S K Y L I N E S

MONTHLY NEWSLETTER OF SKYLINE SOARING CLUB,INC JUNE, 2004

President's Prerogative

George Hazelrigg

It's deja vu all over again. My last President's Prerogative seems still fresh in my mind. Wasn't I saying something about taking care with the equipment? And somehow that message made a mere brushing acquaintance with our ears. A good idea for the other Club members to keep in mind. Then our K-21 made its intimate acquaintance with the dolly, with the result being a ding in the bottom of the fuselage that will need to be repaired before we fly it again. I could go into the expense here but-oh, what the hell, I will go into the expense. To fix the ding…now, the ding is a scratch about 4 inches long, 1/16th inch wide and deep, with a less intrusive scratch six inches to the side. But we fractured a layer of glass, and that glass is important to the integrity of the fuselage. OK, no big deal here. A few hours of glass work and all will be well again. That will cost, oh, about $1,000 (just my guess). But the ship has to go to where the work will be done. That would be Gehrlein, somewhere north of Pittsburgh, about a five-hour drive-250 miles (each way). Well, really two round trips, one to bring it there and one to fetch it-about 1,000 miles. This at, say, 40 cents per mile (with a tow vehicle), is somewhere around $400. Food and perhaps lodging for the driver for two round trips, maybe another $100-200. We won't count the value of the time of the person or persons who do this transport. But already we are well over $1,000. Now let's add in the fact that the ship won't be available for some period of time—a week, a month or two. Just ask some of our experienced members how fast glider repairs are made. The K generates some $500 per month in revenue, depending on weather. This offsets our fixed lease, hangar and insurance fees. You get the picture. We could be out something on the order of $2,000 over this incident. Well, maybe we'll get lucky and it will be less. But then think about the missed instruction, the students we could have had, the flights we could have taken. I don't want to think about it. It's all too disturbing to me. You do the thinking.

Problem is that this is not an isolated incident. Nor it is one or two people. I emphasize that I am not singling out people here, nor is it my intention to do that explicitly or implicitly. We are all contributors to this problem. So far this year, we have had a number of costly incidents, and we have to stop them now. I hope this message doesn't merely brush past your ears. Take a while and think on the problem...let it sink in. This and the previous incidents may, in fact, lead us to the need for an assessment for repairs. I don't like that idea, and I will do what I can to prevent it. But we have to pay the bills somehow. We harp on safety a lot in this Club. But, for some time to come, you can expect me to harp on unnecessary damage to our equipment and its cost to all of us. I don't know yet what we will do to curb this problem. But we will do something. Expect it. It could come in the form of mandatory training. It could come in the form of fees—for example, having people pay if they cause damage. Or it could just come in the form of increased rates. But it will take some form. It has to. We have to pay our bills. Care with our equipment keeps our costs down. And keeping our costs down keeps our prices down. And keeping prices down is my goal. Take the time to learn how to use the equipment properly, ask if you don't know—don't guess, and then treat our equipment as though it is yours. After all, it is yours.

Now that I have set a very pleasant tone for this message, let me turn to the issue of hangars and our continued presence at FRR. From the very beginning, our primary goal has been to maintain the best possible relationship with everyone at FRR and to maintain our operation there. Recent proposed changes by the Warren County Airport Commission would, however, affect the cost of our operation severely. But, it would also affect a number of long-term residents of the field, and challenges have been posed to the implementation of the WCAC plan. Right this moment, I don't know what will be the outcome. I don't know what the WCAC will implement or what the Warren County Board of Supervisors will have to say about it. So we are playing a waiting game. On the one hand, we are poised for growth. On the other, we could have to rethink our whole operation. Stay tuned. But I want to remain optimistic that we will find a way to continue to operate at the Front Royal airport.

Again, let me say that your Board has been very active in trying our best to preserve some semblance of the status quo. I hope you can bear with us through this period of uncertainty. I will let you in on the progress we make as soon as I know about it myself.

And now to begin thinking about my column for next month…

Peter Masak

Frank Banas

It all started an early Saturday morning on February 21st, Kolie and I traveled to the Philadelphia Glider Counsel for an advanced soaring seminar. One of the speaker's, Peter Masak, gave a talk on "performance tuning and aerodynamic modification". That seminar taught me more about winglets than I ever knew. Did you know that winglets generated lift? Well they do! Most of a winglet's effectiveness is generated by blocking wingtip vortices from circling back and destroying lift on the outer edge of the wing.

