Chino Valley Flyers

January Club Newsletter

February 28, 2025 | Volume 28 Issue 2 | www. chinovalleyflyers.org

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

Inside This Issue

Quote For this Month:

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

Unknown

Lose Something?

We have a *"Lost and Found"* area in the main hanger so if you left something at the field check that box It's probably there.

Rick Nichols' EDF Old School Raven

Mark Lipp's Super Cub *(Tiny but a Cool Flyer)*

Mark Lipp's little 24" wing span Horizon Hobby Super Cub.

President's Column

By Brian Sutton

W ell, it looks like Spring has arrived, at least for the next week or two, the weather at the field has been great for flying. Thanks to the new weather station Jeff worked on installing, we can now check the weather at the field from the comfort of home. Maybe you saw the article in the local paper. (*See photo on last page*)

As we start the flying season, I hope to see some new build projects in the air. I'm happy to report my new OSM Raider flies like a dream. I've seen several other new aircraft in the air too. Remember, when a new project comes out to the field for the maiden flight, let the flyer have plenty of room. Also, if you are going to fly in a way that takes up a lot of airspace, like Turbines, 3D, or group flying please check with your fellow pilots, and let them know what you are doing.

This is also a good time to review the AMA safety code, and the CVF field rules. We all need to be patient with new flyers, call out our intentions on the flight line and otherwise be a good neighbor at the field. One of the many things that I really like about our group is the amount of cooperation and help that I have seen and received. Let's continue to keep up the great communication at the field and make sure we share the airspace.

Upcoming Events

In May, we will have the annual Spring Fling and fun fly, a great time to show off that special project you have been fine tuning all spring. We need volunteers to help out with field and parking lot maintenance. The field will be closed until the work is done, we need volunteers folks. The Our March meeting well be at the field on Saturday, March 10:00. Bring out those Show and tell projects.

After many years of serving the club as secretary, Bob is stepping down at the end of this term. He has been invaluable to this club over the years. Anyone who is interested in taking over, please contact the board to ensure a smooth transition.

Once again, I'm honored to be entrusted with the leadership of this club, the finest Model Airplane Group in Arizona. See you at the field.

