



Field Work Day—March 25th



Your SAM Board has built into the 2006 Calendar three Saturday workdays to maintain our flying site in good condition. The first of these workdays is this month—the last Saturday, March 25th.

As your president has indicated very strongly in his editorial, the field will be **closed to flying from 9 AM through 1 PM**. When we have held these workdays in the past there has always been some members who came to fly and were very disappointed. The solution is for everyone to come prepared to work a few hours to help the club maintain its excellent flying site.

The work to be accomplished will include cutting down the bamboo shoots on the north end of the runway and trimming the bush in other areas. There are many other things to do if we get enough workers. Here is your chance to make a significant contribution to the club and to feel good about using the facility throughout the year.

A free lunch will be provided for those who come to work. Who is it that said there is no such thing as a free lunch?

By your Editor

President Says



I want to start this month's article to correct something I've not included in the last two months. I NEED to thank my FABULOUS wife Linda for presenting me with a Clipped Wing ¼ Scale Sig Cub kit at the Annual Christmas Dinner. This will be my third cub, and it'll get floats next year. With some help from Bob McGregor, she got the kid ordered and got it to the meeting without ANY knowledge from me. THANK YOU Linda! She has supported me through 29 years together, and I love her very much! NOW, she has gotten me the engine for this kit for valentines day. The radio will be for next Christmas, as I'm not a rapid builder.

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PRESIDENT SAYS (CONT. FROM PAGE 1)

Now, onto club business. The February meeting went REALLY well. We had it at The Landing Zone at the Salinas Airport for the first time. There will be more on this later, BUT many Thanks to James and Helen Klamas for opening their restaurant to us. These folks are supporters of our club and what it stands for, so we **NEED** to support them. They have FABULOUS food and great service!!!! We had eleven members present for the board meeting and several more for the club meeting. As I said last month, the board meetings will contain the business stuff and the club meeting will have recognition and Show&Tell. We recognized Chris Meharg for his soloing on January 21st! Soon Chris will have his son, and HOPEFULLY his dad, flying too.

The schedule for our club events will be published every month. We will try to keep you all posted on other club events as we get info on them. There will be a listing of the latest events in the Northern California R/C Society posted at the field, and John will include upcoming events in each newsletter, as space permits. If any of you know of an event not published, **PLEASE LET US KNOW!** We will include it in the next newsletter.

I told you earlier that Linda bought me the engine for my new kit. We went to D & J hobbies in Campbell and got to know the R/C manager, Rich Rolinski. He informed us that **ANYONE** with a current AMA card gets a 10% discount. This allowed us to get the OS 91 FX cheaper than if I ordered it through a popular catalog company starting with Tower . I told him about our club and he said to tell you folks that all you need to do is show your AMA card and get that discount. I'm going to work on getting us as much as a 15% discount, but that is pending as of now.

Have ANY of you folks bothered to talk to the folks at Hobby World in Gilroy and at R & S Hobbies in Salinas about what you want the to stock for us. They will also give us a discount for shopping with them, but they need to know what we need them to stock. I don't care if it's as little as telling them you use a 12x6 prop, they want to hear it. I've talked to both of them and do know how much they have heard, so **GET DOWN THERE PLEASE** and let them know what you use/need. I'm trying to help you guys get local support, please work with me on supporting these shops.

I want to remind you folks that field workdays will be from 9AM to 1PM, and there will be **NO FLYING** allowed to provide protection for the members who will be volunteering to work their buns off to beautify our facility. The first work day will be on March 25th. We will be cleaning brush and trimming the willows back that day. On June 24th will be our next work day and we will be working on the container and the Sunshade at the pit area. Remember, you ALL have a stake in this club, we want this to be the Most RESPECTED club facility in ALL of California!!!!

