

Chino Valley Flyers Official Club Newsletter



August 31, 2023

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

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Quote For this Month:

"The significant problems we have cannot be solved at the same level of thinking with which we created them."

Albert Einstein

Support our Local They support Us



Also, Check out: RCBATTERY.COM

Volume 26 Issue 8

www. chinovalleyflyers.org

Harold Ellis' Four Stroke Powered Elder



Club's Short Take Off & Landing Contest Winners



Bill Gilbert: CVMA President's Message

As the quad cities area continues to grow, and we attract more members, we are victims of our own success; with the steady growth we've seen over the past few years have come a few challenges. One of them being how to keep us safe among the varying capabilities of our new and existing RC pilots?

We are experiencing more and more close calls with errant aircraft entering the red no fly zone. One proposal is to implement pilot checkouts; assess the piloting capabilities of new pilots and quests. And review the flving performance of existing pilots exhibiting these egregious safety violations.

Our club has historically prided itself on having the minimum rules to allow us to enjoy the hobby and still be safe. The above would require us to implement some new rules in order to have a system in place to check flying competency of new pilots coming into the club, and

the ability to review existing pilots exhibiting problem areas. We would be able in both cases to help these pilots to improve, with instructor pilots offering coaching.

We need to take a critical look at our flying. This proposed system can only be successful if we have the full support of the members, and enough of the accomplished members volunteering some of their time to be checkout pilots. The benefits to the club can be no greater than preventing a serious injury to our members.

We should all want to participate in our flying at the club without the unnecessary risk of an errant pilot creating a preventable accident. While our activity will never be risk free, we should do all we can to prevent unnecessary, highly dangerous incidents.

Lastly, a major incident can lead to irrecoverable liability concerns for us. Thus, putting

WHAT MODERN AIRCRAFT HAS THIS COCKPIT?

the club in jeopardy. Let's not let this happen!

We will continue to discuss a proposal to implement a checkout system. Please get involved and provide feedback if you have any. We can jointly improve this serious safety of flight issue.

Bill



See Pages 8 & 9

Flight Instructors

Introductory Pilot Mentors

Page 2

- > Randy Meathrell: **Control Line Flying**
- > Marc Nelissen: Basics
- > Gene Tomak Basis
- > Bill Gilbert: Helicopters

President — Bill Gilbert

Vice President — Mark Lipp



Treasurer — Don Crowe



Secretary — Bob Steffensen

Safety Officer — Rick Nichols



At Large Member — Dan Avilla



At Large Member— Gary Cosentino



Newsletter Editor — Bob Shanks











MARK YOUR CALENDARS Remaining Events for 2023:

- September 16, 2023 Annual Steve Crowe Memorial Fun Fly
- October 21, 2023 Seventh Annual Build and Fly Contest
- <u>November 11, 2023</u>— Fall Swap Meet and Fun Fly
- <u>December 5, 2023</u> (TBD) Christmas Banquet



CRITICAL FLYING FIELD SAFETY ISSUES

Most of our 150+ members who fly regularly at our field are aware that we have had two serious injury accidents at our flying field in the month of July. Both accidents involved propellor strikes that should not have happened had proper safety procedures been followed.

At our monthly Chino Valley Flyers Board meeting considerable time was spent discussing what must be done to prevent these from occurring. One incident had the individual go into shock due to the seriousness of the accident and loss of blood. What also compounded the problem was the 911 emergency number doesn't work well on Perkinsville road or at all due to some computer issues the emergency 911 staff is trying to correct. Both individuals were transported to the Prescott hospital emergency room by members present. One was only outpatient service involving 7 stitches in his little finger, the other had the individual hospitalized due to serious hand and finger injuries.

Many members fly electric models, so it is imperative that when working on an airplane in the pit area our under the cabana the prop should be removed. Even glow and gas-powered aircraft need to be handled with the utmost safety procedures. <u>Our safety officer,</u> <u>Rick Nichols, has done an outstanding</u> job each month highlighting safety concerns at our field in his column. So, what's our next move as a board and club to address these safety issues?

Since our club is growing with new pilots added each month, how do we know what kind of RC flying skills these new members have?