Brian

Flight Instructors

Randy Meathrell:
Control Line Flying

Bill Gilbert:
Helicopters

Jeff Moser:
Gliders, Multi Rotors

General Flight Instructors

Al Marello

Steve Shephard

Club's Board of Officers

President — *Brian Sutton*

Vice President - *Al Marello*

Treasurer — *Don Crowe*

Secretary — *Bob Steffensen*

Safety Officer — *Rick Nichols*

At Large Member — *Dan Avilla*

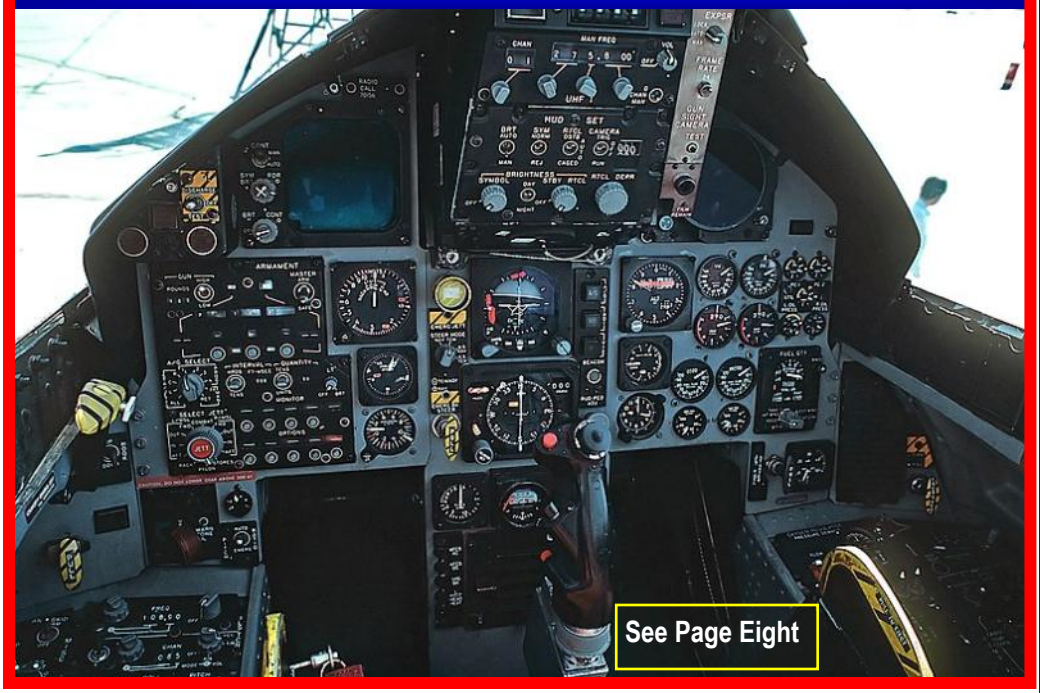
At Large Member— Gary Cosentino

At Large Member— Lee Boekhout

At Large Member— Jeff Moser

Newsletter Editor — *Bob Shanks*

WHAT OPERATIONAL AIRCRAFT COCKPIT IS THIS?



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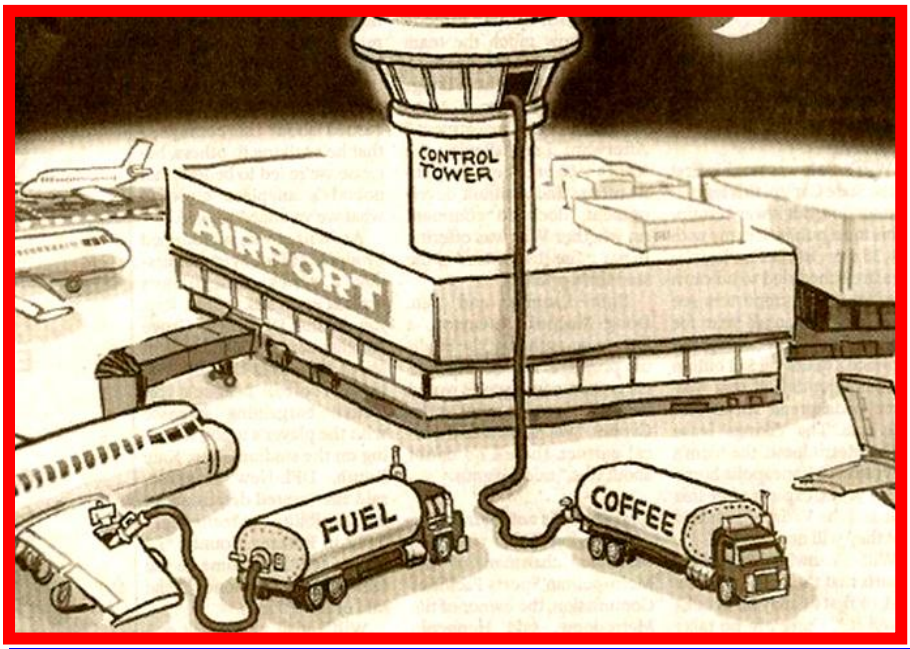


MARK YOUR CALENDARS

Chino Valley Flyers Events for 2025

- May 17…"Hamburger" Fun Fly
- June 14...Pylon Races
- July 12...Glider Endurance Contest
- IMAC August 15-17 *Casey Buggein* will be CD for this event.
- August 23...Combat Event
- September 20...Steve Crow Event
- October 4…Ringmaster Control Line
- October 18… Build and Fly Contest
- November 15...Pancake Breakfast/Swap Meet

SAFETY SHOULD ALWAYS COME FIRST

By Rick Nichols Chino Valley Flyers Safety Officer

When I first joined the club in 2006 it was then named the Chino Valley Model Aviators. The rule than was no pilot was to fly if he was the only person at the field.

About 2010 after much discussion this rule was voted down and pilots were allowed to fly if they were the only one at the field. I have had mixed feelings on this but the rule is what the rule is.

Most of our pilots are of the age where they may have health issues that our younger members do not have. I will give you a couple of examples of why it is ***not*** such a good idea to fly alone. Heart issues are one reason. If a pilot is alone and has (God forbid) a heart attack and there is no one there to help him or call for help it could have deadly results.

Propeller cuts. We have had instances at the field that a member has become seriously injured by a moving propeller and had to be transported to the hospital by a fellow member. If the injured pilot did not have someone available to help him things could have turned out badly. The club has a well stocked First-Aid station in both the main flying area and at the control line circle. A person who is alone at the field may not be able to administer the proper first aid to himself.

