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SEPTEMBER 2012

The Slow Roll is published by the Sun Valley Fliers By and for its membership to all others interested in the building and flying of radio control aircraft





IMAA Chapter 782



SVF MEETING SEPTEMBER 5, AT 7 PM

THE DRESIDENTS CHANNEL

Frank Moskowitz

SEPTEMBER 2012 SLOW ROLL PRESIDENTS LETTER

Welcome to the September 2012 Slow Roll.

The weather will soon be cooling down and that means more of us flying at the field. You might want to brush up on your safety and field rules. The ultimate goal of course is to keep you safe

from injuries. We all tend to get lax and sometimes need a gentle reminder about the proper safe way to have fun flying. Our safety and field rules can be found on our website www.sunvalleyfliers.com under the link called "SVF Field Rules" located on the left side of the home page.

While on the topic of keeping yourself safe, I read an article in the Arizona Republic about the surge in snake bites. I said that August and September have more snakebites than any other month of the year because of the monsoon storms and because baby snakes are born at the end of July and early August. Juvenile rattlesnakes are just as lethal as adults and may be more dangerous. They are harder to see, and their rattle is not as loud. The medical director of the Arizona Poison and Drug Information Center, said "They are born with fangs, and their venom may be more potent," he said, to help them hunt when they are young

- 1. If bitten by a rattlesnake, **DO NOT** use ice to cool the bite.
- 2. If bitten by a rattlesnake, **DO NOT** cut open the wound and try to suck out the venom.
- 3. If bitten by a rattlesnake, **DO NOT** use a tourniquet. This will cut off blood flow and the limb may be lost.
- 4. If bitten, Keep the area of the area of the snake bite lower than the heart
- 5. If bitten, go to a hospital immediately. If you cannot get to a hospital, call the Arizona Poison Control and Drug Information Center at 1-800-362-0101 immediately
- 6. Avoid rattlesnakes altogether. If you see one, don't try to get closer to it or catch it.
- 7. Keep your hands and feet away from areas where you cannot see, like between rocks or in tall grass where rattlesnakes like to rest.

OK, that's enough scare tactics. Enjoy your flying!

I hope to see some more members at our next club meeting **Wednesday September 5th at 7:00 pm**. If you want to eat I suggest you arrive no later than 6:15 pm. **Location is Deer Valley Airport Restaurant. (7th avenue and Deer Valley Road).** Lots of great food and a smoke free environment. The Club meetings get better every month. **We will always have more than one raffle prize and the 50/50 could make you very happy \$\$\$.** You never know what might happen, and you don't want to miss it. **Have fun out there!**

Frank Moskowitz President





Tucson International
Modelplex Park
October 16 - 21, 2012
Sanctioned by the Academy of
Model Aeronautics

SVF MEETING SEPTEMBER 5, 2012 @ 7PM



Sun Valley Fliers Club Meeting Minutes Date, August 1, 2012

The meeting was called to order at 7:03pm by **Frank Moskowitz**. There were 27 members in attendance.

Frank spoke about the recent break-in at the club in which the Gator was stolen. It is believed that the break-in occurred on Sunday 7/29 at 2:15 am (when the weather station stopped working). Gene contacted the AMA; there is no theft insurance. We are attempting to get the VIN for the Gator.

Frank introduced the Executive and Board Members and stated that **Ernie Mack** resigned from the Board. This will be discussed at the board meeting on Monday

Guests: None

New Members: None

New Solo Pilots: Dennis Lamb Secretary's Report – Jim McEwen

 No regular club meeting or BOD meeting in July. The minutes of the June regular meeting were published in the Slow Roll. Report was accepted as published in the Slow Roll.

Treasurer's Report - Gene Peterson

- We currently have 293 paid members as of today. We are about 15 people below our membership at this time last year. We expect to pick up more this fall and will likely hit 310 by the end of the year.
- · Have \$8487 in the general account. The report was accepted as published in the Slow Roll.

Safety Officer Report - Ken Justice/Frank Seminara

- · There have been no issues; things are going fine.
- There was a general discussion about not being able to arm an electric plane (and not run the engine) under the ramada for safety reasons.

Old Business: "See and Avoid" is working well. People are keeping a lookout and providing warning when a full scale approaches.

- Wayne Layne brought in a proposed layout for the engine run up area. It is 12' square cement pad (4" thick) with cinderblock walls as a blast/noise shield. It would be installed east of the grandstand. The estimated cost of material is \$500-\$600. We need a permit to pour cement so alternatively we could use pavers and dry stack the wall. The cost would be a bit lower using pavers and dry-stacking. This will be reviewed at the board meeting 8/6/12.
- · Neil Banyai had a loud Sukhoi but has recently purchased a muffler. Woo hoo!