Tall winglets work better at slow speed and shorter winglets are more effective at high speed. Peter was the first designer to add winglets to a competition sailplane. Initially he wasn't trying to discover which wing was better in lift. He was trying to find an area to store electronics used to identify which wing was being affected by lift.

Discovering the lift benefit, Peter took his winglet design to the world competition and tried to get a team to use them. He finally got the Polish team to agree, and after they finished 1, 2, and 3 on one of the days everyone was interested. Peter also had a cross-section of the ASW20C wing. He described how he reduced all the measurements of a previous wing with a simple calculator and redesigned that wing. The resulting wing design set a standard for many years even though it was sensitive to bugs and rain.

The world of soaring will miss this former 15m national champion. I understand his flight computer was recovered and a trace of his fatal flight was analyzed. I don't know the results.

Peter Carl Masak August 17, 1957–May 22, 2004
from www.ssa.org

At age 46, Peter Masak died tragically on Saturday, May 22, 2004 while flying his beloved glider on a cross-country flight in Pennsylvania. Peter is survived by his loving wife and fellow glider pilot, Adrienne Masak, and his three children, Matthew, Gabriella and Geneva of Pennsylvania. His mother, Magdalene, his brother, Tom, his sister, Ingrid Masak Mida, and his nephews Mike and Jon Mida, Conrad and Glen Masak also greatly mourn his loss.

Peter shared the same passion for flying and building aircraft as his father, Frank. Peter obtained his glider pilot license at age 16 and his power pilot license at age 18. He was a Canadian soaring record holder and represented Canada and later the United States in international soaring competitions.

Peter always had a big smile and a generous heart and made friends everywhere he went. He lived his life to the fullest and died doing what he loved the best–flying his glider.

May his spirit live on forever in the cumulous clouds and in the hearts of all that loved him.

If you knew Peter and would like to share your soaring stories with his family, please send your e-mail to: ingridmida@sympatico.ca.

Additional insight into some of the innovations that Peter brought to soaring can be found at www.engr.psu.edu/

Chief Tow Pilot Ramblings

Dick Otis

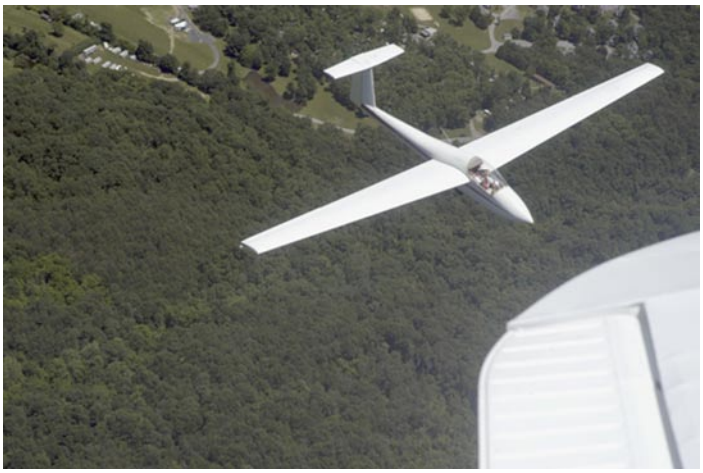
Pawnee/Glider Takeoff

Memorial Day Saturday was delightful, mostly clear, cool (71), light and variable winds from NE, with spring day afternoon thermals developing. The Pawnee was performing nicely off of runway 27, towing the Grob 103 on training hops. The CFI requested a practice rope break, resulting in a discussion of minimum release altitude. All club members, and especially instructors, need to remember our club policy for minimum altitude for practice rope breaks is 300 feet; and notification to the FBO that rope break practice will be conducted.

After takeoff, established a positive rate of climb, and abeam the mid-field turnoff, drifted left off centerline by about 30 degrees. Over the lush green grass and tree line, the Pawnee's rate of climb promptly dropped to under 200 fpm. Once past the trees, the rate of climb resumed at ~600 fpm. I suspect we will regularly encounter sink over the tree line. During the summer months, and on high-density altitude days, I recommend staying over the runway until a comfortable altitude is reached before veering off at an angle.

