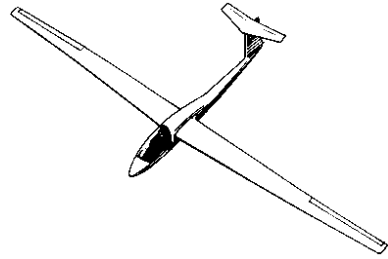


CLARENCE SILENT FLYAIR



QUARTERLY NEWSLETTER OF THE CLARENCE SAILPLANE
SOCIETY

Apr '98

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From the Editor

As I take over responsibility for this newsletter, I would like to start off right by thanking Eric A. Rash for the marvelous job he has done for the last 3 years as editor. He has a terrific series of newsletters and I think that he deserves a round of applause from all of us. I know that the C.S.S. Newsletter is always on the "Open Me First" list of things that I get in my mailbox.

I took the newsletter editor's position because I like collecting information, writing, and communicating to interested individuals. Eric, was looking for an opportunity to do some other things, and needed the time. He and I got together to work out the details and try to make as "seamless" a transition as possible.

So, where do we go from here? How can I fill those incredibly big shoes left by Eric? Well, we have a saying in the computer profession, "If it ain't broke, don't fix it." I think that this philosophy more than applies here. You can expect to see more of the same types of articles that we are all used to seeing in the newsletter. The President's report (thank you, Lyn), club news, articles from our members, event schedules, membership lists, and news from the

Internet are all things that will continue to be regular features in the C.S.S. newsletter. I will, of course, be adding my own, individual, flavor to the newsletter as time goes by. Perhaps competition news from the national/international scene would be interesting. How about more contest results from our club events? Maybe event schedules from neighboring clubs would be appreciated. (Did somebody say, "Road trip...?")

Of course, it's ultimately up to you, the readership. Let me know what you think. Let me know what you would like to see. and about your favorite sources of soaring and electric-flight information. Your opinion counts. Your feedback and contributions are always welcome and appreciated.

Upcoming Events

- April 16 - Meeting - Clarence Town Park
- April 26 - Contest - Spring Opener
ECC South - Marty Timm
- May 17 - Contest - Lockport (tentative)
- May 21 - Meeting - On field at ECC South
- May 25 - Bob Jaques Memorial Fun-Fly
at ECC South - Dave Decker
- June 7 - Fun Fly at ECC South
- June 18 - Meeting - On field at ECC South
- June 28 - Contest - F1.5 B - ECC South - TBA

Marty Timm
mtimm@paradox.net

Schedule Changes!!!

At the February meeting, club president Lyn Perry announced the following changes to our schedule of events:

- The May 10 Fun Fly is canceled because it conflicts with Mother's Day..
- The Fun Fly originally scheduled for June 8 has been changed to June 7 because the 8th is a Monday.

Please make a note of these changes.

From The Flight Line

Lyn Perry

What a terrific feeling to be entering our 15th year as a chartered AMA club! A bunch of us sat around in a Clarence Center bar after flying together in the Fall of 1982 and decided to make a formal arrangement out of a series of more-or-less spontaneous get-togethers. We filled out the requisite forms and CSS was born in the Spring of 1983. Happy fifteenth, and many more!

CSS is a good group for all sorts of reasons, but one of the primary reasons for belonging is for the interpersonal network; wherever your interests lie, chances are somebody else can be found who shares them.

We're coming up on the opening of a new season as this issue hits the press, and we've got a great calendar set, including competition events, fun-flys, and on-field meetings. If you don't have a copy of the 1998 Schedule, contact one of us at the top of the page, and we'll get it to you. Do the contact thing - call people, stay in touch, and fly! Looking forward to a super summer - see you on the field.

Flying Wisdom

Here's a little bit of old pilots lore that has some relevance to the latest "Clarence" awards:

"It is better to be on the ground and wishing you were flying,
than to be flying and wishing you were on the ground."

Good soaring,

Fran Miller

*** * R E M I N D E R * * ***

If you haven't paid your dues for 1998, THIS MAY BE YOUR LAST NEWSLETTER!!! Send your dues to the C.S.S. Treasurer, Dan Oehman, to ensure that your subscription is uninterrupted!!!

