

Thursday ORGs at Play



There haven't been many good flying days in March and April because of all the rain we have been experiencing along the central coast. But the days we have had, have been glorious (see picture above).

Many were looking forward to the first float fly at Lake San Antonio, but again the weather prevented the event from happening. All though the lake is practically full, it was too muddy to get to our favorite flying cove.

Please check the calendar page of this issue for a number of revised dates for coming activities. I have been trying to get out to the field some to grab some newsletter art

with my digital camera. Some of my shooting appears in this newsletter. If I have failed to capture your great flying moment, I apologize, I can't be out there all the time.

If any of you take digital pictures at the field, or wherever SAM guys are flying, please forward them to me on my email address. I can also use printed pictures if you can get them to me for scanning.

By your Editor



President Says



The months of March and April have been wet! So wet that the field workday was rained out and the first float fly on April 7-9th was also rained out (a float-fly rained out?). There is an update of the event schedule in this edition so I won't go into that much. The Float-Fly will be moved to June so we won't lose that fun.

The club 30th birthday celebration has also been moved to July 30th. We need to know how many of you will be showing up so we can have enough food and drink for all. I'm banking on at least 50 folks showing up, so raise your hands so we can count them please. I've got 8-10 videos of different club events and will be bringing a tv/vcr and the videos so we can watch them as we desire. There will be some flying, TALL tails about the plane-eating trees we use to have, and a lot of talking about the early days of the club.

Continued on Page 2

PRESIDENT SAYS (CONT. FROM PAGE 1)

Our first President and Vice President will be at the event. I will bring the photo albums and invite anyone who has some pictures to bring them too. This will be a whole day event as we can still enjoy the fellowship even after the wind stops the flying.

We've been invited to participate in a Memorial Day event in Monterey at the Naval Postgraduate School. It's called the Concert on the Lawn. It will be on May 29th and start at 10 AM ending around 3:30 PM. I'm going to ask for more info so I can answer questions regarding this. I'm thinking it'll be a static display on our part with a lot of exposure that may bring some new members. But I will have info at the next club meeting on May 3rd. If we decide as a club to participate, I'll head the event up. I will be at the Castle Airport on the 27th and 28th, but will be here on the 29th. Let's hear your opinions on this please.

Lastly, as I usually do, I want to plug the local hobby shops. They are wanting to make a go of their businesses and part of that is getting our support. TELL THEM what you need to have them stock, if you need an engine or radio, let them take a crack at beating the competition's prices. We need someone locally to keep us from spending \$50 in gas to get a \$20 discount in the "big city shops". If you're up in San Jose, remember D&J Hobbies as they are giving us some really good prices with a discount too.

Jim "CRASH" St. John, President

MINUTES OF THE APRIL CLUB MEETING

The April 2006 club meeting was called to order by President Jim St. John at 7:30 PM at the Landing Zone Restaurant back room (in the Salinas Airport Terminal Building). There were nine members present.

Treasurer Bob McGregor gave the financial report. Bob also handed out copies of the latest roster.

Old Business

WorkDay: Because of the rain the workday scheduled for March 25th had to be cancelled. The Board rescheduled it for June 24th. Bob McGregor reported that the weeds have been sprayed and are already dying.

April 7-8 Float Fly: Dale Oxford reported that the Ranger said we probably wouldn't be able to get to our flying site at the lake because of all the rain. Because of the continuing rain forecast for the weekend the Board agreed to cancel the float fly.

Calendar Changes: Because of the problems with rain considerable time was spent changing the calendar of events to accommodate necessary changes: These changes will be reflected in the May newsletter and are as follow:

Next Float Fly—May 5-7 (as scheduled)
1st Glider Contest—May 13 (was scheduled for 6/ 3)
Float Fly—June 2-4 (April Float Fly rescheduled)
Workday—June 24
SAM BD Celebration—July 30

30th Anniversary Celebration: Jim reported that he had checked with the fellow from Hollister about BBQ prices and reported the following: Chicken—\$10/plate, Tri-Tip—\$12/plate. Since O'Grady was unable to come and cook for us he might be willing to cook the meat and then we could provide the rest of the dinner with club member donations. ACTION: Jack Jellá is to check with O'Grady about cooking the meat. It was also decided we will need to have a sign up for the meal (RSVP).

Francis Memorial in April: The following assignments were agreed to for the memorial event:

Dinner price = \$15/plate
BBQ Tri-tip — Midgorden
Beans — St. John
Salad/Dressing — Beety
Desert/bar — Moeller
Saturday Lunch — Beety will cook

New Business

Scanner: The frequency scanner has gone missing and no one present at the meeting knew who might have it. A notice will be put in the May newsletter to try and locate it.

Club's Video Library: Dave Florence has returned the video library and we now need an up-to-date inventory list of the club's tapes.

Club Sanction for 2006: Midgorden reported that he had received the new charter for the club.

Sheldon's Hobbies: It was reported that Sheldon's has a weekend special every week and the bargains can be found on their Website on Fridays.

