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

<u>Inside This Issue</u>

\Rightarrow President's Message	2
\Rightarrow Name the Plane	2
⇒ Safety Column	3
\Rightarrow Member Flying Action 4 8	& 5
\Rightarrow Armstrong-Whitworth Acft. 6	
⇒ Airline Pilot Longevity	7
\Rightarrow Name the Plane Answer	8
⇒ A Plywood Jet Fighter	9
⇒ Field Work	10
\Rightarrow April Club Meeting	11

Quote For this Month:

If the present tries to sit in judgment of the past, it will lose the future.

Sir Winston Churchill

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Dane O'Brien's Edge AJ Slick 540



Dane's plane is an AJ Aircraft Slick 540. Engine is a DA 120 with HI Tec servos he uses a Jeti radio for control.

Member Al Weikart's Small Twin Otter



Al says this is a eFlight UMX Twin Otter he nick named the "Tiny Twotter". He has a large one too pictured above next to the tiny Otter. He says he has an extra one too as a back up. These little models have built in gyros.



Page 2



Bill Gilbert: CVMA President's Message

As we transition into the main flying season of the year, we will start to see our field become more populated with old friends and members that may have taken a hiatus during the winter months.

With this increase in activity that we are sure to see, it is <u>250 grams</u>. (Remote ID (RID) is the a good time to take a step back and review our safety policies; both the AMA Safety Guidelines and the club safety rules. We take pride in striking a balance in not having excess rules and yet still maintaining a safe flying environment.

So members, please take a few minutes to review the safety rules so that we may continue to fly without incidents.

So, please heed the new AMA/FAA rules; 400' ceiling for everyday flying is the key rule.

Sanctioned events can get a waiver up to 1200 feet.

After Sept. 16, flying off-site will require an RID module unless aircraft weight is below

ability of a drone or aircraft in flight to provide identification and location information that can be received by other parties.)

Flying at our club is expected to be listed as a FRIA: (FAA-Recognized Identification

Areas). So our club should not be impacted.

We have a lot of events planned at the field this year. Our busy Event Season starts off with the Spring Swap Meet and Fun Fly on May 20. Get involved members and

participate. Let's make this year filled with fun flying activities.

Indoor Flying is winding down for the season, let's look forward to a few Float Fly events this summer. The Float Fly and other venues are still to be determined and worked out later this year.

Don't forget the **Build N** *Fly event* in October, get to building if you plan on entering!

ВШ



President — Bill Gilbert

Vice President — Mark Lipp



Treasurer — Don Crowe



Secretary — Bob Steffensen

Safety Officer — Rick Nichols



Chief Flight Instructor — Al Marello



At Large Member -- Dan Avilla



At Large Member— Gary Cosentino

Newsletter Editor — Bob Shanks





Flight Instructors

Introductory Pilot Mentors

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

CVF Official Newsletter



SAFETY ALWAYS COMES FIRST

By Bob Shanks Substituting for Safety Officer Rick Nichols

Hopefully you all read the "Safety Comes First" column in our AMA journal. The March issue discussed something I have thought about in the past. We must be aware of prop, turbine and EDF blast. One club developed some blast deflectors. Something we might want to consider how we could adapt this idea to fit our club's unique layout.

During events we should also always make sure our planes are pointed away from the spectator areas. We can set up the plane so the prop blast is blowing toward the runway and not at those sitting behind the fence watching all the action.

Another interesting observation mentioned in the March AMA safety column was insuring all screws and mounting hardware is checked, especially around the firewall. The individual noted his model with a folding prop seemed to make a "funny" noise. He throttled back and didn't notice anything unusual but when he gave the plane full throttle again, he lost one of his folding prop blades making the propulsion system wildly out of balance. He managed to land with the motor only hanging on by three wires.

If not sure what is going on with your model throttle back and land the airplane. Be a sharp observer of what your aircraft is doing or not doing not only visually but the sounds as well. If something doesn't sound right land the plane.

Another item to check are servos, yes they do wear out for one reason or another. So if you have an older plane with lots of flights double check all the connections, throws and general operational vitality of the servos.

It has been a long cold winter so if you haven't flown some of your planes for a long time, make sure to double check, screws, firewall conditions, servo hook ups, servo screws holding it in place and all battery connectors.

