



# Hangar Soaring

February, 2005

THE OFFICIAL PUBLICATION OF THE WOMEN SOARING PILOTS ASSOC.  
www.womensoaring.org

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### 2005 Seminar

July 11-15, 2005 at Air Sailing Gliderport Reno, NV

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## HOW TO DRESS FOR WINTER FLYING

The above picture shows Ginny Schweizer ready for a flight from Harris Hill in the winter of 1940 in the open cockpit Kirby Kite which required special clothing to keep warm. Rather than trying to explain what she wore she had submitted this picture which was taken by Hans Groenhoff (*Another great soaring pioneer. Ed.*) The photo and story was published in *Life Magazine*

Ginny said that being launched by auto tows in that open sailplane on a very cold day was thrilling and a lot of fun. She had no problem keeping warm with all those flying clothes which were also used for a New Year Day's flight.

Thanks to Kay Gertsen, editor of Ridgewind, newsletter of the Harris Hill Soaring. Corp

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## Badges through Dec.15, 2005

by Helen D' Couto

**Diamond Badge (International)**  
6933 Karen Geisinger

**Diamond Altitude**

**Diamond Goal**  
Laura Sue Hohanshelt

**Diamond Distance**

**Gold Badge**  
Ruthann K. Pavinelli

**Gold Distance**  
Laura Sue Hohanshelt

**Gold Altitude**  
Katherine (Kat) Haessler

**Silver Badge**  
Ruthann K. Pavinelli  
Katherine (Kat) Haessler

**Silver Altitude**  
Cheryl Beckage  
Mary Cowie  
Katherine (Kat) Haessler

**Silver Distance**  
Katherine (Kat) Haessler

**Silver Duration**  
Marie Cowie

**Bronze Badge**  
Grace Higgins  
Cheryl Beckage

**C Badge**  
Elise Chong  
Cheryl Beckage  
Grace Higgins

**B Badge**  
Elise Chong  
Cheryl Beckage  
Kathryn Dougherty  
Grace Higgins

**A Badge**  
Liz Mc Manus  
*See Badges on page 9)*

## From the President Lucy Anne McKlosky

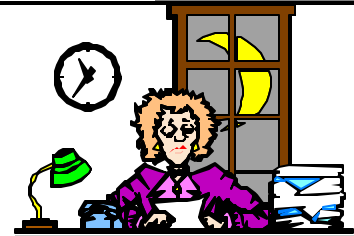
Hello Everyone!

This is soaring's slow season – at least in Ohio, but WSPA is going strong with a new board gearing up for the coming year. Many thanks to Frauke for handling the election process. Our new board members are:

Lucy Anne McKoski President	North Central Region
Linda Mathias Vice President	North East Region
Arleen Coleson Treasurer	South Central Region
Kat Haessler Secretary	North West Region
Jessica Stearn	South East Region
Kathleen Morse	South West Region

These women bring a wealth of aviation experience to the board, which can only enrich the organization. In comparison with them, I feel like a newcomer, but I know I can count on them to share their expertise. One of the great things about WSPA is the way everyone pitches in to get the job done, whether it is raising money for scholarships, organizing our booth for the SSA convention, putting on our annual seminar, or encouraging women in soaring at our own gliderports.

*(Continued on page 9 "President")*



## From the Editor

### Time for Change

During the now 33 years of a newsletter for women glider pilots, first to keep a loosely knit group informed and later as the official newsletter of WSPA, we increased the fee/dues only once from \$7.50 to the present \$10. Back in the seventies, 1<sup>st</sup> class postage stamp was 6 cents. Now it is 37 cents and a double-digit increase is looming. The similar increases took place in cost of paper and even more so in copying.

More and more clubs revert to publishing their newsletters on the Internet and inform their members when the newsletters are posted. I just looked at the printing and mailing costs of Hangar Soaring (not taking in account, paper, I am using, ink cartridges, mailing labels and the many hours of work. The average costs this year were about \$7/ person/year. Add the latter costs – except for the work hours- and it becomes very obvious that our \$10 dues barely cover the costs of the newsletter. To keep the costs low I have been collating, folding, addressing and putting stamps on etc, where I could have had this done by the printer at extra cost. As you probably know, women who have completed their Diamonds become Honorary Members and don't have to pay dues. We presently have about 150 dues paying members. Weren't it for some generous donations, we could not support the scholarships or be represented at the convention.

The solution –you guessed it is either to increase the dues or do what many clubs are now doing: publish the newsletter on the net. It would be no major undertaking to code the membership roster in "E" –members who will get the newsletter from the net or "M" for the ones who want to receive the hard copy, so that the mailing labels print out for only the ones coded "M". Members I have e-

mail addresses of would be notified as soon as Hangar Soaring is posted or I can attach it as a pdf file to a group mailing. I have done this for several years with our club newsletter. Several of our oversea members are getting the newsletter this way. Beside saving costs the online version is available in color.

Please give it a thought and let me know what your opinion is (higher dues or electronic newsletter).

With the new Board now in place we have to have a serious look at the WSPA zoning. The present 6 zones do not take in account the distribution of members across the country or foreign countries. This became very obvious when we asked for nominations from the different regions. As the membership roster I mailed out in November and which was sorted by states and countries showed, the spread of our members is very lopsided. Texas with 14 leads the pack, while far away Hawaii shows only one member. Beside we have 17 members in 9 foreign countries. My suggestion is to reduce the regions from 6 to 3 with two representatives of each region or even get rid of the region all together and get 6 candidates out of the full roster of eligible members (including our oversea members). The newsletter editor constitutes the 7<sup>th</sup> -non elected- Board member.

