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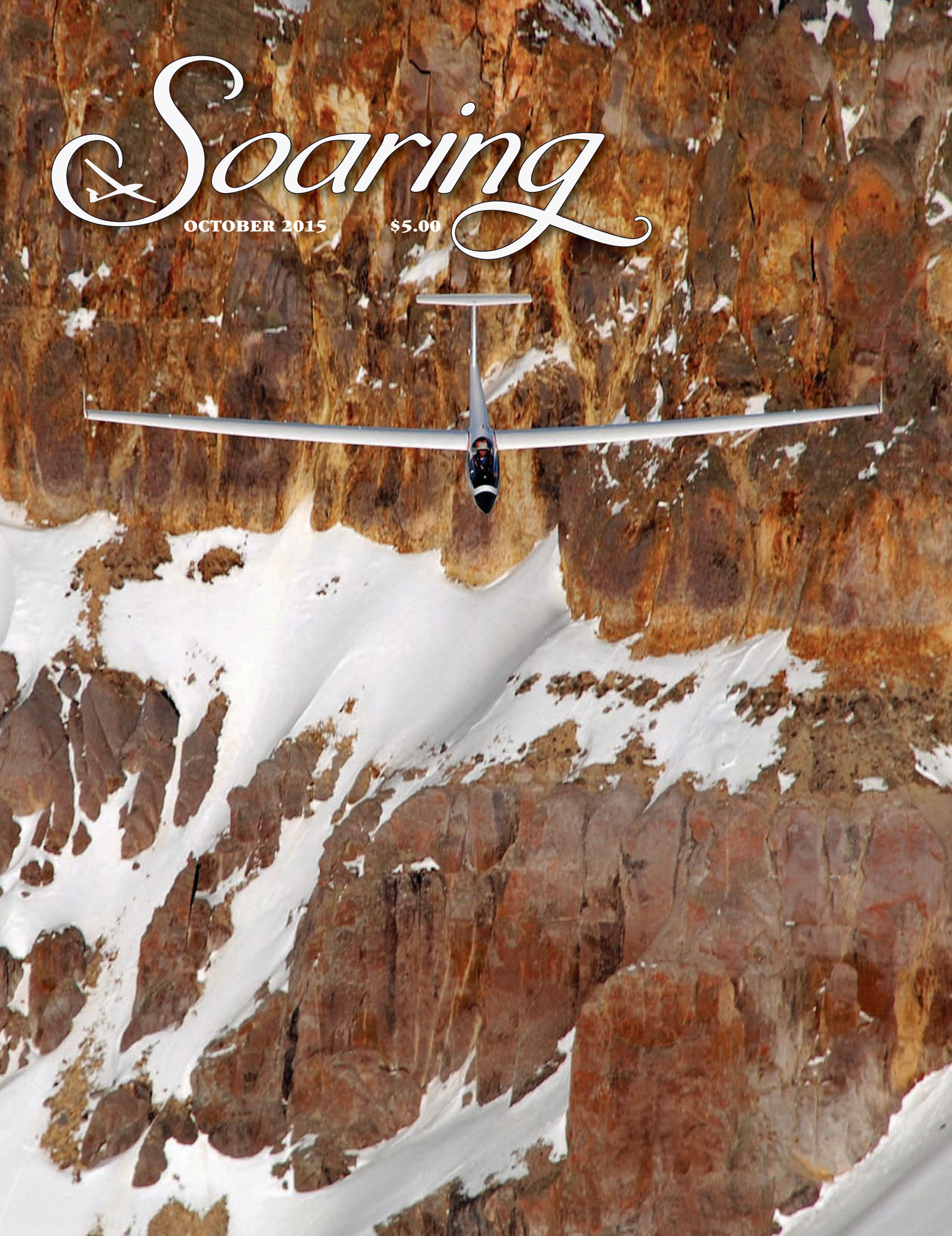