The same applies to your batteries, recycle your radio's battery occasionally and check the voltage on all of your lipo batteries and make sure you store them at the right voltage. Before flying check the balance condition of your lipo batteries as well.

Fly Safe Members!

CVF Official Newsletter



Chíno Valley Flyers Models









A group of ERAU students test flew their carbon fiber student designed airplane, "Project Zeus" as part of the UAS program there. They also tested a special simulated jamming antenna attached to the left wing.









Bob Vaught's WWI Fokker DR-3Tri Plane.





At right, *Jack Potter* and his very colorful profile. A great flyer.

Rich Kocar's blue foam flyer has wooden wheels, a novel idea Rich.









Al Weikart's plane at left from page one. Bob Shanks' Goldberg Electra at right.



Dave Domzalski's meaningful symbolic flying Easter cross, it holds a lot of meaning for today.

Page 4



Armstrong-Whitworth F.K.10 "Quadruplane" Winged aircraft

Editor's Note: This interesting and little known WWI aircraft photo was sent to the editor by member Mark Lipp, the Armstrong-Whitworth Quadruplane, was a very unique 4 winged allied British airplane from World War One.

The Armstrong Whitworth F.K.10 fighter was the full production-minded realization of the earlier F.K.9 prototype. The types were formed around a single-engine, twin-seat "quadruplane" platform and the F.K.10 model became one of the few quadruplane designs to see formal adoption by a major air service during World War 1 (1914-1918). However, the series managed only eight completed forms before being given up for good. The F.K.9 prototype first-flew in late-1916 and paved the way for the modified (and slightly improved) F.K.10 that followed in 1917.

At this point in the war the biplane was entrenched as the primary fighter standard though a few companies were able



to sell the various air services on a monoplane fighter design. The triplane's appearance in 1917 vaulted multi-winged gunnery platforms to the forefront but this dominance was short-lived and the biplane remained the standard. Aeronautical engineers saw the value in adding more wings to an aircraft but this ultimately came at a steep price - <u>a lot of extra drag</u>.

Multiple wings provided additional lift and better controlling at the expense of additional air resistance which did not bode well as a strong quality for a fighter to have - speed was still the call of the day as it were. As such, there were many failed experiments in the realm of more-than-three winged aircraft during the war years - the F.K.10 more or less being an exception.

Developed for the reconnaissance-fighter role, the F.K.10 carried a tandem, two-seat crew configuration in which the pilot managed a sole, synchronized and fixed .303 Vickers machine gun at front and the rear gunner / observer was given management of a .303 Lewis Gun set atop a trainable mounting at rear. The fuselage of the aircraft was well-rounded at the front and tapered to the rear with slab-sides running the length. The tail unit was of a traditional single-finned arrangement with elevated horizontal planes positioned along the sides. The engine was held in a compartment at the nose of the aircraft and drove a two-bladed wooden propeller in the usual way. The undercarriage was wheeled and of a "tail-dragger" configuration - the main legs being wheeled for ground running.©MilitaryFactory.com

The quadruplane winged arrangement appropriately featured four wings set parallel to one another. A thick supporting structure (called an "interplane strut") was run through all four wings (planes) for the needed strength. The stacked wings were noticeably cranked forwards from the bottom-up when viewing the aircraft's side profile. The pilot's cockpit was positioned aft of the engine but under the top-most wing plane and behind the second plane. The third plane was positioned midway along the sides of the fuselage with the fourth plane held low and away from the belly of the aircraft.

Power for the series was to come from a Clerget 9B rotary engine of 130 horsepower, giving it more output than the original prototype's Clerget 9Z rotary 110 horsepower engine.

Design of the F.K.10 was attributed to Dutchmen Frederick Koolhoven dating back to 1916's F.K.9 prototype. His surname would go on to drive some of the aircraft designs emerging from the Netherlands during the lead-up to World War 2 spanning the years from 1939-1945.

The F.K.9 impressed enough leadership that a production order for 50 aircraft was signed by the Royal Flying Corps (RFC). However the noticeable issue of drag soon limited the need for the quad-winged F.K.10 and only eight were complet-



ed in all - the biplane still being the favored wing arrangement for fighters and bombers.

Five examples were finished before the formal cancellation of the contract, though three more were built for the Royal Naval Air Service and some were even test flown before its final cancellation.