News from the Net

The following are excerpts from a series of posts on the R/C Soaring Exchange (RCSE) that discuss "Dynamic Soaring", a new version of slope soaring in which the pilot flies their plane on the BACK of a razor-back ridge, circling through the "wind gradient", picking up speed with each pass. For a description of this high-speed-wrong-side-of-the-hill version of slope-soaring, read on:

(Note: Due to the volume of information in the unabridged collection of Dynamic Soaring posts, they could not all be included here. If you wish to get a copy of the complete anthology, contact me and I will arrange to forward a copy of the full set of posts to you. - Marty Timm)

From: Joe Wurts
<103610.3507@CompuServe.COM>
Date: 28 May 96 02:35:19 EDT
Subject: Dynamic Soaring

For quite a long time I've heard about "dynamic soaring", but have almost never really used it in any operational sense while flying rc gliders. In fact, I've kind of filed it under the Holy Grail category. Just one of those things that you read about. But I've now had a bit of practical experience with it.

One of the slopes that I have been flying at has a very pronounced "razor back" to it (Parker Mountain near Acton CA). What is really neat about it is that the air behind the hill is completely separated. That is, it can be blowing 25 mph on the face, and behind the hill, it is almost calm and sometimes even blowing softly in the opposite direction. It turns out that this is an absolutely perfect set-up for dynamic soaring. All you have to do is fly straight downwind over the hill into the calm air and turn around. If you want, when you come back over the upwind

face, turn around and repeat. With each turn, you get an amazing boost in the energy of the glider. The first time I really played with this was with my Floyd, and on the second go-around I fluttered the wings. The plane will take an extended vertical dive without any possibility of flutter, so I was able to get it to above the terminal velocity of the glider in horizontal flight!!!

One thing that is especially wild is when the wind dies down a bit, and you can just stay up in the normal lift in minimum sink mode. Start doing the orbiting for the dynamic soaring and you can get up to about three times the speed that you can when you just fly in the normal slope lift. Wild stuff. What really gets entertaining is when you make a mistake behind the hill. The air is a bit turbulent, and occasionally I miss the air (read: smite the earth). This is where a good foamie comes in handy. I woulda never really investigated this phenomena without a crash-proof plane.

If your slope has separated air behind the hill, and you do not mind occasionally crashing while you learn a new trick, give this a try. Caution, I'd recommend trying this maneuver out sometime when you have the hill to yourself. It takes a little getting used to... And a hint, the lower you go on the downwind side, the better off you are (more delta-vee typically).

Joe Wurts

 From: Joe Wurts
 <103610.3507@CompuServe.COM>
 Date: 31 May 96 01:09:58 EDT
 Subject: RE: dynamic soaring

>> With each turn, you get an amazing boost in the energy of >the glider.
 >"Dynamic soaring"--- is this what seabirds do over ocean >chop/swell? Where is
 >the extra energy coming from (are you sure there is any?!)? >Using gravity to
 >pick up more ground speed while in the dead zone with less >headwind=lower drag?

The energy increase in dynamic soaring is due to flying into a airmass that gives you a change in airspeed "free" of charge. Lets go through an example here. Lets assume a 25 mph wind on a slope, with the backside completely calm (I've flown at slopes where the wind on the backside is blowing

towards the top at 1/2-2/3 of windspeed, but we will use the worse case above). I turn downwind with 25mph airspeed, and with the windspeed, I get a 50 mph groundspeed. I then enter the calm air, and with the 50 mph groundspeed, I now have a 50 mph airspeed as well. I turn around, and fly into the active wind on top/in front of the hill with this 50 mph groundspeed and the 25 mph wind speed I now have 75 mph airspeed. Without drag/turning losses, each turn adds 25 mph to the airspeed! Who says there ain't no such thing as a free lunch!

You can tell when flying in these dynamic turns that it is purely a relative wind change that gives you the energy boost. If I make a mistake when I go behind the hill, or try and fly back there without crossing the airmass boundary, I quickly prepare for a long hike, as the model is not going to be anywhere nearby for long. Also, you can really hear the airspeed do a quite sudden change when the model crosses the shear boundary between the airmasses, with an almost step function change in noise indicated airspeed. Just see it in operation once, and you will become a believer that it is not rotor induced lift on the backside, but a delta velocity thing.

Due to the practical limitations of the drag increasing with airspeed as well as the turn losses, it seems that the plane reaches an equilibrium after 3-5 turns. The foamies reach equilibrium in 2-3 turns due to a higher drag situation. Still, I quickly get the foamies to a faster speed doing this than I ever get in front of the slope. In fact, I've used it occasionally in combat for recovery. I get hit, tumble for a while before a recovery, and now I have the option of turning back into the wind with low speed and energy. Or, I can go downwind behind the hill, get a quick boost from a dynamic turn and reenter the combat zone with lotsa energy. A cool maneuver to add to your repertoire (sp?).

Joe Wurts

 From: "John M. Roe"
 <Sensei_John_Roe@compuserve.com> Date: Mon, 5
 Jan 1998 00:51:00 -0500 Subject: [RCSE] Dynamic
 Soaring Visualized

Here is an exercise to help visualize what's going on when dynamic soaring, and how to do it if you have a suitable site. Remember I am not an engineer.

