

newsletter of the

Salinas Area Modelers

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President Says!.....

For the past year I have been writing my memoirs. In my chapter on *modeling* I have been recalling some of the more interesting experiences, especially my beginning days of RC. Today our equipment is so sophisticated & reliable that RC flying has become very routine. We hardly ever have equipment failures, so any troubles we have are normally classed as *pilot error!* In the *good old days* (the only thing you can really say is they were *old days*) every flying session was fraught with uncertainty, unexpected consequences & usually something very humorous (even pilot error).



President John & Cap 232_1

My first RC was a scratch built (from magazine plans) single channel rudder only model called the Charger. It had been the Class I National's winner in 1960. Control was achieved via a rubber band powered escapement where one push & hold on the transmitter button gave right rudder & two pulses & hold gave left rudder. It also had a high-low throttle operated through a second escapement that operated through the main escapement by pulsing three times & holding.

I was flying one day with an engineering colleague at the end of our subdivision in Dallas where the streets were in but houses were yet to be built. The receivers in use at the time were not crystal controlled & only one airplane could be flown at a time. It was my turn to fly, so I cranked up the Fox .15 & proceeded to hand launch it into the wind. I didn't throw it quite hard enough & it settled into some tall weeds & killed the engine. I hurriedly returned to my starting paraphernalia & cranked up the engine again. The problem was I had turned off the receiver battery when I picked up the model (routine procedure – right?) & forgot to go through my normal preflight checks before launching it the second time. This time it was airborne with 8 minutes of fuel, but I had no control!

By some quirk of fate, still unexplained, the Charger trimmed into a circle of about 100' in diameter & at an altitude of about 25'. It drifted in the light wind across the field & began to slowly move toward a housing development. At first I panicked thinking it would be lost behind someone's 6' fence, then I realized it would plow into a line of trees before going over any houses. As I leisurely walked across the field with this crazy airplane going around & around me it finally struck a branch & fell to the ground.

As I picked up the airplane & started back to the launch point a young boy stepped out from under the trees & began tailing me. With a very puzzled ex-



**DON'T
FORGET
TO
PACK
YOUR
TRASH!**

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pression on his face he asked, "Where are the wires?" I was so disgusted with

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my foolish *uncontrolled* flight that I rather gruffly answered, "It's radio controlled, kid." At this point, he came back with, "What do you say to it?" I'm sure there are many times when we would all like to say something to our airplanes, only to realize they are talking to us instead.

Maybe some of you have humorous experiences to tell. Let's hear them! See you at the club meeting on Wednesday, June 4th. Come & enjoy the antics of Bob

SUMMER GLIDER CONTESTS

Saturday, June 7

Saturday, July 5

Saturday, August 2

**Field will be closed for the contest
9:00am to 12 noon**

**THIS YEAR WE WILL BE USING A WINCH
INSTEAD OF "THE BIG RUBBER BAND",
TO LAUNCH THE GLIDERS.**

Come join us for the fun!

Call Malcolm Beety, 393-9304
for additional information



NEWSLETTER DEADLINE

June 15th

**Remember to let me know of all
special events & news!!**

francis@got.net

Or call Darlene, 831.688.6283

THE CONCLUSION OF:

Aspect Ratio and Taper Ratio

By Alan Brown

The effect of the vortex pattern coming off the trailing edge of the wing is to reduce the effective angle of attack, which in turn rotates the directions of lift & drag backward. (Picture enclosed would not print, sorry.) The vertical induced velocity, w , reduces the angle of attack. This vector now has an extra component in the drag direction in addition to the basic profile drag of the airfoil. Loud cries of "So what!" from the audience at this point. Well, the point is that the stall angle increases according to this simple formula, but the lift coefficient & therefore the stall speed don't change. For example, a 2-dimensional wing (infinite aspect ratio) might stall at 15 degrees. The same airfoil on a wing of aspect ratio 6 will stall at 20 degrees, while if the aspect ratio were reduced to 2 (something like an extreme Profile Hots airplane), the stall angle would be 30 degrees. The stall for this latter case would be apparently gentler because the whole lift curve is stretched out sideways by a factor of two.

Now what about the extra drag term? Is it really worth concerning ourselves about it? Well, the profile drag for a wing alone might be about 1/30 of the lift. An L/D of 30 for the infinite wing is quite attainable. The so-called induced drag caused by the lift term bending backwards is approximately equal to the lift times the angle in radians. Let's calculate the wing lift/drag ratio near the stall, (which is also near the landing speed), for different aspect ratios. This will not include the drag of the rest of the airplane. I'm going to assume a stall lift coefficient of about 1.4, which is reasonable for a lot of our aircraft. We'll divide the lift by the sum of the fixed profile drag and the induced drag to get the overall lift/drag ratio.