Is it True or Not: Airline Pilots Longevity After Retirement Appears to be Rather Limited and not Particularly Good *

<u>Editor's Note</u>: Here's an interesting observation that is not scientific proof, however, this was enough for one pilot to quit being an airline pilot when the situation presented itself. This is an interesting opinion and again, <u>has no research to back it up</u>. This article is strictly anecdotal and an opinion but highly interesting nevertheless.

This story may have been on the Sunday night news program, 60 MINUTES?

One of the weekly news shows—perhaps it was 60 Minutes, hence the question mark in the heading—did a report during this pilot's first few years working as an Eastern Air Lines pilot, so this was perhaps in the early 1980s.

<u>That segment reported that airline pilots who flew until age 60 had short lifespans after retirement</u> — Mr. Wagner, the author and former pilot cannot recall the exact number, but 63 comes to mind. The cause was the combined negative effects on their circadian rhythms caused by all the time zone crossings, plus the long-term exposure to radiation because most of their flying was at high altitude.

The idea was that senior pilots on international airlines flew a lot of long overseas flights their last decade. Changing four to six times zones many times per month, while being radiated, and while getting older, set them up to die shortly after retirement.

The study broke out the traditional overseas airlines like Pan Am, TWA and Northwest, versus the ones that flew mostly in the USA, like Eastern, etc. So it seemed clear to Mr. Wagner that spending less time at high altitude and crossing fewer time zones resulted in a longer life after retirement.

COMPARING EASTERN TO LONG-HAUL INTERNATIONAL AIRLINES

They used Eastern for comparison because they mostly flew the East Coast with a few jaunts into the Central time zone and even fewer to the West Coast. The international flying was Canada, the Caribbean and South America, which was mostly in the same time zone, with some being a one-hour difference.

At that point, Wagner was excited, he had been hired by Eastern and he vowed to stick with short flights—hence his almost exclusive flying on the Eastern Shuttle between Washington and NYC. Sometimes he would pick up one two-day West Coast trip per month for fun. It seemed his career was set up well.

JUMP-SEAT RIDING FED EX PILOT

But that decision changed for him when a female pilot rode my 727-jump seat one day. Guys tend to be *macho*, especially pilots. I'd talked to Fed Ex pilots about the rigors of their overnight flying, and they said it was no big deal — they often said, *no problem, man!* Women tend to be honest about feelings and health and she had a different take and opinion on this.

She was a fairly senior Fed Ex pilot and was still a copilot on the DC-10. With her seniority, she could hold trips on the DC-10 that flew only during the day and only on weekdays and only within the USA. She could have upgraded to captain, but that would put her on the worst overnight, international trips—wreaking the greatest havoc on the circadian system and giving the greatest exposure to UV radiation.

But why did that matter to her?

She told me that Fed Ex had a pair of identical twin brothers who were both hired as pilots. But they were hired seven years apart. Early in her career, she saw them together and could not believe they were identical twins because one of them looked to be many years older than the other one. The one who had logged the extra seven years had aged way beyond his identical twin brother.

CAREER CHOICES

After that, she always used her seniority to fly daytime, weekday, domestic trips as much as possible. And now she was nearing the top of the seniority—with the lure of being a captain hers for the taking—but she intended to remain a DC-10 copilot until she was senior enough to hold day, domestic trips as a captain. Because long life, health, and being home more mattered more to her than money and a fourth stripe on her epaulets.

When Eastern went down, I realized that no other airline offered the opportunity to fly something like the Shuttle, which had me home every night and never flying above 17,000 feet—except for a monthly fun trip to the West Coast. Thus, he counted Eastern's demise as a lucky break and was done with airline flying.

Wagner has kept up with former Eastern friends who were my age and went to other airlines. Most ended up flying a lot of international routes. Now, clearly, it's self-serving of me to say I look a lot younger than them, but in my mind that doesn't matter because it makes me very happy that I quit flying for the airlines at age 39, after just 10 years of airline flying and with most of it on the East Coast Shuttle.

Page Two Cockpit Photo: Sopwith Pup

The Sopwith Pup, was an easy airplane to fly whereas the Camel was a much superior machine with a lot more power, and actually much more difficult to fly due to the torque that the larger engine produced which gave it a greater propensity to skew to the right known as (the "P" factor). <u>This article is from a variety of Internet sources</u>.