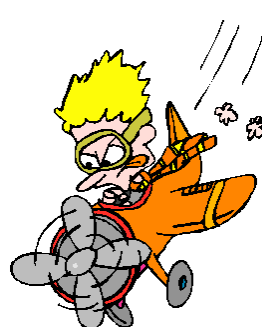
It was brought up that the club will be having it's 30th anniversary this year (I've been in the club for 27 years). We will be talking about having a Bar-B-Que at the field to celebrate this. Jack Jella (one of the founding members of the club) will be discussing with Richard O'Grady (another founding member of the club) the possibility of him doing the cooking. We are 30 years old folks, and still together! I suggest that we not only celebrate our 30 years together, BUT also consider contributing a financial contribution (maybe \$5-10) to the Chular Fire department so they can distribute that to needy families in the Chular area. This has not been discussed yet, but will be at the March meeting.

BE THERE AND BE HEARD!!!

February 25th is the FIRST Electric Fun-Fly, March 4th will be a Slope-Soaring event in Seaside, April 7-9th will be the first Float-Fly, April 21-23rd will be the Bob Francis Memorial Fun-Fly, and May 5-7th will be the NEXT Float-Fly. Read the calendar for more events!

Folks, I wish upon you **MANY** Happy Landings and enjoyment of your life!

Jim "CRASH" St. John, President



Come Join the Fun
Annual Slope Soaring at Seaside



Saturday, March 4th

If you don't have a glider come out anyway,
someone will let you fly theirs!

Alan Brown will be discussing his two part article on airfoils at the March Club Meeting. Don't miss the opportunity to learn something important about your model's aerodynamics!

Next Newsletter Deadline

March 15, 2006

Send contributions to John Midgorden, Editor

<http://www.jomidg@earthlink.net>

or Phone: (831) 633-4026

Club Meeting Minutes
February 1, 2006

The January Club meeting was called to order by President Jim St. John at 7:35 PM at the Landing Zone Restaurant in the Salinas Airport Terminal building with fourteen members present. Bob McGregor gave a financial report.

Business

Midgorden shared that Chris Meharg had soloed using the Hanger 9 P-51 and that he is going to be a very good pilot.

Jim went over the highlights of the Board meeting.

1. Planning for the Electric Fun Fly is underway and there will be a \$5 landing fee, but it will include a hamburger lunch.
2. The dates for the Spring float flies and the IMAC contest have now been confirmed and will be as printed in the February newsletter.
3. March 25 will be our first field workday of the year and the field will be closed from 9-1 that day. Those who come and work will be given lunch.
4. 2006 being the club's 30th anniversary there will be a special celebration in leu of the June Rudder gate. A nice BBQ dinner will be catered.

Midgorden explained that Cindy Miller has given the club a number of framed aircraft pictures of Dicks that the club can raffle as money raisers during this years events.

Show and Tell

Malcolm Beety brought the partially covered wing to his Dynafite Citabria for expert advise from club members.

Alan Brown showed his Lincoln Beachey Little Looper that he is building as a scratch project. It is a modified Curtis pusher that Beachey used to do aerobatic demonstrations in and around San Francisco just prior to WW I.

Respectfully submitted,

John Midgorden, Secretary

SAM Calendar

March		
1	Board/Club Meeting	Salinas Airport
4	Slope Soaring	Seaside
25	Field Work Day	SAM Field
April		
5	Board/Club Meeting	Salinas Airport
7-9	Float Fly	Lake San Antonio
21-23	Francis Memorial Fun Fly	SAM Field
May		
3	Board/Club Meeting	Salinas Airport
5-7	Float Fly	Lake San Antonio
21	Rudder gate	SAM Field
June		
3	Glider Contest	SAM Field
7	Board/Club Meeting	Salinas Airport
24	Field Work Day	SAM Field
25	Rudder gate	SAM Field
July		
1	Glider Contest	SAM Field
5	Board/Club Meeting	Salinas Airport
15	Memorial Fun Fly	SAM Field
30	Rudder gate	SAM Field
August		
2	Board/Club Meeting	Salinas Airport
5	Glider Contest	SAM Field
27	Rudder gate	SAM Field
September		
6	Board/Club Meeting	Salinas Airport
9-10	IMAC Contest	SAM Field
23	Field Work Day	SAM Field
24	Rudder gate	SAM Field
October		
4	Board/Club Meeting	Salinas Airport
6-8	Float Fly	Lake San Antonio
21	Electric Fun Fly	SAM Field
29	Rudder gate	SAM Field
November		
1	Board/Club Meeting	Salinas Airport
December		
2	Toys for Tots Fun Fly	SAM Field
2	Annual Dinner	Landing Zone Restaurant