This is an issue that needs a change of by-laws and the membership input will be greatly appreciated.

**And last not least a change of the publishing schedule of Hangar Soaring: due to my oversea travels this summer, the August Hangar Soaring will be either 6 weeks late (mid September) or I need a volunteer who finishes and mails that issue on schedule.**

Have a great soaring season

Frauke

## SSA Convention & Air Sports Expo, Ontario, California – 2005

By Colleen Koenig

This was my first convention, I was amazed at the selection of workshops available. You could spend the whole convention just hopping from one to another. The vendor booths covered all aspects of soaring, and the people were smiling and friendly. The WSPA booth drew a lot of attention with the colorful flag display and friendly conversation. We signed up 6 new members and handed out many more fliers. Lots of people stopped by to chat, and it was great to visit WSPA members new and old. I had the chance to attend a few workshops. Paul Remde walked us through his comparison of the different loggers and computers available. His website is an excellent resource. My favorite was Dick Johnson's talk on the Sparrowhawk. He also briefly touched on the Russia and PW5 total energy probes. Hans Werner Grosse's talked about his incredible ETA. What a glider! The Charlie Spratt/Ed Kilborne dinner Friday night was really fun, and the banquet on Saturday was quite thrilling with Mile Melvill telling his story about Space Ship One. Very Exciting, I had excellent company and the events were thrilling!

The main topic circles I experienced at the convention were recruiting and winches. There were wonderful ideas for recruiting people, both at the national level where the SSA would be involved, and at the local club or FBO level. Alexis Latner moderated a discussion on that topic, which was quite stimulating. The discussion continued at the WSPA breakfast. The talk on winches was well attended, and there was a very positive buzz in the room afterwards. If you have not tried a winch tow, find an opportunity as you are in for a great thrill. I am really glad to have had the opportunity to represent WSPA at the booth, and attend a very successful Soaring convention in Ontario.



Colleen Koenig at the booth

Photos  
Frauke Elber



WSPA breakfast

Editor's note: preceding the convention were months of planning and discussions how to decorate the booth at a minimum of investment and shipping costs. We decided that displaying the countries where WSPA has members by their flags (12"x18" in size) would make an eye-catching, colorful display. In addition we would display on 81/2 by 11 cardboard panels the scholarships WSPA has to offer. These ideas proved to be effective, easy to put up at the beginning of the convention and quick to take down at the end. It worked like a charm.

I flew into Ontario on Tuesday at noon after enough Adrenalin rush to get me through the week. Colleen arrived in style in an Aero Star, owned and piloted by Michael Grave. Consequently Michael became the first new WSPA member we signed up at the convention and a tireless and reliable helper at the booth. One of our 6 new members was so attracted by our flag display, that she inquired if we would put her country's flag up when she became a member. Next morning she appeared with a big British flag and signed her membership application. Welcome Ruth and Great Britain! All our new members will be officially welcomed in the May issue of Hangar Soaring. Many WSPA members dropped by the booths, volunteered to give Colleen and me a break so that we could attend some of the programs. Thanks to all. (I will not list the names out of fear that I accidentally forget someone). The WSPA breakfast was attended by 20 people, several being supportive husbands of WSPA members.

Former president Janet Sorrell had asked me to attend the SSA Affiliate and Division meeting in her place. More on these meetings in a future Hangar Soaring.

At the Award Banquet several women were recognized, the majority being WSPA members.

Certificate of Appreciation: Helen Dick, Chilhowee Soaring Association whose owner and operator is new WSPA member Sarah Kelly, Karin Schlösser.

Kolstad Youth Scholarship Grant: Sylvia Szcfczyk

Exceptional Service Award: Judy Ruprecht, Frauke Elber

Henry Combs Perpetual Trophy: Kathleen Winters

Chairman's Award: Dianne Black-Nixon

To get a 50% discount on the booth fee, we have signed up for next year's convention, which will be held in Arlington, TX February 2.3.4 2006. Mark your calendar and see you there. And as always: VOLUNTEERS ARE NEEDED

## Tuesday Flight

By  
Cindy Brickner

Tuesday, August 10, 2004, was a 400 km O&R to abeam Tinemaha Reservoir and home. There was a declared course in there for a California state 300 km Speed O&R for Feminine Class. I flew dry in Marty's pretty Schleicher AS-W 27, 11W. One day I will fly with more water in the wings than in my on-board drinking gear.

Today's great points? The first thermal was shared with a BIG hawk. I figured that was my omen for the day's outlook. We have been short on bird formation glider flights this summer. The next real fun was running to Inyokern, from that first thermal, in a shear line on course line.....man, I really must be supposed to GO!