Show and Tell

Bob McGregor brought his new RCS 215 cc five-cylinder radial engine he received as a retirement gift. He is looking for plans for a Beech Stagger Wing to put it in.

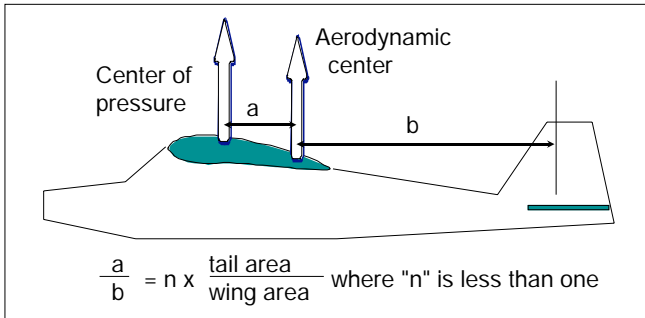
Jim St. John brought the fuselage sides for his quarter scale cub—a progress report.

Respectfully, John Midgorden, Secretary

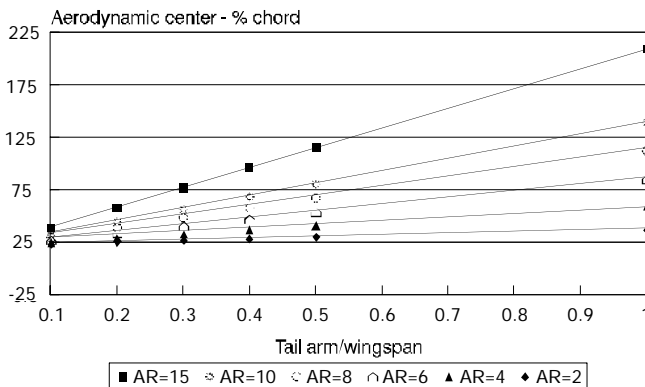
MORE ABOUT TAILS

By Alan Brown

In my last article, I noted that the position of the aerodynamic center, which determines the stability margin of the aircraft in pitch, is given by the ratio of tail area to wing area relative to the distance between the 25% chord points of the wing and the tail multiplied by a factor smaller than one, as shown below.



Now we'll look at the effects of distance between the wing and tail, and the wing aspect ratio. I've made some calculations, which I must admit were a bit more tedious than I expected they would be, to give the dimension 'a' in the figure on the left, relative to tail arm, 'a+b', for different aspect ratios. The results are shown in the next chart. Here is why they come out the way they do.



In the figure, the vertical coordinate is the position of the aerodynamic center as a percentage of the wing chord, noting that the 25% chord point is typically where the center of wing lift acts. As a reminder, the aerodynamic center is where the incremental lift acts on an airplane if we change its angle of attack. For simplicity, I've neglected any lift from the fuselage, which if anything tends to be destabilizing, so the results shown may be optimistic. The horizontal coordinate is the tail moment arm, again measured from the 25% chord point, divided by the wingspan. I've also, to reduce the total number of variables, made some simplifying assumptions. Firstly, the

ratio of tail area to wing area has been set at 1/6. That's a reasonable number. If the value were doubled to 1/3, the aerodynamic center increments would all change by not quite a factor of two, but fairly close. Secondly, I've assumed that the tail aspect ratio is in all cases 2/3 of the wing aspect ratio. Again this is reasonable, and the answer won't vary too much if this isn't the case. If the tail aspect ratio is less than 2/3 of the wing aspect ratio, then the numbers shown would give an optimistic result. I'm now going to go into a somewhat detailed explanation of why it looks the way it does.

First, note that when the aerodynamic center position is greater than 100%, it is behind the trailing edge of the wing. This happens fairly readily for a high aspect ratio airplane, especially one with a long moment arm. Free flight competition models often fall into this category and are often balanced fairly close to the trailing edge in order to get the most effectiveness out of the tail. Note that as we reduce the aspect ratio, the aerodynamic center (a.c.) moves forward, perhaps more quickly than we would have expected. There are two reasons for this. One is to do with the way I've presented the data. As the a.c. is shown as a percentage of wing chord, obviously for a given area, as the aspect ratio goes down, the wing chord goes up. The other reason is however quite real, and has nothing to do with presentation. This is that as we reduce the aspect ratio, the downwash angle from the wing increases, and so the tail effectiveness gets less. Also, the closer the tail is to the wing, the greater is the downwash angle. Thus at low aspect ratios, and with moderate tail arms, there is a very severe reduction in tail effectiveness, more so than you would predict from a simple multiplication of tail area and moment arm. In fact, at an aspect ratio of two and a tail arm of only 0.1 (almost an impossible configuration - pretty much a flying wing) the downwash angle exceeds the increase in angle of attack, and the aerodynamic center finishes up ahead of the 25% point. No coincidence that the 1930's Pou de Ciel, or Flying Flea, which was a very short-coupled low aspect ratio airplane, killed an awful lot of amateur pilots. I made one of these as a model just to see if it was as sensitive to c.g. position as predicted. The result was more or less as expected. As long as the c.g. was in a fairly forward position, the plane flew stably. But it couldn't handle much c.g. range. So the final answers really show no big surprises; high aspect ratio airplanes with long tail moment arms are really neat flyers. But low aspect ratio airplanes with short moment arms are probably more sensitive than a simple 'tail area' times 'moment arm' would predict.