There are many instances that a problem may occur that require the aid of another person. We should remember that we have Rattlesnakes in our field as well.

I am not advocating that we change our rule that has been voted on in the past but ***just posting a word of caution if you choose to fly alone at the field***.

Have you seen the report of the individual that flew his drone from a parking garage in Santa Monica to get videos of the fires that were occurring. He flew a mile and a half from his position and collided with a Super Tanker. He is now responsible for the $65,000.00 repair bill to the tanker, other fines and a year or more in a Federal Prison. We do not have many drone pilots in our club ***but remember that all of our aircraft are considered Drones***.

We got through January with no injuries, let's do that for the other 11 months of 2025.

Safe Flying,

Rick

Rick Nichol's little electric icon on the side of his airplane.

More Exciting Activity at Our Flying Field

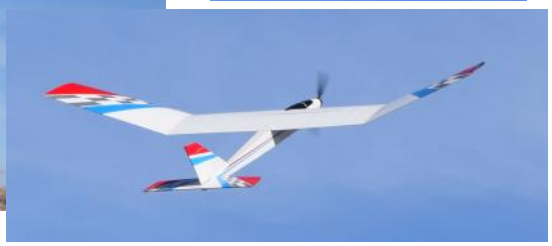
A gaggle of T-28 models preparing for take off

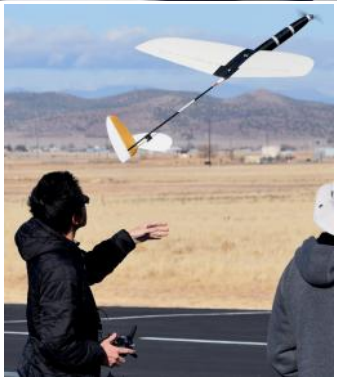
Jeromy Beck and his T-28.

Dale Robert's colorful T-28.

John Karnowski's T-28.

Rick Nichols getting his battery positioned for a successful flight.





Unidentified ERAU student launches his glider.

Jack Potter brings his glider back the pit after a successful flight.

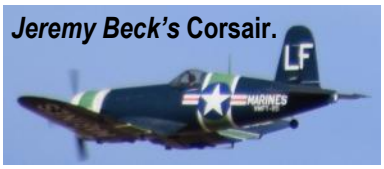
More Flying Activity at Our Field

Brian Sutton's EDF. He burned out the motor on this flight.

Bill Gilberts big Gasser .

John Dora launches his big glider.

Rich Kocar's yellow and green flying "W".

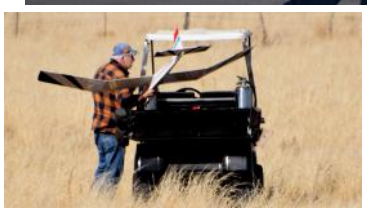


Jeremy Beck's Corsair.

ERAU student *John Houvil's* EP

Ray Landry and his glider after a successful flight.

One of many T-28's flying on this day.



Rick Nichols' glider landed in the high grass

The Vertical Fighter Jet with Eight Engines Bell D-188, Is it Fact or Fiction? *

The Bell D-188 was a real, though never built. The vertical takeoff and landing (VTOL) fighter jet was designed with eight engines. The US military envisioned the D-188 in the 1950s as a way to intercept Soviet bombers. However, the project was canceled in 1961 due to many technical challenges, high costs, and shifting military priorities of that time.

Why the Project was Canceled

- Complexity: The D-188's VTOL technology and swiveling engine pods were very complex.
- Weight: The D-188 had an impractical eight-to-weapons ratio.
- Cost: The D-188's costs skyrocketed.
- The US Navy lost interest in the D-188 by the early 1960s, and the Air Force followed due to rising costs.

The D-188 was designed to operate from small bases and carry a variety of weapons. It was intended to have Mach 2 speeds and could have operated from nearly any location without a runway.

In the 1950s, the burgeoning concept of vertical take-off and landing (VTOL) technology more than intrigued military strategists. With a desire to develop a fighter aircraft that could be operated from virtually anywhere, the US Air Force and Navy approached Bell Aircraft to design one.

The project, designated the Bell D-188 and D-188A, was intended to fulfill a host of roles, including all-weather operations and defense interception. By incorporating newer VTOL capabilities, the aircraft promised to enhance operational flexibility, which would allow for rapid deployment and a reduction in airbases being vulnerable to attacks.

