



# FLIGHT LINES

The Monthly Newsletter of The Spirits of St. Louis R/C Flying Club, Inc.

## SPIRITS' RACE COMING JUNE 14

## FUN-FLY RAIN DATE MAY 31

### May 17 Fun-Fly Re-scheduled:

By Pat Keebey

We were able to start the Fun-Fly, but were only able to get four flights before the weather closed in on us. The Fun-Fly rain date is May 31. We have changed the time of events as follows: Registration will be from 9:00 A.M. Pilots' meeting will be from 9:40 to 10:00 A.M. for any required clarification of the activities. Flying will begin promptly at 10:00 A.M..

I would like to encourage all members of the club to participate in this Fun-Fly. The events were designed for all skill levels. If you can take-off, land and control the direction of your aircraft, you can participate in this contest. Come out and enjoy a day of flying and be a "winner"!

### PRESIDENT'S NOTES:

By Steve Cross

It's been relatively warm, but the rain on the weekends is really messing up our flying! We had to cancel our Fun-Fly this past Saturday due to rain and low visibility, and Sunday certainly was no better. We have rescheduled the Fun-Fly for May 31, so if you weren't able to make it last Saturday, maybe you can make the rain date. We didn't get very far into the flying part, but from what I saw, we were going to have a really fun day! Come out on the 31st!

This coming Saturday is our Learn-to-Fly day. We have a couple of Scout Troops coming in the morning, so if you can help, be sure to volunteer. Each time we've done this in the past, at least one of our visitors, either a Scout or his Dad, decides they want to get involved in the hobby. And that's what we are all about!

Just one more thing. Be sure to check our website so you know what special events are coming up. The Wright Flyers Float-Fly is also this Saturday at Innsbrook Estates, and the next Four-Star 40 race is June 14th.

*See you at the field!*

*Steve Cross*

### MEETING MINUTES: MAY 14, 2003

By Walt Wilson

**Members signed in:** Twenty-five members and three new

member applicants were present.

**Secretary's Report:** Minutes were accepted as published in last month's Flight Lines.

**Treasurer's Report:** The Treasurer's Report was accepted as presented.

**Field Report:** George Cooper read his Field Report as included on page two.

**Safety Report:** Ralph Amelung talked about the possibility of powerful aircraft pulling the elevators off when restrained by "Tail Hooks" and being run at full throttle. Always stay behind the plane when revving up the engine! More Safety stuff on page two.

### Activities Report:

**Fun-Fly May 17:** Pat Keebey has several new events to challenge any level of flyer and we have great prizes (The event has been re-scheduled to May 31).

**Learn to Fly Day, May 24:** Webelo Den 2 of Pack 965 from Monroe Elementary School in St. Charles and Pack 613 from Sacred Heart Church in Florissant will be introduced to R/C Flying and given the opportunity to fly trainers.

**Float Fly May 24:** The Wright Flyers, from Innsbrook, Missouri, are having their Annual Float-Fly on May 24. There was a practice day on May 10. Several Spirits' members regularly attend and have a good time.

**June 14 Warbirds/Four-Star 40 Races:** Paul Geders, the C.D., will guide C.D. Rookie, Steve Cross, in running the event. Steve says he hopes to move things along faster than in some previous events. Workers are needed. Again, we have great prizes with no entry fee!

### OLD BUSINESS:

**AMA C.D. benefits:** Steve Cross brought up a discussion of C.D. benefits, such as partially paid AMA dues, and asked who is eligible. Paul Geders explained that only C.D.'s of sanctioned events will be recognized for these benefits.

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As far as AMA is concerned, if it wasn't an AMA sanctioned event, the activities of a Contest Director or Event Director, aren't recognized. The cost of an AMA sanction for a club event is now \$20.00.

**Stan Lewis Passes Away:** Stan Lewis, the gentleman in the wheelchair who was shown flying an R/C plane while being assisted by Spirits' Members in various publications, has passed away. He was very excited about the opportunity to fly at the 2001 Open House. He bought an R/C plane the following week, but was prevented from building it by bad health. He was invited back for 2002 but was unable to come. Our sincere condolences go to Mrs. Lewis.

### NEW BUSINESS:

#### New Member Applicants:

<u>Name</u>	<u>Phone Number</u>
Scott Haydon	314-205-8890
Dave Rodecap	636-447-0177
Randy Buxton	314-921-4838

All were unanimously accepted by the members present. Two of them had their AMA licenses and joined at the meeting. The third will join as soon as his AMA card comes. Welcome to the Spirits!