Aerial Photography

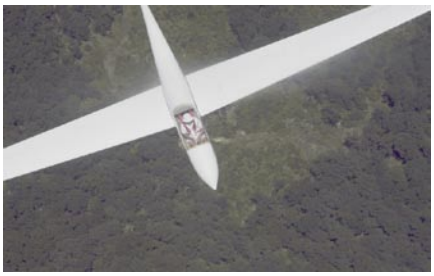
There are a number of challenges to aerial photography. It is not a great platform to work from, but I shoot aerials from the Pawnee because that is what I have available. Foremost in my mind when I decide to do aerial photography is safety. Optimally, the photographer should be shooting while someone else does the flying. Since that is not an option for the Pawnee, I've developed and refined a procedure to minimize the increased risk.



George Sciss in flight by Dick Otis

The first requirement is for an experienced glider PIC. Next, I conduct a pre-briefing with the glider pilot; FAR 91 requires it (for formation flight). My procedure is to brief that, upon release, the glider performs a relatively tight, right 360 while the Pawnee does a wide, left 360 to fall in trail. The glider must then perform level flight with no climbs. If the pilot becomes uncomfortable, he/she should announce, "break off", turn LEFT and DESCEND, while the Pawnee climbs and turns right.

I use an equivalent 35-105mm zoom lens, to ensure I can shoot from a comfortable distance away. Approaching the glider from the right, rear quadrant, I maintain ~100-200 feet vertical, and



~500 feet lateral separation. As I approach, I reduce power and lower full flaps to reduce overtaking airspeed. However, rarely can I match the glider speed. As the Pawnee pulls AHEAD of glider, and the glider is AFT of the Pawnee's wing, I let go of the controls completely and shoot 1-3 pictures with the motor drive – average time 5-10 seconds, then drop the camera and get back on the controls. Depending on relative speed of the two aircraft, sometimes there is time for one more snapshot.

As mentioned, the Pawnee is not a good photo platform. After the issue of single pilot, the next biggest problem is the Plexiglas window. The poor optical quality limits the picture sharpness, but due to the focal length and depth of field, can be shot through.

The next problem is glare. At many angles, there is a reflection on the Plexiglas, which often ruins the photo. Next, focus is a major issue. I cannot allow myself sufficient time to manually focus, so I rely on the auto focus feature. When it works, it works great. When it doesn't work, the shoot is usually unrecoverable. Finally, unless I am shooting down on the top of the glider, haze and lighting are often hit and miss.

I consider a day when I get one, excellent aerial photo, to be a great day. Over time, my collection of acceptable aerial photos is growing. If any of you have a suitable photo plane (suitable means two seats, high wing, and can fly with the door or window open or removed), I'm looking for co-conspirators.

Tow Planes

My efforts to entice the Board of Directors to consider a second, club owned, two-seat tow plane have been unsuccessful to date. If I didn't have two kids in college, I'd just go buy one. Failing that, I'm hopeful a small group of members might wish to fund and lease one to the club.

Part of the problem is conducting a cost/benefit trade-off to justify a second tow plane. Frankly, I'm not sure that it is possible to do so. A few years ago, the club reached critical mass on the issue, voting by pocket book. Based on loans (which collected interest, and have subsequently been repaid) club members collected almost $50K to purchase a new plane. Subsequently, the board decided to purchase the Grob instead. I don't dispute this was a good decision, especially in retrospect, but I was certainly disappointed.

Assuming the club did want to purchase a second tow plane, another problem is what kind of plane to buy. There is no consensus, even among the tow pilots, as to what makes sense. Options include another Pawnee, a two-seat tail wheel plane like a Super Cub, and a four-place tri-cycle gear such as a C182 or Maule. When/if the club ever decides to expand operations to two tow planes, I volunteer to lead a sub-committee to review options and make a recommendation to the board.

Colorado Springs Gazette May 23, 2004

AFA Seeks Fix To Glider Problems

Crafts' future in doubt

Tom Roeder

The Air Force Academy last week discounted aircraft repair problems that have left 45 planes on the ground since April, but acknowledged serious concerns about whether its 21 nonmotorized gliders are tough enough for cadet use.

The commander of the academy's flying program, Col. Jeff Kendall, described the grounding as a mainly procedural move to bring the Colorado Springs school more in line with Air Force policies. He said pressing safety issues weren't a factor.

"There's nothing unsafe about the fleet out there," Kendall said.