First go find the biggest book you can. Now open it to the middle, turn it face down, and set it so it makes an "A frame". That is the ridge you will be flying on. Face the cover away from you, that is the upwind side. You now should be facing the back cover of a large book with the spine parallel to the edge of the desk in front of you, and be imagining a wind blowing over the "ridge", in your face, and away behind you.

Now get a roll of 3/4" masking tape or something similar and set it against the bottom of the ridge (back cover of the book) in front of you. This represents the path of the Sailplane. Yes a circle, one (not the only) way to do this. Imagine the plane flying in a steep bank around and around the roll of masking tape, notice it is flying parallel to the ground (book) at the same altitude from the ground (book) at all times. Now slide the roll up the cover until approximately half of the circumference is exposed to the prevailing wind blowing in your face over the book (remember?). Now you are dynamic soaring. You are flying in the fast moving air for only the part of the turn where you can get a "push" from it, imparting energy to the plane, then you get to duck into the wind shadow behind the ridge while you complete the turn back upwind and only hit the wind again when you are positioned to get a boost and blaze back downwind again. Wheeee.... It's not particularly hard or easy to do, BUT you must definitely develop a "feel" for where the wind gradient is. It's kinda like juggling, and even more like nailing a good slope-racing turn, over and over and over... Joe's really good at it, and it is helpful to follow him through several circuits to get the feel (with foamies!!). I was flying dynamic figure eights, control line style (don't try if you get dizzy easily) and "esses" up the ridge line, besides the classic circle. I also kept trying to smack Joe's Foamy Cutlass out of the air while we were dynamic soaring, and we had dynamic races. (I got lapped, even though I was cheating my circle smaller) You can gain or lose big time every turn, by placing the plane in *just* the right spot. It must be funny to see a bunch of guys all standing on a big hill, flying slope like crazy, all the time with the wind at our backs! Hope this helps... John Roe Laguna Hills, Ca

Learn More about Dynamic Soaring
AND
Help the 1998 USA F3J Team

John Roe is selling a video that shows Joe Wurts doing an incredible Dynamic Soaring demonstration. All proceeds over his cost go to the 1998 USA F3-J team. To receive a copy of this highly acclaimed tape, send a donation (US\$20 suggested) to-

John Roe
25331 Pike Road
Laguna Hills, Ca
92653
USA

To order by Phone- Call 714-458-8544
Mon-Fri between 4pm and 8pm
Saturday between 9am and 12pm
West coast USA time...

You can contact John electronically at:
Sensei_John_Roe@compuserve.com.

Building Contest at the February Meeting

The February CSS meeting is always one of my favorites. The skeleton of a wooden plane has always been near and dear to my modeling heart. I think that it's one of my favorite art forms. To see the end product of someone's painstaking hours-upon-hours of work always leaves me just a little in awe, especially when I stop to think that this creation is just a few short hours and a few yards of covering away from being ready to ply the skies, searching for those elusive warm breaths of rising air from mother nature.

This month's contest was no exception, being well attended with quite a number of entries. The competition was kicked off by John Wisniewski who showed off not one, but two planes. John lead off with an immaculate Spirit 100. (Sitting on the table, I could have sworn it was bigger.) Then he followed with a Dynaflyte Bobcat, that was equally nice.

I had an opportunity to display my Bird of Time. Still waiting to see its first sheet of sandpaper, the Bird was no contender in this contest.

Wayne Jeffries was next with an incredible rubber-power-launch R/C glider called a Guppy. Built almost entirely of sticks, the fuselage, alone, was enough to be a work of art. To top that, however, Wayne went on to describe how he had carved the

folding prop from a single, solid block of wood. Most impressive!

Dave Decker rounded out the contest with his 118" wingspan Mystery Ship. Looking like it was ready to hop on the next thermal going up, Dave's plane showed what a balsa-craftsman he is.

When the votes were tallied, third place was awarded to Dave and his Mystery Ship. Second went to John's Spirit 100. In first place was Wayne Jeffries' Guppy. I can hardly wait to see it fly.

- Marty Timm

Covering Contest at the March Meeting

The only Winter activity that can compete with the February building contest is the March covering contest, and this year was no exception. With five entries, there was plenty to planes to admire.

John Wisnewski lead off the "show-and-tell" with his black and yellow Spirit 100. With a contrasting "sunburst" of stripes on both top and bottom, this plane was, indeed, a beauty.