New Business: Pilots grouped together in middle rather than spread out at each station – This has been adopted at the recent events. Club members are encouraged to start standing in the center to fly. This will be discussed at the board meeting 8/6/12.

• On the north side of the runway at the west end, the asphalt drops off several inches to the dirt and someone tore out their landing gear. Gene will drag the area with his truck. The two large bushes need to be cleared too. **Gene** is working with the landscaping company to get them to finish the job.

Community Awareness – John Geyer

- · Nothing new since the June meeting.
- · We haven't heard from the Boy Scouts yet.

Door Prize Winners: Val Roqueni – gallon of fuel, Frank Seminara – fuel, Dennis Lamb – fuel, Ken Justice –

fuel, John Wisniewski - SVF straw hat

50/50 - \$\$\$??? John Wolcott

Show & Tell: None

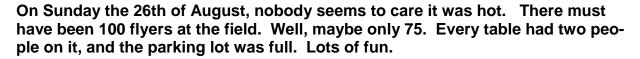
The meeting adjourned at 7:35pm. Respectfully submitted,

Jim McEwen - Secretary

\$ TREASURERS REPORT \$ with Gene Peterson

Treasurer's Report September 2012

Well, we are on the Dog Days of Summer. Everyone is waiting for cooler weather and ready for it.....





End of September is the War birds Over the Rockies event up in Colorado at Ft Collins. Good bunch of members from SVF are attending. Get lots of picture guys.

Scale Masters is going on in Indiana on 9/6 thru 9/9. **Jay Stewart** will of course be there to defend his title from last year. Good luck Jay. Not sure who else is attending, but **Mike Peck** (Western State VP) will be there also.

General Membership Meeting on September 5th. See ya there. Regards

Happy Flying

Regards Gene Peterson, Treasurer

SEPTEMBER 2012	SVF BirthDay	Boys
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First name Last name Member type Dob

Craig Early	Regular	09/01/1954
Paul Nelson	Regular	09/01/1965
Melvin Trushinsky	Senior	09/02/1941
Jon Bowers	Regular	09/03/1943
William Jenkins	Regular	09/03/1964
Dave Uhlving	Regular	09/03/1953
Ronald Petterec	Regular	09/05/1945
Gene Peterson	Senior	09/08/1942
Arthur Gambino	Regular	09/08/1958
Brad Beedy	Regular	09/11/1976
RaymondPrzybylski	Regular	09/12/1947
J B Bowers	Senior	09/12/1941
Kriss Trunkett	Inactive	09/13/1964
Bryant Mack	Junior	09/14/1997
Stephen Myers	Senior	09/21/1946
Gary Gregory	Regular	09/22/1945
Debin Ray	Regular	09/22/1982
Charles Brooks	Senior	09/23/1938
John Lowther	Regular	09/23/1953
ChristianKasprowicz	Regular	09/23/1977
Barry Mazer	Inactive	09/24/1949
Robert Deseelhorst	Senior	09/25/1943
Carl Gotch	Senior	09/28/1934
Connor Burns	Junior	09/29/2000
Derek Micko	Regular	09/30/1976
1	_	

MCHUMOR COM by T. McCracken



"Lose another wrench to that black hole that sucks up all tools the instant you drop it?"

©T. McCracken mchumor.com

SVF FLIGHTLINE SAFETY



Welcome to the September 2012 "FLIGHTLINE SAFETY"! I hope everyone took the opportunity to read my August Article on Density Altitude.

At our August Board Meeting, our colorful Treasurer Gene Peterson made mention that someone had an "incident" on one of our tables, under the Ramada, when they "armed" or connected the battery of their electric RC aircraft. Apparently the motor with attached prop came instantly to life!!! So I was asked to once again remind everyone about prop safety, especially when it comes to the ever more popular "Electrics"! I wrote about a similar "incident" in our July 2011 *Slow Roll*.

Most of the newer "computer transmitters" have one or more means available to prevent an electric motor from coming to life when the battery is connected. On my Futaba 8FG Super Tx, I use the built in safety on the throttle stick AND I program one of my switches to the throttle stick to be another safety. But you know the old adage of "best made plans of mice and men..." Well when it comes to an RC electric powered aircraft this statement couldn't be truer. It's not supposed to happen...but it does...and it will. So how do we help prevent these "incidents" from happening, you might ask? Well, just so happens in the September 2012 issue of our AMA's Model Aviation magazine, starting on page 85, you can read David Gee's article about a couple of ways to help prevent these "incidents", including using a rubber band "Throttle Stabilizer" on your transmitter's throttle stick. I have five (5 as in the number of fingers on one hand...5) practices that I use which includes 1) the added programmable switch that I previously mentioned about my 8FG Tx. 2) Reviewing and observing our SVF Field and Safety Rules paragraph 4..."POWERPLANT STARTUP" (It's on our website and posted at the field). And yes, this rule does apply to the Electrics! 3) PRIOR to connecting your battery, turn on your Tx, double check that you are on the correct aircraft and verify that your throttle stick is in the CLOSED or DOWN position! 4) Don't ever place the prop in between you and the battery connector as you go to connect the battery! Don't reach over or around the propeller to connect the battery! Place the NOSE of the aircraft AWAY from you and reach from behind to connect the battery. Be aware of anyone standing in the area to the front of the aircraft before connecting the battery. And better yet, install one of the ArmSafe® battery arming plugs which makes connecting the battery at the Flight Station a snap! 5) IF you feel you just have to connect the battery on the table then don't carry your Tx by the handle! Grasp your Tx with your left hand with your thumb placed above and holding down on the throttle stick. This will help prevent "powering up" your throttle accidently as you carry your Tx and small electric to the line! But try to avoid this practice...things happen!!! Most importantly...keep your brain engaged...situational awareness!!!

