



FLYING TIMES

The Official Newsletter of the Valley RC Flying Club



Brrrrrrr!!! ...it's COLD outside!!!

PRESIDENTS CORNER

by Chester Williams

Item 1: Now that February is here there are more time slots available for flying at the field. Specifically, 3pm-11pm opens up on Wednesdays, Thursdays, and Fridays. Also, noon-11pm is now available on Saturdays. Please remember that on these days (every day, actually) only electric flying is permitted from sundown to 11pm.

	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Sun-Up to Noon	No Activity						
Noon to 12:30pm		All Activities	All Activities	All Activities	All Activities	All Activities	All Activities
12:30pm to 3:00pm	All Activities						
3:00pm to Sun-Down							
Sun-Down to 11:00pm	Electric Flying	Electric Flying	Electric Flying	Electric Flying	Electric Flying	Electric Flying	Electric Flying
11:00pm to Sun-Up	No Activity	No Activity	No Activity	No Activity	No Activity	No Activity	No Activity

Item 2: Don't forget to renew your membership by paying your dues by the February meeting. If you don't you're subject to an additional \$5 late fee.

Item 3: Please come out and support our R/C Swap Meet on Saturday, February 16th. Jim Stogdale (540-337-6757, hognot@hotmail.com) is the event organizer this year, but he's going to need lots of help setting it up and running it. I'm sure he'll provide all the details at the February club meeting. If you can't make it, just plan on being at the Weyers Cave Community Center at 6am on Saturday morning and we'll put you to work.





Item 4: (I'm stepping up on my soapbox now.) At the January meeting I gave a little speech about preparing for and working at the jumbo fly-in.

Many of you weren't at the meeting so I'll repeat it here the best I can: Each year everyone is all in favor of us having a jumbo fly-in, but few people are willing to do the work to make it happen. Most folks simply want to come to the event, kick back, shoot the breeze, and enjoy themselves. That's what you should do at someone else's fly-in.

Considering how much work there is to do we simply cannot afford this luxury. It isn't fair to the few who bust their buns. So... either a large majority of us need to help make it happen or we should seriously consider not doing it any more. (I'm stepping down from my soapbox now and entering the realm of personal opinion.) It doesn't matter to me if we have the jumbo fly-in or not, although it would be a shame



to let it go after all these years. I don't own or fly giant scale aircraft and I don't attend any other jumbo fly-in. In

my opinion, the folks who build them, fly them, and attend other such events are the ones who should be the "core group" to organize and run this event. The rest of us should kick in and do what we can to help them make it a success. I, on the other hand, tend to gravitate toward helicopters, autogiros, and other "unconventional" aircraft. (Dirigibles or ornithopters, anyone?) If we were to host an event featuring these types of aircraft I should be expected to be a member of the "core group" that organizes it and runs it.

Item 5: Did you catch the January 30th episode of Mythbusters on the Discovery Channel? If we have time we can talk about it at the meeting.

Item 6: Don't forget to have fun!

TREASURER REPORT

Hello Valley R/C Members, 2008 brings a new Board of Directors and new officers to our club. It is a simple fact that different people will do things differently. A request from the new officers and BOD is please bare with us as we/you become familiar with each other.

I personally want to express my gratitude to Cheri Duncan for her efforts as Treasurer for the past two years and especially for the attitude of helpfulness for the club in other activities. Cheri has accepted the responsibilities of Secretary and I will be Treasurer for the year 2008.

Most of you know me, but for those that do not let me introduce myself. I am a Dairy Farmer by profession. After 4 years of teaching Math and being Assistant Principal at Broadway High School I purchased the family farm between Harrisonburg and Dayton along Rt. 42. In the early 80's most of my building time came out of

my sleeping time. Today with the next generation doing more of the physical work on the farm I do more work on my planes during the daylight hours. My interest in flying model airplanes has continued at the rate of 38 to 50 days each year. Yes, that has been each calendar month for the past 23 years. My talents in flying are for enjoyment. If my memory serves me correctly, I have participated in less than 4 competitive contests involving flyers other than Valley R/C. There have been Sunday afternoons that I fly only once and then enjoy the fellowship with other members. My wife, Charlotte, calls Valley R/C our social club. She might be correct. I don't need to tell you that it takes talent, dedication, and a degree of humility to continue in this sport for more than a few years.

We have had talented people serving as your Treasurer for many years. Their procedures have been adequate

and I plan to copy most of them. However, having said that, there will be some changes hopefully making the job easier for the Treasurer and also for the person doing the end-of-year audit. I have never been perfect and don't expect that to change. Our new procedures should show any errors early in our process.

Now, the real reason for this writing is to remind all Valley R/C members that have not renewed their 2008 membership that the February meeting is the deadline for membership dues. Article 8, Section 4 of our current By-laws states: "Any member who has not paid his renewal dues by the February meeting of the members will be charged a fine of five (5) dollars in addition to the regular membership dues. AMA dues must also have been paid by this time."