**Spirits' Hats, Jackets, Shirts, etc. :**Eric Langston will make club apparel on individual order. Price lists are available upon request. You can call Eric at: 314-344-0690 or e-mail him at: [ejlangl@earthlink.net](mailto:ejlangl@earthlink.net)

**New Communications Radios:** We have been having difficulty with the club communications radios at recent contests. Lee Volmert showed a pair of new Motorola units that



*Paul Geders gave an extensive presentation on how to make your Four-Star 40 go as fast as possible for pylon racing. Paul has been quite successful in this event and had a lot of great hints.*

are available at between \$30.00 and \$40.00 per pair. A motion was made and passed unanimously to buy six new radios. Lee volunteered to get them.

**Meeting Activity:** Paul Geders gave a technical presentation on the several things that can be done to make a Four-Star 40 faster and more reliable for racing. Among the points discussed were de-pitching the standard prop for more RPM's, lowering the centerline of the engine for better fuel draw, proper setup and break-in of the engine, and other minor adjustments that can each make a small difference.

**Meeting was adjourned at 8:52 P.M.**

### FEBRUARY 2003 FIELD REPORT

*By George Cooper*

The work we did last spring, filling and seeding around the runway, and the seeding of the pit area last fall, is paying off. The grass is growing nicely and, when freshly mowed, it looks like a lawn. I fertilized the pit area with Turfbuilder which made it turn thick and green. It is so thick in some areas, it makes the tractors work hard and so it's especially important that it be mowed each week on schedule. Paul and Matt Geders, Ken Brock, and Curt Milster are to be applauded for their effort last Saturday. They mowed during thunder, lightning and rain and got most of it done.

Tractor work this month: We had a flat tire on a Farmall rear wheel: I removed it and got it repaired. A blade broke on the Kubota so I installed a new set of blades. The radiator on the #7 Farmall continued to leak. I removed it and took it to St. Charle, where the radiator repairman recommended a new one rather than put money into the questionable old one. He got us a new one for a good price and I installed it. It's nice to have no more dripping anti-freeze. Keep up the good work mowing. The teams are working together well and substituting for each other when the need arises.

*George Cooper, Field Chairman  
Pat Keebey, Assistant*

### Safety Report:

*By Ralph Amelung*

#### **Check Out Your Tail and Reduce Stress:**

This article has to do with handling STRESS! Yes, we all have to deal with it and it is particularly important that we recognize the causes so that serious repercussions are prevented. What kind of repercussions you ask? The kind that can send any R/C pilot or even a spectator to the hospital. Hopefully by now you are asking yourself, what can I do to handle this stress and prevent anyone from taking a trip to the hospital? I'm glad you asked. I assume you are using a tail hold-down bracket and this can cause stress on any airplane. Revving up the engine and depending only on your hold-down bracket and stabilizer to keep your plane in place

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accentuates the stress. You can prevent mishaps by thoroughly inspecting the tail/stabilizer section of your airplane on a regular basis. In addition, don't rely on the hold-down bracket to hold the plane in place at any speed over idle unless everyone and everything in front of the craft have been cleared.

***Until next time, Be Careful Out There!***

*Ralph Amelun, Field Safety Officer*

### **One Reason I'm Proud to be a Spirit**

*By Les Richman*

I recently had a day that could have been a disaster. Thanks to a number of Spirits' members, it was a pleasure. It started with a call to Steve Cross, who has a radio just like my new ones, for help in programming them. He not only gave up mowing his lawn, but he spent over four hours helping me. One problem occurred right off the bat. I had charged the plane's battery overnight and it promptly failed when I turned the receiver on. The spare battery that I had was a new type and the polarity of the connectors was reversed. Steve Ramonczuk said "no problem" and had it fixed in less than five minutes.

Steve C. showed me how to program the new radios (I already forgot) and when we went to connect them, my buddy cord was still at home on my workbench. Ralph Amelung came to the rescue and loaned me one of the club's cords (he just happened to have the right size)!

We got the plane ready to go and the next thing you know, the engine backfired and blew the prop off. After replacing it, a 20 knot (or more) wind came up. I felt that I could not safely handle the buddy box. George Cooper was able to do the honors and we did get in a few laps. Vic Bunze was there and offered to take the dog off my hands, so he also flew it. Bill Lindewirth was there flying too. There were also about 15 other guys at the field and four new prospective members who were visiting. This club really rocks!

Usually I am a thorn (a big one) in almost everyone's side, but I really enjoy being able to say that I am proud to be a member of the Spirits who are always ready to pitch in and help a fellow member fly.

