely recovering your airplane. During the month of June, we had a bunch of club flying events. Notably the Warbird Pylon warbird races on June 12 and the Delta wing Event on June 19. Recognition needs to be given to [Randy and Carol Meathrell](#) and also [Bob Steffensen](#) for their hard work with the Warbird Races and [Steve Zingali, John Meyers](#) and [Dave Bates](#) for their Great Delta wing multi-event!!

Safety was adhered to during each of these events. June has been a remarkably busy month for our pilots and especially for the members who have put on these fun events.

July will begin with a fun fly, a pancake breakfast and a swap meet on July 3.

OK. A confession on

your safety officer's part. Your safety officer became aware of a new Safety Manual published by the A.M.A.

I downloaded it and printed it out. Being a curious person, I contacted the AMA to find out if the manual was being made available to our new members. The answer to me was,

"Look at the bottom of your AMA memberships card on the back – The link to the manual is there."

Please review it pilots.

#IFLYAMA



STAY CONNECTED

Academy of Model Aeronautics
(765) 287-1256
MODELAIRCRAFT.ORG

To download the AMA Safety Guide, visit
MODELAIRCRAFT.ORG/SAFETYGUIDE

Club Project for Control Line Flying Well Underway



A FEW MEMBERS, BALL OF STRING, A BOX OF STAKES A LITTLE EFFORT — A CONTROL LINE AREA IS LAID OUT

Control Line Circle Being Marked for Grading



From right to left: [Randy Meathrell](#) has the ball of string, [Rick Nichols](#) feeds it out to [Harold Ellis](#) and [Gene LaFaille](#) at far left. Stakes were driven in marking the center and out side circle area. After carefully laying out the control line circle Bill Gilbert came back with his equipment to level it out in preparation for applying anti-weed cloth and eventual decomposed granite (DG).

Control Line Circle Now Graded



Photo by [Bill Gilbert](#).

President [Bill Gilbert](#) used his equipment to cut the control line circle. This area is to the left of the entry gate and road leading to the parking lot, cabana and hanger area. The runway and cabana area can be seen in the distance near the center of the photograph.

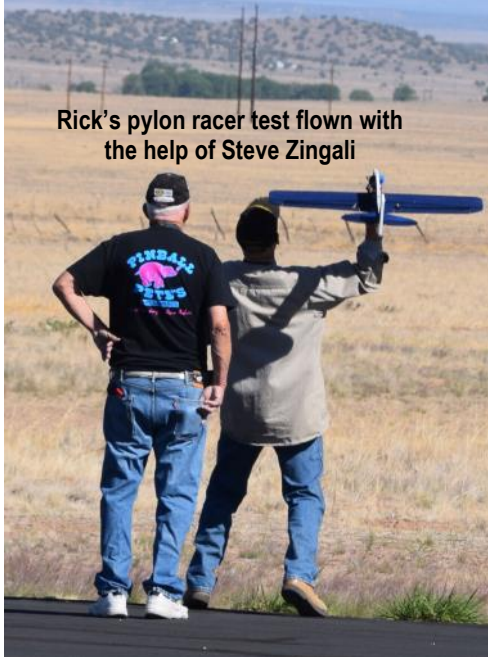
We be spraying the entire circle area with weed spray and then anti-weed cloth will be laid down before a load of decomposed granite (DG) will be applied to the circle. Once the DG is applied and leveled it will be rolled down to compact and smooth it out for take off and landings. Great job Bill, the half a dozen or more C/L flyers in the club appreciate your support and efforts to truly make our club a total model airplane club.

More control line efforts on next page.

Steve Zingali's UFO



Member Flying Machines!



Rick's pylon racer test flown with the help of Steve Zingali



Next Step in Control Line Work: Remove the Rocks and Lay Down Weed Spray



Harold Ellis took the rocks home for landscaping.



Harold Ellis drove the tractor with the spray bar to spray the control line circle to prevent weeds.



The "weed cloth" team, Randy Meathrell, Rick Nichols, Bob Shanks, Gene LaFaille, Harold Ellis, not shown is Chris Padham, who arrived to help after the photo was taken.