October is around the corner with "cooler" weather (relatively speaking of course) in our thoughts! We will have more fliers at the field. It's a very good time to **review our** *Field and Safety Rules*. Be sure to say hello and don't forget to Preflight your aircraft and yourself, including correct flight control movement...BEFORE taking off!!!

Contact me if you need SVF Merchandise.

That's it for this month! Stay hydrated and remember "Safety Is An Attitude" and...

Safety is everyone's responsibility!

Ken Justice

SVF Safety Officer

SUF MEMBERS PAGE

Photos by SVF Members

Sun Valley Fliers

Test pilot??











Ready to fly?



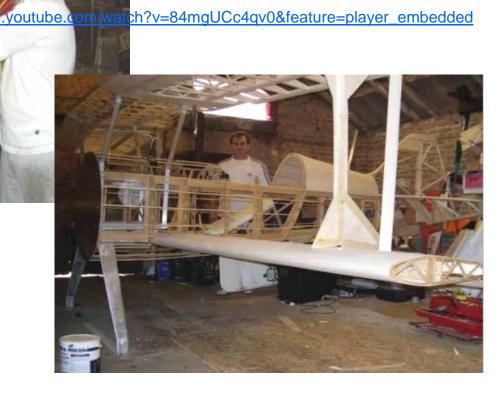


Monster Scale: 87% Pitts Python



Get out of the way, 'cause that plane wants to FLY! The handiwork of father-and-son team Dave and Greg Hayfield, this monster 300+ (!) pound aircraft is powered by a 650cc Hirth engine spinning a 68-inch, 3-blade carbon-fiber prop. Hitec 805BB, 25kg servos are used throughout: 8 on the ailerons, 4 on the elevators, 2 on rudder, 1 on throttle and 1 for ignition cutoff, and a Futaba radio provides guidance. YouTube's Tbobborap1 captured this video footage at the 20th annual Large Model Association fly-in Cosford, the United Kingdom last month. Dave notes that it's the largest and heaviest RC model to be flown in front of spectators yet in the UK!

WATCH THE VIDEO





Desert Aircraft engine powers new Raytheon UAV

by Debra Cleghorn

Tucson-based Raytheon Missile Systems says it has completed a successful warhead and guidance-system test of a small smart bomb designed for use by unmanned aircraft. The end-to-end flight test of Raytheon's 2-foot-long Pyros – also known as the Small Tactical Munition – was announced Tuesday in

a news release coinciding with the Association for Unmanned Vehicle Systems International trade show in Las Vegas.

Raytheon is developing the Pyros with its own funding, in hopes of winning a military contract. The recent test validated the weapon's semiactive laser and GPS satellite guidance modes, as well as its detonation height sensor, electronic safety and arming device, and multieffects warhead, Raytheon said.

During a test at the Yuma Proving Ground, a Pyros was dropped from a Raytheon Cobra unmanned aircraft and directed to a target simulating insurgents planting an improvised bomb. While directly over the target, the Pyros' warhead detonated at a predetermined height, Raytheon said. The systems functioned flawlessly, and the next steps are to complete ongoing integration work on fielded platforms and prepare for production, Tom Bussing, vice president of advanced missile systems for Raytheon Missile Systems, said in prepared remarks.

While the U.S. military's larger unmanned aircraft, such as the MQ-9 Reaper, already are fitted with munitions, the Pyros is designed for use by smaller drones now used for reconnaissance, such as the RQ-7 Shadow used by the Army and the Marine Corps. At 13 1/2 pounds and 22 inches long, Pyros is the smallest air-launched weapon Raytheon offers and is small enough to be deployed from the U.S. military's common launch tube.

The Marines reportedly are testing another classified munition on the Shadow.

Did you ever imagine that the DA engine that you use on your latest project is also being used by military drones? Check out this story from David Whichner for the Arizona Daily Star. The story doesn't mention the power system, but our friends at Desert Aircraft have confirmed that the Pyros uses a DA powerplant.