On top of its eight engines, the aircraft would have featured an advanced engine bleed system designed to assist in vertical lift and maneuvering.

In terms of its appearance, the D-188A would have had a sharply-pointed nosecone, which preceded a single seat cockpit that sat at the nose of the fuselage. The plan was to equip the aircraft with two or four 20 mm cannons, as well as an internal weapons bay and eight hardpoints on its wings, allowing for the deployment of missiles and other potent ordnance.

Despite its promise, the Bell D-188A faced several challenges, which ultimately led to the project's cancellation. One of the main issues was the complexity of VTOL technology, which presented significant engineering issues at that time. This and the aircraft's swiveling engine pods further complicated the overall design.

*https://www.google.com/search?q=The+vertical+fighter+jet+with+eight+engines...+Bell+D-188%2C+fact+or+fiction%3F%0D%0A&sca_esv=00fbe7a832747

Falcon 9 Space Launch as Seen From Williamson Valley Near Prescott, Arizona *

Launch as seen from Williamson Valley.

Just after sunset on Monday February 10, the SpaceX Starlink launch was visible in the west. The main photo above was taken in the Williamson Valley area of Prescott, AZ. We had photographed one prior launch and used the photo in a past newsletter. This SpaceX Falcon 9 rocket launched 23 Starlink satellites into low Earth orbits from Vandenberg in southern California on Monday February 10, 2025. The rocket lifted off from pad 4E at Vandenberg Space Force Base at 6:09 p.m. The first-stage booster, B1071, made its 23rd flight and returned to land successfully on the drone ship named *"Of Course I Still Love You".*

From January 2020 to the end of 2022, Falcon 9 was launched 117 times, all successful, and landed boosters successfully on 111 of 114 attempts. Falcon Heavy was launched once and was successful, including landing of the mission's two side boosters. Reusable launch vehicles drive down the cost of space launches. Astronauts can ride to the International Space Station (ISS) not on a NASA rocket, but aboard vehicles bought from the private space company SpaceX: the Dragon 2 capsule atop a Falcon 9 rocket. SpaceX now handles about two-thirds of NASA's launches, including many research payloads, with flights as cheap as $62 million, roughly two-thirds the usual estimated launch costs. SpaceX's goals are not limited to low-Earth orbit: SpaceX was selected to design a Moon lander, and it is steadily testing a huge heavy-lift rocket, called Starship, that could carry people to Mars.

Researchers see both benefits and risks in the company's increasing power. It has lowered the cost of spaceflight through innovations such as reusable stages and fairings, saving NASA money. With its outsize capacity, Starship could cheaply put large telescopes in orbit and heavy science experiments on moons and planets. Some science analysts worry the company, led by billionaire Elon Musk, could jeopardize NASA's long-standing culture of safety. "SpaceX works on the basis of 'test it until it breaks.'"

* *https://www.science.org/content/article/spacex-now-dominates-rocket-flight-bringing-big-benefits-and-risks-nasa#:~:text=SpaceX%20now%20dominates%20rocket%20flight,%E2%80%94to%20NASA%20%7C%20Science%20%7C%20AAAS*

Name the Plane Answer: F-15 E Strike Eagle

https://www.af.mil/About-Us/Fact-Sheets/Display/Article/104499/f-15e-strike-eagle/

The F-15E Strike Eagle is a dual-role fighter designed to perform air-to-air and air-to-ground missions. An array of avionics and electronics systems gives the F-15E the capability to fight at low altitude, day or night and in all weather.

The aircraft uses two crew members, a pilot and a weapon systems officer. Previous models of the F-15 are assigned air-to-air roles; the "E" model is a dual-role fighter. It has the capability to fight its way to a target over long ranges, destroy enemy ground positions and fight its way out.

The aircraft's navigation system uses a laser gyro and a Global Positioning System to continuously monitor the aircraft's position and provide information to the central computer and other systems, including a digital moving map in both cockpits.

The APG-70 radar system allows aircrews to detect ground targets from long ranges. One feature of this system is that after a sweep of a target area, the crew freezes the air-to-ground map then goes back into air-to-air mode to clear for air threats. During the air-to-surface weapon delivery, the pilot is capable of detecting, targeting and engaging air-to-air targets while the WSO designates the ground target.

The low-altitude navigation and targeting infrared for night, or LANTIRN, system allows the aircraft to fly at low altitudes, at night and in any weather conditions, to attack ground targets with a variety of precision-guided and unguided weapons. The LANTIRN system, consisting of two pods attached to the exterior of the air craft, gives the F-15E unequaled accuracy in weapons delivery day or night and in poor weather.