It took the "weed cloth" team about two hours to lay down the cloth and secure it with staples. Close to 300 staples were used. The weather cooperated very well, no wind at all making the job go much quicker.

Next step was the DG to cover the circle and then to roll it well to firm it up for take off and landings. There is a little distortion to photo above left as it is a super wide angle shot of two wide angle photos "stitched" together.

More Member Flying Machines!



John Stewart's Outstanding Balsa USA DR-1



Various forms of the essay at right have appeared in aviation publications for a number of years so the original author is unknown. We first used it in the newsletter in 2014.



Harry Wagner's big Edge 540 uses two very large lipo batteries for power. This is an excellent flyer.

Bring Back Big Round Engines!

We gotta get rid of these turbines, we need to go back to big round engines.

For all the aviation buffs who were round engine drivers and love round engines: we need to rid the world of those turbines, they're ruining aviation and our hearing!

A turbine is too simple minded, it has no mystery. The air travels through it in a straight line and doesn't pick up any of the pungent fragrance of engine oil or pilot sweat. Anybody can start a turbine. You just move a switch from "OFF" to "START" and then remember to move it to "ON" after a while. My computer is harder to start. Cranking a round engine requires skill, a finesse and style.

One has to seduce it into starting. On some planes the pilots aren't even allowed to do it. Turbines start by whining for a while; then give a lady-like poof and start whining a little louder. Round engines give a satisfying rattle-rattle, click-click, BANG, more rattles, another BANG, a big macho FART or two, more clicks, a lot of smoke and finally a serious low-pitched roar. We like that. It's a guy thing.

When you start a round engine, your mind becomes fully engaged and you can concentrate on the flight ahead. Starting a turbine is like flicking on a ceiling fan: useful, but hardly exciting.

If you have started his round engine successfully your crew chief looks at you like he'd let you kiss his sister. What a sound!

Turbines don't break or catch fire often enough, and this leads to boredom, inattention, and complacency. A round engine, even at cruise power setting, looks and sounds like it going to blow any minute. This helps in keeping your attention on the task at hand. Turbines don't have enough control levers or gauges to keep a pilot's attention. There is nothing to fiddle with during long flights.

Turbines smell like a Boy Scout camp full of Coleman lanterns. Round engines smell like God intended engines to smell.

We just gotta get rid of these turbines!

Mysteries of Flight: Wrong Way Corrigan ✿

Why this Mystery is No Mystery

In 1938, more than 10 years after Charles Lindbergh successfully crossed the Atlantic solo in the Spirit of St. Louis, another American, Douglas Corrigan, made the crossing as well, taking off from New York's Floyd Bennett Field and landing 28 hours and change later in Ireland, where Corrigan asked where he was.

You see, Corrigan wasn't attempting to cross the Atlantic at all but to fly non-stop from the East Coast to the West Coast of America and got confused in the cloudy weather and wound up flying across The Pond instead of the 48 United States. He almost immediately got the nickname "Wrong Way Corrigan" for his famous flub. What an idiot.

Except, he wasn't. It was all a charade. We wouldn't even call it a lie, because we're pretty sure that not even Corrigan himself expected anyone to believe the tale.

Corrigan, born in Galveston, Texas, in 1907, fell in love with flying shortly thereafter, growing up, as much as he ever would, anyway, to become an aircraft mechanic and then a pilot. Like millions of others, he was inspired by Lindbergh's crossing and wanted to one day do it himself. The only problems were, he had no money, no backing and no support, which are all really different names for the same problem.

Oh, the flight itself happened, all right. Corrigan flew across the Atlantic with more than 350 gallons of gas in a modified Curtiss Robin that he reportedly rescued from an airplane junkyard. The plane's tanks were leaking so badly that Corrigan even at one point had to cut a hole in the floor of the cockpit to let the leaking gas drain out through the floor, which probably kept him from passing out from the fumes or going up in flames all together.