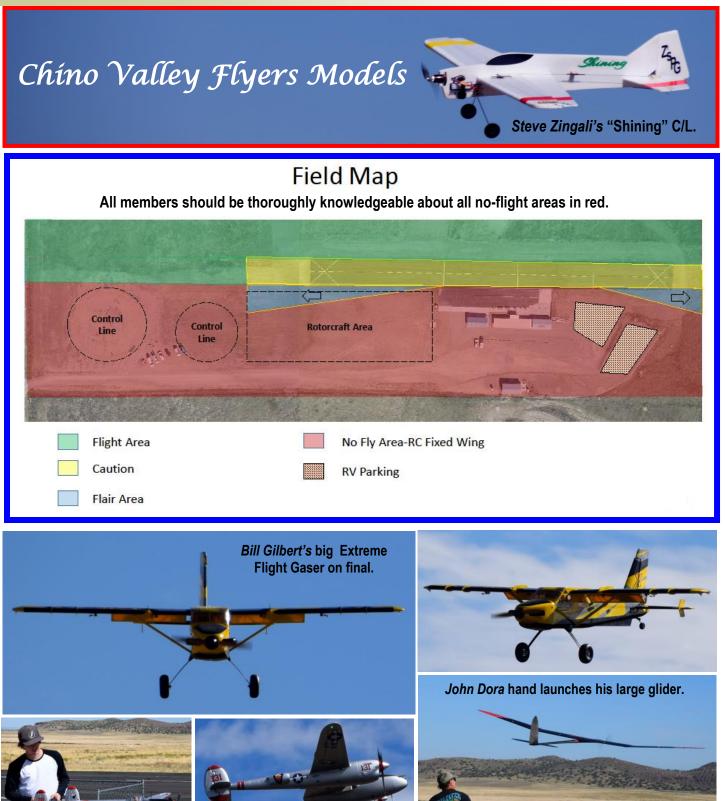
We have a tremendous flying field so we must ensure that safety is firmly embedded in all members flying skills so we can maintain our field and the high quality of our RC club.

We are looking at implementing a "New Pilot Checkout" procedure as well as a "Refresher Training" component if a member incurs a serious safety incident such as crashing into the pits or crashing into the driveway. The individual can be referred for additional training by any Officer of the club. <u>This is not punitive</u> but a way to identify and correct poor flying skills. There will be more information coming as all of this is developed.



As a club, we are in need of a Chief Flight Instructor (CFI) who could help in getting all of this developed. <u>We</u> can't emphasize enough the critical importance of safety. We have a wide variety of sizes and model types. We have turbines, helicopters, large gas-powered models, EDF's and some very large electric powered models and a large number of control line pilots all flying south of the main runway. <u>We all must respect the Red</u> <u>No-Fly Zones as well as the adjacent</u> <u>gun range that is also south of the</u> field. (Map is on page four.)

Step up members and get involved, we have such a great friendly club made up of quality folks. If interested in helping contact any of our officers.



At left is Dave Bates 12" W.S. P-51. Above left is Adam Sanders with his P-38.

Rick Nichols', Senorita



Member's Flying Machines Sighted at Our Flying Field

John Meyer's Wee Pitts



An Observation on Safety First

By Rick Nichols, Club Safety Officer

I am going to take a little different look at the Safety and Enjoyment of our sport this month, not as part of the safety column but on this *"member's flying machines"* page.

So recently I have witnessed four accidents causing harm to four of our fellow pilots. Hospitals have been involved, sutures, pain, long healing times and grief. I have also witnessed the aid, compassion and caring that have been offered to the men involved from their fellow pilots. First Aid was offered at the field by our friends, we are not doctors. Rides were offered and given to hospitals by members present, even though we are not an ambulance service and follow up calls and get well cards were made to the injured pilots by members that were concerned of their wellbeing.

For the 16 years that I have been a member of this club I have seen this many times over. It may be a compassionate talk with a member who has problems with his health, family problems, and anything that may arise that a fellow member wants to unload his mind with, there is always someone there to listen and care.

Everyone in our club is there to enjoy the camaraderie with his or her fellow members. Everyone in our club is there to offer assistance and advice to aid his fellow pilot. We recently hosted the International Miniature Aerobatic Club's (I.M.A.C.) shootout event at our field and many of our members kicked in to help make this event successful. Again, all of us are working together. Many times, I heard comments from our visiting organizations about what a wonderful field we have. How our views and layout are so special to them. We are very fortunate to have our field and the flying we do there.

As I drove home on the back way from the I.M.A.C. today I passed a grandfather and probably his grandson both driving small horse drawn buggies on the backroads. My thoughts were what a wonderful area we live in. What privileges we enjoy living in this community that we love that allows our sport to be a part of it. So many clubs such as ours are losing their place to practice their sport.

