

#### Welcome May

Another month has passed, I have heard great news regarding our individual compliance with the CDC social distancing guidelines out at our field. THANK YOU ALL!!!!

As some of you are aware, we were able to have a business meeting via Live Chat software. We are looking into other products that can hold the numbers needed for club participation. If the social mandates continue, it will be needed for our club meetings to continue. Any suggestions will be considered.

Now lets get to a better topic. During the quarantine, one of the activities considered was to have club members show off their modeling workspaces (mancaves and womancaves.) A small article and some pictures for the newsletter would be "most excellent." This can include any ongoing build projects etc... We are all friends here and are interested. If you have a home project you are working on, that too is interesting. No such thing as too many articles, we have at least 1000 years of newsletters to fill with content.

Thank you all and Fly Safe!!!

Doug Vice Dougv69@gmail.com

	Prez Sez	Doug Vice
	Meetings Minutes	Mike O'Kane
WDA Club Meetings are	New Tables for the Pits	
postponed until we get past this	Remembering John Hoppe	
	(cover photo is of John's jet)	Mike Cerati
"shelter in place" period	Modelers Corner	Geertson
	Upcoming Events	

#### Woodland /Davis Aeromodelers April 13, 2020 Board Meeting 2020 (via Zoom)

Members present: Doug Vice, John Eaton, Mike O'Kane, Jeff Lovitt, Chris Dellinger, Dan Winters, Doug Barton, and Keith Young.

Motion to accept minutes as posted in the News Letter was made, motion received a 2<sup>nd</sup>, vote to accept the minutes as written in the NL approved by unanimous vote.

#### **Officer Reports**

President Comments throughout the meeting.

Vice-President Not present

Treasurer: John reports checking account balance is \$8,769.22 after expenses and \$2,168.00in savings.

Secretary: No comments

#### **Chair reports**

Field chair Art continues to work on his "to do" list. Tuesday and Thursday are the normal work days for Art and others to be at the Field. Thursday is the normal mowing day with the runway shut down while mowing near that area.

If you would be interested in mowing or would care to work off points consider Tuesday or Thursday, please contact Art Williams.

Membership John has issued 87 cards to date.

<u>News Letter</u> Rich is always looking for content, please reach out to him if you have an article of interest you would like to see published.

Web Page Kerry has the page up to date with points tally.

<u>Safety Chair</u> John Lett commented on the Boards responsibility to ensure the Field is operated as safe as possible. The Prez Says portion of the News Letter has guidance on how to use the Field and Covid-19 requirements

Work Party: Saturday 3/28/2020 was cancelled

#### Old Business:

<u>Water</u> Water deposit has been made to Yolo County Flood Control (YCFC), some of the 3" PVC pipe section has been assembled. The ditch on the South side of Rd 29 is currently flooded by farm use and the pipe will be routed when the intermittent water recedes. Parts are in hand to adapt the foot valve from 6" to 3", some assembly of the foot check valve has taken place. Water level on the main ditch side is workable.

<u>Shade Structure</u> A motion was made to approve the welding cost of \$1,400.00 to complete the shade structure rebuild, 2<sup>nd</sup> was made and motion passed unanimously. Note: rebuild involved adding an additional row of vertical pipe to drop the horizontal span to 10'. Rough work is completed, trimming minor grinding, trimming and painting are still needed.

<u>Fence</u> Discussion will continue at the General Meeting. ADA height was mentioned and deferred to the General Meeting. Final members vote is pending on this item, April General Members meeting was cancelled due to Covid-19 shutdown of the library and health concerns.

<u>Truck</u> Arrangements have been made to have the truck towed away which is anticipated to take place before the April meeting. Item closed truck has been removed.

<u>Sun room</u> Disposal of the sunroom that was salvaged is scheduled. Item open <u>Model plans in Conex(s)</u> Doug B. will begin to organize. Ongoing work.

<u>Pit Tables</u> Keith Y. provided update and cost estimate after completing a trial repair of one of the existing tables.

Substantial water rot was discovered after he disassembled the table and determined repair is not beneficial and recommended replacing the entire table rather than rebuilding. Rebuild is cost effective and will provide a longer return on the cost investments with annual maintenance of the table being performed.