While many Americans really believed the wrong way story, Corrigan's target audience wasn't the general public but aviation overseers, who had forbidden him from making the Atlantic crossing because they considered the plane "un-airworthy." They did, however, give him permission to fly across the U.S. of A. Which he did, or at least tried to do, or so he said.

In a movie clip taken of him shortly after his return from Ireland—he wisely shipped his plane back to the States—the aviator explains his misadventure in a winking, smiling way that would leave no student of human expression in the dark about the nature of the story.

He got in trouble for the flight, having his pilot's license suspended for 14 days, which, as it turned out, was precisely how long it took for his plane to be shipped back to the U.S.

Americans loved Corrigan, and showed it. His ticker tape parade in New York City was one of the biggest ever, bigger by far than Lucky Lindy's, and the "Wrong Way Corrigan" nickname became part of the lexicon. The hit TV show "Gilligan's Island" even paid homage to him in two episodes in the '60s in which a character based on Corrigan mistakenly winds up on the deserted island not once but twice without ever helping save the rest of the castaways.

In 1988, on the 50th anniversary of the "wrong way" flight, a team of admirers and aviation historians helped him reassemble his famous Curtiss Robin for the occasion and fired up the engine. They preempted another unauthorized flight by the 81-year-old by tying the tail of the airplane to a nearby tree. 😊



Sources

1. <https://www.history.com/this-day-in-history/wrong-way-corrigan-crosses-the-atlantic>
2. <https://www.planeandpilotmag.com/article/mysteries-of-flight-wrong-way-corrigan/#:~:text=Why%20this%20mystery%20is%20no%20mystery.&text=Upon%20landing%20in%20Ireland%2C%20Corrigan,the%20biggest%20mistake%20in%20history.&text=He%20almost%20immediately%20got%20the,Corrigan%E2%80%9D%20for%20his%20famous%20flub.>

C-17 Globemaster III is Master of the Globe

C-17 GLOBEMASTER III

The C-17 Globemaster III, sometimes called the "Moose," was not an out-of-the-gate success. Numerous problems plagued development and pushed up costs. But 30 years—and 4 million flight hours later—it's proven itself to be the flexible workhorse of the U.S. and allied air fleets, a long-haul heavy lift jet that can take off and land on expeditionary airfields carrying tanks and other heavy gear and airdrop more than 100 paratroopers. The C-17 has participated in every major contingency operation since Operation Iraqi Freedom in 2003.

Who Flies the Globemaster III?
Australia, Canada, India, Kuwait, Qatar, United Arab Emirates, United Kingdom, and the Strategic Airlift Capability coalition (Bulgaria, Estonia, Hungary, Lithuania, the Netherlands, Norway, Poland, Romania, Slovenia, the United States, Finland, and Sweden.)

Take off
Take off from a 7,740-foot (2,359.55-meter) airfield

Landing
Land in 3,000 feet (914 meters) or less on a small unpaved or paved airfield in day or night

Dimensions:
Height: 55.1 ft.
Wingspan: 169.8 ft.

Performance:
Ceiling: 45,000 ft.
Flight time: Fly 6,230 nautical miles with no payload.
Speed: 518 mph at 25,000 ft.
Range: 2,760 miles with 169,000 lbs of cargo, capable of in-air refueling.

Cargo:
Carry a cargo of wheeled U.S. Army vehicles in two side-by-side rows, including the U.S. Army's main battle tank, the M-1

Backup:
Can back up a 2 percent slope

Contractor: McDonnell Douglas (now Boeing)

Production: 257

Inventory: 222

Power plant: 4 Pratt & Whitney F17-PW-100 turbofans, each 40,440-lb thrust

Seating: 54 on the sidewall, 54 in the centerline

Max takeoff Weight: 585,000 lb

Payload: 170,900 lb
Drop a single 60,000-lbs (27,216-kilogram) payload, with sequential load drops of 110,000 pounds (49,885 kilograms)

Carry Payload: Carry a payload of up to 164,900 lbs (74,797 kg)

Refueling: Refuel while in flight

Accommodation: 174 ft.
2 pilots, loadmaster
3 Medical technicians (mission dependent)
2 Flight nurses
102 Troops/paratroopers