He described the gliders, however, as fragile and susceptible to damage from hard landings. The planes have spent too much time in the repair shop, and the program is plagued by long waits for replacement parts and big maintenance bills.

The problems put the future of the gliders in question, Kendall said.

Three groundings of the $3.7 million glider fleet this year cut heavily into training. Only 60 percent of the cadets expected to soar in the gliders got the opportunity.

The program allows almost any academy student to get flight experience and features cadet instructors. A more rigorous introductory powered flight program is used to screen potential pilots.

The gliders are the main reason behind the April grounding of the fleet, which includes powered aircraft. Academy leaders asked the Air Force for an extra $2.3 million for maintenance, which includes an undisclosed amount to cover unexpected repair costs for their 2-year-old Czech-built gliders.

A $14 million, five-year contract was signed in 2000 with repair contractor Doss Aviation of Colorado Springs before the gliders were purchased. The amount proved inadequate to cover the cost of fixing the fragile crafts, Kendall said.

The Air Force is studying whether it can afford to keep flying the gliders. Options include replacing them with a sturdier model.

"We use them more than anyone else," Kendall said of the gliders, which flew five days a week and made thousands of landings on a grass field at the academy.

The gliders aren't the only problem facing Kendall's program.

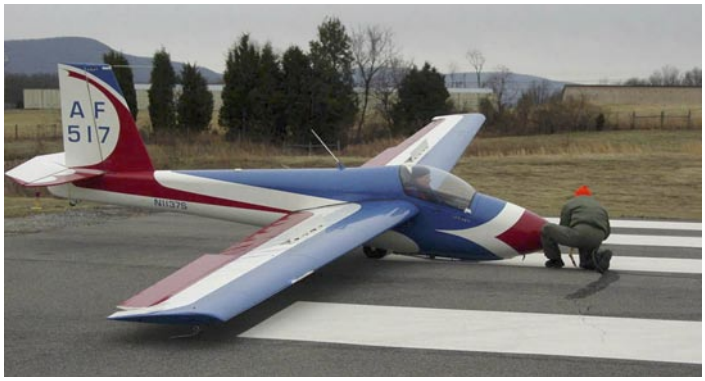
An audit found mechanics installed the wrong nuts and bolts on some planes, and parts inventory problems were so serious that academy Superintendent Lt. Gen. John Rosa joked that the fleet was kept airborne through purchases at Home Depot.

Kendall said no hardware store parts have flown on academy planes, which uses only Federal Aviation Administration approved parts. He said the audit likely would find similar parts mistakes at any Air Force base.

Much of the parts inventory problem is centered on the gliders, which have waited weeks for parts to be manufactured in the Czech Republic.

The gliders were bought in a manner unlike how the Air Force buys fighter jets and bombers. Instead of financing a massive research and design program to tailor a plane for its specific needs, the academy bought gliders that were widely used, essentially putting Air Force logos on civilian planes, the Air Force said.

The old planes that the Czech gliders replaced had held up



Skyliner Steve Lander, CAP Officer, ready to launch one of those "built like a tank" surplus Air Force Academy 1-26s..."Still going!" photo from Jim Kellett

well to cadet punishment.

"They were built like tanks," Kendall said. "These (new) aircraft aren't built that way."

The Czech gliders are the most popular soaring planes in the world and have held up well for recreational use, but the academy uses the 21 planes for 18,000 flights per year.

Flight testing was conducted, but that program lasted months instead of years and the Air Force never knew how the gliders would perform during the long term under such heavy use.

The academy quickly found the gliders were susceptible to damage in hard landings. The tail wheels on the gliders have been a frequent headache and recent inspections found some structural brackets on the gliders had cracks, Kendall said.

There might be a relatively cheap solution for some of the problems: leveling the grass strip where the gliders land and re-planting it to make a softer surface.

It is unknown, however, what role the grass airfield plays in glider damage, Kendall said.

Another solution being explored is to have glider parts built locally, cutting repair delays. The academy also is examining ways to beef up the Czech planes.

It will be months before the Air Force decides whether it will keep the planes.