In World War I, aerial tactics initially involved the use of balloons and planes for observation only, as a means of artillery detection and information gathering. But as the need to prevent enemy observation grew, synchronized gun-equipped fighter planes were introduced on both sides, and aerial combat aka dogfighting was born. For the Central Powers, the German Fokker Eindecker was their most successful fighter. And for the Allies, that title belongs to the Sopwith Camel. But what made this British fighter plane so effective, and so important? Read on to find out!

Development and Design

Before the Sopwith Camel graced the wartime skies, there came its equally important predecessor, the Sopwith Pup. In October 1916, the first of these arrived at the Western Front. In the final months of 1916, the No. 8 Squadron RNAS destroyed 20 enemy aircraft over the Somme battlefield. But while they proved successful, the Sopwith Pups were outmatched by updated German fighters, including the Albatross D.III, prompting the development of the superior Sopwith Camel.

The main requirements for the Sopwith Camel were simple – heavier armaments, greater agility, and increased speed. With designs headed by chief designer Herbert Smith, this new plane was dubbed the "Big Pup", although its official designation was the Sopwith F.1. The inclusion of a metal fairing over gun breeches, designed to keep guns from freezing at high altitudes, resulted in a hump shape, leading pilots to call this new aircraft the Sopwith Camel.

The Camel maintained similarities to the Pup, but had a larger wooden box-like fuselage. In addition, it had plywood paneling around the cockpit, an aluminum engine cowling, and two 7.7 mm (0.303 inch) Vickers machine guns, mounted at the front of the cockpit. These guns were synchronized to fire through the propeller disc. Four Cooper bombs were also included, to be used for ground attack when required. The first Camel prototype, powered by a 110 HP Clerget 9Z engine, was flown by Harry Hawker on December 22nd, 1916, at Brooklands, Weybridge, Surrey. A production contract of 250 Sopwith Camels was issued by the British War Office in May 1917, with a total of 1325 produced across 1917. When the Camel type's production ended, a total of approximately 5490 were built.

Flight Characteristics

While the Sopwith Camel held significant advantages over the Pup and Triplane, it proved to be far more difficult to fly. The tight positioning of the pilot, engine, guns, and fuel tank in the aircraft's front seven feet created extreme maneuverability, and demanding handling. Aviation author Robert Jackson noted: *"In the hands of a novice it displayed vicious characteristics that could make it a killer; but under the firm touch of a skilled pilot, who knew how to turn its vices to his own advantage, it was one of the most superb fighting machines ever built."*

Its reputation as an unforgiving aircraft swiftly grew as inexperienced pilots failed to adjust to the steep learning curve. One of the major problems was that the Camel lacked a variable incidence tailplane. This meant that in order to maintain a level attitude at low altitudes, pilots had to apply constant forward pressure. The Camel could also be set up to fly hands off at high altitudes, but stalls would instantly result in dangerous spins.

The Western Front

The Sopwith Camel entered service in June 1917, with the No. 4 Squadron of the Royal Naval Air Service, stationed near Dunkirk, France. By the end of the month, No.3 and No. 9 Naval Squadrons were equipped with Sopwith Camels, and by February 1918 it was the primary aircraft for 13 squadrons.

Its first combat flight was on June 4th, 1917. The following day Canadian World War I Ace, Major Alexander MacDonald Shook, scored the Camel's first victory, destroying a German Albatros D.III. Another Canadian Ace, Major William George "Billy" Barker, shot down 46 aircraft and balloons across 404 operational flying hours in his Sopwith Camel, the most of any RAF fighter.

Home Defence

While offence was a big part of the Sopwith Camel's war effort, it played an equally important role in defending Britain from German air raids. Camels flew from Manston and Eastchurch Air-fields to counter daytime raids by German bombers, and, following public outcry about London's poor response to night raids, the RFC diverted Camels meant for the frontlines. Aircraft required for nighttime defenses were promptly equipped with navigation lights, while a limited number were given additional changes. Dubbed the Sopwith Comic, these modified Camels had their Vickers machine guns replaced with overwing Lewis guns, and their cockpits were shifted back to allow the pilot to reload.



During the German's final night raid on May 20th/21st, 1918, a combined 74 Sopwith Camels and RAF S.E.5s intercepted 28 German Gothas and Zeppelin-Staaken R.VIs. <u>This resulted in the German bombers suffering their heaviest defeat in a single night over Britain,</u> with three bombers downed by aircraft and two more by anti-aircraft fire. Credited with downing 1294 enemy aircraft, the Sopwith Camel was the most successful Allied aircraft of the First World War. It is no exaggeration to state that the Camel's involvement had a major impact on the war's result, making it one of the most important fighter planes in history.