NCRCS Calendar

I have only included NCRCS listing that may be of interest to SAM flyers. The complete calendar is at the field.—Editor

February

- 18-19 IMAC @ Sun Valley Fliers, Phoenix, AZ
- 25 Electric Fun Fly @ Salinas Area Modelers

March

- 4 Make-a-wish Fly-in @ Fresno Radio Modelers, Fresno, CA
- 18 Open B Combat @ EBRC, Livermore, CA
- 18-19 IMAC @ Bear Mountain Flyers, Bakersfield, CA
- 25 Flea Market @ SCCMAS, Morgan Hill, CA
- 26 Shop & Swap Meet @ R/C Flyers Unlimited, Oakdale, CA

April

- 8 Swap Meet @ Fresno Radio Modelers, Fresno, CA
- 8-9 Float Fly @ Woodland-Davis, Davis, CA
- 15 Inter-club Fun-Fly @ SCCMAS, Morgan Hill, CA
- 21-23 Bob Francis Memorial Fun Fly @ Salinas Area Modelers, Chualar, CA
- 22-23 IMAC @ Wavemasters, Holister, CA
- 29-30 IMAC @ Tucson, AZ

May

- 6-7 49er Scale Masters Qualifier @ Woodland-Davis, Davis, CA
- 12-14 IMAA Giant Scale Fly-In @ FRM, Fresno, CA
- 20 Race for Gold Warbird Race @ SCCMAS, Morgan Hill, CA
- 20 Electric Fly-In @ SACRC, Union City, CA
- 25-29 Rally of Giants @ Castle Airport, Atwater, CA

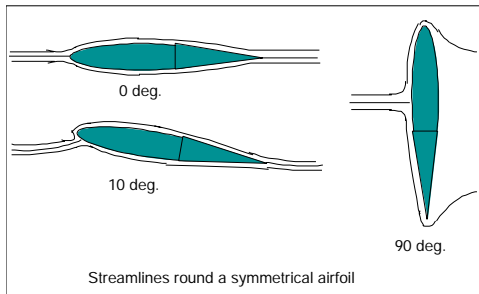
June

- 3-4 IMAC @ R/C Flyers Unlimited, Oakdale, CA
- 10 Float Fly @ Woodward Reservoir, R/C Flyers Unlimited, Oakdale, CA
- 24-25 Giant Scale Fly-In @ SCCMAS, Morgan Hill, CA
- 24-25 IMAC @ Whittier, CA

Watch this space monthly for the more of the NCRCS calendar.

HOW AIRFOILS WORK—PART TWO

To use Bernoulli's equation successfully for an airfoil at an angle of attack, one has to involve other functions to determine stream tube patterns, but along any particular stream tube, Bernoulli's equation applies. In particular, the location of the stagnation point on the airfoil involves these other functions.



It is incorrect to assume that the flow divides right at the most forward point on the leading edge. This would be true for a symmetric airfoil at zero angle of incidence, but as the angle is increased the dividing point moves under the airfoil, and air actually has to move forward around the nose of the airfoil generating very high local velocities as the local radius of curvature reduces. This will seem fairly obvious when one considers the case of 90 degrees incidence. Clearly the dividing point is going to be about half way between the leading and trailing edges. From this we can readily see how a symmetric airfoil generates lift, and why an airplane with a non-symmetrical airfoil can fly upside down.