Soft landings,

Dan Myers, Your 2008 Treasurer





THAT'S GONNA LEAVE A MARK!

It was August 14, 2005 a nice warm day and of course we were huckin around the pattern with a couple of Funtana 40's. Randy Sampson and I had been flying every chance we got all summer. We could just about put on a little air show with close formation flying. Randy and I were dialed in fairly tight. This particular afternoon Randy Ryman decided to attach some toilet paper to his senior Telemaster and let it float down towards the ground. Our job was to try and shred the paper with our props, or just cut it in half with a wing. It's a great deal of fun and challenges you as a pilot to see if you can strike a balloon or other fodder with your aircraft in mid-air.

If you've ever been around while we are chasing each other with the little war birds or just playing chicken you know I get tickled by the close calls and excitement of the near misses. Something about it just gives me the chuckles. On this occasion Wes had been chasing a bit with us, but he peeled away due to the larger cost of his aircraft. LOL! As we chased this strip of paper around the sky we were getting farther and farther away from the cornfield toward the brush line. After about 3 minutes Randy and I suddenly and without warning occupied the same air-

space. We tried to turn away from each other but it was too late! We hit wing to wing and one aircraft went into a death spiral. I kept trying to get a response from my aircraft for a few seconds then realized I was the guy doing

the slow WWII movie spin spiral towards the ground. Well of course the cartoon side of my brain went to work and I immediately had visions of Wily E. Coyote falling from the sky like he always does. I fell on the ground, transmitter still in hand laughing like a kid.

I looked up after a minute to see Wes standing over me saying "Swindle I've never seen anybody fall down laughing when they crash their airplane". That statement just made me laugh all that much harder! Randy Sampson landed his Funtana a few seconds later; he had a big deep dent in the right

wing. At the next club meeting Randy Ryman awarded us with two matching garbage bags adorned with the S.A.D. patch. (Society of Aircraft Destroyers). That was a great summer, and that's a flight I'll never forget.

Blue Skies to you and yours,

*Aaron*****



MESSAGE FROM THE FIELD MARSHAL



Field Marshall Note: Pilots may want to steer clear of walking in the cornfield for the next few weeks if possible. The cornfield has just been (fertilized) with mother natures own recycled uh...material to put it nicely. Looks like we might have a little flying weather in the next week or so. The ground has received a good solid soaking but we still need all the rain we can get....the area is still lagging behind in normal rainfall amounts. As you drive into the flying field please avoid driving the same route each time to avoid creating a rut on the property. Everyone has been doing a great job keeping the field free of debris and other trash. Spring is on the way!

*Aaron Swindle
Field Marshal*

PRODUCT REVIEW



Hey guys, I'm going to do a small report on the Zenoah G20 EI engine. This is a 20cc air-cooled gas engine with electronic ignition. The quality, as with all other Zenoah engines is excellent. I have mine mounted in a Hanger 9 ¼ scale Piper Cub which I will be reviewing at a later date. The only draw back to the engine is the battery consumption. You should charge the battery after about the 3rd flight so you don't end up with a dead stick. I have a 4 cell 2800mah nicad powering mine. The first start up was easy. Open the throttle a quarter. Choke on. Power off. Flip the prop till the carb is wet. Turn on the switch. Flip maybe 2 more times and it will pop. Turn off the choke; flip 2 more times and the engine is running.

After warm up I was getting an idle speed of 1860 rpm and a full wide open rpm of 8000. This will improve with break-in. I am using a 16-6 prop also. Varying the throttle I got a run time of 30 minutes and still had a ¼ tank of fuel left. This engine will also work with certain 60 size warbirds. I will give you some info on the power it has after the test flight of the cub.

Submitted by: Robert Cline

Points to Ponder... "If park flyers are so easy to fly that you can 'teach yourself to fly it', then how come the hobby shop keeps so many spare parts for them on hand!?" Randy

THIRD ANNUAL VRCFC SWAP MEET

The third annual VRCFC Swap Meet will again be held at the Weyers Cave Community Center, Weyers Cave, on February 16. Doors open for vendors at 7:00 a.m. and for the public at 9:00 a.m. Tables are \$10.00 each, admission is \$3.00.

This is a great opportunity to clean out your workshop and put some money in your pocket hopefully to be recycled into some goody or kit you have been looking at for the last six months or so. There will be an abundance of door prizes to keep things interesting and moving until the closing bell at 3:00 p.m.

An example of what was found on a table at last year's swap meet is the Hangar 9 Cub purchased by one of our members for a very good price and built by Joe Hash at his workshop in Grottoes. She's a pretty girl and will be seen at the field in the spring

There will be a full menu of things your doctor won't recommend for your diet. What the heck, live a

little! Beside, the profits go to a good cause and support our club activities.