This article was forwarded to Skylines by Karl Clauser,

Frederick 10-Day Weekend—IT'S ALL ABOUT FLYING

Whether you're working on a distance record or still learning take-off & landing, the Ten-Day Weekend is planned for you — Fri. Jul 2 - Sun July 11—at Frederick. Before flying—classes on three days to sharpen your skills. After flying—cookouts on two or more days - eat and hangar fly. We may add another class on 5th or 11th, and other cookouts any day. Students and ride-givers note, we plan to have both 2-33s Tues-Fri. Sign up? No. Just show up. All days or any day. Cost? Normal club rates for tow/rental. Classes are free. (Cookouts and tee-shirts aren't free.) Fairfield pilots, come weekdays, all days, or any days, or come for classes before & cookouts after Fairfield.

Schedule:

Fri. 2nd, Friday Fly Day

Sat. 3rd, 9 a.m. ***Precision Landing*** with David Schober. *Why? Imagine a storm coming, everybody's landing. Can you land where there's space? Or, you're out of lift, facing out-landing. Or just you're going for "C" badge w/accuracy requirement. Learn about this important skill*

6 p.m. Cookout- Elizabeth Judkins et al.

Sun. 4th, 9 a.m. ***Leaving Home*** with Bill Whelan. *Double the distance, double the fun. Cross-country starts with local mini-triangles and expands.*

Mon. 5th—Fri 9th-***Fly all week!***

Fri. 9th, 8 p.m., regular monthly club meeting.

Sat. 10th, - ***Another Tool for Weather*** with Andy Dessler, the meteorologist among us. *Using the daily radiosonde to forecast the day's soaring weather.* 6 p.m.+- Cookout - Elizabeth Judkins et al.

Sun. 11-***Final Fly Day.***

Note— We need volunteer tow pilots and ODs for Tues 6th-Fri. 9th. Sign-up posters will be in FDK club room, or e-mail Hyhope@AOL.com.

Also watch posters & e-mail for any additions to the schedule.—Hope Howard & Mehrdad Bayat

Of Bees and Flying

In late September, 1904 beekeeper Amos I. Root visited Wilbur and Orville at Huffman Prairie and watched them fly the first full circle flight in history. The Medina, Ohio apiarist wrote of his visit and offered his article to *Scientific American* and other publications. They all turned him down claiming it was an outlandish fairy tale. He then published the article in the January 1905 issue of *Gleanings In Bee Culture*. It was the very first story ever published in the world about the Wrights and their 1904 Flyer.

The May 2004 issue of Virginia Wildlife has a wonderful article about lesser known pilot John Lewis and his family. Titled "The Girls of Summer" the story offers an interesting overview of bee keeping in Virginia and the enthusiastic homegrown honey business of the Lewis family.

The article by Marie Majarov is a bit long for Skylines so on the following page we bring you an abbreviated excerpt along with the wonderful photographs of Bees and Lewises.

The article and photographs are © by Marie and Milan Majarov and used with their permission and the permission of the Virginia Department of Game and Inland Fisheries.

Should you wish to see the article in its entirety contact http://www.dgif.state.va.us/va-wildlife/index-may2004.html