Aspect Ratio:	Infinite	15	10	6	4	2
Lift/drag ratio	30	15.9	12.8	9.3	6.9	3.9

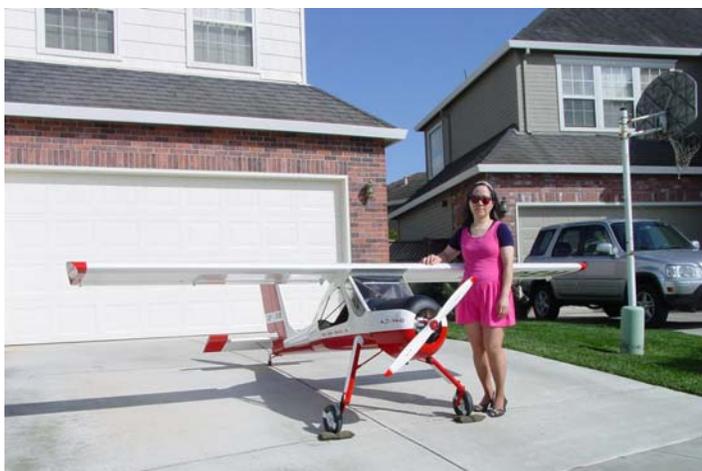
If we increase the speed by about 40%, then we only need half the lift coefficient, which in terms of L/D is the same as doubling the aspect ratio. So the new values of lift/drag ratio for the higher speeds will be as follows at the same aspect ratios as above:

Life/drag ratio	30	20.8	18	14.2	11.2	6.9
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So it becomes pretty clear why low aspect ratio aircraft drop like a stone at approach speeds. Remember, the real lift/drag ratios will be worse than illustrated because we didn't include the drag of the rest of the airplane. This is only for the wings! Remember also that the tangent of the glide angle is one over the L/D ratio. So our aspect ratio 2 airplane is dead-sticking at a 14.4 degree descending glide angle while its angle of attack is 30 degrees to its flight direction or 15.6 degrees to the horizontal, & that's if the rest of the plane has no drag! A sailplane with a 15:1 aspect ratio under the same conditions would have a glide angle of 3.6 degrees, but its angle of attack to the horizontal would be 13.4 degrees. So when an airplane is landing dead-stick, its attitude relative to the ground isn't affected much by aspect ratio, but it's sink rate is affected dra-



Here are the pictures of the new **WILGA**, owned and flown by **Don Meeks**, beautifully built by **Mike Croft**.



SAM being an AMA Charter Club requires all members to abide by the AMA Safety Code. This Code comes with your AMA License and is also posted on the bulletin board at the flying field. In addition SAM requires additional safety rules be followed when flying at the site.

SAFETY TIP #1

No transmitter turned on without membership card in frequency control board & frequency pin on transmitter. Guests must fill out & use a guest card.

Double check for correct frequency!

★ **IMPORTANT INFO** ★ **NEEDED!** ★ **FOR YOUR EDITOR!**

At last months meeting, it was decided to publish your newsletter through e-mail, in place of the printed edition that I send you through snail-mail. Along with saving a few trees here and there this will save the club quite a bit of money in stamps as well as printing costs. Starting in July you will be able to receive this publication with pictures in full color, right on your desk top. Then you can print it all out or just a portion, whatever you decide.

The only thing required for you to have is Acrobat Reader, a program that you can download free of charge from www.adobe.com

There may be some of you that do not have e-mail, or just would prefer to have a hard copy mailed to them. If you are one of these people, please call and let me know that you DO NOT WANT your newsletter to come by e-mail.

I want to thank the Board, all members who voted and **Bob Dooley** for all their help & support to get this program rolling.

Darlene, 831.688.6283

PROPELLER SAFETY

Don't run an engine in areas of loose gravel or sand for the prop can throw such material into your face & eyes. It's not a bad idea to wear eye protection!

May Minutes, by Dick Moeller

The meeting was called to order at 7:30pm. 16 members were present. New member **Craig Doener** was introduced. The Treasurer reported that the club is solvent & we now have 78 members.

OLD BUSINESS:

Bob Francis thanked the club members for their assistance in making the 1/4 scale fly-in a success.

The turnout for the glider fly at Los Banos Reservoir on May 4th was poor & those who came left early due to wind conditions. **President Midgorden** reported that the bids for runway resurfacing are in process.

Because of limited space, the Quail Lodge show (scheduled for August 15th) will be limited to low altitude helicopters & perhaps small electrics (park flyers). In addition the club will display approximately 15 airplanes representing the early years of aviation. **Walt Newman** is in charge of the event & he & 1 or 2 other members will visit the site for a better appreciation of its limits.