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BUSINESS SSA MEMBER

Soaring

and MOTORGLIDING MAGAZINE
The Journal of The Soaring Society of America, Inc.
Published Continuously Since 1937

OCTOBER 2015
VOLUME 79 • NUMBER 10

Features

Departments

Front Cover: *Nick Kennedy flying ASW 20 XS near Telluride, Co. Photo by: Elizabeth Muennich*

Centerfold: *John DeRosa and The Great (2-33) Pumpkin at Sky Soaring Gliderport in Hampshire IL just outside of Chicago. Photo by: Greg Palmer*

Soaring
and MOTORGLIDING MAGAZINE

Soaring Magazine is the official journal of the Soaring Society of America. The Soaring Society of America (SSA) is a nonprofit organization. The purpose of the Society is to foster and promote all phases of soaring. The SSA is a division of the National Aeronautic Association (NAA), the U.S. National Aero Club, which represents the U.S. in the Federation Aeronautique Internationale (FAI), the world sport aviation body comprised of all national aero clubs. NAA has delegated to the SSA the supervision of FAI related soaring activities, as follows: Record attempts, competitions, FAI Badges, and selection of the United States Team for the World Gliding Championships.

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FLIGHT LINES

BY ERIC BICK

Our centerfold picks up on an October Halloween theme. The older birds seem to give themselves to colorful finishings. The cover picks up on a theme of mountain flying, which can be quite spectacular. There are many who talk about flying in the Alps, and we just had an article about flying in the Himalayas. I just returned from the Logan, UT Mountain Flying Camp. We will have an article about that camp in an upcoming issue.

Every issue, I seem to learn something new. In this month's Rx column by Dr. Johnson, we discover that those pesky floaters interfering with our vision at times can be eliminated. We are running another column from Mike Busch following up on the article of his that we ran in August 2015. This is about airworthiness, and with whom the responsibility for such sits. As usual, "Soaring Stories" by Dale Masters contributes some instructional materials in the context of our daily flying. In "Winching World," Bill Daniels looks at how it was done yesterday with how it is done today. "Teaching Soaring" presents the third of three articles on spin training, following up on the two in the September 2015 issue.

Our feature articles cover a couple of contests, with more reports to come. We'd appreciate feedback on the report by Chuck Lohre, where extensive use was made of social media results in reporting results. He gives guidelines on how to do this, and shows the impact of posting daily photos and videos. An article by Reba Coombs celebrates the life of Rick Walters who died not that long ago due to an unfortunate biking accident. Rick was a strong contributor to our sport and will be missed. There is another article on the effects of aging on our cognitive capabilities. This one is derived from NASA and other research, complementing the October issue articles on this topic. Finally, we have an update on the FAI sporting rules, provided by Rollin Hasness, the SSA Badges & Records guy. These go into effect October 1, 2015, so read and take note.

In "Soaring Mail," a member suggests that SSA members place old copies of *Soaring* in professional offices, barbershops, and the like, rather than discarding. This is a good reminder that there are many uses for *Soaring*.

Lastly, I'll mention that we have pretty much finished putting the 2016 Calendar photos into place. We really appreciate the photos members send in related to specific events or as candidates for placement on the front cover or centerfold. This is one of the distinguishing features of *Soaring*, and your efforts are greatly appreciated. If you didn't get a centerfold, cover, or calendar placement this year, don't be discouraged ± please keep sending them in to editor@ssa.org.

In the meantime, the Soaring Society of Boulder is planning on a soarfari to Salida, CO over Labor Day weekend. Three or four of the club's gliders will be going, along with a number of private ships and the two club tows. These are great activities for clubs and for groups in general. I know a lot of clubs plan these types of activities. The ones I've participated in have always been a great experience, and open the opportunity to newer pilots to fly at new locations, often with instructors (such as my prior club, Cypress Soaring, always does on their soarfaris) to take up students. Whether your club or FBO does the same, I hope to see you up there.