Alan will be talking about this and last month's paper at the May Club Meeting.

SAM 2006 Calendar

May		
3	Board/Club Meeting	Salinas Airport
5-7	Float Fly	Lake San Antonio
13	Glider Contest	SAM Field
21	RudderGate (Bossos cooking)	SAM Field
June		
2-4	Float Fly	Lake San Antonio
7	Board/Club Meeting	Salinas Airport
10	Fighter Factory Tour	Salinas Airport
24	Field Work Day	SAM Field
25	RudderGate	SAM Field
July		
1	Glider Contest	SAM Field
5	Board/Club Meeting	Salinas Airport
15	Memorial Fun Fly	SAM Field
30	30th SAM Birthday Bash	SAM Field
August		
2	Board/Club Meeting	Salinas Airport
5	Glider Contest	SAM Field
27	RudderGate	SAM Field
September		
6	Board/Club Meeting	Salinas Airport
9-10	IMAC Contest	SAM Field
23	Field Work Day	SAM Field
24	RudderGate	SAM Field
October		
4	Board/Club Meeting	Salinas Airport
6-8	Float Fly	Lake San Antonio
21	Electric Fun Fly	SAM Field
29	RudderGate	SAM Field
November		
1	Board/Club Meeting	Salinas Airport
December		
2	Toys for Tots Fun Fly	SAM Field
2	Annual Dinner	Landing Zone Restaurant

The Club scanner is missing! If you happen to have it, please let one of the officers know. Or, if you happen to know who last had possession of the scanner, let us know.

Please Note the Calendar Changes in Red



For NCRCS Events please check the NCRCS Calendar on the bulletin board at the field.

Newsletter Deadline
 May 15, 2006
 Send your contributions to:
<http://www.jomidg@earthlink.net>

A Typical Day at SAM Field



2006 RudderGate Season to Start with a Bang

Do you know these two wonderful people?

Chuck and Jennie Bosso will be providing the food for our first RudderGate picnic on **May 21st**. Don't miss this RudderGate—the Bossos put on an awesome feast. Bring your airplane and fly, then enjoy the comradery and food.



Tour the Fighter Plane Factory—June 10

You want to see how a P-51 is put together? We have right here in our backyard a première fighter plane factory where you can have a P-51 built from scratch, using the original factory drawings and specifications. Airmotive Specialties at the Salinas Airport build P-51s better than the originals. Jack Jellá has made arrangements for SAM members to tour the factory on June 10th. The tour will be from 10 AM to 1 PM. After the tour the groups will be having lunch at the Landing Zone restaurant at the airport. Don't miss this once in a life-time experience.



Bob Francis Memorial Fun Fly: 4/22-23

The Bob Francis Memorial Fun Fly this year was a disappointment in some respects, but outstanding in other ways. We only had 10 pilots, all SAM members, but the weather was outstanding (read no wind). Thanks to Rick Maida's expert help Walt Newman finally got his FW 190 beautiful scale model airborne for the very first time. The 20+ pound 3W 60 cc powered beauty flew like a pussy cat (according to Rick). Here are some shots of the Saturday activities. It was great to see Joe Francis putting his dad's Extra 300 through its paces.



Contact Information and Calendar

OFFICERS

President Jim St. John 442-5050
 Vice Pres. Bob Dooley 393-0664
 Sec. John Midgorden 633-4026
 Treas. Bob McGregor 422-3049

SAM INTERNET SITE

<http://www.redshift.com/~modeler>
 Webmaster Bob Dooley 393-0664

SAM MAILING ADDRESS

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

BOARD MEMBERS

Malcolm Beety 393.9304
 Dale Oxford 663.5066
 Dave Stoik 663.1552

FIELD MAINTENANCE

Malcolm Bruce 449.4471
 Malcolm Beety 393.9304



SAM AMA Club Charter #1554

This Month's Events

May 3, 2006

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

May 5-7, 2006

Float Fly Lake San Antonio

May 13, 2006

Glider Contest Sam Field

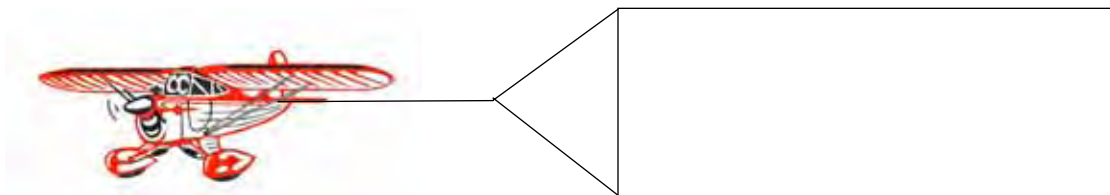
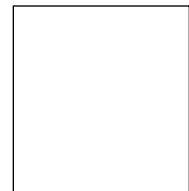
May 21, 2006

RudderGate Sam Field

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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