SUF MEMBERS PAGE



















Flying Warbirds: a Checklist for Success

By Gerry Yarrish
Page 1 of 3

Wabirds, especially giant scale warbirds, are as popular as can be, and every day it seems there are new kits and ARFs coming to the market for RC warbird lovers to fly. Go to any warbird event and you will see at least these three classic fighters, the P-40 Warhawk, the P-51D Mustang and the F4U Corsair, all of which are available from Top Flite as quick build ARFs. With so many great flying warbirds more RC modelers are stepping up to the giant scale class and enjoying the power and performance of these WW II classics

Recently I reviewed the new giant scale F4U Corsair ARF from Top Flite. Compared to other warbirds in its size range (50cc engine, 86.5 inch span), the big bent-wing warbird is a relatively easy to fly model. But if you have never flown a big, giant scale warbird before, it does take a little getting used to, before you can become comfortable flying in the traffic pattern. Here are some tips for flying your first Giant Scale Warbird.

Ground Check

All successful flights start with a proper pre-flight condition check. Actually, this is a good thing to do for any size RC plane, but I consider it mandatory for big warbirds like the Corsair. But even before you get to the flying field, be sure everything is assembled correctly and that you have added some lock-tite to all the nuts and bolts you don't want coming loose. Also, be 100% sure that your model is properly balanced and the CG is where it is suppose to be.

A good bit of advice here is to team up with an experienced RC warbird pilot before and during the first flight. Two sets of eyes will help discover any issues that may need correcting. Also, having a pro test fly your plane first is the best way to start off.

Controls. The first thing you should do is perform a radio/control check. Don't just wiggle the sticks and see that everything moves. Make sure everything is moving in the correct direction. Stand at the tail of the plane looking forward and pull back on the stick. The elevator should move up. Check the ailerons in the same way. Move the stick to the left and the left ailerons should move up while the right one moves down. Be sure to check the rudder in the same way, as well as the throttle. Push the stick and make sure the carburetor opens up.

Make sure all the controls move freely and do not bind. With flaps sometimes they can reach the end of their travel and cause the linkage to hit the servo hatch cover. Use the end point / servo travel function of your radio to set up the flaps so they do not cause the servos to bottom out in either the up or max down positions. You can hear the servos buzzing if they do. This can drain your battery pack so take care of this in the workshop. For your first warbird I recommend using the control throws listed in the instruction manual. This to work every time and you can adjust the throws to your liking after your first flew flights. With the Top Flite Corsair I was surprised with how little elevator throw was called for. Only 3/4-inch up and down for the high rates, and 1/2-inch for low rates. As it turned out, this was just about perfect while using 20 percent Expo. You don't want an overly sen-

Firewall Forward. Fuel up your model and then start your engine to check its performance. Gasoline engines are easy to operate if you use the correct procedure to start them. But also you have to install the engine, the fuel lines and tank properly. Use gasoline grade lines and tank stopper and install a fuel filter between the tank and the carburetor. It is a good idea to install a filter in your fuel supply container's filler line as well. Be sure to use the correct size propeller as recommended in the engine manual.

sitive airplane on the first flight, especially in pitch.

Start the engine and let it warm up for a minute or two. Have a friend secure the model's tail and then advance the throttle slowly to full power. You should have a smooth transition from idle to full. Adjust the carburetor as needed so the engine doesn't load up after a sustained idle. Also, adjust the high end needle for max power and then back off the needle slightly for a 200 to 300 rpm drop. Do not run your engine lean!

Radio Check. With the engine running do a radio range check. If everything checks out, you're ready for your first flight. Cycle the gear once or twice with the engine running and make the retracts' air system maintains proper pressure.

Takeoff

Big warbirds with big engines have lots of torque on tap so advance the throttle slowly and smoothly. Don't just jam it full on! Rudder is you friend here so anticipate a slight drift to the left caused by the torque. Fed in a small amount of right rudder and hold it in until the model gets back on course. It may also be helpful to hold some right rudder during the climb out.

Don't horse the plane off the ground. Get in the habit of using all the runway available until you get to know the plane. With the Corsair and its rearward moving retracts, the model is a bit nose heavy with the gear down and so, does not like to hop off the ground without a bit of back pressure on the stick. This is a good thing. After a

After a decent ground roll, slowly pull back on elevator until the model breaks ground. Hold the back pressure and see how the model climbs out. If it starts to steepen ease off a little on the back pressure. After establishing your departure, think about hitting the retract switch and pulling up the gear.

Make a climbing crosswind turn (away from the pits and flightline) and head downwind while maintaining a shallow climb. If this is your first giant model, keep in mind that it is going to look bigger in the pattern than your standard size sport plane. You start flying the plane too far out if you maintain your old sight window for a perceived model size. Make a 180 degree turn back to upwind and start trimming the model for straight and level. I like to do this at cruise speed which is about 2/3 throttle depending on your model. Don't fly your entire flight at full power! Fly a few more laps around the pattern and feel things out.