The navigation pod contains terrain-following radar which allows the pilot to safely fly at a very low altitude following cues displayed on a heads-up display. This system also can be coupled to the aircraft's autopilot to provide "hands off" terrain-following capability.

The targeting pod contains a laser designator and a tracking system that mark an enemy for destruction at long ranges. Once tracking has been started, targeting information is automatically handed off to GPS or laser-guided bombs. One of the most important additions to the F-15E is the rear cockpit with the weapons systems officer. On four screens, this officer can display information from the radar, electronic warfare or infrared sensors, monitor aircraft or weapons status and possible threats, select targets and use an electronic "moving map" to navigate. Two hand controls are used to select new displays and to refine targeting information. Displays can be moved from one screen to another, chosen from a menu of display options.

In addition to three similar screens in the front seat, the pilot has a transparent glass heads-up display at eye level that displays vital flight and tactical information. The pilot doesn't need to look down into the cockpit, for example, to check weapon status. At night, the screen is even more important because it displays a video picture nearly identical to a daylight view of the world generated by the forward-looking infrared sensor.

The F-15E is powered by two Pratt & Whitney F100-PW-220 or 229 engines that incorporate advanced digital technology for improved performance. For example, with a digital electronic engine control system, F-15E pilots can accelerate from idle power to maximum afterburner in less than four seconds, a 40 percent improvement over the previous engine control system. Faster engine acceleration means quicker takeoffs and crisper response while maneuvering. The F100-PW-220 engines can produce 50,000 pounds of thrust (25,000 each) and the F100-PW-229 engines 58,000 pounds of thrust (29,000 each).

Each of the low-drag conformal fuel tanks that hug the F-15E's fuselage can carry 750 gallons of fuel. The tanks hold weapons on short pylons rather than conventional weapon racks, reducing drag and further extending the range of the Strike Eagle.

For air-to-ground missions, the F-15E can carry most weapons in the Air Force inventory. It also can be armed with AIM-9M Sidewinders or AIM-120 advanced medium range air-to-air missiles, or AMRAAM for the air-to-air role. The "E" model also has an internally mounted 20mm gun that can carry up to 500 rounds.

The F-15's superior maneuverability and acceleration are achieved through its high engine thrust-to-weight ratio and low-wing loading. *It was the first U.S. operational aircraft whose engines' thrust exceeded the plane's loaded weight, permitting it to accelerate even while in vertical climb.*

The low-wing loading (the ratio of aircraft weight to its wing area) is a vital factor in maneuverability and, combined with the high thrust-to-weight ratio, enables the aircraft to turn tightly without losing airspeed.

OTHER INTERESTING FACTS ABOUT THE USAF B-2 BOMBER *

In October we featured the B-2 Bomber's cockpit photo but we should note that there are very few publicly available B-2 cockpit photos because the B-2 Spirit stealth bomber is still considered a highly classified aircraft, meaning most details about its cockpit, including its design and functionality, are considered sensitive military information that cannot be shared publicly due to concerns about revealing some of its possible stealth operational secrets.

Here are some other interesting insights into this iconic USAF bomber available on many Internet sources. The B-2's low observability is derived from a combination of reduced infrared, acoustic, electromagnetic, visual and radar signatures. These signatures make it difficult for the sophisticated defensive systems to detect, track and engage the B-2. Many aspects of the low-observability process remain classified; however, the B-2's composite materials, special coatings and flying-wing design all contribute to its "stealthiness."

The Northrop B-2 Spirit stealth bomber costs over $2 billion per aircraft when adjusted for inflation. ***This makes the B-2 the most expensive aircraft ever built.***

B-2 cockpit photo.

- The B-2's cost includes spare parts and software support.
- The B-2's price tag is due to its advanced stealth capabilities, which include reduced infrared, acoustic, electromagnetic, visual, and radar signatures.
- The B-2 was originally designed to penetrate Soviet air defenses during the Cold War.
- The B-2's maiden flight was in 1989.
- The original plan was to produce 132 B-2s, but budget cuts reduced production to 21.
- The B-2's operational capabilities include delivering conventional weapons as well as nuclear payloads. The B-2's primary function relies on its advanced stealth technology, and even minor details about its cockpit design could potentially compromise this capability if revealed to adversaries.