### **THE IMPORTANCE OF SHEAR WEBS**

*By George Cooper*

The reason for this article is an "incident" (as Ralph Amelung calls it) at the field the other night involving the first flight on a high wing trainer constructed from a kit. The plane was flying nicely when, recovering from a gentle loop, the wings departed the plane in two pieces and the fuselage became a lawn dart, nosing straight into the wheat field. A post mortem on the airplane revealed structural failure of both top and bottom spars, caused by the failure of the glue joint, securing the shear webs to the spar, in the bay just outboard of the fuselage. The spars were about 5/16 inch square balsa with 1/16 inch balsa shear webs glued on the forward edge of the spars in each rib bay, part way out on

the wing.

Shear webs are thin sheets of balsa glued with the grain running vertically between the spars. Ideally they should fill the entire rib bay between the ribs and run from the top of the upper spar to the bottom of the lower spar. The complete filling of the space between the ribs, while preferred, is not nearly so important as a perfect glue joint between the shear webs and the edges of the spars.

The purpose of the shear webs is to prevent the spars from moving in shear, that is, one spar moving out while the other spar moves in, toward the fuselage during maneuvers that put stress on the wing. The webs are installed with the grain vertical to maximize their resistance to this shearing force. If they were installed with the grain running lengthwise of the wing, they would easily fail in a shear mode themselves along the length of the grain. When properly glued, the webs and spars form a C beam and sometimes, along with the leading edge sheeting, form a D box. These are all very stiff structures and prevent the wing from bending and so allow a much smaller and lighter, but weaker, spar cross section. If the web fails under positive G force, the lower spar will be put in tension, the upper one in compression and as the lower spar pulls apart from the tension, the upper spar will also break.

The case in point; the shear webs were installed properly, but from examining the glue joints, very little wood was pulled due to the gluing, only a spot here and there. The webs could not resist the shear loads of the positive G loop, broke loose and so allowed the spars to flex and break. The builder stated he had glued the webs with thin CA. Thin CA is probably a poor choice for such a task unless each web is clamped to each spar so there is no gap between the web and the spar and the thin CA wicks completely over the whole gluing area. This is the only condition in which thin CA has ample gluing strength. A better choice would have been medium, or even thick CA, spread fully over the contact areas and then hold the webs in place by hand or with clamps until the glue has set. This assures a full surface of glue contact and does not depend on the wicking needed with thin CA. Titebond or yellow wood glue is also very acceptable, but after spreading it smoothly over the contact area, it must be clamped with minimum gaps until the glue sets completely. Glue in a thick glue joint has very little strength. Also, glue the ends of the webs to each rib where it contacts but, as stated before, this is not nearly so important as to get a good glue joint to the spars to prevent the shearing action which starts the catastrophic failure.

Most structural pieces of airplanes, be it model or full scale, are a compromise between strength and weight. By themselves, these pieces have insufficient strength to resist the loads put upon them by the flight envelope, but when formed into shaped structures they have tremendous strength. The failure of any part of the shaped structure will weaken it probably to its breaking point. It is therefore very important that each piece of a model be glued to yield its

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May 17, 2003

**The Fun-Fly that didn't happen.**  
Soon after these pictures were taken the event was postponed until May 31, due to rain.



CAROLYN SCHLUETER AND DON FITCH PHOTOS

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### Top Gun Photos

*By Walt Wilson, Photos by Ralph Doyle*

Ralph Doyle made a pilgrimage to Lakeland, Florida, for the April Top Gun Scale Contest, put on by Frank Tiano. While none of the planes or flyers are related to the Spirits, he got photos of some great scale models, which we see too few of in this area. *Thanks Ralph!*



*Ralph didn't provide any information about these planes, but you'll be seeing them in the magazines for months to come.*

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### At The Field....



Frank Nolle's Great Planes Extra 300 ARF.



Vic Bunze's Rearwin Speedster, available from Dymond Hobbies is an ARF. It has a 100" span with a 1600 sq. in. wing area. It has flaps, a pull-pull rudder and can land very slowly. The cowl was off for tuning the engine. The Speedster comes with a beautiful painted fiberglass cowl with black trim and is designed to fly with a 1.2 to 1.6 Four Stroke or a 25 cc gas engine. Vic put a 40cc gas ZDZ in it. Arrrrh, arrrrh, arrrrh! This is one fun plane, and is an interesting alternative to Cubs.