Motion to approve \$1,000.00 to replace 7 tables, one of these to be built to ADA specifications was made, 2<sup>nd</sup> of the motion was made. Motion received unanimous approval. Note as of 4/22 Keith has 4 tables framed and awaiting primer and paint before the tops are put on.

STEP Program The outreach to Woodland Christian School has been put on hold until fall.

#### **New Business**

<u>Events</u> Motion was proposed and 2<sup>nd</sup> made to cancel all May scheduled Events and possible future events at WDA due to Covid-19 reason. Motion passed unanimously.

Request by Lou Fox: Due to Yolo County County closing the SVSS Field Lou Fox has requested on behalf of Sac Soaring Society to use the WDA field with others from his club beyond the 2 visits listed in the Club rules. After Discussion a motion was made that reads, to extend use to AMA members beyond the 2 visit limit if their facility is closed due to Covid-19 reasons. Visitors must abide by the operation boundaries of the Field and the particular area they are using, i.e. 3<sup>rd</sup> control line circle. Visitors must maintain social distancing and abide by the new Yolo County Order for mask requirements that took effect on Friday the 24<sup>th</sup>. Motion received a second and the vote was unanimous.

E-mail Vs. video motions and acceptable voting practice.

The Board has agreed that e-mail is not a suitable method to vote on business actions via e-mail but is for information and discussion. Voting on a particular motion may be carried out via Video Conferencing and the activity recorded by the Secretary for record in the relative minutes of that month.

Concerns were brought up regarding the Non-Profit by-law contents as currently listed in the Club Operating Rules, discussion took place and a motion was made to amend the By-Laws relating to the 501(C) (3) requirements. SVSS has recently amended their By-Laws with services from an Attorney and numerous omissions were discovered that should have been their rules. Motion received a 2<sup>nd</sup> and approved by unanimous vote. This will be a developing process as more is learned.

Meeting adjourned at 7:36p

#### Yolo County Covid-19 Dash link

https://www.yolocounty.org/health-human-services/adults/communicable-board link-investigation-and-control/novelcoronavirus-2019/dashboard-and-documents



#### **WDA Table Donations**

WDA has begun an incentivized donation series. To all of you that have been to the field you may have noticed the refurbished table. It looks great! The remaining table are at a point where the refurbishment will literally be a replacement. We have decided to build new tables at a cost nearing \$200 each and have opened a donation coffer for the tables to help offset the costs. We are considering naming the tables, as the incentive, to thank all those that have donated. A few donations have been collected, more are welcome.

Please contact a board member listed on the Website and/or the newsletter.

Doug Vice

Dougv69@gmail.com

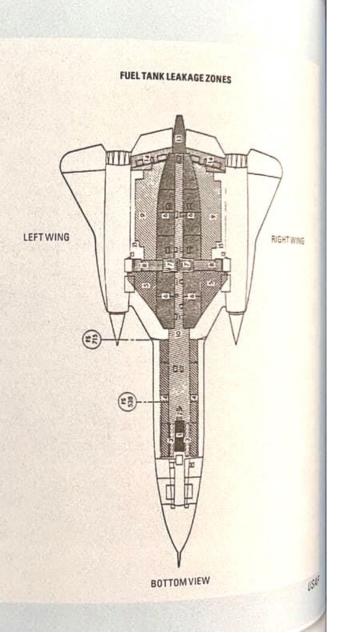
### Thanks to Dave Riefer for submitting the following about the SR-71... How many of you knew this???

**MANY PEOPLE BELIEVE** we refueled after takeoff because the aircraft leaked fuel so profusely that we needed to fuel up quickly. We had to refuel right after takeoff for only one reason, and it wasn't because we leaked JP-7 fuel on the ground. Yes, the plane does leak fuel, but not enough to require refueling after takeoff.

The JP-7 fuel reaches temperatures well over 300 degrees F. during Mach 3 cruise, making the fumes in each of the six fuel tanks very volatile and potentially explosive. The metal skin of the aircraft approaches 400 degrees F., adding to the volatility of the fuel inside the tanks. One of our aircraft limitations was a maximum speed of Mach 2.6 without an inert atmosphere inside the fuel tanks.