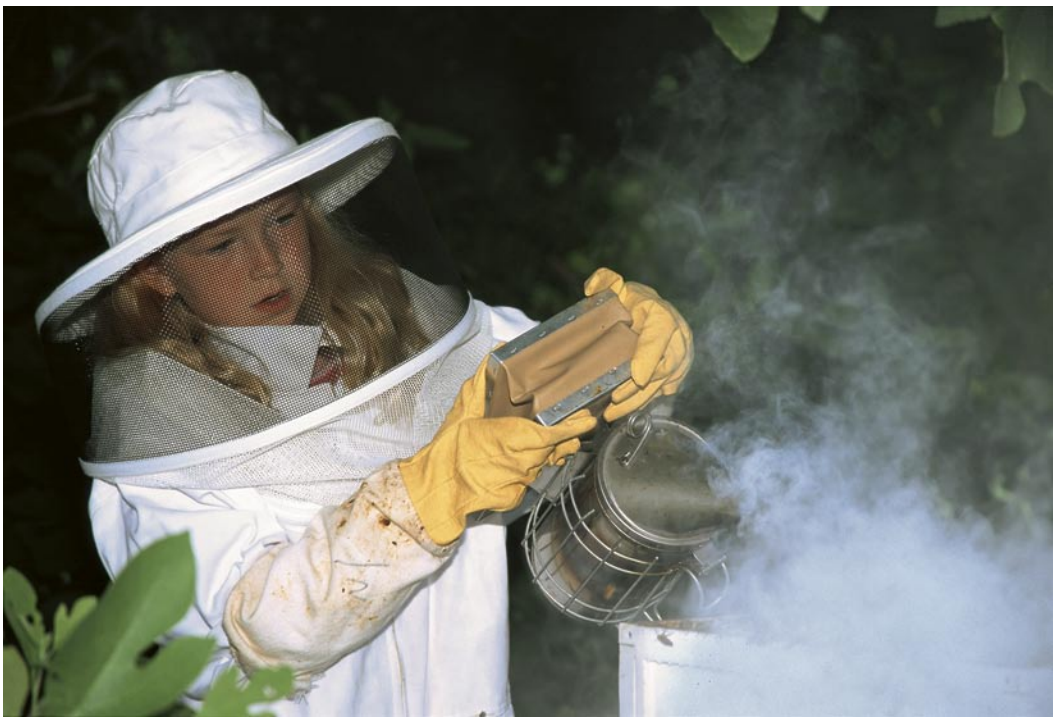
The Girls of Summer

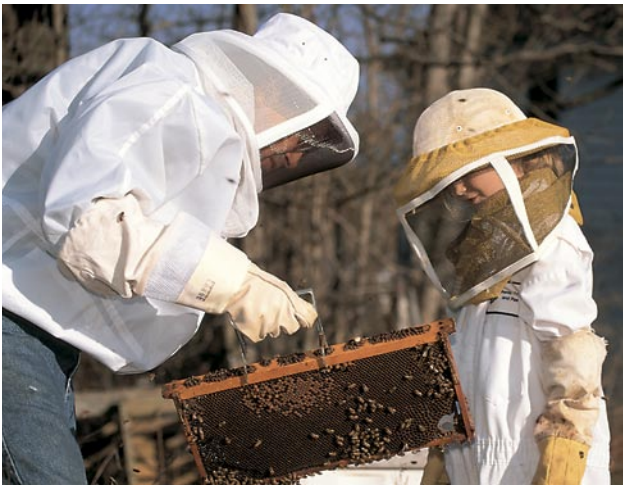
Marie Majarov

The Lewis family of Winchester, Virginia, has 200,00 unique and strangely marvelous friends in their backyard. Honeybees! Graceful, golden insects, master pollinators, they provide a glimpse of pure unspoiled nature.

A fascination with nature and a taste for homegrown honey have drawn this family to their avocation with bees. John and his 7-year old daughter, Rebecca, are head beekeepers; Nancy, 10 year-old Sarah, and 4-year old Jacob pitch in with interest and effort to make the family's apicultural endeavors a sweet success... Each of the 5 Lewis hives is a colony unto itself containing 10, 000 to 60,000 bees: a queen, a few drones, and thousands of workers ...Worker bees, often referred to as ***the girls***, are the real heart and soul of the colony...The rebuilding and strengthening of apiculture is critical to the continued well-being of our wild flora, fauna, and agriculture as well as to preserving a golden view of unspoiled nature. Honeybees, ***the girls of summer,*** are indeed our friends.

Above: The Lewis family: Rebecca, Sarah, Nancy, ,Jacob and John. Below left; Rebecca uses smoke to keep the honeybees calm. Below right: A frame containing honey and wax shines as it is backlit by the afternoon sun.





Far left: John and Rebecca inspect brood cells. Left: Rebecca turns the big handle and Sarah opens the spigot for the honey to flow through a sieve-topped honey bucket. Below: Honey is sieved as it flows into the honey bucket.

All photos by Marie and Milan Majarov© 2004

Silent Wings

Dick Otis

Skyline Soaring Club hosted a squadron of 17 year-old aeronautical engineers, who magically appeared at Front Royal (and other local airports) for the Memorial Day weekend. The swarm of pilots arrived in pristine replicas of Soviet Era fighter-bombers, Periodical Cicada, which only tour the east coast area every 17 years.

Periodical cicadas (usually referred to by the call sign "Cicada") are manufactured in secret, underground locations. Depending on the local manufacturing plant, they come in a number of variants, with the rarely used official factory designations of Magicicada septendecim, Magicicada cassini and Magicicada septendecula. Each version is available in an acrobatic version, which includes additional structures called "timbals", or the more sedate version suitable for less demanding pilots.