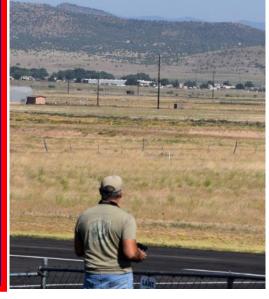
We must always be conscious that our individual actions, intentional or not, they could cause an issue that may lose our privileges of our lease with the town of Chino Valley. We must always be safety conscious. <u>We must protect what we have</u>.

Rick, Nichols Safety Officer





Dane Obrien's Laser Z from AJ Aircraft.



SHORT TAKE OFF & LANDING (STOL) CONTEST

STOL Winners

First place - *Marc Robbins*, flying an <u>EF Edge</u> Second place - *Jerry Calvert*, flying a <u>Bushmaster</u> Third place - *Mark Cotter*, flying a <u>Tundra</u>

Unlimited Micro Extreme (UMX): First place - *John Meyers*, flying a small <u>Pitts Special</u> (only contestant this category)

The STOL progression followed the rules:

(2 heats, best time wins)

-Most touch and goes in 2 minutes (1 heat only) -Short Landing contest (shortest distance from the landing line determines the winner.

The final scores are a composite of how the contestants placed in all three events. A tie is settled by a fly-off on a STOL Race. Jerry Calvert and Mark Cotter tied for 2nd. Mark Cotter declined a fly-off, that placed him in 3rd place.



Flight Path: One General Example

Horizontal turn after crossing end of runway

Mid point

Take off & Landing







Flagman







"Go".

Left: Lee Boekhout and Jim Scott were the timers.





Larry Roberts was the flagman.

B-17G 299Z TURBO-PROP FIVE ENGINE TEST BED *

By John Visschedijk

After WW II, two Vega-built B-17Gs were drastically modified as flying test beds for engines, so a revised Boeing model number of 299Z was assigned to these airframes. The military features were removed, the pilot's compartment was moved aft, and the nose was modified to accommodate the test engine. Each turbo-prop test engine was more powerful than all four standard engines operating together.

The first, s/n 44-85813, was leased to Curtiss-Wright from October 1945, being converted by Boeing in 1946, after which it was designated EB-17G



by the USAAC. Test flights with the XT-35 turboprop started in September 1947, tests with the J65 Sapphire jet engine started in 1951. The designation was changed to JB-17G in 1956, while the aircraft was sold to Curtiss-Wright on August 30, 1957, registered as N6694C. Thereafter anR-3350 radial engine was fitted in the nose for propeller research, last engine tested was the T-64G turbine-prop.

Curtiss-Wright sold the aircraft and subsequently it was registered to Ewing Aviation from December 1, 1966, Ewing-Kolb Aircraft from August 15, 1969, Arnold Kolb/Black Hills Aviation from July 30, 1970. The latter had the aircraft fitted with a standard forward fuselage, that was taken from model 44-83316, and used it as an aerial tanker, listed as number C12; it crashed near Bear Pen, North Carolina on April 16, 1980.

The wreckage was bought by Tom Reilly Vintage Aircraft in 1985, and parts were used to restore 44-85734/ N5111N. The remaining wreckage was obtained for another B-17 project, and is presently registered as N3154S to Tech II, being rebuilt to airworthiness using parts of B-17s, serial numbers 44-85813, 44-83316, 44-83525, and 44-83722. Eventually, <u>over 12,000 B-17s were built</u>. At the peak of this amazing production effort, <u>16 B-17s rolled</u> <u>off the assembly line per day at Boeing's Plant 2 in Seattle</u>.

Much of the WWII civilian labor was done by women who filled jobs after men left for the war. But even with this workforce, Boeing couldn't keep up with demand. So, some B-17s were built by Lockheed Vega and Douglas in Southern California. <u>As of November 2022, four B-17 aircraft remain airworthy, none of these that remain were flown in combat</u>. Dozens more of this iconic aircraft are in storage or on static display around the U.S.



*https://blog.museumofflight.org/a-short-history-of-the-b17



Most B-17's flown in combat had its own distinctive nose art.

CVF Official Newsletter

Name the Plane Cockpit: F-35 Lightening II

The following is an excerpt from F-35: The Inside Story of the Lightning II by Tom Burbage, Betsy Clark and Adrian Pitman.

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You start the engine. Its turbine spools upward with a whine, quickly growing into a deafening roar that seeps through your helmet's sound protection and vibrates through your soul.