Craig Finks' Hanger 9, P-51 Mustang ARF. It's the .60 size with a Saito .90 Four-Stroke and a Futaba radio. The plane is well built and the only drawback is weak retracts. Hanger 9 also makes a 1.50 size P-51 with flaps.

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maximum contribution to the overall structure. For want of a good glue joint on a shear web, an entire plane and many hours of work were lost. If it had hit a person or vehicle the results could have been a real catastrophe.



BILL LINDEWIRTH PHOTOS

Greg Pugh lost a plane recently, due to the failure of a solder joint in his throttle linkage. The threaded end came off the linkage and he was unable to throttle down. During some of the ensuing aerobatics, the elevator failed and the plane looped until it crashed. Always be assured of good solder joints when using threaded ends. Failure to do so can be expensive!

### The Last Word

By Walt Wilson

Did you know that the AMA has a monthly newsletter in addition to Model Aviation? They repeat articles from club newsletters throughout the country. They're mostly "How To" articles, like George's above, and some are very interesting. To my knowledge, they've never used anything from Flight Lines, but we're not usually into "How To" articles.

It's available on the internet at: [www.modelaircraft.org](http://www.modelaircraft.org). If you click on Publications, then National Newsletters, you can choose to either download the PDF version or view the text-only file. Links to each of the stories also are online.

The Spirits can always be relied upon to promote the R/C sport whenever possible. On May 24, we turned out to give Boy Scouts from the area an introduction to our sport. In September, we'll have our annual Open House, also with hands-on flight demos for spectators. How many other clubs in the area do you know of, who match our efforts?

For the past couple of weeks, the weather has been as good as we could ever hope for. Get out and fly!

*Gotta go build!*

Learn To Fly Day, May 24, 2003



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PHOTOS BY MATT BLODGETT, CAROLYN SCHLUETER AND DON FITCH

Webelo Scouts from Den 2 of Pack 965, from Monroe Elementary School in St. Charles, Cubs from Pack 613 from Sacred Heart Church in Florissant and Pack 809 From St. Monica Church in Creve Couer had at least one flight at the controls. Most had two and some had more. The Dens arrived at graduated times throughout the day, so there was little waiting. The Scout Leaders also had a chance to fly. The Spirits' Bob Gizzie, Gene Jones and Walt Wilson provided and flew their training planes and Steve Cross assisted. The planes were well-prepared and there were no crashes or other mishaps, related to the Learn to Fly experience. Mike Roederer, Bob Fiely and Greg Pugh flew aerobatic demonstrations between training flights. Unfortunately, Greg Pugh had a mishap while flying aerobatics and the Cubs had a chance to see what can happen when things go badly. The Cubs all seemed to enjoy their flying experience and wanted more. Hopefully, some of them will like it enough to convince their families to get them into the hobby.

### Learn to Fly Day is a Success

By Walt Wilson

The day was cloudy, but the rain held off until several

# Spirits of St. Louis R/C Flying Club, Inc.



Presents



**Four-Star 40\*  
and**

**Silver Class WARBIRDS\*  
Races**

**Saturday, June 14, 2003**



At Spirits Field

on Amrein Road, ½ mile south of Greens Bottom Road  
St. Charles County

Paul Geders, Contest Director

ENTRY FEE: **FREE**



**Registration starts at 9:00 a.m.**

**Racing starts at ~ 10:00 a.m.**

\*Class rules are available on the Spirits' Web Site at:  
[www.spiritsofstl.com](http://www.spiritsofstl.com)  
under the Contest & Events link on the first page!

For more information call: Paul Geders at 314-838-1350  
or e-mail him at: [pgeders@charter.net](mailto:pgeders@charter.net)

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## **Spirits' 2003 Activities Schedule**

<b>Date</b>	<b>Contest or Event</b>	<b>Contest or Event Director</b>	<b>Notes</b>
May 31	Fun-Fly	Pat Keebey	Events designed for all skill levels of flyers
June 14	Four-Star 40/Warbirds	Paul Geders	AMA sanctioned races
July 12	Fun-Fly	Bob Fiely	
September 6	Four-Star 40/Warbirds	Paul Geders	AMA sanctioned races
September 27	Open House	Steve Cross	AMA Members Invited
October 11	Build 'N' Fly	Vic Bunze	First team to build and fly one lap wins
November 12	Meeting		Participant Awards



[www.spiritsofstl.com](http://www.spiritsofstl.com)

*FLIGHT LINES*

Walt Wilson  
3000 Persimmon Drive  
St. Charles, MO 63301-0131

**Meeting is on  
Wednesday,  
June 11th  
at 7:00 P.M.**