First landing

After a little while, you may want to bring the model in for a landing and calm down a bit. Have your instructor bring it in for landing and have him call out what he's doing. Where he reduces power and lowers the flaps and retracts, what power setting he's using on final and so on. Once safely on the ground, you can go over the trim settings and check the plane's condition for anything that might have come loose. Grab a soda and discuss the plane and its performance. Check the radio's battery pack voltage, and top off the air pressure for the landing gear. Refuel the plane and make another flight.

Solo Flight

Go through all the whole sequence again and concentrate on flying smoothly. Don't get tunnel vision or freeze on the sticks. Try to relax and talk with your instructor during the entire flight. You know the plane flies great! Now perform a few maneuvers at a safe altitude. Try a loop and then a roll or two. Perform both maneuvers into the wind. Now slow things down a bit and fly a few laps at reduced airspeed. Fly at reduced power and then make a lap or two with the flaps down a notch. Note whether the nose rises or tucks down when you lower the flaps. Note the amount of trim (if any) that's required when you reconfigure your plane.

Stall Test Next see how your model reacts during a stall. This helps you recognize when the model is approaching its minimum airspeed condition and how to recover quickly. If you've balanced your plane properly, it should not snap violently when the wing stalls. Climb to a safe altitude, slowly reduce power and keep the wings level. Start feeding in up elevator to maintain altitude while reducing power. If the wings start to rock, use rudder to correct. When the nose drops, release back pressure on the stick and smoothly apply power. If the stall produces an extreme nose drop, release the back pressure and establish forward (downward) flight to increase air-speed while applying power. Then apply some up elevator to return to straight and level. Once you know how the plane behaves in a stalled condition it will make your landings safer and more precise. Now fly a few more laps around the pattern, and setup for your first landing.

Landing pattern

The best way to perform consistent landings is to set up the approach the same way every time and let the process before automatic while developing good habits. With the increased drag produced by the flaps your warbird will start to slow down When your reduce power during the approach your model will continue to lose airspeed and you will need to adjust your power setting to control your descent rate. Remember, throttle controls the rate of descent and elevator controls airspeed.

I like to make a traffic pattern pass directly in front of myself then bring power back to half and lower the landing gear. You should visually confirm that your wheels are all the way down before committing to land. About 100 to 150 feet is a good pattern altitude. Turn to the downwind leg and feed in half flaps. You can set up your radio with a slider switch or with a three way switch for up, half and full down flap positions. I use a slider that has an audible tone for half flaps. With the Corsair no retrim is required when the flaps are lowered but if your model needs it, make any required corrections to maintain a slight nose-down attitude. With some radios you can mix in some elevator correction when the flaps are deployed. Flight testing helps determine how much is needed. Make your turn onto the base leg at about 100 feet and add the last bit of flaps. Turn on to the final approach and establish your descent by reducing power to a little above 1/4 throttle. Keep the nose pointed down slightly and maintain level wings. Adjust the throttle slightly to maintain a smooth landing approach and concentrate on bringing the plane to the end of the runway at about 10 to 15 feet above the ground. If you're coming in too steep, add some power. If the model is too high, don't dive for the deck. Apply power smoothly and try again. Go around at about with increased power and set up a new landing approach. But don't attempt a turn until you have gained sufficient airspeed. Use rudder to keep the plane on course all the way to touchdown and use small aileron inputs to keep the wings level. Most experienced warbird pilots shoot their landing approaches at a 30 to

at a 30 to 45 degree approach angle. This helps maintain proper airspeed and control. Don't try to drag your plane in at a normal, flat landing approach. Too often this leads to the airplane slowing down too much and entering a tip stall.

Touchdown. When the plane is at the end of the runway reduce power to just above idle and start pulling back on the stick for the landing flair. Don't force the tail down with excessive up elevator. Let the plane settle onto its mains and stay on the rudder to keep the plane on the centerline. Once the plane is on the ground reduce power to idle and let the tail come down by itself. If you force the tail down during the flair, you can cause the plane to liftoff again which would be bad, as the airspeed is now very low. Again, being smooth on the controls is the key.

Once the plane back on the ground and stopped you can relax a bit and then taxi your mighty warbird to the pits to clear the runway. It's no secret that to become a good pilot you need to practice. Concentrate on learning one task at a time and doing it well before going on to the next. The same applies with giant warbirds. Hook up with an experienced flying buddy and fly, fly, fly. Nothing feels as great as mastering a giant scale warbird. Soon you'll be the pro that helps other new warbird pilots earn their solo wings!

Good luck, have fun and don't forget to check your six!