I cruised through the start point at Boomer Ridge at 10k, where the most southerly puff of cumulus dissipated before I got there. Still, I pattered north at best L/D and climbed until past Sacatar, about 50 miles out. Then I needed to switch to a real thermal climb or two. The line of shear/convergence lift was well east of the ridge top. I could see the cummie puffs at Olancha and on north loitering well into the valley. My mistake was trying to force a change and work onto the peaks. I was punished for trying the standard tactics of working onto higher ground... and whimpered down to 7000 msl or so from north of Olancha, until I was stuck ridge soaring the face above Bartlett Factory and , clawing, got back above glideslope for the airport at Lone Pine. (Yikes!) (Pilots unfamiliar with the area should know that I had glide for the dirt strip behind me at Olancha. I practice what I preach, keeping glide to safe spots.)

I snuck past the switchbacks, bumping and berating, and swearing off ridge rocking, and had the darn cellphone ring at my lowest point, 6400 ft msl below Whitney Portal campground. Poor Marty was relegated to crew at home, and it 'had' been about two hours since he had any news from me.

"Lone Pine, 6400, tough work, bye."  
"Bye."

A half knot thermal was salvation while poking the cell buttons, and I stayed faithful to her back up till the EDS oxygen system starting pulsing, and shifted into enjoying the 7 - 8 knots climbing into the teens. There was a little shelf of cu around Whitney, the normal 8 or 10 mile spread. No clouds north of Independence on the Sierra side. No clouds on the Inyos or Whites. Tiny puffs were visible probably north of Mammoth/Mt. Grant area and easterly into Nevada. Cloud base was just about 17,500 ft. I worked the shearish feel of the cummies both north and south to the turnpoint abeam Tinnemaha and back to Whitney. This was supposed to be a speed task, but I clobbered that hope by the limbo dive at Bartlett. Now, it would just be nice to close the task and get home.

Hey, if I'm not racing the clock, there better be a few more smiles packed in here. What a view.

So, I took a moment to notice the cirque lakes, with not much wind ripples, behind the crests. Let's detour a bit west and be sure that the cummies help me tank up and maybe get this year's first (and likely only) peek of hikers on the summit. Whee. I figured at 4 pm that the foot bound mountain climbers would have headed down for dinner on the valley floor, but NO! There must be about eight of them there and a few waving. Nice Dutch rolls to make them jealous of my ascent versus theirs. But the day is waning, four thirty. No time to loiter here.

I wonder where my dinner will be. There are no clouds anywhere south for me. One built-up cell at Big Bear pokes its anvil above the convective haze across the nearly 200 miles. I poke at a few electric gizzies to see if I can get a nice balance of information laid out on the panel. I trust what I know from the GPS NAV display, but can't get it to look at a list of turn points for a fore and aft glide slope setup between it and the PDA. Ah well.

Silly PDA has been set for kilometers on task, and I have nautical miles on the NAV. Heaven forbid I poke the wrong choices and reset a declaration or something that would really screw me up. I think I get it now.

The gliders fly so beautifully, stretch so far, our lift reaches to God's armpits, and pilots need something to macramé in the cockpit while they are sitting out the gentle push-pull of a long final glide. That's what the multiple electro toys are really made for!

I know from years of taking the ASKs home from Lone Pine that the shortest miles direct to home actually stretch down the west side of Olancha Peak and Owens Peak, handy little pin pricks ahead of me. It is fun to watch me follow the straight little line on the PDA. Those gentle push-pulls are rewarding me with a rise toward above glide for home. Seems that the northbound shear line in the valley has a compatriot line well west of the crest on the south run.

I couldn't have scabbled my way into here on the way up, but have seen days when the San Joaquin air lay deep in the Sierra, with pretty puffs, and have always been toooo chicken to bury myself west in a prayer. But from about 14k, this looks like a really nice line for southbound, ready to get hammered at Sacatar or 9 Mile Canyon with heavy west flow and a big crab angle in mind. One puff looks like it is on the El Pasos. Hope. It evaporates.

I keep finding I am running about 10 knots too fast for efficient speed to fly. Dang it. That's the impatience factor of "the long sit". If I dork this up, Marty will have to drive to Inyokern to gather the 27. Gag. Get accurate, CB, no embarrassment on the schedule for today, please. After the limbo recoup, I should be able to just manage a decent glide speed....

A couple false tries at a broken thermal or two, I may have enough buoyancy ahead to get me beyond Inyokern to almost home. These bumps at Owens rekindle positive thoughts. Honda would be okay. John's Place would be frustratingly too close. I jog off the direct line to make the discipline for the finish quadrant at Boomer Ridge. Down to under 7500ft msl. Buck up, fly clean. Run the mental numbers for glide into Fremont Valley. Check the ASOS at



home, and find the construction crew must have cut a line, there is no wind report at home.  
How conservative should I calc this?

Another whisper of shear lies down the east side of Highway 14. Stay steady. How many times have I been slapped at Jawbone Canyon? Too many. Silly NAV is starting to tell me I have 400ft above Cal City. Yeah, and what were his margins for arrival? 500ft, 800ft or 1000ft agl? Never celebrate until being past Neuralia Intersection. At ten miles out, I know I will be home to tie down. From five miles out, now I can run at 100 knots for five miles. Whee. That still gets me home at 1500ft over, my favorite. Clunk down gear and prepare for the heat to return.

I wonder where the hawk went for his day?

### ***Online Contest (OLC) recognized by FAI***

The FAI and "Segelflugszene non-profit GmbH" (organizers of the online contest) have signed a memorandum of understanding. The "aerokurier online contest" – renowned and accepted among glider pilots all over the world – is consequently the official decentralized gliding competition of the FAI.