Medical Capacity: 36 Litter patients, 54 Ambulatory patients, 18 Pallets

C-17 Timeline
Highlights of the C-17's 30-year history

- 1990: 1991: First Flight; 1993: Delivered; June 1993-September 2013.
- 1995: IOC: Jan. 17, 1995.
- 1994: 1994: C-17 is recognized with the Collier Trophy for the top aeronautical achievement of 1994.
- 2003: 2003: First strategic brigade airdrop and first airborne delivery of an Abrams tank; March 26, 2003, in northern Iraq.
- 2010: 2010: Dec. 20, 2010: Worldwide C-17 fleet surpasses 2 million flying hours during an airdrop mission over Afghanistan.
- 2015: 2015: Air Force awards the Long-Range Strike Bomber (LRS-B) contract to Northrop Grumman.
- 2013: 2013: Boeing delivered the 223rd and final USAF aircraft on Sept. 12, 2013, and the final international aircraft on Nov. 29, 2015.
- 2021: 2021: The C-17 fleet surpassed 4 million combined flying hours during a flight from Charleston, Jan. 15, 2021.

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May 2021 Air Force Magazine.com

This graphic above is loaded with data and interesting information, however, not all of our club members have larger monitor screens making it difficult to read all the information. Here's a brief synopsis or review of the data above highlighting some of the smaller printed information and some of the timeline highlights from 1990 to 2020.

Twenty one countries fly the C-17 Globemaster. The aircraft can actually backup a two percent grade. The aircraft can actually carry a cargo of wheeled U.S. Army vehicles in two side-by-side rows including the Army's main battle tank the M-1. Boeing delivered the 223rd and final USAF aircraft on September 12, 2013 and the final international aircraft on November 29, 2015. In 2021 the C-17 fleet surpassed four million combined flying hours during a flight from Charleston, W.V January 15, 2021.

The C-17's ceiling is 45,000 feet and can fly 6,230 nautical miles with no payload, the aircraft's range is 2,760 miles with 169,000 pounds of cargo and is capable of in-flight refueling. The maximum takeoff weight is 585,000 pounds. The C-17's speed is 518 mph at 25,000'. The crew consists of two pilots, one load master and depending on mission requirements the crew can also have two flight nurses, and three medical technicians. The first test flight of the C-17 was September 15, 1991.

This aircraft can carry 102 troops/paratroopers. For medical transport it can handle 36 litter patients, 54 ambulatory patients, and 18 pallets. In 2003 it made its first strategic brigade air drop and airborne delivery of an Abrams Tank March 26, 2003 in northern Iraq.

The C-17 requires a 7,740' runway for take off and can land in 3,000' or less on a small unpaved or paved runway day or night.

This aircraft won the Collier Trophy for the top aeronautical achievement of 1994.





Club Electric Warbird Pylon Races

Text by Randy Meathrell, Photos by Paul Gendarme



Racers left to right: **James Cowley, Dave Domzalski, Bob Baker, Larry Parker, Dave Maggs, Gene LaFaille, Randy Meathrell, Rick Nichols, John Meyers**, kneeling is **Steve Zingali**.

The CVMA warbird Pylon race got off to a rocky start this year. All systems were checked out on Friday to make sure Saturday would be a simple set up. But the system did not work out that way. After trying for over 45 minutes the computer could not communicate with the lap counting display. A work around was defined and the first race was run. Then it was discovered that the race matrix was flawed and had to be redone. Finally, all 10 pilots and their support crew were ready to race. There were several very exciting races run and some not too exciting.

Larry Parker finally got a first place during one race when his competition failed to start. Larry finished the 8 laps in a record time, the longest time on record. A total of 4 heats were flown and there were only 2 crashes.

Results were:

- Randy Meathrell** **First Place**
- Steve Zingali** **Second Place**
- Gene LaFaille** **Gene won the 4 way draw for Third.**



An event like this would be impossible without the help and support of all the members in the club. The lap counters and Pylon Judges did a great job. Bob Steffensen did the computer work and determined the race results. Bob has done this task for the past 5 or 6 years Steve Zingali did all the hard labor by cutting all the foam airplane kits for the racers the last 2 years. To everyone involved a great big **THANK YOU**.