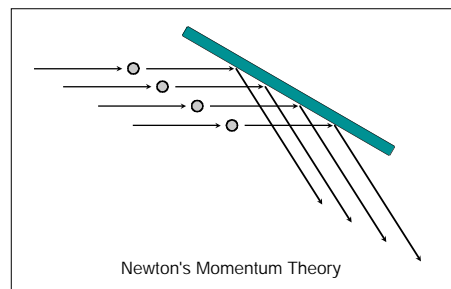
An interesting side issue is that a typical stall warning device on a general aviation aircraft consists of a floating tab sticking out on the lower surface of the wing near the leading edge. At low angles of attack the tab is pushed backwards by the airflow, but as the stagnation point moves aft over the tab, the flow over the tab now moves forward, deflecting the tab into a forward position closing an electrical circuit alerting the pilot.

Because the velocity increases as the radius decreases, it follows that the pressure is least in these regions. This demonstrates the fact that the velocity is not constant along the top of the wing, and constant at another value along the bottom of the wing. In fact it is much higher near the nose than further back, with the pressure following a similar but negative pattern relative to the atmospheric value. This accounts for the fact that the center of lift on a simple 2-dimensional airfoil is at approximately 25% of the chord. Most of the lifting is done at the front.

It is interesting to note that back in the 17th century Isaac Newton had a shot at estimating the lift from a flat plate at an angle of incidence. Dr. Romine comments on

this as a preferred approach for estimating lift at angles of attack. Newton assumed that air could be represented as a bunch of molecules all going along in the same direction until they hit the bottom surface of the plate. Using his now famous laws of motion, he had them bounce off the plate like ball bearings, and from their new trajectories he calculated the force on the plate.

He did some primitive experiments, and was interested to find that the lift generated in real life was very much greater than would be calculated from the simple momentum change based on the ball bearing approach. This forced him to the realization that there were some other phenomena at work that he had not accounted for.



Seventy years later, in 1738, Daniel Bernoulli published his famous work "Hydrodynamica" and expounded his now well known equation relating to the conservation of energy in fluids, where the fluids are regarded as continuous homogeneous media. This led to the understanding that the dominant lifting force on an airfoil was not caused by the positive pressure from below but by the negative pressure on the top surface associated with the velocity increase over it.

A great deal more work was done in the next two hundred years leading to the concepts of separating viscous and inviscid flows and defining 'boundary layer flow', which made it much easier to calculate airfoil flow fields. We will not go into these developments here.

So to summarize;

- (1) Bernoulli is still alive and well, as are the theories of lift and drag that have been developed over the last 300 years.
- (2) Airflow over a lifting airfoil does not in general divide at the leading edge, but at a point on the forward lower surface.
- (3) Velocities on the upper and lower surfaces are not constant, but vary dramatically over their transit distances.
- (4) Simple application of Newton's third law to the lower surface of an airfoil is insufficient to account for the lift developed.

by Alan Brown

Contact Information and Calendar

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Sec. John Midgorden	633.4026	-----
Treas. Bob McGregor	422.3049	SAM MAILING ADDRESS

SAM INTERNET SITE

SAM MAILING ADDRESS

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Salinas, CA 939



SAM AMA Club Charter #1554

BOARD MEMBERS

Malcolm Beety	393.9304
Dale Oxford	663.5066
Dave Stoik	663.1552

FIELD MAINTENANCE

Malcolm Bruce	449.4471
Malcolm Beety	393.9304

Coming Events

March 1, 2006

March Board Meeting	6:30 PM
March Club Meeting	7:30 PM

March 4, 2006

Glider Slope Fly	Seaside
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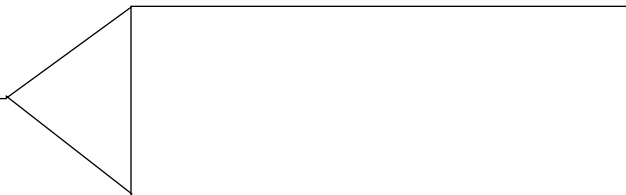
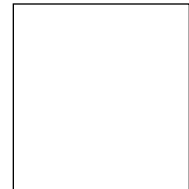
March 25, 2006

Field Work Day	Sam Field
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Don't forget!

The Board and Club meetings are now held at the Landing Zone Restaurant at the Salinas Airport.

Salinas Area Modelers, Inc.
P. O. Box 6351
Salinas, CA 93912



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