Bring your old Model Aviation and R/C Report magazines. They are always popular with new folks looking to get into the R/C world.

Like most events, they don't just happen with a couple of guys or gals. We need an all hands turn out to set up the community center at 7:00 and an equal number to stick around after the whooping and hollering at 3:00 to help with the clean up. Plan to take your turn at one of tables to give your fellow club member a break so they can look over the hall. If we each did a couple of one hour assignments it would be light work for all and the day will go very quickly.

For information/table reservations contact Jim Stogdale 540-280-2616, email hognot@hotmail.com. More details at the club web site: www.vrcfc.org.



The **Humpty Bump** is a rather bizarre name for one of the most useful and versatile aerobatic maneuvers around.

At it's most basic, the Humpty Bump consists of a quarter loop into the vertical. On the way up, the model is half rolled. A half loop at the top results in the model coming vertically down where a half roll is executed followed by a quarter loop to pull out. The quarter loops should be the same radii but do not have to be the same as the top half loop. You can also do two quarter rolls on the way up and down for the same effect.

Diagram 1 (Top): This Humpty Bump Is Usually Executed On The Centreline. Labels include: Enter With Wings Level, Pull Up For A Quarter Loop, Half Roll Halfway Up Vertical, Pull Over For A Half Loop, Half Roll Halfway Down Vertical, Pull Up For A Quarter Loop To Exit.

Diagram 2 (Middle): Note That The Direction Of The Quarter Loops Dictate Whether You Push A Half Bunt Or Pull A Half Loop At The Top. Labels include: Quarter Roll Halfway Down Vertical, Pull Over For A Half Loop, Quarter Roll Halfway Up Vertical, Pull Up For A Quarter Loop To Exit, Pull Up For A Quarter Loop.

Diagram 3 (Bottom): This Humpty Bump Is Usually Executed At Either End. Labels include: Enter With Wings Level, Pull Up For A Quarter Loop, Half Roll Halfway Up Vertical, Pull Over For A Half Loop, Half Roll Halfway Down Vertical, Pull Up For A Quarter Loop To Exit.

Text between diagrams:
 This is where it starts to get interesting! Omit the downwards half roll and you have a straightforward turnaround maneuver.
 The Two Quarter Loops Must Be The Same Radii But Are Not Necessarily The Same As The Half Loop.
 The Two Quarter Loops Must Be The Same Radii But Are Not Necessarily The Same As The Half Loop.
 The Two Quarter Loops Must Be The Same Radii But Are Not Necessarily The Same As The Half Loop.

Text at bottom of diagram 3:
 This Humpty Bump Is Usually Executed At Either End And Moves The Model Away From The Pilot.

The next step is to replace the half rolls with quarter rolls. If you do this, you will force the model outwards or inwards. The quarter rolls should be in opposite directions. If the first quarter roll had been to the right, instead of to the left as shown, the top of this humpty bump would be a "push over the top" - a half bunt - instead of a half loop.

<http://www.bruce.ogilvy.clara.net/text/training/aero/ai01.html>

Radio Control Training in 2008

I want to welcome all new members to the club. We have members from all walks of life and from all kinds of experience level with flying RC airplanes and helis. So to keep some form of training recognition and functionality, the VRCFC has established a flight-training program. This is not anything new, but has over the years been enforced at different levels of consistency. In 2007 I volunteered to take over as Flight Training Coordinator and have established a training program. Basically, we want to make sure you are safe enough to fly on your own.

VRCFC requires that all new members take a flying proficiency test. If you are an experience flyer and new to the club, this will only take a few minutes to assess your flying abilities and give you the approval to fly anytime you want. If you are not an experience flyer or have been away from it for a while, then you will benefit greatly from this program. It is free and is staffed by trainers that have passed both a flight and written exam. I feel very confident in these gentlemen's ability and you will find each of them willing to help you as much as you need it.

This is how it works, You become a member of our club and once you have your AMA number, you contact me Tim Blankenship 828-6142 and I will review your needs and experience and set you

up with an instructor. Also note that you are not allowed flying on your own until this evaluation period has been concluded. We don't want anyone at the field that is not qualified to fly without supervision.

There is a two-step process in reaching that goal of flying on your own. First, once you have proven your ability to fly the



“basic” routine, you will be required to fly a SOLO exam. The instructor basically unhooks the trainer cord and lets you take off, fly, and land all on your own. Once you have performed a SOLO flight adequately, you will be issued a SOLO Certificate and congrats from your trainer and many others I am sure who witness it. Let's be clear that this solo flight is not an endorsement

of your ability to fly on your own unsupervised. It is NOT! This is merely a right of passage to that final goal. It mainly is a ego boost that says “Hey your are catching on and headed to be a rc pilot soon”

Second, at this point you will continue to work with the trainers to work on your mastering the basic abilities to control a RC airplane. They have a training card that they will require you to keep and bring to each session. Once you have all the necessary skills needed and signed off on to maintain the flight of the aircraft, your instructor will contact me and we will set up a date and time for you to take a written and flight exam with me. After you have passed this portion of the training, you will receive your “wings” and a acknowledgement from the club that you are now approved to fly on your own.