7,643 glider pilots from 27 nations entered 52,880 flights with 16,200,000 cross country kilometres already in 2003. There is no doubt that the efforts of the organizers' team of this world-wide largest gliding contest have been worth the trouble. The claim that "the OLC is the best thing that could happen to international gliding", which was made at the German Gliding Convention 2003 in Hagen, is proving true.

The OLC-team have committed themselves to run the event according to FAI/IGC standards. The winners of the international contests will be honoured by an FAI-Diploma at the yearly OLC-Symposium in Gersfeld/Rhoen, Germany.

Now the FAI banner with a link to the FAI [www.fai.org](http://www.fai.org) site is included in the new banner of the Website "Segelflugszene.de". At the same time a link to the Website "Segelflugszene" (<http://www.segelflugszene.de>) will be installed on the gliding section of the FAI web site.

### ***FAI/IGC Gliding Weeks 2005 : A Contribution to FAI Centenary***

***The International Gliding Commission (IGC) recently announced the manner in which they will contribute to the celebrations of the FAI 100th anniversary in 2005.***

During 2005, the year of FAI Centenary, the IGC will ask all glider pilots around the world to track their kilometers flown during a specific two week period in each hemisphere. Pilots will be invited to submit their flights via a link on the IGC website; this link will be provided in January 2005. All flights will be tracked with the support of the ***On Line Contest (OLC)***, the highly successful world on-line gliding competition. The total number of kilometers flown in honor of the FAI Centenary will be tallied and reported in October 2005, at the official celebration of the FAI Centenary in Paris, France.

For detailed information go to

<http://www2.onlinecontest.org/olcphp/olc-i.php?olc=olc-i>

Editor's note: all you need to participate is a recognized data logger. Sailplane of any performance can be entered

## **In Memoriam**

Ruth Mary Petry, age 88, passed away peacefully September 17, 2004. Born in Syracuse New York on June 20 1916, Ruth spent her life in the field of aviation. After graduation from Radcliff University in 1940 Ruth worked as an aerial photographer and researcher with John Hopkins, and Cornell. She was a member of the Women Air Force Service Pilots (WASPS) 1943-1944 and moved to Phoenix in 1957 with her employer, Aviation Crash Injury Research. She also worked for Sperry Corporation until her retirement. Ruth's love of aviation led her to take up soaring at an early age. Along with her brother Pete, they were both lifetime members of the Soaring Society of America. As an active member of Arizona Soaring, she spend literally every weekend at the airfield either being a crew or a tow pilot. In fact any who know soaring would recognize the name of Joe Lincoln as he wrote several books on the sport. She was personal friends with him and acted as crew for him many times. She did compete in Soaring Contests early in life and won a championship in Texas.

Bertha Ryan noted:

She earned Silver Badge #300 in 1950 and was the fifth American woman to earn this badge. What I always liked, was that she made it into a ring— looked nice.

## Motorless Flight Symposium Facts and Trends, but Safety First

By  
Roberta Fischer Malara, Italy

A very interesting symposium was held in Varese, my home town, on October 8 thru 10. Its title was "Motorless Flight Symposium". It was organized by the Associazione Italiana di Aeronautica e Astronautica (AIDA) and sponsored by OSTIV and the Department of Aerospace Engineering of the Polytechnic of Milan.

Most participants were real VIP's, with Prof. Morelli standing out among them – he was recently presented the Lilienthal medal by FAI. He gave a very interesting lecture about microlift gliders. You may now wonder what microlift gliders are; well, they are strange creatures that thrive aloft but fairly close to the terrain and exploit the weak lift available in the atmospheric boundary layer, which extends from ground level to a few hundred meters of altitude. You are not supposed to fly them circling to achieve height, but, if I got it right, you have to adopt a sort of dolphining technique to achieve distance, as demonstrated by the long flights completed by famous pilot Gary Osoba in the US. The Carbon Dragon and the Swiss Archeopteryx are the most advanced types of these gliders – but they are available as home-builts only.

OSTIV chairman Prof. L.M.M. Boermans, also gave a speech. As everyone may expect, it was about aerodynamics; this time emphasis was placed on the studies in progress about wing suction and overall sailplane drag reduction.

Dr. Trimmel spoke about meteorology and the related new statistical methods for thermal development prediction based on pilots' observations, and world's out-and-return distance record holder Jean Marie Clément (2025 km flown over the Andes in Patagonia) put forth to sailplane designers his wish list concerning sailplane features for record seekers (he dreams about flying a 4000 km task!).

Other topics dealt with were aeroelasticity, crashworthiness, composite structures, flight tests and much more – they were full days.

Yet the lecture that I liked best was held by the only non-engineer in the program. The person is Dr. Antony M. Segal, an OSTIV member from England, who clearly stated that his approach would be different from the start just because he is not an engineer. So he said he would shun PowerPoint®, the likes and PCs, and enjoy the support of the most reliable assistant in the world: his wife, who was happy to help him in circulating specimens and changing viewgraphs. A pair to envy!