And just like that, you're superhuman. Like Argus, the farsighted, many eyed watchmen of Greek myth. The helmet-mounted display lets you see the contours of the land, far to the west. Every ship and plane and terrain features for hundreds of miles around. The helmet feeds you warmed oxygen, maintains pressure even if the cockpit's shattered by enemy fire, and scrubs the carbon



dioxide from your breath. Essentially, you're wearing a space suit. The helmet of this one, however, also has a media room built in. Highdefinition cameras surface mounted within the aircraft's fuselage feed live video to a mission computer. The computer stitches the entire 360-degree surround into a single scene that seamlessly follows your head movement. You don't see the aircraft you're sitting in. Instead, you're suspended in space. When you look down now, you see the ship's deck beneath you.

The aircraft you're warming up for combat is the first true fifth-generation multi-role, multiservice coalition fighter. But even that term is a misnomer. A "fighter" isn't all the Lightning is, by a long shot. The F-35's talent at instantaneously collecting, analyzing, then sharing information across a whole theater of war—day and night, in any weather, while remaining hidden from enemy defenses or counter-measures—makes it far more.

During World War II, it took weeks of research, planning, rehearsal, and thousands of men and women—spies, radar operators, SIGINT interpreters, observers, plotters, high-altitude reconnaissance, photo analysts, then the pilots, navigators, gunners, and bombardiers of hundreds of bomber aircraft and escorting fighters—to destroy one high-value enemy target . . . such as a ball bearing factory. This single aircraft you're sitting in could have destroyed the entire plant complex at Schweinfurt, Germany, on its own. In minutes. And never have been spotted.

It could have detected, localized, and shattered the tanks of the 21st Panzer Division as they clanked toward the beach at Normandy. All on its own. It could have evaded the Nazi radar and early warning systems, detected the buried bunker in Berlin, and killed the genocidal dictator in his subterranean lair with one concrete-penetrating bomb. A flight of four Lightning IIs could have done all these things, and ended that war, on the same mission.

While you were belting in, the plane's internal diagnostics have been busy. Nearly 1,200 hardware components share software handshakes in seconds to ensure mission readiness. You don't need to compare dozens of dials to a checklist, or cycle rudder or ailerons. Any flaw or fault will be presented automatically on your screen. A glance is all you need to reassure yourself all systems are go.

Out on the deck, you spot the Fly 1 Petty Officer responsible for the silent launch process. You turn on your wingtip lights, signaling you're ready to go. He touches the deck with his covert night wand, clearing you to launch. You check the screen one last time and advance the throttle to full power. Heavier-than-air flight has always depended on engines. The Wright brothers' four-cylinder aluminumblock engine, more powerful for its weight than any before, allowed them to finally lurch a few yards into the air. That pitifully primitive power plant generated a whopping twelve horsepower.

But behind you now, a Pratt & Whitney F135 radar and infrared stealthy afterburning jet engine is spooling up to generate 43,000 pounds of thrust. Thirty thousand horsepower, 2,500 times more muscle than the Wrights had. The most powerful fighter engine ever built, and the most complex.

You'll need every erg to get aloft. Almost half of the aircraft around you is fabricated of advanced structural composites, including lighter-weight epoxies in which carbon nanotubes are embedded. But it still weighs sixty thousand pounds. About a quarter of that is fuel. Your internal weapon bays are loaded with two tons of air-to-ground and air-to-air weapons. Once enemy air defenses are mitigated, you can also carry weapons externally, on pylons, at the sacrifice of some stealth.

A large rear-opening door lifts behind the cockpit, exposing a ducted fan. The noise builds to a roar, only partially masked by the helmet and cockpit soundproofing. You begin your takeoff roll to generate an early lift over the wings. The engine nozzle swings down, adding its thrust to that of the counterrotating lift fan. They both strain to bench-press thirty tons of fuel, electronics, weapons, airframe, and pilot. (Continued on page 9)

More on Name the Plane Cockpit: F-35 Lightening II

As the deck quickly recedes, you're airborne and accelerating. The lift fan disengages, and the liftfan door slowly closes. And you're not alone. Every allied ship, plane, and ground force in the entire battlespace is an information-sharing node, and you know and see everything they do.

A warning tone sounds in your earphones, and a scarlet symbol winks to life on your helmet visor. The plane's calling your attention to a possible threat. You zoom in with electro-optics. A patrol boat's lurking in a mangrove swamp off the coast you're approaching. Your systems identify it as the enemy. You agree, tag it for destruction, and hand off the info to a British carrier far to seaward of you, maintaining a combat air patrol. Within



minutes, a British F-35B, acting on your targeting information, releases a smart bomb. A massive blast strews fire, fragments, and tornapart bodies across the hidden stream and into the jungle.