I look forward to working with each of you again this year and hope that we have many more who will benefit from this program. I also plan to establish an advance flight training class sometime in May. I will keep you posted of those plans as they develop. May all your take offs this year be smooth and all your landings be planned!

Thanks for listening,

Tim Blankenship
Flight Training Director

What Prop Are You Using?

I thought I would spend some time this month talking about the item on the front of the engine that makes it move through the air. Most of the planes that I have been involved in over the years use some kind of airscrew to generate thrust except, of course, for gliders. A propeller is one such device that uses the blades to rotate through the atmosphere by spinning and therefore pushes the aircraft forward. This reaction to the principles of nature, have caused a whole new science to be introduced in the 20th century.

From my early years of rubber motors, as they were called, I used a balsa block of wood that was carved to the shape of the pitch and diameter needed for that particular design. It was attached to a rubber band, which was secured by a support on one end in the fuselage of the plane and a propeller on the other. You then would use you hand or a winder device to count the number of twist that was wound on the motor. When released, it would usually allow for a steady rotation of the propeller and provide several minutes of free flight around the park. Because the props were made from balsa, they would be destroyed in the event of a crash and you would have to carve out another one.



As a side note: In Early May of every year in Johnson City, TN (about 3 hours from here) they hold the national indoor free flight championships on the campus of East Tennessee State University. If you get a chance, you should go to this event. You will enjoy all the conversation and be amazed at what these pilots can accomplish. We both worry about weight in our aircraft. The RC guys talk usually about ounces and pounds. These indoor pilots worry

about micro-grams! They make props out of microfilm and 1/64th balsa strips that weight less than a human hair that can keep a plane aloft for up to 40 minutes.

As I progressed to Control line modes (Cox .049 kits) in the late 60's I had purchased plastic planes that came with a pre-molded plastic propeller. This saved a lot of whittling time and was a lot more precise than anything I could produce from scratch. The planes were heavy and did not fly all that well. If I remember correctly, I usually got about 5-6 flights on a Cox model before something was broken. It was usually the prop or the engine.

Later, as I began my RC addiction in the 70's, I was inundated with all sorts of wood, plastic, and composite material props to choose from. What I didn't realize at the time was that I was just beginning to scratch the surface of how to choose the right prop. As with most of us, I just wanted to go fly and the fewer things I had to concern myself with, the better off I was. What I have learned over the years is that not all props are created equal. So how do you know when you have the right prop for the particular plane you are flying it on?

An airplane can have totally different flying characteristic depending on which prop you put on the front of it. A large diameter, low pitch prop will provide better slow flying attributes while a small diameter, high pitch prop will create better air speed. Also, depending on the drag of the plane, you will need to choose between 2 blades, or 3 bladed props. Here is a good test to see if your flying buddy or the local hobby store knows what they are talking about



when it comes to choosing the right props. Ask them what prop do you need to fly on your latest creation with a 90 size four stroke on it? If they respond by asking what plane is it on? Then you know they are someone who has a good grasp on flying issues. But if they say right off the bat a 15x6, then you know they don't really get it and only understand how to read a chart.

Yes, a 15x6 prop is one that is recommended for that particular engine, but there is a lot more to finding the right prop than just picking one from the list on a chart. You see, manufactures learned early on that it depends what kind of plane you are putting this engine on. That is the main reason they give you several options for length and pitch in the prop range. They know first hand that a Weeks Solutions Bipe would take a totally different prop than a Reno Racer would even though you are using the exact same engine on both. WHY? Mainly because of the design of the fuselage and the flight characteristic of the plane itself make a big difference. A bi-plane does not fly fast like a racer would and it has a lot more drag, so more torque is needed to compensate.

For breaking in a engine, I always take the low end of the range. I do this to create the least amounts of load on the engine that I can. If an engine only comes with one prop size recommendation, I still reduce the diameter and pitch by one. For Example, let's say your .25 cu. in. size motor came with a prop requirement of a 9x5. I would place an 8X4 on this engine for break in. Once I had followed the engine manufactures procedures for break-in time, I would switch to the 9x5 for flying. This again, would be altered a little depending on which type of aircraft it was going in. Just in case you are not sure what I mean by a 9x5 prop. The 9 represents the diameter or the distance from tip to tip. In this example that total length would be 9". The 5 represents the pitch. The pitch is the distance the propeller moves forward in one complete revolution. In

this case, it would move forward 5" in one revolution. There are also one, two, three and multi-bladed props. One bladed props are used in CL speed racing. Most of what you see in the RC airplanes is 2 bladed and 3 bladed. The multi-blade are for scale static display models.