Harold Ellis watching for pylon cuts makes his own shade with his chair.



Initial safety briefing and rules for the race. The lap counter is at lower right.



Planes launched ready for race.



Delta Wing Event

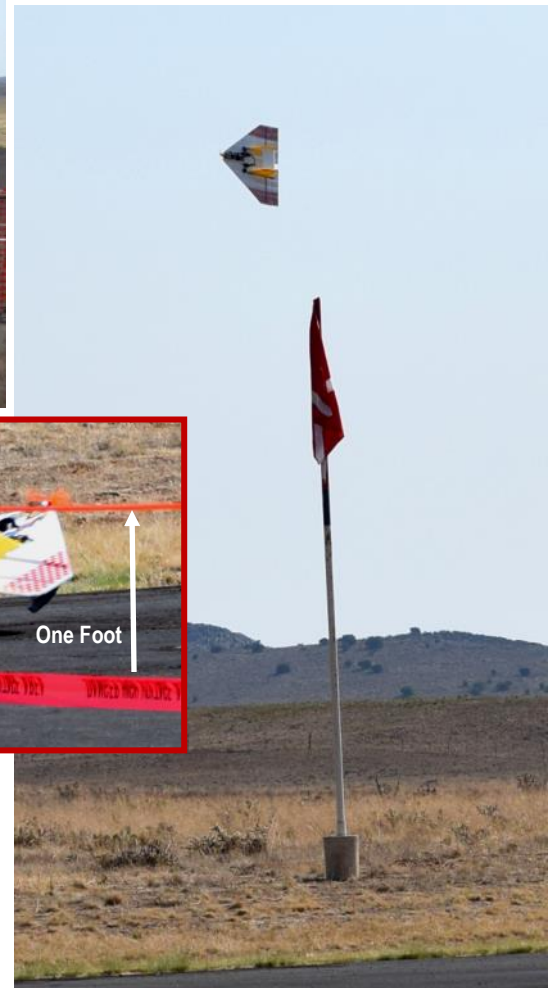
Text and Data: Denise Meyers, CD John Meyers



Group photo by Paul Gendarme



Left to right: **Randy Meathrell, Rick Nichols, Jim Maggs, Jack Potter, Don Ferguson, Steve Zingali, John Meyers, Bob Shanks, Jim Scott and Matt Butler.**



PYLON RACE:

HEAT #1

- 1st Place - Randy Meathrell
- 2nd Place - Don Ferguson
- 3rd Place - Rick Nichols Did Not Finish (DNF)

HEAT #2

- 1st Place - Jack Potter
- 2nd Place - Jim Scott
- 3rd Place - Steve Zingali (DNF)

HEAT #3

- 1st Place - Dave Maggs
- 2nd Place - John Meyers
- 3rd Place - Matt Butler
- 4th Place - Bob Shanks (DNF)

2ND PLACE RUN-OFF (LIKE A Wild Card for Feature)

- 1st Place - John Meyers

FEATURE RACE

- 1st Place - Randy Meathrell
- 2nd Place - Dave Maggs
- 3rd Place - John Meyers
- 4th Place - Jack Potter

LIMBO CONTEST (HOW LOW CAN YOU FLY)

7 Competitors began the contest. Their Outcomes were:

Steve Zingali	6	foot	bar	completed
Jim Scott	4	"	"	"
Randy Meathrell	4	"	"	"
Jack Potter	2	"	"	"
John Meyers	2	"	"	"
Dave Maggs	1	"	"	" WINNER!!
Matt Butler	DNF			



DURATION CONTEST Length of time in the glide, = target spot landing points

Duration Contest Points: (6 contestants competing)

Jim Scott	53.0	Points
Jack Potter	43.0	"
Steve Zingali	40.2	"
John Meyers	39.93	"



OVERALL TOP THREE PLACINGS - ALL EVENTS!