Half an hour later you're headed back. Not for the ship, but to land on a captured island. It pushes up over the horizon, a dreadfully short strip of asphalted road that would take the pilot of any other aircraft hundreds of flight hours to dare tackling. All you need to do is lineup, press a button on your throttle, and the plane holds approach landing speed and the proper angle of attack. You nudge it a bit to correct for wind. You've used up most of your fuel and expended most of your ordnance, putting the jet in the envelope for a vertical landing. You touch down exactly on the designated point and as the wheels thump to the ground, the engine drops to idle.

You've just flown a sample mission in the F-35. Now you understand why the "Lightning II," also known as the Joint Strike Fighter, is the most advanced aircraft ever built. The most capable single plane that flies in the world today. Also, the most complex. It's been called "the costliest and most technically challenging weapons program the Pentagon has ever attempted."5 Running the mission you just returned from required nearly 9 million lines of computer code and thousands of person-years of coding and debugging. To put that in perspective, the Apollo 11 Lander required only 145,000 lines of code, and NASA's Mars Curiosity Rover about 2.5 million.

Today, it's the future of both air defense and offensive operations for all of the original partners, with the exception of Turkey, which was kicked out of the program in 2019 after buying Russian's S-400 missile defense system. That makes a dozen nations: the United States, Britain, the Netherlands, Italy, Israel, Australia, Denmark, Japan, Norway, South Korea, Canada, and Singapore. In addition, following the Russian invasion of Ukraine, Poland, Belgium, Finland, Switzerland, Germany, and others are now lining up to be part of the F-35 alliance. To date, the F-35 has not lost a competitive evaluation by any allied air force.



The Development of the "Check List" *

Safety procedures seem to always be written in blood according to Lt. Col. John "Karl" Marks of the USAF Reserve component stationed at Whiteman Air Force Base in Missouri. Marks is the only military pilot on flying active duty with more than 7,000 hours of flight time. He flies the Fairchild Republic A-10 Thunderbolt II. In a recent interview for the Smithsonian Air & Space Quarterly magazine, Marks said "Just about every single thing we do is based on something that has gone wrong in the past. You wonder why it took a crash to realize that a



<u>checklist was a good idea</u>. This is why safety is so important. It's looking at what could happen and how to prevent it. You have to accept the fact that things can go wrong so you have to take steps to make sure they won't."

On October 30. 1935 the future of the U.S. Army Air Corps lay smoldering on the ground at Wright Field in Dayton, Ohio. The initial crash investigation discovered no problems with this new sophisticated aircraft's design. Human error was at fault. The pilot, Major Ployer Peter Hill, (Hill AFB's namesake) had forgotten to release a safety lock. Model 299 (which later became the B-17) ascended to 300 feet, it stalled and then crashed in a fiery blast before a stunned crowd of top-ranking military leaders. The accident claimed the lives of two top test pilots of that time, the Army Air Corps Hill, who was at the controls and Leslie Tower of Boeing who was looking on from the cockpit. Three other aircrew members however did survive the crash.

Because of that accident the Army Air Crops implemented the preflight checklist, a revolutionary new protocol that became the standard for the entire aviation industry. Today the preflight checklist remains a must in the military and aviation. Army Air Corp senior staff came up with an ingeniously simple approach: They created a pilot's checklist. Flying increasingly complicated planes being developed during that era just prior to WWII underscored how complex aviation had become. This basic operating procedure developed 87 years ago is still in use today and reflects how modern technology in aviation has become so complex. Flying some of the new planes today is too complicated to be left to the memory of any one person, however "expert" they may be. NASA also makes extensive use of checklists.

During STS-69 in 1995, astronaut Michael Gernhardt worked outside the shuttle orbiter using an electronic cuff checklist, a prototype developed for the assembly of the International Space Station. During the early years of Apollo, checklists were often printed on astronauts' gloves.

During the late 1980s, safety experts conducted investigations into how checklists were - and weren't - being utilized. The NTSB found that between 1983 and 1986 there had been 21 accidents involving improper use of checklists. In five of the accidents, checklists hadn't been used at all. More work is underway to standardize checklists and make them into a universal format all pilots and aircrew members will use and understand.