Experimenting with different props on a plane and changing nothing else can have drastic results on the flight characteristics. Changes to pitch and length can and will effect the amount of strain on the power plant. A prop with more blades will create more thrust if turning at the same speed.

Here are a few tips that might help you select the correct prop for you next project.

1. *If the engine is close to the ground (tri-cycle gear setup) then a shorter prop is recommended for ground clearance reason. A shorter prop with more blades will create more thrust.*
2. *A prop with a high pitch and wide blades with displace more air and generate more thrust. The more air displaced in the revolution, the more responsive the airplane will be.*
3. *A narrow prop with high pitch will give you speed due to the fact that it can displace a lot of air at high RPM's*
4. *A high drag plane requires a low pitch prop due to the excessive amount of drag on the airframe.*
5. *If a prop is too long or too heavy it can create a gyro effect which will counteract yaw and pitch. This will cause the airplane to be less responsive to your control inputs.*
6. *Never use a prop that has a crack, split or chunk missing from it's surface. That is a projectile just waiting to be launched.*
7. *All else being equal, a prop with a pitch greater than 60%-70% of the diameter will stall if the airframe is too draggy to support the pitch speed. This means it won't deliver near the thrust and speed expected.*
8. *A balanced prop is worth your time and attention. Any vibration that can be eliminated would be worth it.*
9. *Remember.... Vibration is the number one killer to servos and receivers.*

I know that you will hear all kinds of stories from flyers who do not balance their props and



how they never have any problems. But I usually ask them why then do they balance the tires on their vehicles? Just remember this, any stress on the airframe that can be eliminated is providing you with additional insurance that your plane will last a long time. I have seen many planes rip to shreds by not following these simple principles.

How do you properly balance a prop? First, physically examine the prop. Look for any sign of failure. Cracks, splits and missing chunks are reason alone to discard it. Never glue or tape a prop back together and use it. Look for any sign of wear. Measure the length and make sure that it is same distance from the center to each end and the same with the width. Pre-formed plastic props are razor sharp. Take a knife or sandpaper and lightly scuff the edges of both blades. Do not cut into the prop or you will have to discard it.

Place the prop on a balancer and watch for rotation. If the blades remain horizontal then flip it over 180 degrees and check again. If one blade is low, mark that blade with a piece of painter tape or use a marker and place a dot on the back side. The blade with the mark is the one that needs attention. Take some sandpaper or an exacto knife and sand lightly at the hub of the blade. Not at the tip because that would change the length and not at the edge because that would change the pitch. Sand a little and see if it is balanced or not. Continue until you have it holding horizontal. Then flip it over 180 degrees and double check.

You can make a homemade balancer or buy a commercial one. The simplest one is not necessarily recommended for beginners, but it

will work in a pinch if you find yourself, say at the field, and need to replace a prop that has not been balanced. Take a "T" pin and hold it with the hub of the prop on the end of the pin. This will let the prop rotate freely and should give you an decent ideal if the blade is balanced or not. Follow the same procedure as above if not.

There are all kinds of commercial balancers available. Dubro, Great Planes and Towers all make a version that you can buy for less than \$20. One of my favorites is the home made one that I made with some 1x2 wood planks, some



round magnets, all thread rod and two wing nuts. This works for Take the wood and make yourself two wooden "T" stands and place one magnet on each making sure to have them at the same exact height on both T-stands. Take a piece of 1/8" all thread about 5 inches long and sharpen both ends to a rounded point. Now you can place your prop in the middle of the rod, screw on the two wing nuts and washers or spacers as needed and place the prop between the two T-

stands. The magnets will keep the blade free and create a very accurate balancer. For bigger props just use a larger T-stand and bigger diameter all thread size.

Any vibration will destroy the airframe, the servos and other electronic components on the plane. To know if this is happening, pick the plane up while the engine is running and feel for any rumble in your hand. If there is some, chances are it is the engine and or prop that is causing it. A strong vibration kills the plane quicker. A Mild vibration just takes longer.

A great little book on engines and prop selections is available through Model Airplane



News (MAN). Here is a copy of the front cover.



Do you want to carve your own props? Well here are the steps that I have used before:

1. Print out the front view and glue it to the wood.
2. Rough cut the outline (a band saw works perfectly)
3. Sand down to the outlines
4. Turn the wood on it's side and rough cut the profile
5. Sand down to the profile
6. Mark the leading and trailing edges with pencil
7. Roughly carve the back to create a flat face on the blades
8. Sand the back of the blades until they're flat (a sort of twisting flat)
9. Sand down the front of the blade to create an airfoil pattern.

I have also included a Prop Chart that you may find helpful if you particular engine does not have one listed.