Dr. Segal has specialized in aviation medicine, and has performed a number of studies about glider accidents. Not the most amusing subject you may think. Well, the presentation was very witty, but what made it interesting is that Dr. Segal in addition to giving accurate technical and medical details about the risks and consequences of accidents, in particular those involving heavy landings, provided a wealth of information that can be useful not only for the designer of the next generation sailplanes, but also for the owners of older gliders – and did not forget women pilots. In the following I shall concentrate on the advice for "lay pilots" rather than on the impact (no pun intended) Dr. Segal's studies may have on the design of the future ships. Also note that I am plagiarizing hereafter, as most of the sentences that follow come directly from Dr. Segal's notes, but I will not be using quotes for the sake of clarity.

Dr. Segal reported that between 1973 and 1990, in Germany, 94% of the severe injuries incurred in heavy landing accidents were spinal injuries; therefore he concentrated on methods for reducing spinal injury in his experimental studies that were in part performed at QinetiQ, Farnborough, England.

There are several methods available to reduce the incidence and severity of spinal injury - he noted - and those that can be implemented by simple action on existing gliders are described hereafter.

### Supporting the spine

The seatback should provide smooth continuous support to the back. If necessary a wooden fillet can be fitted to fill a marked hollow, such as is sometimes provided to contain a parachute pack.

The parachute pack should be of a long, flexible "slimline" design so as to fully support the spine. Short, stiff parachute packs should be avoided.

### Using seat cushions

Energy absorbing seat cushions may be used on top of a firm seat pan, They are inexpensive and are simple to install and retrofit. They function by increasing the duration of the impact load while reducing the rate of rise of g and the peak g (these are the main parameters in determining the risk of spinal injury: the shorter the impact load duration, the higher the rate of rise of g and peak g, the greater the risk of spinal injury).

Tests were performed with a material called "Sunmate"® – different thicknesses - and manikins at QinetiQ, and they clearly showed the effectiveness of "Sunmate" in reducing spinal impact load.

The cushion should be firmly attached to the seat pan, but should be removable. If it were to slide forward it could restrict the full aft movement of the control stick. The cushion cover should be made of a porous material as an airtight cover could cause rebound due to the trapped air – rebound is bad too.

### Avoiding submarining

There are two basic pilot seating positions in gliders, the upright position and the semi-reclining position. The upright position is typical of the older models and pilots of these ships are more vulnerable to spinal injury than those flying in the more modern ones in which they take the semi-reclined position. In the latter, however, there is the risk of submarining.

Submarining describes the pilot sliding down and forward under the lapstrap of the seat harness and is an important contributory factor for spinal injury. As a result of the pilot sliding down and forward the shoulder straps become slack. The shoulders and spine then bend forward, the lumbar curve is no longer maintained and the effect of a compression impact load is concentrated on the front of the vertebral bodies, possibly resulting in typical wedge-shaped fractures. And while only a suitably designed seat harness can prevent submarining effectively, being aware of the problem and keeping the lap strap tight is important.

### Headrests

The headrest should be centered at eye level and faced with energy absorbing foam. The parachute should not catch under the lower edge of the headrest as this could interfere with emergency egress from the cockpit.

### Cushions behind the pilots' back

These cushions are required to enable short pilots or pilots with short arms to obtain full movement of the flight controls. They must not compress significantly under g loading because this would void their usefulness in the phases of flight when g loading is increased, like rotation and climb during winch launch – lives have been lost due to compressed cushions. A suitable inexpensive material for seatback cushion is firm grade chipfoam, but because it is not energy absorbing, it should not be used in seatpan cushions.

Other important recommendations, not necessarily related to spinal injury were also provided, as follows.

### Lightweight and small pilots. Small female pilots

These pilots require the provision of securely attached ballast.

Problems may be caused by the high operating loads in some gliders for the airbrakes, landing gear retraction, cable release and the parachute ripcord handle. Historically, Hanna Reitsch, the famous German test pilot, had this problem, which she apparently eased by carrying out strengthening exercises and applying bungees to the controls. Designers should make every effort to keep control operating loads low.

### De-lethalize the cockpit

The following should be removed from the cockpit or modified:

- Sharp edges, such as the sharp lower edge of some instrument panels
- Pointed objects, such as some knobs and switches
- Sharp handles
- Objects that could cause head injury if the trunk rotates forward in an accident impact.

### Secure loose objects

The European aviation regulations specify that potentially loose objects should be secured to withstand 9 g. This covers objects such as batteries, the barograph, cameras, a loose radio, GPS receiver and the oxygen cylinder if fitted.

I am sure that all the above information can provide a lot of material for thought and discussion. Spending time on safety issues during the hangar flying sessions on the rainy or snowy winter days could be a very good idea – and not only then!

The following article was first published in FLYPAPER, the newsletter of the Tidewater Soaring Society

### FOD Happens!!

By  
Joel Cornell

What is FOD? Foreign Object Damage

What causes FOD? Loose objects in and around aircraft and engines, ground maintenance equipment, etc.

Where does FOD come from? Items left unattended, forgotten maintenance tools and supplies, objects dropped or "lost" in cockpits, loose objects left on runways/taxi ways/preflight areas and hangars.

Is FOD serious? Lost Concorde jet due to FOD. Millions of dollars of damage to aircraft and engines each year (both civilian and military).

Should Glider Operations be Concerned? YOU BETCHA!!! FOD can cause damage to tow planes, gliders and ground equipment just as it can disable and destroy multi-million dollar commercial and military aviation equipment.

Does it affect TSS? YOU BETCHA!!!