VIDEOS and Websites Links

Click on to view video, website

ISS TOUR 6:53

http://www.youtube.com/watch?v=H8rHarp1GEE&feature=player_embedded

MIRAGE 2000 RC JET 5:37

http://www.youtube.com/watch?v=mLJaeg0cW90&feature=fvwrel

Kirby Chambliss & Red Bull Air Force @ EAA 2:35

http://www.youtube.com/watch?v=XxFA25CcAfE

Low level fly by a Super G Constellation :15

https://www.youtube.com/watch?feature=player_embedded&v=IsY4G-NS0Hc

Float flying 15:00

http://www.rcmovie.de/video/4c2321b199f08fbfbe47/1-Internationales-

Modellflugwochenende-in-Friedrichshafen

Last flight of Kevin's Yak-54 1:29

http://www.youtube.com/watch?v=TYOzRyf3ENY&feature=player_embedded%23!

"Fifi" First flight with new engines 2:30

http://vimeo.com/17388627

Stinson 108-3 Airplane crash 3:50 Density Altitude

http://www.youtube.com/watch?v=OVM3RRd1vf0&feature=player_embedded

Byron Aviation Expo 1987 Part 1 12:45

http://www.youtube.com/watch?v=rYZlgKUq5_U&feature=player_embedded%23!

Mars Panorama

http://panoramas.dk/mars/greeley-haven.html

Many pages of interesting B/W & color photos from WWII

http://www.mission4today.com/index.php?name=ForumsPro&file=viewtopic&t=14428&finish=15&start=90

SVF Website Buy & Sell items.

http://sunvalleyfliers.com/classifieds/classifieds.htm

My thanks to those who passed this info on.







Interview with a UAV Pilot

by Debra Cleghorn

Model Airplane News contributor and full-scale pilot Kyle Matthew has an interesting job as a department head for the Navy's Unmanned Aerial Systems Test Directorate. We caught up with him to ask him what it's like to fly UAVs, from the small Shadow he's standing in front of to the big Predator.

What types of missions do you fly?

They range from low level route reconnaissance to high altitude area surveillance. When an operation is ongoing the Commander gets a near

real-time view of what is going on. He can then make the appropriate decision on how to proceed with the mission. We can also provide BDA (Battle Damage Assessment) on a target that has been destroyed.

Do you fly the entire flight?

That depends on the mission and which UAV I'm flying. Typically with the Scan Eagle we flew 4-6 hour missions and I did fly the entire time. Global Hawk missions would last 24 hours or more, so we use 4 pilots and rotate every few hours throughout the mission.

Do you have any recommendations for people who might want to get involved with UAV?

That is a good question and I'd say the answer depends on what kind of UAV you'd like to fly. If you want to get into the larger UAVs such as Predator, Reaper or Global Hawk you will need to have at least Private pilot's license with a Commercial & Instrument rating and 500 Pilot in Command hours. For the smaller tactical UAVs such as Shadow or Scan Eagle all you need to be is computer literate and able to multi-task. For systems that have external pilots for takeoff and landing, such as Hunter and Aerostar, all you need is large scale RC experience.

Either way I would highly suggest at least getting a private pilot's license and as always the more education you have the better, i.e. Associate or Bachelor degree. A well educated, computer savvy person with a strong aviation background and RC experience should have no problem getting into this profession. The need for UAVs is growing extremely fast and will only continue to grow in the near future. Do a Google search for UAV jobs and you'll be amazed how many are out there, ranging from the Predator down to the hand-launched Raven.

Beat the heat: remember your density altitude!

by David Vaught

I have discussed this before, but as the summer heats up, let me refresh or provide you some information on Density Altitude. When we fly in high temperature and humidity conditions we effectively increase the altitude of runway elevations and with that our stall speeds increase. All of a sudden that ever so difficult to land warbird is now a real handful off the end of the runway or that heavily loaded UAV that flew great last winter now flies like a lead brick.

Density altitude is a combination of altitude, barometric pressure, air temperature and dew point. Most pilots will check this before departing the airport as they calculate their weight and balance. As an example, one could have a situation where they fly from a 1000' runway elevation in normal conditions, but on a 105 degree day with high barometric pressure which usually is associated with high temperature and clear skies, plus high humidity and that 1000' runway is now nearly a mile high where the air is thin. In the Midwest our humidity, even in high temperatures, can be high as moist air is pumped in from the south and southwest. Takeoff rolls are longer, stalls are quicker and overall the performance of your airplane is heavily influenced by the density altitude.