- 1ST DAVE MAGGS 103.8 points total
 - 2ND JACK POTTER 98.0 points total
 - 3RD JOHN MEYERS 94.93 points total
- BEST CRASH: RICK NICHOLS**



Left to right: Jack Potter, Dave Maggs, John Meyers, and Rick Nichols

Prizes were Zingali Designed RC Planes

The Lockheed F-104 Starfighter - The First Fighter to Fly Twice the Speed of Sound

<https://www.bbc.com/future/article/20160826-the-1950s-jet-launching-tiny-satellites>

If you asked an eight-year-old to design a jet fighter, the end result might resemble the Lockheed F-104. The F-104 looks less like a plane and more like a rocket with some extra bits added as an afterthought. Its long thin fuselage – with a tiny cockpit perched behind its pointy nose and short stubby wings either side – make it look state-of-the-art even today; one can only imagine how revolutionary it seemed when it was unveiled in the 1950s.

The F-104, designed just after the first jet-vs-jet air combat in The Korean War, was created to fly as fast as possible, hurtling past all the previous speed records. Less than a decade after test pilot Chuck Yeager first broke the speed of sound, it became the first jet to fly more than twice the speed of sound. On top of a military career which lasted nearly 50 years, the F-104 found itself serving as an experimental testbed – a rocket-powered spacecraft stand-in that allowed pilots to practice the kind of rocket-thrust maneuvering astronauts would use to control a spacecraft.

Now, some 60 years after the prototype first flew, the F-104 has found another role – as the launch vehicle for a new generation of tiny satellites. It's a surprising rebirth for an aircraft born almost at the very start of the jet age. The F-104 was the brainchild of the same man who would later design the world's fastest plane, the SR-71 Blackbird. Clarence 'Kelly' Johnson interviewed fighter pilots who were shocked at the high performance of the Soviet Union's MiG-15 fighter in Korea – which could outrun and out-turn any Western fighter – and asked them what they needed.

"They wanted a lot more speed, altitude, and maneuverability," says aviation historian [Ray Panko](#), of the Pacific Aviation Museum in Hawaii. "The F-104 gave them the first two but sadly not the third."

In order to meet the need for speed, the F-104's wing was very small and very, very thin. That helped create less drag, but it also prevented it from being able to turn tightly – and also cut down the amount of fuel that could be carried internally. The F-104 is the perfect example of the compromises that come with trying to design high-performance aircraft.

The F-104 first flew in March 1954, less than a year after Lockheed had been given the go-ahead to build a prototype. It made an almost immediate impact. The needle-nosed jet quickly earned the nickname 'the missile with a man in it'; its official name was the *Starfighter*.

One pilot compared the experience of flying a F-104 to driving a car while sitting on the hood. The pilot sat close to the nose, in the plane's cramped cockpit; he could only see his wings if he looked in rearview mirrors. Behind him was the General Electric J79 engine, an incredibly powerful engine that could push the aircraft to Mach 2 (1,500mph) and beyond. "As soon as the aircraft's engine was revved up for take-off, the F-104 would shake and vibrate", [Panko](#) says, like a dog straining on its leash. When the brakes were released, the rocket-shaped F-104 would sprint down the runway.

Its rate of climb was exceptional. The F-104 was designed to catch up with enemy aircraft before they could release their weapons – a role known as 'interceptor' – which meant it needed to reach its targets very quickly. A Starfighter pilot could reach 48,000ft (15 kilometers) in one minute, a feat still impressive 60 years later. The Starfighter would fly fast and straight, firing its missiles from many miles away, and turning back to base before its target had time to respond.