The aircraft had three liquid nitrogen Dewar flasks containing 260 liters of liquid nitrogen, located in the nose wheel well. The only way to ensure 100 percent inert atmosphere in each fuel tank was to refuel the plane inflight completely full of JP-7, allowing ambient air in each fuel tank to vent overboard. Once full of fuel, gaseous nitrogen would now dominate each fuel tank's empty space above as it burned off JP-7. The nitrogen gas pressurized each fuel tank to 1.5 psi above ambient pressure and inerts the space above the heated fuel to prevent autogenous ignition. This is why we refueled after takeoff. Then we could safely accelerate beyond Mach 2.6.

There was one other way of achieving tank inerting, called a "Yo-Yo," but this was a maintenance nightmare. A few of our missions required the SR-71 to accelerate to Mach 3+ right after takeoff with a 65,000-pound fuel load. The Yo-Yo procedure had the crew chief completely refuel the plane to full tanks of 80,000 pounds of fuel. Then, with the nitrogen pressurization system working, they de-fueled 15,000 pounds of JP-7, ending up with a 65,000 pound fuel load and a plane that was capable of going immediately to Mach 3+.





## John Hoppe Remembrance By Mike Cerati

In the late 1990s I had been in the RC hobby for about five years, having started with trainers and having moved up to warbirds which became my passion. That was about the time in which ARF's were becoming popular and somewhat controversial. But that was about all I could fly because of my inability to build. It was during this time that I met John Hoppe at the previous flying field. He seemed calm, jovial, and knowledgeable as he went about his business flying his planes as one of the most competent that I had ever seen. Above all, different from many fliers who gave their opinions freely, he listened intently before giving his. His responses always came out reasoned and thoughtful. I confessed that I was overwhelmed by the task of building cool WW II planes not having had any background with that kind of thing, even though I was most eager to learn. He didn't belittle or criticize my inability and lack of experience, but patiently extended his friendship and expertise in my direction. Slowly, not only did I learn much about RC, but grew in the appreciation of his talent and friendship. He became the older brother that I wish I could have had. He not only had an extensive knowledge of a myriad of things mechanical - he could fix anything, but he also had an enormous

sense of humanity. His calm wisdom, reassuring presence, and sometimes cynical sense of humor endeared me to him and many others of his flying buddies. When a newcomer or interested bystander would drop by the field, John would be one of the first persons at the club to extend a warm welcome. He would patiently listen, smiling with a twinkle in his eyes, answer their newbie questions and encourage them to pursue this interest. When his illness started to take its toll on him, he would tell me almost on a daily basis that he missed flying and his comrades at the field.



# We miss you too, John!





Here is my newest workstation. My wife gifted this to me for Christmas. I have been working on a bomb launch design that will work with all the different bombs already designed. I am open to suggestions and can build up to 4.25" cubed before needing to design assembly. I am having a great time with it and have some incredibly good software that is all free. I am looking into other programs that will (as advertised) take a series of photos and transform them into a printable 3d design. I am thinking about putting our own busts in our planes to scale. Another great aspect to an ever-growing hobby.

I have shown you mine, your turn! Let's have a little fun with this.

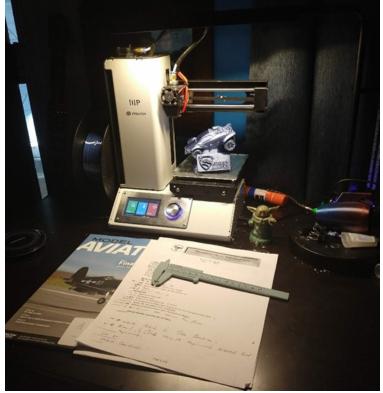
Stay safe friends; Douglas Vice



have left the Fox factory like that, especially since Fox always touted the fact that they "run every engine before dispatch." Oh well...

My mania in getting the engine running was no more than an unwillingness to let it BEAT ME!

It started right up after the correct sleeve install and I ran it sloppy rich for a few minutes just to prove to myself that I was indeed, THE VICTOR!!!



Last month I described my frustration attempting to run this vintage this Fox .29 RC... the darn thing would start, but barely run. The obvious problem was a complete lack of fuel draw. I tried every trick in the book to get it to draw fuel, but no joy.. UNTIL... I inadvertently covered the exhaust outlet while also covering the carburetor inlet (to choke) and VOILA! It was sucking fuel into the carburetor in that configuration. I had already checked to make sure the transfer ports from the crankcase into the combustion chamber were clear, but what if...the cylinder sleeve was installed wrong? It didn't appear to be, looking into the exhaust port, but still...