Today, hardly anyone remembers Ployer Peter Hill, the test pilot who made sure nearly 60 different pre-WWII fighters and bombers were safe to fly. Hill's sacrifice at the helm of Model 299 changed the aviation world forever and saved hundreds, perhaps thousands of lives.

Doug Hill, a veteran Air Force pilot and retired United Airlines captain is the grandson of the famous test pilot Ployer Hill. Doug Hill is a safety inspector with the Federal Aviation Administration and recently said his grandfather would really be proud of what came after his death in regard to safety developments in aviation.



At left, pilots of the USAF 379th Expeditionary Aircraft maintenance Squadron perform a preflight check on a KC-135 Stratotanker as it prepares to taxi before takeoff from AI Udeid Air Base Qatar in July of 2020.



Astronaut's glove with a checklist imprinted on it.

Smithsonian National Air and Space Museum Air & Space Quarterly, winter 2023, pp 32-39

Chino Valley Flyers Club's Monthly Meeting for August Held at the Chino Valley Police Department's Community Room

The General Membership meeting, on Wed August 22, 2023, opened at 7pm with the Pledge of Allegiance in a new meeting room at the Chino Police Department...nice meeting room, all brand new.

Club membership now stands at 152 paid members. There were 30 members who signed in for tonight's meeting. New member *Bob Gannon* joined us this evening.

Minutes for July 29th meeting were unanimously approved by members.

President's agenda

VP Mark Lipp presented the Treasurer's report through August 21st for Don Crowe who was not able to be here. We are generally in pretty good shape financially. The Treasurer's report was unanimously approved by members.

President *Bill Gilbert* noted the new meeting room at the Chino PD. We need to thank the Chino Valley Police Department and *Jim Scott* for making the arrangements.

President Bill led a lively discussion concerning Flight Safety at the field. There were many comments and opinions offered. The bottom line is that a crash in the <u>Red</u> <u>Zone</u> shown on the field map (See page 4) is an "egregious" safety violation. There will be action taken to update the pilot's flight training after the first violation and Board action following any additional violation within 12 months.

There will be a draft flight training document sent out soon to members for comment and further discussion. The point is to develop a culture of safety in the Club.

Officers Election

All present officers, with the exception of VP *Mark Lipp* are volunteering to continue their service. *Jeff Moser* will accept a nomination to serve as VP. Other nominations can be accepted for those interested in servicing. Contact the Nominating Committee: *Bob Shanks* and *Rick Nichols*, if you would like to be considered.

Club Events

The International Miniature Aircraft Club (IMAC) event was a success, according to participants and volunteers. We will review for next year, increasing the landing fee and revising the concession scheduled.

CD Mark Lipp asked volunteers for Steve Crowe Fun Fly to read the Play Book he sent out. The Play Book has many details for the event. October 21 is Build and Fly, the Swap Meet and Fun Fly will be held in November and the annual Christmas party is December 5th.

Projects and Maintenance

A work day is scheduled for Sept 9th to prepare for the Steve Crowe Event. Please come out to help no later than 7am. See you there!

For the next two months the membership meeting will on the 4th Tuesday evening of the month, in the Chino Valley Police (PD) conference room. The Town Center address is 202 S. Route 89. We need to be flexible to accommodate other meetings that may be scheduled there as well.

Safety Officer *Rick Nichols* said to be sure and read his safety report in this month's newsletter (See page 5).

As an additional safety note... if you have to call 911 for and accident at the field...the address is 2201 Santa Fe Trail or just north of the Yavapai County Sheriff's Shooting Facility.

We broke about 8:06 for a short break with cookies provided by *Steve Zingali*. Thanks Steve! We resumed the meeting about 8:16pm.

Planes and Projects

Dave Domzalski showed us his proto type "pretzel" for his bigger pretzel that he is building for the Build and Fly.

Door & Raffle Prizes

Don Ferguson won the door prize consisting of a triangle square, neck strap, and of course the glue. Harrold Ellis was the lucky member who drew the winning ticket for the nice UpRoar ARF kit.

A motion to adjourn the meeting was offered and unanimously approved about 8:35pm. Respectfully, *Bob Steffensen* Club Secretary

Editors' Note

Bob Shanks will continue to be the newsletter editor unless someone else would like to take the position. If there are any other nominations, as Secretary Bob Steffensen noted in these minutes, please contact Bob Shanks or Rick Nichols.

Editor Bob was unable to attend the meeting so there are no pictures for the Show and Tell segment, maybe next month.