Recently I was flying the TSS L-33 Solo and experienced a very scary and potentially fatal situation. At a recent meeting of the TSS Wednesday Afternoon Soaring group I was the first to fly the L-33. During the preflight of the aircraft I checked the battery area for battery security and connections, ensured the L-33 Manual was secure, stowed the canopy cover behind the seat then preceded with the rest of the preflight and positive control checks.

The subsequent flight was uneventful until my hour limit was almost up. Still having considerable altitude to lose I did a couple of straight-ahead and turning stall recoveries and then proceeded to do an uneventful single rotation spin & recovery to the right. This was followed by a spin recovery to the left. As the nose dropped and the speed began to increase I heard a loud bang as an object hit the canopy and began bouncing around the cockpit. At first I thought the canopy had come loose or something had structurally failed on the aircraft. Unnerved and slightly panicked I continued spin recovery procedures but found rudder response was somewhat restricted. This delayed recovery and allowed airspeed to build rather rapidly further increasing my anxiety levels. Finally completing the recovery and leveling the aircraft I was able to determine the cause of the problem. Apparently a power supply device was used to charge the L-33 battery (rather than removing the battery from the aircraft) and was left somewhere in the aircraft. (I did not find it during

(Continued on page 8)

(Continued from page 7)

preflight and it came loose during the spin maneuvers. It struck the canopy then partially lodged in the rudder pedal mechanism.

So you can see a chain of events that led up to a possible serious incident. 1) FOD left in the aircraft, 2) failure to discover FOD during preflight, 3) unusual attitude maneuver dislodging FOD, and 4) Murphy's Law in full effect when FOD lodged in rudder mechanism.

In addition, I have previously served as Sailplane Maintenance Officer for a couple of years. As part of the sailplane annuals the seat pan and cockpit floorboards are removed to check cabling/connections and tubular structure/condition. It is amazing what FOD is found in these areas – pens and pencils, papers, apple cores, clips, plastic utensils, barograph sealing wire, etc – anything that can be dropped/lost in a cockpit will be lost.

So I encourage all TSS members – whether routinely flying, taking "guests", doing badge work where you have extra "stuff", changing out/charging batteries, performing maintenance, etc – think about FOD. The aircraft and pilot you save may be you!

Ed. Note: because of this incident, the airplane needed a set of new wings.

**Did you have any great, documented flights in 2004? You might qualify for the Anne Lindbergh Trophy. For detailed rules see the WSPA home page at [www.womensoaring.org](http://www.womensoaring.org). Application should be made to:**

**Kathy Fosha  
7271 Grashio Dr.  
Colorado Springs, CO  
80920.**

**Deadline: March 31,  
2005**

## Need Help

The December SOARING featured the following by Robert Hutchens: Lenox Gliderport, near Acadia, FL was hard hit during last Fall's hurricanes. It lost a 2-22, two 126's and a Citabria tow plane. Several private gliders were lost and the property was severely damaged. **Patricia Hange** and **Harriet Hamilton** owners of the operation for more than 40 years have been devastated by this disaster. Pat even lost her home. They had little to no insurance. They would like to continue the glider operation. In case you make a disaster relief donation, you may consider Pat and Harriet. It may not be tax deductible, but it all goes right to a needy spot we all have fondness toward. They can receive mail at: Lenox Flight School, 2429 S.E. E&T Circle, Acardia, FL 34266.

Pat and Harriet were inducted into the Soaring Hall of Fame

## Welcome New Members

**Anastasia Evgenievna  
Batraeva**

**Natalia Anatolievna Gereb-  
zova**

**Olga Sergeevna Nedoschivina**

All three are licensed glider pilots, live in Magnitogorsk, Russia. Elizabeth Brock is sponsoring the membership.

Olga writes:

Thank you for your attention to Russia and Russian soaring. Unfortunately, gliding is not the most popular kind of sports in Russia as there are not enough glider clubs in the country. Natasha, Nastya and me are very lucky, because we live in Magnitogorsk where such club exists. We fly Czech gliders Blanik L-13 (educational). Our club has also two Jantar-standard 2 (single), but I "have not grown" to pilot it.

## An invitation from the European Women Pilot Federation

Dear Ms Dalton

Our Slovenian members are hosting the annual meeting of the Federation of European Women Pilots this May and have told me that they have a great relationship with the WSPA. They asked if we could rearrange our meeting to coincide with the end of the women's world gliding championships in Germany so that members of the WSPA could join us, but unfortunately it was not possible to change the date.

Instead they have asked me to send you an 'Official Letter of Invitation' welcoming any of your members who are able to, to join us for the weekend. The weekend (Fri-Sun) is always great fun and a wonderful opportunity for the women pilots of different European countries to meet and exchange news and views. I am very happy to extend an invitation to members of the WSPA to join us in Bled so if you would like further details please let me know.

Yours sincerely

**Caroline Gough-Cooper  
British delegate and President, FEWP**

Now some information about myself: I was born in the north of Russia, in a little town Krasnoturyinsk. Now my parents and the young brother live there. Six and a half of years ago I have left for Magnitogorsk to study foreign languages at University which I have finished in 2003. I am a teacher of French and English, but really I don't work at school. Now I am a cosmetic adviser. Except for gliding, my main hobby is music. I play the piano and a bass-guitar in a rock group.