Here are two websites you can use to determine your density altitude. The first provides weather information necessary including dew point, barometric pressure, and pressure both current and historical. You will need to provide your elevation. You can typically use your GPS.

http://www.weatherforyou.com/

The second is a density altitude calculator. Simply include the necessary information and you can determine the flying conditions either currently or based on the previous days data. http://wahiduddin.net/calc/calc_da.htm

Take the time to determine your density altitude when weather dictates high temperatures and high humidity. As the air gets thin, your prop has less to bite into and performance suffers across the entire flight envelope. But remember, winter will return and in that dense cold, dry air, performance will be awesome.

Dr. Dave SEE KEN JUSTCE ARTICLE IN THE AUGUST SRAlso see video page

EXTRASUF MEMBER PAGE

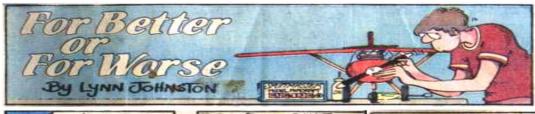






























THE FUTURE OF FLIGHT



On August 8, 2012, this aircraft flew for the first time at NASA's Dryden Flight Research Center at Edwards Air Force Base in California. Called the "X-48C," this is a scale model of of a heavy-lift, subsonic aircraft that has a blended-wing body. During its first flight, the remotely piloted plane flew for nine minutes and reached an altitude of 5,500 feet. Here's the scoop on this unusual vehicle, which is intended to reduce fuel burn, emissions, and noise of future aircraft:

Boeing and NASA believe the BWB concept offers the potential over the long-term of significantly greater fuel efficiency and reduced noise.

"Working with NASA, we are very pleased to

enter into the next flight-test phase of our work to explore and validate the aerodynamic characteristics and efficiencies of the Blended Wing Body concept," said Bob Liebeck, a Boeing Senior Technical Fellow and the company's BWB program manager.

"In our earlier flight testing of the X-48B, we proved that a BWB aircraft can be controlled as effectively as a conventional tube-and-wing aircraft during takeoffs and landings and other low-speed segments of the flight regime," Liebeck said. "With the X-48C, we will be evaluating the impact of noise shielding concepts on low-speed flight characteristics."

The X-48C is a modified version of the X-48B aircraft, which flew 92 times at NASA Dryden between 2007 and 2010. The X-48C is configured with two 89-pound thrust turbojet engines, instead of three 50-pound thrust engines on the B-model; and wingtip winglets have been relocated inboard next to the engines on the C-model, effectively turning them into twin tails. The aft deck also was extended about 2 feet at the rear.

"We are thrilled to get back in the air to start collecting data in this low-noise configuration," said Heather Maliska, NASA Dryden's X-48C project manager.

The modified test vehicle was designed by Boeing and built by Cranfield Aerospace Ltd., in the United Kingdom, in accordance with Boeing requirements.

While Boeing continuously explores and applies innovative technologies at its own expense to enhance its current and next-generation products, the X-48C flight-test research is an example of how the company also is looking much farther into the future at revolutionary concepts that offer even greater breakthroughs in the science of flight.

"Boeing has been a leader in technology and aerospace for almost 100 years. Our employees work to solve big challenges and create complex, highly capable systems, from today's 787 Dreamliner airplane and P-8A Poseidon multi-mission military aircraft to the X-48C, which explores ideas for future advances. Every day our team is building on our legacy of groundbreaking technical achievements that have improved life for people worldwide," said John Tracy, Boeing chief technology officer and senior vice president of Engineering, Operations & Technology.

Engineers from Boeing Research & Technology, the company's central research, technology and innovation organization, will be working closely with NASA engineers during flight tests of the X-48C, which are expected to continue throughout 2012. As handling qualities of the X-48C will be different than those of the X-48B, the project team devel-



oped flight control software modifications, including flight control limiters to keep the airplane flying within a safe flight envelope. **continue**

The Future of Flight

With a 21-foot wingspan, the 500-pound aircraft is an 8.5 percent scale model of a heavy-lift, subsonic airplane with a 240-foot wingspan that possibly could be developed in the next 15 to 20 years for military applications such as aerial refueling and cargo missions. The X-48C has an estimated top speed of about 140 miles per hour, with a maximum altitude of 10,000 feet. The X-48C project team consists of Boeing, NASA, Cranfield Aeropace, and the U.S. Air Force Research Laboratory.

Boeing and NASA's Aeronautics Research Mission Directorate are funding X-48 technology demonstration research. The effort supports NASA's Environmentally Responsible Aviation project, which has goals to reduce fuel burn, emissions and noise of future aircraft.