The SCAT event is scheduled for May 23-24-25 at our field. Volunteers are needed & Midgorden circulated a job sign-up sheet at the meeting.

The first float-fly is scheduled for May 16-17-18 at San Antonio Lake.

The first glider contest is scheduled for June 7 at our field.

NEW BUSINESS:

Midgorden asked for program suggestions for future meetings. **Bob Francis** will bring video tapes of Bob Hoover next month.

After a feasibility discussion, **Malcolm Beety** made a motion that the newsletter be put on the internet by purchasing "Adobe Acrobat". It was seconded by **Dave Roth**. It passed unanimously.

As part of the program, members were asked to bring tools to show, especially unusual ones. A number were shown by several members. **Bob Francis** brought a tube of "ProBond" used for bonding wood to foam & just about anything to anything.

RAFFLE WINNERS:

Dave Roth CA
Dale Oxford Fuel
Bob Dooley CA

SHOW & TELL:

Alan Brown showed his new "Impress" electric.

John Midgorden showed his ZDZ 40cc Engine

Malcolm Beety showed his Kaos on new floats.

GLUE SAFETY:

When working with CyA glue, always get out the glue and the release agent (solvent). They should be on the building table together at all times. I have had the thin stuff run off of a part unnoticed & glue my stomach to the table edge. This can be painful & makes it just a bit difficult to reach the shelf to get the glue solvent.

Once I glued my hand to a large nearly complete model & I was not in a position to reach the glue solvent, way over on the shelf. I had to call for help to get unstuck. Now, I always get the glue & solvent together, within easy reach. ...from The Pilot, El Paso RC.

REMEMBER

These Coming Events

June 4	Board & Club Meeting	Salinas
June 7	Glider Contest	SAM Field
June 7-8	IMAC	Skaggs Island
June 7-8	All Scale Contest	Ukiah
June 7-8	All Scale Contest	Ukiah
June 14	Electric Fly In	Morgan Hill
June 19-22	IMAA Fun Fly	Castle/Atwater
June 21-22	Scale Masters Qual	Livermore
June 21-22	SCAT	Camarillo
June 29	Ruddergate	SAM Field
July 2	Board & Club Meeting	Salinas
July 5	Glider Contest	SAM Field
July 12-13	Memorial Fun-Fly	SAM Field
July 12-13	Invitational Air Show	Morgan Hill
July 19	Flea Market	Morgan Hill
July 19-20	IMAC	Livermore
July 26-27	IMAC	SACRATS
July 26-27	WW II Wings/Victory	Woodland/Davis
July 27	Ruddergate	SAM Field

If God meant for man to fly model jets, He'd have given him a lot more money!

.....The Checkerboard Flyer



**SEEN
AT
OUR
FIELD
IN
APRIL**



Beautiful color photos by:
Jim Collin & Jack Jella



**SAM MEETING
June 4th, 7:30pm**

←→
Come and enjoy a short business meeting, be a part of making the future decisions of your club!

Then stay and see videos of BOB HOOVER from both inside and outside the cockpit.

Don't forget the "Show & Tell", as well as our great raffle!.

When his engine conked out, the pilot of a light plane glided to a landing on the New York State Thruway. The only car in sight pulled off the road to get out of his way. The pilot jumped out and ran over to the car to ask for a lift to the nearest interchange. As he neared the car, the woman sitting beside the driver stuck her head out the window and said excitedly, "We'll get out of the way, Mister, if you'll just show us where to go. This clown here is the only driver in the country who could start out on the Thruway and wind up in the middle of an airport."

Happy Landings.....submitted by John Midgorden

OFFICERS

President: John Midgorden.....633-4026
Vice Pres: Dave Florence.....678-1334
Secretary: Dick Moeller.....663-2613
Treasurer: Bob McGregor.....422-3049

BOARD OF GOVERNORS

Malcolm Beety.....393-9304
Dave Roth758-3799
Bob Francis.....688-6283

Field Maintenance: Malcolm Bruce.....449-4471
Malcolm Beety.....393-9304

Club Internet Site: <http://www.redshift.com/~modeler>
Webmaster: Bob Dooley375-4874

NEXT CLUB MEETING

Wednesday, June 4, 2003
7:30pm

Salinas Recreation Center, Lincoln Ave.
Between Alisal & West San Luis
Salinas, California

Club meets the 1st Wednesday of each month.

Next Board of Governors Meeting

Wednesday, June 4, 2003
6:30pm
Salinas Recreation Center

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SEND IN YOUR ARTICLE AND PICTURES NOW!



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First Class