Since my childhood I dreamed of flying! My father was a parachuting instructor, maybe he gave me such a passion :)). I came to our flying club three years ago, and since then I'm the happiest person in the world. The sky is one of the major parts of my life, I can't be happy without it any more.

Anastasia (Nastya) writes:  
Thank you very much for the letters. I am very pleased that you are interested in us. I read

Hangar Soaring. It is a really interesting thing and I am so thrilled with it. I had never communicated with glider pilots from other countries until I contacted WSPA.

I began flying gliders at the first year of university in 2000. I had not imagined myself as a glider pilot until I came to the Magnitogorsk Aviation Training Center (MATC) by announcement. But I always think that the sky is the most beautiful part of the Earth. Now the sky and glider sport are parts of my life. I fly every flying season which lasts three - four month and have the ground and theoretical training the rest of the time. Glider that I fly is L-13 "Blanik". My instructor is an experienced airplane and glider pilot, Arzamasceva Ludmila Anatolievna. She is perfect person and only one woman in the staff of the MATC. Though I have to say that our glider group consists of girls for the most part. Now I am a network engineer in planning organization and post-graduate student. But I intend flying in spite of difficulties caused by lack of time.



**Sylvia Sella-Geusen**

Sylvia lives in Cologne, Germany. She is a licensed pilot, flies in the same club Martina Beukert. She will attend the upcoming seminar together with Martina and Anna.

**Krystyna Stave**

Krys is a recent solo pilot. She lives in Boulder City, NV and flies with the Las Vegas Valley Soaring Association. She teaches Environmental Studies at UNLV and therefore "one of the things that appeals to me about soaring is the way it makes you see the landscape and atmosphere in ways we don't ordinarily see it. Soaring appeals to my ethic of working in harmony with nature and living lightly on the land. (Although my landings aren't as uniformly "light" as I would like them to be yet. Cindy Brickner encouraged Krys to join WSPA

**Victoria Wilcox**

Victoria is last year's recipient of the WSPA scholarship that enabled her to attend the aviation camp at the National Soaring Museum. Victoria lives in Horsehead, NY and plans to become a glider pilot.

**Katie Boyce-Jacino****Sara Boyce-Jacino**

WSPA welcomes 3 generations of women glider pilots. Sara is the daughter and Katie the granddaughter of Elizabeth Boyce.

**Tammie Caswell**

Tammy rejoined WSPA. She lives in Midlothian, TX and is a licensed glider pilot

**Kat Haessler**

Kat began her flying career at Turf Soaring in October 2002, when she took her first glider ride. She has since earned her private, commercial, and instructor sailplane ratings and is in the process of earning her powered ratings to help with towing. Kat works at Turf Soaring during the soaring season but resides in Portland, OR. She volunteered to be the NW representative for WSPA. Andy Simpkins is sponsoring Kat's membership

**Cynthia Scalan**

Cynthia lives in Seal Beach CA

**Robin McDaniel**

Robin lives in Henderson, NV

She is the wife of a glider CFI-G in the Las Vegas Valley Soaring Association. She soloed in the 2-33 a month or so ago, and has just moved into the 1-26 in the club

**Grace Higgins**

Grace lives in Indian Village, NV



(Continued from page 2  
"President")

I've been reflecting on what I value most about WSPA. For me personally, the support I have received from other women pilots has helped immensely, and has kept me going when the going got tough. Supporting and encouraging the next generation of women pilots is a high priority, too. I look with pride at the young women students in my own club and wonder how best to nurture them. I enjoy the international flavor of the organization, and I'm grateful to Frauke for her tireless efforts to bring women pilots from all over the world into our group.

Our annual seminars bring all these things together. Being in the company of so many women pilots is inspiring! I think it is especially good for young students to have the opportunity to fly with other women, as most of their experience has undoubtedly been with men as instructors. The international participants expand our horizons and tie us into the world community of soaring pilots.

I'm really looking forward to the seminar at Air Sailing in Nevada this coming July. I hope to see many soaring friends there - both ones I've met before and many of you I haven't met yet. It's an experience not to be missed, with opportunities for outstanding soaring experiences and some fantastic women to share them.

I hope I'll see you there!

**Lucy Anne**

"Badges" from page 2)

Katherine Boyce-Jacino  
Anya Magana  
Nancy Paul  
Patricia Wagner

**SSA's World Distance Award**

Kathleen Winters 10 000 km

**US National Record,**

Multiplace Motorglider  
300km Triangle Speed 124.4  
kph  
Deborah Kutch/Allan Martini

**State Records**

Texas: Open Class and 15m  
Class Feminine

Editors note: Since the SSA Badge Lady discontinued sending Hangar Soaring the badge information, Helen D' Couto (14), from Houston, TX has agreed to extract the information from SOARING. While in the old system Hangar Soaring often published the information before it was listed in SOARING, it is now listed afterwards.

Free Out & Return distance 139.87  
sm  
Free 3 turnpoint Distance 143.35  
sm  
Tammie Carswell

**Minnesota:**

Sports Class out & return distance - 247.9 sm;  
Feminine Open Single Place Out & return distance 203.2 sm;  
Feminine 15 meter out & return 203.2 sm;  
Feminine Open singleplace Free out & return distance 203.2 sm;  
Feminine 15 meter Free out & return distance 203.2 sm;  
Laura Sue Hohanshelt

**Hear Say (Winter 05)**

**Airforce Col. Eileen Collins**, after whom the Youth Aviation Camp at the National Soaring Museum is named, will command shuttle Discovery on the first mission since Columbia broke up over Texas 2 years ago killing 7 astronauts.