Unlike traditional aircraft, the Cicada air vehicle is exhibits a deafening noise only when parked; when airborne it is fairly stealthy and quiet. Unfortunately (at least for the owner) the Cicada has a very low anticipated fatigue life–only a few weeks, based on 24/7 flight operations. At fatigue life, the Cicada wings and emphanage litter the airfield like so many crunchy shells. Major overhaul, while not expensive, usually takes an incredible 17 years, although some overhaul shops have been known to shorten this cycle to 13 years using lean manufacturing techniques.

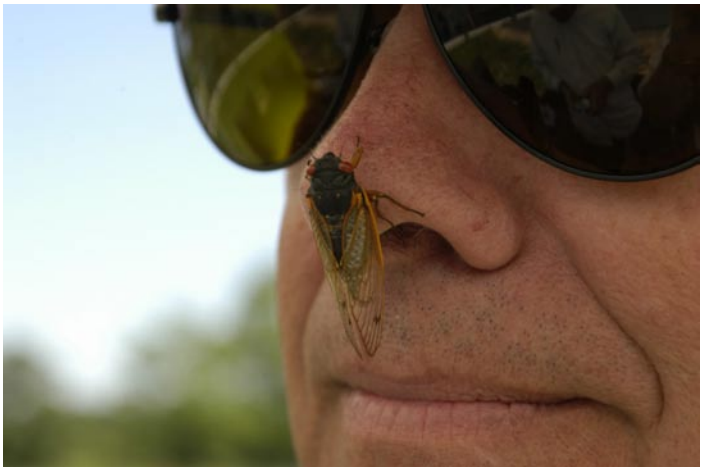


Photo by R.A. Otis Chief Tow Pilot

The Cicada seen in this picture has outstanding slow flight and STOL characteristics. In fact, it can land on a nose. Note the black fuselage bodies, red sensors, and red-orange wing strips on the clear, fabric wings. Note the antenna appear as small bristles protruding from the cockpit.

Learn more at: <http://www.ento.vt.edu/Fruitfiles/cicada.html>

Thanks to the anonymous Skyline Soaring Club tow pilot, we'll call him "Fred", who hosted the Cicada Squadron Leader.

Land's End Clothing

New members will notice quite a few members wearing Skyline logo clothing. Several years ago we had our logo electronically setup for embroidery by Land's End Business Outfitters. After an initial large series of orders our logo is still registered and available to members that wish to order clothing items.

SKYLINESOARING

These clothing items are available through the Land's End Business Outfitters catalog. There are a number of catalogs in the Pawnee hangar library. Be aware that these are 2-3 years old and you can bet the prices have changed and not all items and/or colors are still available. New catalogs are available 1-800-338-2000 or www.landsend.com/business.

Application fees are $11.00 for a single item, plus cost of garment and shipping. The application fee can be reduced to $5.50 if 6 or more of the same item is ordered at the same time.

Any members that want to put together individual orders or want to organize a group of members can e-mail me at pja@his.com and I will provide some guidelines for ordering along with our logo ID number. There are some caveats regarding colors and items that can be helpful and I have these in a pdf or printed form that I will share on your request.

Some of the items we've all had success with are the Classic Navy Squall Jacket, baseball caps, polo shirts, golf microfiber jackets and denim shirts. Refer to the guidelines when choosing colors as the logo will not easily read on some background colors. There are actually two color combos for the logo.

Don't be the last one on your block without a Skyline Soaring wearable billboard.—*Phil Jordan*

Your Editor came across the logo on the right several years ago in San Luis Obispo, CA and thought it would make a superb symbol for a line of clothing for fellow 1-26 flyers but, alas, it is the registered trade mark of a company already marketing a line of clothing for golfers

Straight Down
CLOTHING CO.
TM

Copy i That! *Selected flotsam and jetsam from the editor's daily Tsunami of e-mail*

New e-mail address: Ralph & Robin Popp REMRPD@optonline.net

I used the new ramp to put the K on the Dolly Sunday. It was a dream. Thanks to Bill Bentley for designing it and welding it up. —Fred LaSor (Now...if we ALL can just do it...right!—Editor)

Beware of Internet Scam Alert—All SSA members should be aware of an Internet scam targeted at sailplane owners. The scam involves an e-mail from an individual under the disguise of acting on behalf of a customer interested in buying a sailplane advertised in the classified ad section of Soaring magazine.