What Could Possibly Go Wrong with a Plywood Jet Fighter ?

By Reilly Tifft, Assistant Editor for the Air & Space Magazine

One of the early jet fighters to come out of the design minds of the German Luftwaffe in WWII was actually made out of plywood!

This article, written by Assistant Editor Reilly Tifft with the Air and Space Magazine staff, appeared in the Spring 2023 edition of the Smithsonian Air & Space Magazines Quarterly issue. The He 162 was developed for the Volksjdger (People's Fighter) in 1944.

World War II's German Luftwaffe developed a contract with the Heinkel Aircraft to come up with jet powered aircraft called the Spatz, German for sparrow. The Spatz was made primarily out of plywood since at that time, the Luftwaffe was short of steel and aluminum.

According to the article, the Spatz was suppose to be the German's Wonder weapon the populace could rally around for a German victory. However, more pilots died learning to fly this aircraft than actually flew it in combat. The loss rate was higher for student crashes than actual pilots dying in combat flying the He 162 according to German flight records.



The Spatz first flew only 74 days after the contract was signed but unfortunately the Heinkel companies efforts to introduce a new fighter for the Luftwaffe was too little too late and very flawed from an engineering assessment. The very first prototype actually crashed four days after its first flight but the aircraft was still rushed into production anyway.

Pilots found it difficult to fly and it had a tendency to break apart when flight maneuvers over stressed the glue holding the plywood parts together. The Air and Space museums Heinkel He 162 on display is an A-2 variant which had lighter cannons because the original armament was too heavy for the fragile plywood airframe. So what could possibly go wrong with a jet fighter made out of plywood?

During Vietnam, Pilots Underestimated the Mig-17 Fighter at their Peril The Fighter was often Called the Guerrilla Aircraft by the U.S. Air Force ^{*}

According to a report in the Times magazine in 1965, the USAF Chief of Staff, General John P. McConnell was "hopping mad" because two North Vietnam fighters had gone up against two U.S. F-105 Thunderchiefs, a big bruising 1400 mph supersonic plane and the two little Mig-17 fighters, left overs from the Korean war, had actually won defeating the F-105s!

The Mig-17 was small, didn't have radar and missiles and wasn't much of a plane to look at according to Lieutenant Colonel Earl Henderson, who had

taught U.S. pilots to fight Migs in a program called "Constant Peg", he humorously compared the Mig-17 to a "tractor" it was such a crude airplane. The cockpit literally had valves and faucets to turn things on and off!

The little fighter had a lethal and impressive advantage, it could literally turn on a dime and according to Ace Col. Robin Olds, and would be quite a fight for any F-4 Phantom or F-105 to take on. Olds said the turn radius had to be seen to be believed in a report he gave to an Air Force study team in 1967.

The North Vietnamese Air Force had the same guerrilla hit and run tactics used by the Viet Cong on the ground. They would only fight when they thought they were stronger than their opponents. Of course other more advanced Migs entered the conflict later, the Mig-19, a supersonic mass produced fighter and the delta winged Mig-21, equipped with radar and heat seeking weapons and was an equal match to the F-4. However, many North Vietnamese pilots preferred the little slower Mig-17 as it was more maneuverable in a dog fight.

<u>The Mig-17 inflicted a terrible toll on U.S. fighters downing 71 U.S. aircraft from 1965 to 1972</u>. With expert guidance from ground controllers, the Mig-17 was adept at ambushing U.S. pilots.

- * Plywood Fighter...by Reilly Tifft, Smithsonian Air & Space Spring 2023 Quarterly magazine, page 48.
- Mig 17, "The Guerrilla Aircraft", Smithsonian Air & Space Spring 2023 Quarterly magazine page 23



CVF Official Newsletter



Field Maintenance and Rock Work

Over 25 members showed April 15th for a work party to spruce up the field and get it ready for the warmer weather flying year.

Newly laid down gravel has really helped the parking lot. There were also a lot of large rocks, tripping hazards, that had to be collected and moved. The pre emerge application has really helped the weed situation at this point in April.