**Reiko Morinaka**, Japan is claiming Open Class Out and Return Feminine World record. She flew 1189 km in a DG400-17M in San Martin de Los Andes, Argentina.

Doris Grove has been holding this record since 1981

**Anna Dobrin Schippers and husband Joachim** spent four weeks over the Holiday Season in Namibia, SW Africa to do some good soaring. In the OLC files Anna is listed as co-pilot on a 995.3 km flight with Walter Binder in an ASW25E.

The husband and wife team of **Manfred and Gitte Albrecht**, Germany are claiming a new world speed record over 1000km of 196 km/h. The record was flown in Argentina in an ASH 25

**Kate Porter** has been elected president of the Tucson Soaring Association.

**The longest aero-tow in the world:** a Wilga tow plane with a Bocian (Polish doubleseater) towed from Germany via France, Italy, Greece, Cyprus, Egypt, Sudan, Ethiopia, Kenya, Tanzania, Zambia to Namibia in South West Africa. Tow pilot was **Kimberly Jane Marx (54)**. The Wilga arrived after 47 days at its destination. The Bocian, at the time of this writing is still marooned in an inaccessible area of Ethiopia where the tow had to make an emergency landing. The distance was over 13000 km. More about this adventure in the May Hangar Soaring.

On October 10, 2005 the great Russian gliderpilot **Olga Klepikova** (see Hangar Soaring Nov. 2001 and SOARING, Nov. 2001) will celebrate her 90<sup>th</sup> birthday. Irmgard Morgner from Germany is planning to fly to Kiev to congratulate Olga.

All WSPA scholarships are for \$500 and are available only to female members of WSPA. U.S. applicants are asked to be members of SSA. Foreign applicants are asked to be members of an equivalent organization in their country, if they have one. The scholarships are:

**FLYING MONTEGUES:** To be used at the Women's Soaring Seminar. Applicant may be an initial glider student or may be a licensed pilot working on an add-on glider rating. There is no age restriction.

**BRIEGLER:** To be used at the Women's Soaring Seminar. Applicant may be of any age, but must be an initial glider student.

**SKY GHOST:** The applicant must be under the age of 25 and an initial glider student. This scholarship can be used at any glider port.

**COMPETITION AWARD:** One purpose of WSPA is "to encourage women soaring pilots to fly in competition". Since competition flying is well established for women in other countries this award is specifically for a U.S. pilot. This \$500 award is to help offset the cost of flying in a local, regional, national or international competition. The criteria are:

- U.S. citizen and legal residents
- Female of any age
- Member of WSPA and SSA
- Meet the requirements of the competition in which they plan to fly
- Provide proof of registration in said competition

### New in 2005

**JIM "BILLY GOAT" HAYES SCHOLARSHIP FUND.** The Women Soaring Pilots Association will offer a Cross Country Scholarship in 2005. This \$500 award is made possible by the Air Sailing. This fund was established at Air Sailing to educate youths in the art and science of soaring and gliding. Working together, WSPA will select a woman to attend the cross country camp and the "Billy Goat" scholarship will provide the funding.

To qualify a woman must be 21 years of age or younger, be a member of WSPA and SSA, hold at least a private pilot glider license, have completed A,B, and C badges, and be able to attend a cross country camp at Air Sailing in 2005. Air Sailing is located 25 miles north of Reno, Nevada.

**Deadline for applying is April 15, 2005**

## The Story of the Sky Ghost Scholarship

The question "Where did this scholarship get its name from?" is often being asked

The scholarship is named after a 1931 sailplane designed by Dr. Frank Gross

Dr. Gross was born in Germany in 1905. He studied engineering at the Technical University in Darmstadt that produced many famous sailplane designers and soaring researchers (Hollighaus, Waibel, Dirks, Zacher...). He got his doctorate from the University of Stuttgart, an other powerhouse in sailplane design.

In 1929 he immigrated to the United States and began building gliders for the Baker McMillan Company.

Dr. Gross received his private pilot license in 1929. As a pioneer in sailplane designs he was inducted into the Soaring Hall of Fame in 1996. He designed the Cadet II utility glider (now restored and on display in the Soaring Museum) and the Akron Condor. The two-place Sky Ghost, designed in 1931 became the first two-place glider designed in the US and became the primary training glider in this country. (It also has been restored and is on display at the Soaring Museum).

He has provided for major scholarships or research at several universities. He has supported many awards in soaring, such as the Women's Sky Ghost Award of the Women Soaring Pilot Association and the Gross Sky Ghost Scholarship of the National Soaring Museum to encourage youth progress in soaring.

Dr. Gross died in July 1997. The Gross family continues to support the scholarships.

(Information from an obituary of unknown origin)



Photo: Frauke Elber

The restored Sky Ghost at the National Soaring Museum



# New Faces at WSPA



Anastasia Batroeva  
and her instructor Arzamasceva Anatulieva



Kat Haessler



Julie Hinz



Kryss Stave



Robin McDaniel

Hangar Soaring  
**213 Anne Burras La.**  
**Newport News VA 23606-3637**



**F i r s t C l a s s M a i l**