The F-104 was blessed with exceptional speed and climb, but also its fair share of idiosyncrasies – some of which made this rocket-shaped fighter incredibly challenging to fly. Because of the turbulence created by the small wings, the tailplane – essential for control – had to be moved to the top of the tail. This made the aircraft very hard to control at low speeds, and at high angles of attack (the direction of the wing relative to the air flow, such as when a plane is climbing). If it stalled, the plane wouldn't drop nose down as most pilots might expect allowing time to pick up speed and recover, **the F-104 would drop tail first. At lower levels, that could be disastrous.**

The high tailplanes also led to a very interesting design modification – because of the danger of an escaping pilot hitting the tailplane at high speed, the first F-104s had a downward-firing ejector seat. This made it almost impossible to escape from a low-levels. (Later versions had more powerful seats fitted that could clear the tailplane even at high speeds).

Work is still going on for launching tiny satellites on the smallest possible delivery system for some years – and by random chance ran into someone from Starfighters Inc, who were wondering if their aircraft might be an efficient delivery system for small satellites. Currently, if you want to launch small CubeSats, you have to wait until space is available on a conventional rocket, and you can't choose the orbit. "We intend to have very fast times between ordering and launching," says Still. "We aim for 30 days from order to launch, most launch providers work on the timescale of about two-to-three years from order to launch. A typical mission might be getting an order from a college to launch a CubeSat into a specific orbit.



The F-104s will fly over the Atlantic Ocean, their pilots taking the jets to around 60,000ft, the jets climbing at an acute angle to give the rockets the right trajectory to leave the pull of the Earth's gravity. Work on this project is still underway at this writing.

Is a High-wing or Low-wing Configuration Better?

<https://www.planeandpilotmag.com/article/mysteries-of-flight-high-wing-versus-low-wing/>

Background

Discounting biplanes, canards, mid-wing models and other unusual configurations, there are two basic wing designs, high-wing, and low wing. You probably have your own preference, though some pilots, us included, are agnostic on the question. This doesn't mean that there's not a right answer to the question. Even companies that you think of as being evangelically committed to one setup have gone back and forth between the two. Clyde Cessna's first airplane, Silverwing, was a low wing, and all of Cessna's turboprop aircraft are low wingers, too. Piper, which went big into low wings with the introduction of the Cherokee in 1960, became famous their first 30 years with high-wing taildraggers. There are good reasons for both configurations.



Structure

This one's easy. The design of a low wing, on top of which the fuselage sits, makes more sense. Less structure is required for things like landing gear and door reinforcement, though in all fairness, you don't need to reinforce the upper surface of a high-wing to account for people walking on it. Then again, there aren't many low wings with wing struts.

Convenience

Again, an easy one. A high-wing plane makes more sense for getting into and back out of, which matters in many cases with older pilots or passengers. The exception, one could argue, is with forced landings. In an off-airport excursion, a low wing is probably the easier setup from which to escape, though the variables are endless.

Training

It's an unwinnable argument on both sides which configuration lends itself better to training success. Those who learned in low wing planes tend to prefer those as step-up models, and those who learned in high-wings, well, they tend to step up from a 172 to a 182, and on from there.

Visibility

This one's a no brainer, right? Well, in one sense yes (or in one way), not so fast. High wings are heavenly for sight-seeing and photo snapping, while the view can be blocked by low wings. But in a turn in the pattern the down wing of a Piper Pacer, for example, will block the view of the runway or obstacles between you and the runway.

Clearance

When it comes to clearing snowbanks, fence posts and certain kinds of brushy, the winner is the high-wing designs.

Safety Concerns

It's easier to fuel low wing planes, and it's harder to forget to put the fuel caps back on. That said, it's easier to drain the sumps with high-wingers. Fuel management tends to be easier in high-wing planes than in low wingers, though this can vary widely. It's also harder to scrape frost and ice off the upper airfoil surface of a high-winger. Some pilots who've flown both feel as though low wing planes are more forgiving in gusty conditions.

Shade

Unless you're doing a lot of flying inverted, the high wing keeps you cooler. This is especially true when comparing high-wing models against low wing types that have bubble-style canopies.

The Verdict

Based on the number of current production low-wing versus high-wing models, it's no contest. Low wingers are the present and probably the future, too, especially on business and commercial planes. That said, there remain compelling reasons for pilots who fly for sport, pleasure, and transportation to go with a high-wing model. As is the case with so many things in aviation, unless you have a specific application that favors one or the other, like float plane flying or bush flying, it really just comes down to personal preference.