If you have any questions or want additional information, please feel free to contact me and I will be glad to help. I hope this has been beneficial and I hope you will put these simple procedures into practice as you pull out that next prop from the package and say " Is this the right prop for this airplane?"

Thanks for Listening,

*Tim Blankenship
Flight Training Director*

Two - Stroke Engine	Four - Stroke Engine
.049 5.25x4, 5.5x4, 6x3.5, 6x4, 7x3, 6x3	.20-.21 9x5, 10x5, 9x6
.09 7x3, 7x4.5, 7x5, 7x4	.40 10x6, 10x7, 11x4, 11x5, 11x7, 11x7.5, 12x4, 12x5 11x6
.15 8x5, 8x6, 9x4, 8x4	.45-.48 10x6, 10x7, 10x8, 11x7, 11x7.5, 12x4, 12x5, 12x6 11x6
.19-.25 8x5, 8x6, 9x5, 9x4	.60-.65 11x7.5, 11x7.75, 11x8, 12x8, 13x5, 13x6, 14x5, 14x6 12x6
.20-.30 9x7, 9.5x6, 10x5, 9x6	.80 12x8, 13x8, 14x4, 14x6, 13x6
.35-.36 9x7, 10x5, 11x4, 10x6	.90 13x6, 14x8, 15x6, 16x6, 14x6
.40 9x8, 11x5, 10x6	1.20 14x8, 15x6, 15x8, 16x8, 17x6, 18x5, 18x6, 16x6
.45 10x6, 11x5, 11x6, 12x4, 10x7	1.60 15x6, 15x8, 16x8, 18x6, 18x8, 20x6, 18x6
.50 10x8, 11x7, 12x4, 12x5, 11x6	2.40 18x12, 20x8, 20x10, 18x10
.60-.61 11x7.5, 11x7.75, 11x8, 12x6, 11x7	2.70 18x10, 18x12, 20x10, 20x8
.70 11x8, 12x8, 13x6, 14x4, 12x6	3.00 18x12, 20x10, 20x10
.80 12x8, 14x4, 14x5, 13x6	
.90-.91 13x8, 15x6, 16x5, 14x6	
1.08 15x8, 18x5, 16x6	
1.20 16x10, 18x5, 18x6, 16x8	
1.50 18x8, 20x6, 18x6	
1.80 18x10, 20x6, 20x8, 22x6, 18x8	
2.00 18x10, 20x6, 20x10, 22x6, 20x8	
	Engine - Prop Size





AMA PRESIDENT DAVE BROWN STEPPING DOWN

The January 2008 Model Aviation, president's column by Dave Brown was his last as AMA president. Dave has served AMA for 28 years in Executive Committee capacities including all of the elected offices: district vice president, executive vice president and, and president. He notes that he leaves much wiser than when he arrived and with a slightly different perspective. He leaves it to history to tell whether he leaves the organization stronger than it was when he arrived.

Dave was very generous in his recognition of those who have been builders of the AMA organization. There have been many over the years who have made singular contributions in both time and talent to bring AMA to where it is today. Dave notes that all that have brought their talents to the AMA table were not necessarily friends or admirers. He is gracious enough to note that being friends is nice but that the strength of an organization like AMA depends upon diversity of opinion and management styles.

He challenges those who do not like the direction the Academy is going to elect someone who will take it in the direction they want it to go, or, even run for elected office and serve if elected.

Anyone who would devote 28 years of his time, talent and energy to our organization deserves our heartfelt thanks. Dave Brown has served us well.

Submitted by: Daryl Tonini



DEPTH PERCEPTION AND FLYING

Came across an interesting article in the January 2008 issue of the EAA Sport Pilot & Light-Sport Aircraft magazine titled "Got your 3-D Glasses On?" The author, Dave Matheny does not claim any particular medical expertise but writes from the perspective of a guy who flies a "fair amount and notices things—things like the difference between needing glasses and recognizing what's near and what's far".

Those of us guys who are longer in the tooth don't need anyone telling us about how old eyes don't see as good as they once did. This is particularly so at the field when your plane gets out there a bit and you lose your ability to "see" its orientation. That's why my instructors have encouraged me to fly big planes and to keep my patterns tight.

So it's pretty well known how visual acuity or lack thereof can spoil your day; maybe what is less well understood is how depth perception affects what we are doing. Dave suggests some depth perception numbers from the world of flying full scale airplanes that are real interesting (to me at least). He argues that beyond 100 feet, depth perception, or the lack thereof, is not a major factor in our ability to



judge the relationships of things to one another. In other words, the binocular effect that give us the depth perception we enjoy when viewing objects up close is essentially lost by the time they are a hundred feet away

He says that we compensate for this by experience and with relationships and detail of things that are close and further away. We learn to follow the clues in our surroundings and can thus effectively control a body in three dimensional space. We are probably not even aware when we shift from one mode to another as we come in for a landing or do some close-in aerobatics.