If any SSA members should receive e-mails and/or phone calls, please respond with scrutiny. Be sure to stipulate the terms and conditions before a sale can take place and delivery arranged. In previous cases, a counterfeit cashier's check is received by the seller. This scam is similar to the Nigerian Internet Scams which have been working for years. For more information, type "Nigerian Scams" in you web search engine and surf several sites devoted to these activities.—By Dennis Wright, SSA Executive Director

Congratulations to Eric Litt who earned both the "B" and "C" badges (and, of course, in the process got FOD) on May 5.

I have made a change to the mail server. The mail server will no longer accept any e-mail attachments that are of an executable nature. (.EXE/.PIF/.BAT/.COM, etc).

What this means to you: If you are infected with a virus, and your computer starts sending virii to our mailing lists, they won't get past this mail server. If every mail administrator in the world did this, all of these stupid e-mail virii of the week would end their propagation forever.

What this also means: You won't be able to send any executable attachments to the members lists. But none of you have been in the habit of doing this before, so it shouldn't be a big deal. Pictures, movies, links to websites are all OK. I'm not blocking those.

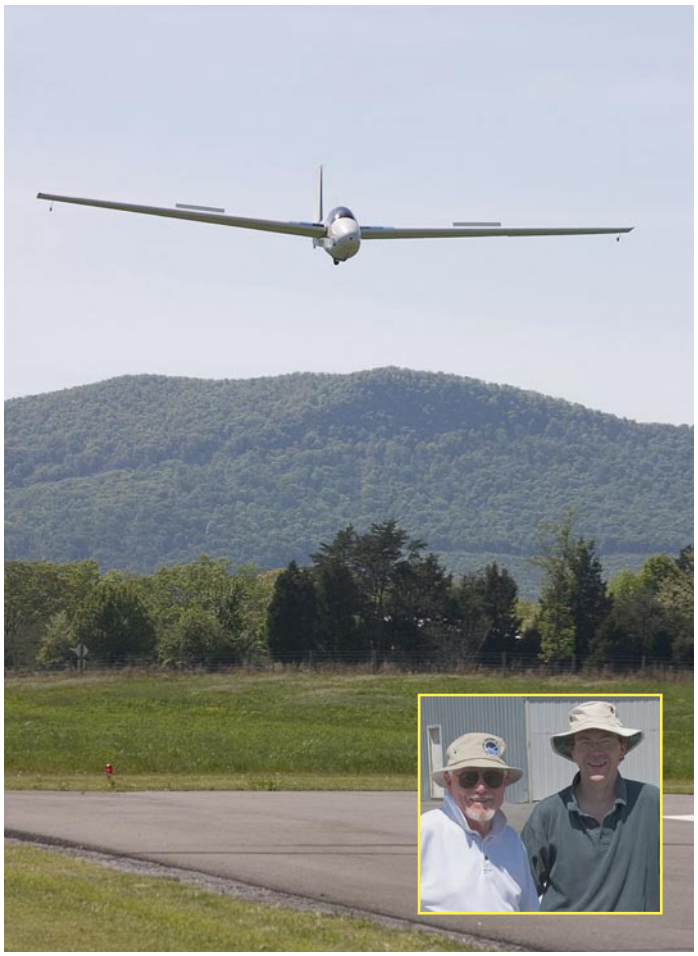
If you have any issues where you think any e-mail to the members list hasn't been distributed, please write to webmaster@skylinesoaring.org. Please do not write to the members list, saying "Is the e-mail broken?".—Piet Barber

A new event has been scheduled that meets your notification criteria on <http://faasafety.gov> Following is a brief overview of the event: "Safety Education Seminar" Topic: ***High Risk at Low Altitude*** On June 12, 2004 at 10:00 AM Location: Front Royal Airport 229 Stokes Airport Road Front Royal Front Royal, VA 22630

Low level maneuvering: discusses varied aspects of operation in the traffic pattern to low altitude surveillance work and how to apply correct control input to ensure safety of flight

To view further details and to register for this event, <http://www.faasafety.gov/event_details.aspx?eid=1783>click here. TFRs can appear in your area any time! Always check for TFRs with Flight Service before you go flying….. Tell your aviation friends about faasafety.gov

John Lewis on final in fine new machine 26 Juliet Lima, restored to its original glory by Bill Vickland and John Ayers. Air Force Academy could've had it for a song. Proud owners inset. Both photos by Fred Mueller.



Can I tell you the truth? I mean this isn't like TV news, is it?—Kurt Vonnegut