June General Membership Club Meeting at the Field.



Some Local Flying Field Residents

The General Membership meeting on June 26, 2021 opened at 9am at the field. We began with the Pledge of Allegiance. Club membership stands at 127. Members present for the meeting were 41. New members present were **Bill Stewart, Ken Clark, Corky Stone and Al Ruegsegger**. Minutes of last meeting on April 24th were unanimously approved by members.

President's Agenda

Treasurer **Harold Ellis** presented the Treasurer's report. The total of all accounts is now \$24,852.80. This includes all accounts and CD's. The Treasurer noted that the \$1200 spent on the control line circle was provided from donations to that project. The report was approved unanimously.

President **Bill Gilbert** thanked **Doug McBride** for his service as VP. **Mark Lipp** has been appointed to VP to complete Doug's term. We need to formally elect a candidate for VP. Mark has been nominated to fill the remainder of the term and members approved Mark seconded it with 40 Yea and 1 nay (from Mark of course). Thanks Mark for agreeing to complete the term. New elections will be in October for

the remaining slate of candidates. Changes to the club constitution and by-laws was unanimously approved by members. The change to both documents was to update the wording of the Club's purpose from promote "RC Model Flying" to promote "Model Aviation".

Long Range Planning Committee (LRPC) will help identify and prioritize club improvements. If you have any inputs for maintenance or improvements, please contact the LRPC members: **Doug McBride** - dougmcbr@live.com, **Don Crowe** - bigchinodon@gmail.com. **Mark Lipp** - jflipp@aol.com.

Concrete work previously approved has not yet begun...we are searching for available contractors to do the job. Dan and Chad Avilla build the new start stands to go into the fresh concrete. Thanks Dan and Chad.

Thank you to **Mark Lipp** and **Bill Gilbert** who teamed up to repair the safety fencing at the flight line.

We have clearance to continue flying even though we are in Stage 2 fire restrictions in the County. If we go Red Flag...the field will be closed until conditions improve.

Flight instruction continues almost daily at the field. **Steve Shephard** and **Al Marell** are doing a great job and staying busy.

The FAA knowledge test is now up online. You can take the "no fail" test at

the AMA website. Just do it and don't forget to print your completion certificate.

Events

Indoor flying is scheduled for the 4th Sunday of each month...June through November. Open flying, swap meet with a pancake breakfast will be July 3. The Glider Event is July 24th and will include any 2 meter glider. A nominal entry fee will produce cash prizes for the winners. IMAC will be back at the field in August...check your club calendar for remaining events for this year. **Steve Crowe** Fun Fly comes in September, CM **Mark Lipp** needs help making phone calls for donations of prizes and raffle items.

Safety Officer **Rick Nichols** reminded flyers to clear tools and personal items from tables after you assemble your aircraft so other flyers can assemble their aircraft. First flyer at the field each day should bring the fire cart out to be ready for action, if required. Be safe!

Secretary **Bob Steffensen** stated that he has confirmed Friday December 3 for the CVMA Christmas Party.

Member Input

Randy Meathrell has the electronics kits for the racing Warbirds. **Paul Gendarme** has put together and emergency "stop the bleed" kit. We should all have one of these on hand when flying or working in the shop.

Planes and Projects

Jack Potter showed his Great Planes "Twister" that he recently completed; **Bob Steffensen** displayed his MX2 that he won in the April raffle; **Paul Gendarme** has small stick built plans for free.



Jack Potter at left shows his Twister wing top and bottom.



Paul Gendarme brought some plans to share with members.



Bob Steffensen showed his MX2.

Door Prize & Raffle Winners



Dave Domzalski left, won the door prize. Ted Duncan won the raffle prize the Cessna Skylane 182.

Door Prize/Raffle **Dave Domzalski** won the door prize complete with crying towel and other items. **Ted Duncan** won the nice Cessna-182 Skylane in our meeting raffle.

Meeting adjourned 11:15.

Respectfully,
Bob Steffensen Secretary