New signs were also put up over the cabana and at one of the assembly tables. The fold down sign in the pit area was to alert flyers that a 72 MHz radio was in use.



The Rock gang.









The new sign with our new name was placed over the old one to also provide more stability against the wind. At right *Gary Cosentino* drilled holes for the fold down sign alerting flyers that 72MHz radios were in use.

NO VA

A big thank you for all who showed up to get the field in shape, it didn't take long so a lot of great flying could take place, a super flying day with little to no wind most of the morning. Thank you members who showed up to do the work.



April 2023 General Membership Meeting

Today's meeting had 27 Members who signed the attendance roster. The head count was approximately 48 members in attendance. The sign in sheet did not make it to everyone in the crowd. New Members *Tyler Johnson* and *John Jackson* joined us for the meeting tonight. Minutes for February 28th were unanimously approved by members. Club membership now stands at 140 paid members.

President's Agenda

Don Crowe presented the Treasurer's report for March 1st through April 21. Treasurer's report was unanimously approved by members. President *Bill Gilbert* updated members on projects and maintenance: crack seal of the runway has been completed and restriped; the drainage ditch in front of the shed was dug out and a bridge was built for the fire cart and mower; additional gravel was spread in the vehicle and trailer parking areas; and the table bolt down are all complete. Thanks to generous members and search for a less expense gravel vendor saved the Club significant money. Thanks to those that participate in the workday last Saturday and the mower in chief *Mike Benner*. The field is looking great. AMA update: A 400' altitude is in effect for our field. Waivers to 700 or 1200 are available for sanctioned events only. AMA is lobbing for changes. The IMAC event scheduled for August 18-20 has been sanctioned and waiver received for that event. Off field flying will end on Sept 16th unless you have a transponder about \$300 currently. Aircraft less than 250g are exempt from this requirement. Do register with the FAA and label each of your aircraft with the registration number.

Events This Year

The Annual Swap Meet and Fun Fly is May 20th; Warbird Race is June 17th; the Glider Event is July 17th; IMAC is August 18-20; the IMAC Nationals will be in 2024; the Build and Fly event is October 21, 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. Fixed wing only...no rotor or control line; we will try to get a float fly if not in this area...maybe North to the Williams area before the requirements for transponders kick in in September. Indoor flying at the Toyota Center is over for this year. Thanks to *Mark Cotter for* spearheading this very popular indoor flying activity.

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 about the event September. We are also starting workshops, of about 30 minutes each, following meetings, for those interested in the subject presented.

Today Dan Avila is giving a class on control setups and programming after the adjournment today. VP Mark Lipp demonstrated the 72mhz board. Open if you are flying with ancient gear and check with others about channels before you tube up your transmitter. Mark also said to use the choke when starting the fire cart. Safety Officer Rick Nichols read through the RC flying safety from the AMA as required annually for Leader Clubs. These rules are posted at the field in the information case. See the list also on the AMA website. Rick provides addition safety tips in his column. Secretary Bob Steffensen asked for volunteers for Goody Duty at future meetings. We now have a complete schedule thanks to all the volunteers.

Member Comments

Gary Cosentino gave additional details about using 72mhz at the field. Bob Shanks requested that members keep their emails up to date for newsletter distribution. Dan Avila gave addition information about his programing class today. Lee Boekhout proposed a "Spot Landing Event" and gave details. Date to be determined later. We broke about 1040am for some "dough holes" provided by *Bill Gilbert*.

Show & Tell: Planes and Projects

Mark Lipp showed his Nieuport 17 Triplane project...yet to be covered. *Harold Ellis* showed a rocker bi-plane for children that he built for his granddaughter and *Brian Sutton* displayed his 3-line CL P51 (with throttle Control).

Door Prize/Raffle

Larry Caldwell won the door prize consisting of a ruler, neck strap and of course the glue. New member Tyler Johnson drew the winning ticket for the Savage Bomber, built by Don Crowe and donated by Don Crowe.

A motion to adjourn the meeting was offered and unanimously approved about 11:03am Respectfully, Bob Steffensen Club Secretary



Bryan Sutton's C/L P-51 looking model.



Harold Ellis' rocker chair bi-plane.

"Door Prize" and "Raffle" Winners



Larry Caldwell Won the "Door Prize" yler Johnson Won the "Raffle"



Harold Ellis' Rocker Bi-plane