Ron Ogren, one of our new members, showed up with a white and orange 2M Osprey from Skybench Aerotech. Sporting an S3021 airfoil, Ron said that he had to add lots of nose weight and that the wing loading came out to about 10.5 oz/sq ft. Even so, most everyone agreed that it should fly great.

Bob Jaques followed with a red white and blue Condor low-wing sloper. Bob said that covering took forever because every time he finished a panel he stood up to salute.

Dave Millikan brought in a 2M Kestrel. Covered entirely in hot pink, Dave's plane should really stand out in the sky.

Lyn Perry showed off his Vartec P51 sloper. He finished the plane completely in silver. With Krylon paint and chrome monocoque with fluorescent green and pink trim, this just might be the most visible plane over Rainbow Lake, ever. The best part was the 3 "kill" markers on either side of the fuse. Three German markers, for Freddy's Messerschmidt, and 3 Jap markers, for my Kawafoamie. Nice touch, Lyn.

When the voting was done, John Wisnewski ran away with first place with his Spirit 100. Ron Ogren and Bob Jaques tied for second. Congratulations to all who entered. Every plane was gorgeous.

- Marty Timm

New Members

CSS would like to welcome the following new members:

- Larry Magiera
- Ron Ogren
- Ernest Okonski

E-mail! E-mail! E-mail!

The following is a list of current E-mail addresses for those members that have Internet access. I've taken these names and added them to a "Personal Distribution List" on my computer using MS Exchange. When I want to send something out to all of the E-mail recipients in CSS, I simply click on the list-entry and everyone in that list gets my E-mail.

The next best thing to being there is, perhaps, hearing about it. When someone misses an event or fun-fly, I'll bet that they'd like to read about it. So, let's use this list to keep each other informed. If you get to an event, and you have E-mail, send out a brief report to the members on this list that weren't fortunate enough to be able to fly that day.

Name	E-Mail Address
Jack Archibald	jackarch2@aol.com
Paul Bolis	PaulyStar1@aol.com
Bill Hauth	toolmkr@fcs-net.com
Bill Hays	whays@sprintmail.com
Tim Krystaf	krystaf@ibm.net
Fran Miller	Fmiller851@aol.com
Roman Paryz II	paryz@buffnet.net paryz@calspan.com
Lyn Perry	perryl@sstaff.sunyerie.edu
Bill Pike	wjpike@aol.com
Eric Rash	earmark@wzrd.com erikr@birdair.com

Jim Sonnenmeier	jrs@eng.buffalo.edu
Marty Timm	mtimm@paradox.net mtimm@rich.com
John Tracy	tracyj@esitech.com
Bill Wilcox	capnbilly@juno.com

If I've missed anyone, or have made any errors, please let me know and I will publish a correction. I plan on making this list a regular feature.

- Marty Timm

Support your USA F3J Team

The USA F3J Team needs your support to get all the necessary team members to the World Championships. Purchase a T-shirt (VERY cool design) to help them to raise money for the trip. You can see what the shirt design looks like at

<http://planes-wings-things.com/f3j/F3Jteam.htm>

To purchase one of these great T-shirts, contact:

Jim McCarthy
730 Dartmouth Dr.
Island Lake, IL 60042

(847) 487-9070 - jrmccar@aol.com

Indoor Rubber Free-Flight

March 8th marked an indoor rubber-powered free-flight competition at the Ralph C. Wilson Field House. Bill Pike graciously sent pictures from the event. (Thanks, Bill) Enclosed are 3 of my favorites. To see the full set, visit his web site at:

<http://members.aol.com/wjpike/>



RES Class to Fly at Spring Opener!

At this year's *Spring Opener* contest, one of the classes offered will be the RES (Rudder, Elevator, and optional Spoiler) class. CSS wants to find out if there is sufficient interest in the club to make this class a "regular" at our contests. The intent of the class is similar to that of the "Nostalgia" class in that it seeks to give those classic Poly/Di-hedral floaters of yesteryear a chance to compete against each-other.

Whereas "Nostalgia" is pretty restrictive, limiting qualifying planes to those whose designs were published prior to 1980, RES is much more open. One person summed up RES by simply stating that the trailing edge of the wing must be "fixed" (i.e. non-movable, not broken-and-repaired), thus precluding planes with flaps or ailerons. The intent of running RES instead of "Nostalgia" is to allow designs newer than 1980 (such as the Spirit and the Sagitta) to be allowed to compete, and to give as many people as possible the opportunity to enter.

If you have a plane that qualifies for this class, and would like to see RES included in future CSS contests, show your support by coming out the *Spring Opener* and entering. If can't enter, but you like idea of the RES class, let us know anyway. Your opinion counts!

- Marty Timm

Spring Opener Flyer
Membership List
Cover Page