Amazingly, the original Fox instructions guides the User through

cylinder sleeve removal. And YES, I found the sleeve was installed 180 degrees wrong! There is no 'key' or any other obvious reference for sleeve installation. The subtle difference between the cylinder ports are the height of the intake vs. exhaust, with the exhaust port cut in just slightly higher

I do not know if this engine had been run before I took possession of it? It's hard to believe it could



And now onto a far less ebullient topic... CRASH OF THE GEE BEE R1 'bob tail'...

Counting the take-off roll, the "maiden flight" of my Gee Bee R1 'bob-tail' lasted a grand total of 7 seconds. I won't call it a total disaster, since the airplane is repairable, but indeed a disaster of heartbreaking proportions since the damage is extensive and after many months of speculation, I still have no idea how this airplane flies.. Or would have flown!

What happened? At first, I had NO CLUE. I began my take off roll and the airplane naturally wanted to veer left. I was late in correcting, but the airplane became airborne, yawing slightly to the right. At about 5 feet of altitude, it yawed left and dove into the ground. SPLAT!!

After thinking about it all night, I finally came up with what I believe to be the root cause of what seemed to be an unexplainable reaction to yaw: GYROSCOPIC PRECESSION.



Having many Gee Bee flights under my belt, I was well-aware of the Gee Bee's proclivity for diving while yawing, but with little thought, I attributed this quirk to one of its many aerodynamic idiosyncrasies. Many years ago I built a Top Flight Contender (flat wing – no polyhedral) and it too exhibited the same pitch down in yaw.

What I experienced on CRASH DAY was NOT the same thing.

Having examined the maiden video over and over, it is now clear what was going on... the Gee Bee, with lots of torque and HP up front swinging a heavy prop, extremely short fuselage and tiny tail surfaces (made even tinier by yours truly), is just one big-ass GYROSCOPE. Gyroscopic precession is something every RC helicopter pilot contends with every time they input even the slightest amount of left, right, fore or aft cyclic... the ship reacts with a movement vector 90 degrees from the point of force.

If you're interested in really understanding the physics behind G.P., there are lots of YouTube videos that go into great detail.

In the case of my Gee Bee, as it yawed left, it naturally wanted to lift off the ground as the force vector was 90 degrees to the yaw, in the UP direction. However, when it yawed right, the force vector was in the exact opposite direction, DOWN.

Lacking flying speed and altitude, I wasn't able to correct for what can only be described as a severe and instant response, 90 degrees to the right yaw.

WWI aircraft, with their heavy rotary engines and heavy wood props spinning up front, were notorious for gyroscopic precession and many low-time pilots were unable to live long enough to develop the required instinctive responses. Ultimately? My crash is attributable to PILOT ERROR. Had I to do it over again, there are several things I would have done different which would have at least resulted in a successful take-off and transition to full speed flight... at which point I may have discovered more nasty surprises about the bob-tail R1...

This was indeed a learning experience / teachable moment, albeit PAINFUL! I now understand gyroscopic precession in a way I never did before.

Did you know the DOUBLE HAMMER HEAD we see aerobatic pilots perform at air shows is ONLY possible thanks to G.P., it is NOT the result of simply holding in full rudder after the first hammer head... nope!

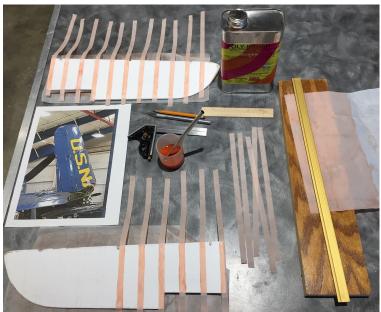
My never-say-die wife tells me I should fix the bob-tail just to the point of making it flyable and try again... sage advice, but right now my physical and mental energies are devoted to my Blue Angels Bearcat, so the destiny of the bob-tail will remain in limbo for the here and now.

The moral of this story is age-old: What goes up, must come down. IF you have a proclivity for a particular (peculiar) aircraft design notorious for killing pilots, prepare yourself for untold amounts of grief. I think it's a sickness.

Oh well, could be worse.. at least it's not COVID-19..... on the other hand, judging from the level of damage and work required ? Given the choice, I might just opt for a bad case of Wuhan!