His point is that to be a safe pilot, having 20/20 vision is not enough to keep you out of the power lines. It's more a life and death matter when you are landing a full size bird than one of our quarter scale models. However, maybe there is something to be learned in understanding the tradeoffs between visual acuity, depth perception and situational awareness. Not bad things for us to keep in mind when we too break the bonds of earth.

Submitted by: Daryl Tonini



Club Members Meet Celeb

During the Bealeton, VA fly-in last September, Aaron, Cheri, and I got the chance to visit with Charlie Kulp, aka "Silas Hicks, the Flying Farmer." To tell the truth, I didn't know enough about his background at the time to realize what a treat it was to meet with him. I did get a few pictures and we enjoyed the conversation and his company. He's a real character! Charlie Kulp is featured in an article in the March, 2008 issue of AIR & SPACE Smithsonian Magazine and an interview with Charlie can be found on their website - www.airspacemag.com.



Want more information? <http://www.airspacemag.com/issues/2008/february-march/kulp.php>

Submitted by: Fred Foster

What's new at the field

The Piper J-3 Cub is a small, simple, light aircraft that was built between 1937 and 1947 by Piper Aircraft. With tandem (fore and aft) seating, it was intended for flight training but became one of the most popular and best-known light aircraft of all time. The Cub's simplicity, affordability and popularity invokes comparisons to the Ford Model T automobile. Its standard yellow paint has come to be known as "Cub Yellow" or "Lock Haven Yellow." --from Wikipedia.com



Here are pictures of Daryl's Great Planes J-3 Cub that was bought at the Swap Meet last year and put together by Joe Hash. Nice job! Good luck with the maiden flight.



Specs on the J-3:

- Span 81"
- fuselage length 49"
- wing area 984 in²
- weight 8.5 lbs
- Powered by an OS 61
- 4 Channel/5 servos



What's new at the field

The Boulton Paul Defiant was a British fighter aircraft and bomber interceptor used early in the Second World War. The Defiant was designed and built by Boulton Paul Aircraft as a unique turret fighter that served with the Royal Air Force (RAF). The concept of a turret fighter was similar to the successful World War I Bristol Fighter and the Fleet Air Arm's contemporary Blackburn Roc but, in practice, the Defiant was highly vulnerable to the more agile Luftwaffe Bf 109 escort fighters; crucially, the Defiant did not have any forward firing guns, where the Bristol Fighter at least had one forward-firing synchronized Vickers machine gun. It was later used in the night fighter role, where it proved successful against Luftwaffe bombers, before it was phased out of combat service in favor of the Bristol Beaufighter and de Havilland Mosquito. Among RAF pilots it had the irreverent nickname "Daffy."



The Defiant emerged at a time when the RAF anticipated having to defend Great Britain against unescorted enemy bombers. Advances in aircraft design during the 1920s and 1930s resulted in a generation of multi-engined bombers that were faster than the single-engined biplane fighters then in service. The RAF believed that its own turret-armed bombers, such as the Vickers

Wellington, would be able to penetrate enemy airspace and defend itself without fighter escort and that the German Luftwaffe - its most obvious future adversary - would do the same. A turret-armed fighter would be able to engage enemy bombers from angles that would defeat the bomber gunners. Thus, the Defiant was armed with a powered dorsal turret, equipped with four 0.303 in (7.7 mm) Browning machine guns. In theory, the Defiant would approach an enemy bomber from below or beside and destroy it with a concentrated burst of fire. --from Wikipedia.com.

Looks awesome...Joe.



Here's a pic from a few years back. A lot of members probably don't remember this. This was our field after Hurricane Isabel got through with it it 03.

Photo by: Randy Ryman.





And away we go.



ICY CARB



Randy and Aaron fire up the Magnum for a maniac flight.



After much discussion, everyone decided this part was probably a battery.

2008

Photos by: Fred Foster



Hi-TEC HOBBIES

Now open Mondays.

M-F 10:00 am - 6:00 pm

Sat 11:00 - 6:00 pm

We are also having a sale. Many items **10% - 25% off.**





Some of you might find the Farmer's Almanac Appalachian Region 3 Weather Forecast interesting. My family has no farming background but we always had the Farmer's Almanac lying around the house when I grew up. Not sure how accurate this weather report is but I still find it fun to read. Apparently, they've been more right than wrong.

Submitted by:
John Rheault.

Region **3** Forecast

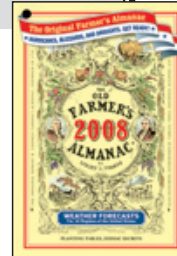
Appalachians

SUMMARY: Winter will be one to two degrees above normal, on average, with especially mild temperatures in November and March. Precipitation will be near normal, but the cold periods in midwinter will allow for above-normal snowfall in much of the region. The coldest periods will occur in mid- and late December, mid- to late January, and early and mid-February. Heavy snowfalls will occur in mid-December, mid- to late January, and mid- and late February.