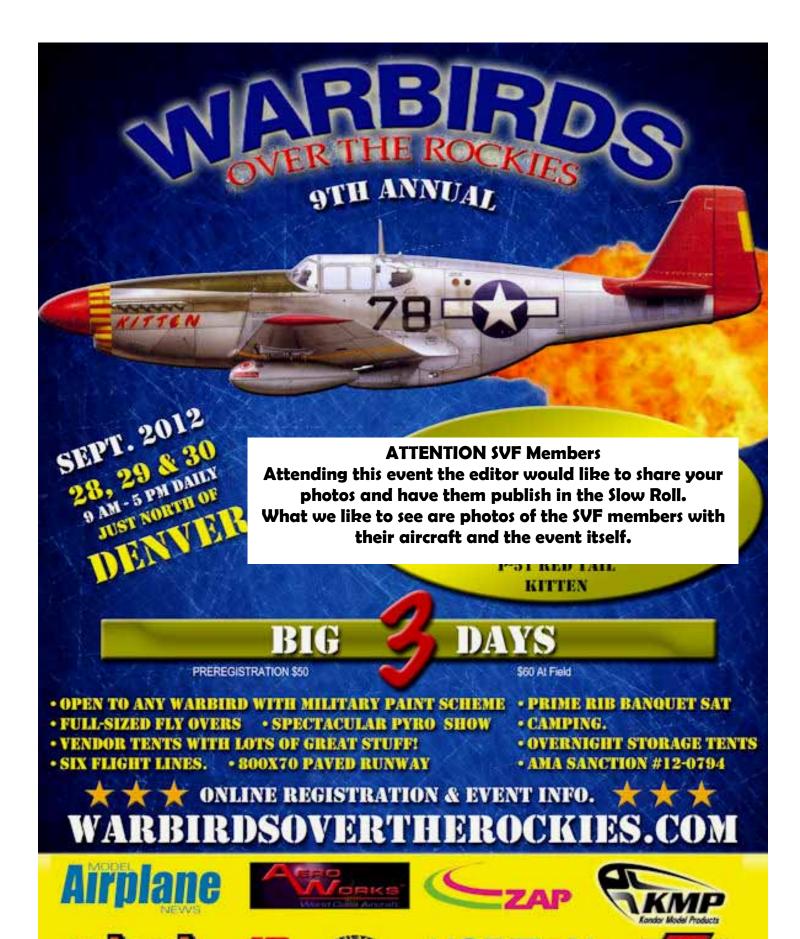
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A SVF Member passed this on to show what a prop can do if you are not paying attention to what's going on around you.





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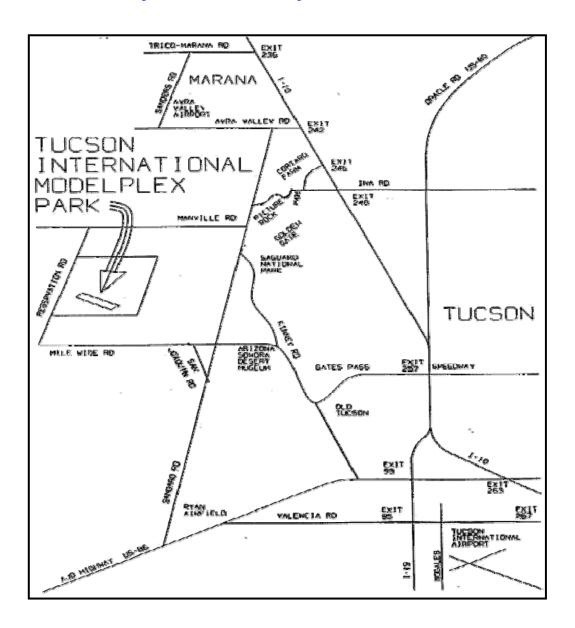
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CD JOHN GEYER 602-810-1767 jegeyer@cox.net COMMANDER HOWARD KENNEDY 602-361-8475 bushpilot1443@yahoo.com

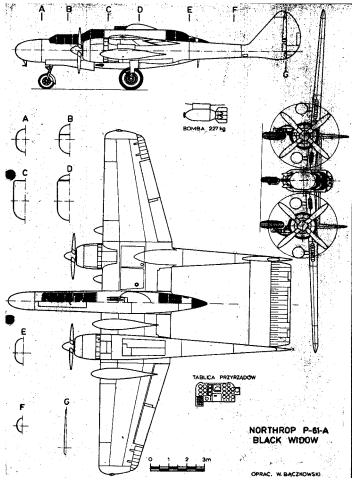


http://www.desertaircraft.com/shootout_2012/

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Next month Issue

Will you be at the TOC, OEAF????



Your photos and articles are welcome.

Would you like to be notified when the SLOW ROLL new issue is available? Give Gene your e-mail address.

AZ49ER@COX.NET

Hope you will enjoy it. Bob rcbobsvf@aol.com

This Month Issue

Check out the VIDEO page. Looks like an aviation issue this month. Got your aircraft ready for the OEAF?? Going to the TOC?

Some good VIDEOS to watch. GOOD stuff in this issue, MORE photos so enjoy! Send those articles and photos in and for the SVF HALL of PLANES.! Remember to ZOOM the PDF page to see more.



THE SLOW ROLL

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