Progress continues on the **1/5 scale Blue Angels Bearcat**. The glassing, sanding, filling, priming, sanding, priming, sanding, priming, sanding, priming, sanding, priming, sanding, priming, sanding, priming, wet sanding, then surface detailing and painting portion of the "build" is in full swing.

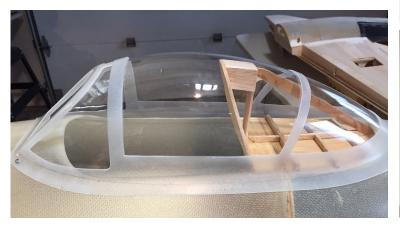
This is the part where a modeler has to decide just how far to take his scale project. As they say, "A scale model is never done... the modeler just decides it's time to stop."



Applying rib tape to the ailerons

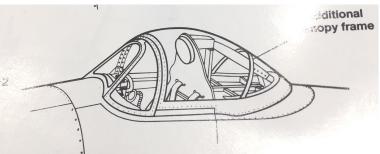


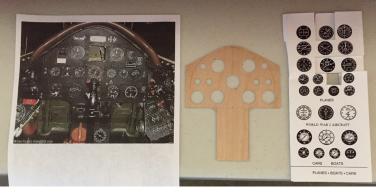
Starting on the cockpit





Glassing the bottom of the wing











The only cockpit kit I could find for this Bearcat was one sold by Dynamic Balsa. After looking at pictures of both the kit and the full scale, I decided to tackle the cockpit on my own, from scratch. It will be a "stand-off scale" version of the full scale. I still had some old JTEC printed instruments from days gone by, which came in handy in producing the instrument panel. The pilot is from Warbird Pilots. GREAT guy to deal with! As you can see, still a work in progress, but all good fun and immensely satisfying.

**Rich Geertson** 



## WDA 2020 EVENTS

## <u>Date</u>

May 7-9 May 16-17 1-Aug Aug 29-30 Sept. 12-13 Sept. 26-27 Oct. 10-11 Oct. 10 Dec. 6 Jan. 1 2021 <u>Event</u> Heli Scale Masters Fred Burgdorf Race Old School RC Jamboree Goyet U/C Pattern Spectacular Meet n' Meat U/C Fall Float Fly Golden Age Fly In Pearl Harbor Day Chilly n' Chili <u>CD</u> CANCELLED CANCELLED

Rich Geertson Walt G. Laurence Tougas Jim A. Randy Sizemore Rich Geertson

Forrest Barton



Rotors Over Roseville 2020 Model R/C Helicopter Event Saturday May 16th 2020 starts at 9 :00AM

Location: AMOS Flying Field

4015 E Catlett Rd, Lincoln, CA 95648

On The Corner of E Catlett and Fiddeyment Roads One Mile East from the Thinder Valley Casino in Lincoln CA

Flying fee \$7 and BBC Hamburger or Hotdog Lunch \$7 Tri-tip sandwich Lunch \$10

Pllots must have Valid AMA insurance Helicopter and wilti Rotor Help Desk for Beginners

3D Stunt and

FC3 Scale flying styles

3 flying areas within the field

Free Overnight R/V Friday May 15th If it Rains on May 16th the Event wil be held on the Next Saturday - the 23rd

Contact: Basil 916-410-2791 or Geordan White 916-521-8590 See: www.amosrc.com for more information



# Nor-Cal Huckfest

Giant Scale Event Saturday& Sunday

October the 17th and 18th,2020

Flying at the field.

At the AMOS field Located at 4015 East Catlett RD, Roseville, CA

One Mile from the Thunder Valley Casino \*\*Great Event Lodging\*\*

Any Giant Scale 79" and above wingspan 3D Model Airplane can Fly Free overnight RV parking

Pilots can arrive on Friday 16th to Practice

\$10 Landing Fee Saturday - Sunday no charge AMA insurance is Required

Great BBQ - Hamburger or Hotdog \$7 meal Tri-tip \$10

The AMOS Field is a Gold Member AMA field One of the Best in California

Contacts: Basil 916-410-2791 Geordan White 916-521-8590 Gary Meyer 916-276- 6990 Web www.amosrc.com





Woodland/Davis Aeromodelers с/о Richard Geertson 800 соllier dr.