The cockpit houses sensitive systems and controls that are considered classified information, preventing their exposure in photographs. Sharing detailed cockpit images could potentially give away valuable intelligence methods or capabilities about the aircraft's operational procedures, a serious national security concern.

Other B-2 Costs

- The B-2's total program cost was estimated to be around $45 billion.
- The B-2's maintenance cost is $130 million per year.

The B-2's successor, the B-21 Raider, is being designed to be more affordable while maintaining technological superiority.

The B-2 has a crew of two pilots, a pilot in the left seat and mission commander in the right, compared to the B-1B's crew of four and the B-52's crew of five. The first B-2 was publicly displayed on Nov. 22, 1988, when it was rolled out of its hangar at Air Force Plant 42, Palmdale, California. Its first flight was July 17, 1989.

The combat effectiveness of the B-2 was proved in Operation Allied Force, where it was responsible for destroying 33 percent of all Serbian targets in the first eight weeks, by flying nonstop to Kosovo from its home base in Missouri and back. In support of Operation Enduring Freedom, the B-2 flew one of its longest missions to date from Whiteman to Afghanistan and back. The B-2 completed its first-ever combat deployment in support of Operation Iraqi Freedom, flying 22 sorties from a forward operating location as well as 27 sorties from Whiteman AFB and releasing more than 1.5 million pounds of munitions. The aircraft received full operational capability status in December 2003. On Feb. 1, 2009, the Air Force's newest command, Air Force Global Strike Command, assumed responsibility for the B-2 from Air Combat Command.

The prime contractor, responsible for overall system design and integration, is *Northrop Grumman Integrated Systems Sector. Boeing Military Airplanes Co., Hughes Radar Systems Group, General Electric Aircraft Engine Group and Vought Aircraft Industries, Inc.*, are key members of the aircraft contractor team.

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* *Information is from multiple open source unclassified web sites.*

February 2025 General Membership Meeting

The monthly General Meeting opened at the Chino Valley Senior Center, at about 7pm, on Wednesday, February 26, 2025, with the Pledge of Allegiance. About 24 members were in attendance tonight (by head count, although only 20 signed in. The club also had a new member attending, *Mark Puchalski*.

President's Agenda

Minutes for the January meeting were unanimously approved by the members. Treasurer *Don Crowe* presented his monthly report. Club membership is now 140 paid members. The Treasurer's report was unanimously approved by Members after its presentation.

Secretary *Bob Steffensen* encouraged member to sign in, volunteer for Goodie Duty, June and September remain open. Email me if you want to provide goodies for either of those monthly meetings. Safety Officer *Rick Nichols* said: "no recent accidents". As always, be careful! President Brian emphasized that all members must be safety minded.

Events

President Brian brought up the IMAC request for their event at our Field August 15-17. *Casey Buggein*, Club member and IMAC flyer will do NOTAM request and help with set up for the event. Casey will be the CD for the event. There will be no food provided. Members approved the event.

Maintenance

A Field Maintenance Day is scheduled for March 15th with the primary effort to reset the parking timbers and general spring cleaning.

Member Input

Dan Avilla pointed out the IMAC event needed membership approval and it was, as previously noted above. *Harold Ellis* said member *John Stewart* will maiden his very large OV 10 this Sunday. We broke about 7:20pm for cookies provided by Secretary *Bob Steffensen*. Thanks Bob! We resumed the meeting at about 7:30pm.

Show & Tell: Planes and Projects

Brian Sutton showed us his recent build of an Old School Model Works "Ugly Stick". *Don Crowe* brought in the fuselage of "Big Jim" under construction from scratch with cutout help from *Steve Zingali*. *John Reese* showed us his radio range tester. No picture is shown.

Door Prize and Raffle

Harold Ellis won the door prize with unknown contents, as *Don Crowe* forgot the package to be delivered later to Harold.

Minutes Respectfully Submitted,
Bob Steffensen Club Secretary

Far left is *Brian Sutton* with his big red "Old School" Ugly Stick. Next to Brian is *Don Crowe* showing his "Big Jim" fuselage he is building from scratch.

Chino Valley Flyers launch new weather station for RC pilots, community

Jeff Moser was interviewed for a great local newspaper article on our new weather station.

Meeting Photos by *Bob Steffensen*

Door Prize & Raffle Winners

Door Prize Winner

Harold Ellis

50/50 Raffle Prize

Dan Avilla