April and May will be slightly warmer and wetter than normal, with the season's first hot temperatures in early May.

Summer will be rainier than normal, with near-normal temperatures. The hottest temperatures will occur in early and late June and in mid- and late July.

September and October will have below-normal rainfall. September will be slightly cooler than normal. October will be mild, especially in Pennsylvania and New York.



NOV. 2007: Temp. 47° (4° above avg.); precip. 4.5" (1" above avg.). 1-4 Sunny, then heavy rain. 5-9 Sunny, cool. 10-19 Periods of rain and snow, cool. 20-27 Sunny, mild. 28-30 Rain, then snow.

DEC. 2007: Temp. 31° (3° below avg.); precip. 3" (avg.). 1-3 Snow north, flurries south. 4-10 Snow showers, cold. 11-13 Sunny, mild. 14-19 Snow, cold. 20-22 Sunny, seasonable. 23-31 Snow, then sunny, cold.

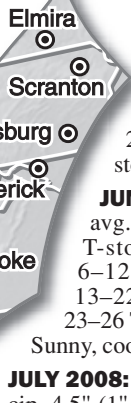
JAN. 2008: Temp. 30° (2° above avg.); precip. 4" (1" above avg.). 1-6 Sunny, then rain, mild. 7-11 Snow, then sunny, cold. 12-14 Showers, mild. 15-23 Snow showers, very cold. 24-27 Rain and snow, seasonable. 28-31 Sunny, mild.

FEB. 2008: Temp. 28° (avg.); precip. 1.5" (1" below avg.). 1-4 Sunny, cold. 5-11 Rain and snow, then sunny, cold. 12-14 Snow, seasonable. 15-21 Periods of snow, cold. 22-29 Snow, then rain, turning mild.

MAR. 2008: Temp. 44° (5° above avg.); precip. 2" (1" below avg.). 1-6 Rain and snow showers, seasonable. 7-12 Sunny, then rain, warm. 13-17 Snow showers, cool. 18-28 Scattered t-storms, very warm. 29-31 Sunny, seasonable.

APR. 2008: Temp. 51° (1° above avg.); precip. 4.5" (1" above avg.). 1-10 Sunny, seasonable. 11-16 T-storms, warm. 17-22 Sunny, seasonable. 23-25 Showers, cool. 26-30 Sunny, warm.

MAY 2008: Temp. 60° (avg.); precip. 5" (1"



above avg.). 1-4 Sunny, hot. 5-9 Showers, cool. 10-15 T-storms, seasonable. 16-23 Sunny, then showers, cool. 24-26 Sunny, warm. 27-31 T-storms, warm.

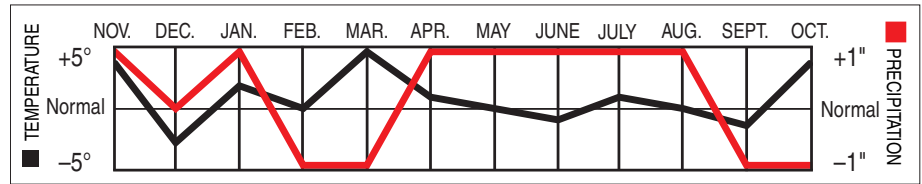
JUNE 2008: Temp. 67° (1° below avg.); precip. 5" (1" above avg.). 1-5 T-storms north, sunny south; hot. 6-12 T-storms, then sunny, cool. 13-22 T-storms, then sunny, warm. 23-26 T-storms, then sunny, hot. 27-30 Sunny, cool.

JULY 2008: Temp. 74° (1° above avg.); precip. 4.5" (1" above avg.). 1-6 T-storms, then sunny, cool. 7-16 Scattered t-storms, warm. 17-22 Sunny, then t-storms, hot. 23-25 Sunny, warm. 26-31 Sunny; seasonable north, hot south.

AUG. 2008: Temp. 71° (avg.); precip. 4.5" (1" above avg.). 1-6 Sunny, seasonable. 7-10 T-storms, cool. 11-17 Sunny, very warm. 18-22 T-storms, then sunny, cool. 23-28 Scattered t-storms, warm. 29-31 Rain, cool.

SEPT. 2008: Temp. 62.5° (1.5° below avg.); precip. 2.5" (1" below avg.). 1-5 Sunny, warm. 6-8 Showers, cool. 9-13 Sunny, turning warm. 14-19 Showers, then sunny, cool. 20-30 Heavy rain, then sunny, seasonable.

OCT. 2008: Temp. 57° (6° above avg. north, 2° above south); precip. 2" (1" below avg.). 1-8 Sunny, seasonable. 9-15 Sunny, warm. 16-21 Showers, then sunny, warm. 22-25 Showers, then sunny, cool. 26-31 Periods of rain, cool.



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