SOARING MAIL

LETTERS FROM THE SOARING SOCIETY

Bug Cleaners

http://www.spacedaily.com/reports/NASA_Tests_Aircraft_Wing_Coatings_that_Slough_Bug_Guts_999.html

I recall tests when I was at Mississippi State where we coated leading edges with butcher paper rolls, held in place with masking tape at rear edges. We had a length of fishing line looped under the LE to the tip, and then back to the cockpit. Once we reached bug free altitude, we'd pull in the 30+ ft of line, cutting the butcher paper down the LE and allowing it to blow off. I used a fishing reel on a short stick to keep from dealing with a 120 ft fishing line tangle in the cockpit.

If this works, it would be a lot less messy. Another thing for competition and serious pilots to spend their money on. (I recall a run up and down the Appalachian Ridge in June in my flat top LK. The mayflies were swarming above the creek going through the Tyrone gap, and plastered LE and front of the bubble canopy with yellow goo.)

Bob Storck, Kansas City, MO

Sweizer, Sweitzer, Schweitzer … Schweizer

Let's clean this up. No one likes to see his/her name misspelled or mispronounced; it bespeaks a careless unconcern about respect for the person. A name as famous as Schweizer certainly deserves this much consideration in our magazine. Schweizer is a German name and the "z" in German is pronounced "ts" ± just like czar (tsar). I have seen the name printed as Sweizer, Sweitzer, Schweitzer, and with these same variations with the "ei" reversed as "ie" ± most of them in this magazine. The August 2015 issue has an article with the abominable "t" stuck in it. I trust this comment will make all of us aware how we should treat this well-honored name.

Nyal Williams, Life Member, Greensboro, NC

We do try to catch the misspellings, but aren't always successful. Thanks for the reminder. Ð Editor

Soaring Stories and Altimeter Settings

The August Soaring Stories, p 49, tells of flying "up against Class A airspace" and a near collision with 4 jet fighters. The author then postulated higher than standard temperatures might have caused him to actually be at an absolute altitude above 17,999, reset his altimeter to 29.92, saw the altimeter now indicating something above 18,000, presumed the jets were in Class A, so made a high G descending spiral. I suggest a different interpretation and reaction.

I don't think temperature or absolute altitude had anything to do with it. I think if the altimeter has a proper local area setting, the aircraft will be in legal VFR up to 17,999 ± period. However there are potential conflicts if the local area altimeter setting is less than 29.92. I believe this was the actual scenario. When 29.92 was set, the altimeter did what all altimeters do with a higher setting ± indicate a higher altitude. In this case above FL 180. However when the local area altimeter setting is less than 29.92, FL 180 is unusable for ATC, often higher Flight Levels as well depending on the lowness of the local altimeter setting. See Table 7-2-1 and related paragraphs in the AIM for details. The bottom line is the ATC system is burdened with the unavailability of some Flight Levels so usable VFR can apply all the way to 17,999 regardless of the local altimeter setting. Thus in my scenario the glider and the jets were all VFR. The jets were possibly

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cruising at 17,500 in accordance with the direction of flight rules. The high G descent was not necessary and maybe wasn't a great idea depending on the glider's proclivity for flutter at high TAS with G ± but maybe not and that's another story.

Jaime Alexander, Council Bluffs, IA

Saving Money with Your Glider Pilot's Certificate

I'll bet you thought that the only thing you would do once you got your glider pilot's license was that you would spend more money. That's what I always thought until I was on vacation this summer in Hawaii. I wanted to take my family on a tour of the island of Kauai by helicopter. I was booking the tour through Blue Hawaiian helicopter tours when we got to the subject of the cost of the trip. The sales person first asked me if I had a AAA travel card.

"No, "I said, "no AAA card." Then she asked me if I had a COSTCO membership. "No," I had to say I didn't have that either. "How would that have helped me?" I asked.

"Well," she said, "I could have given you a discount for the whole group based on either of those memberships."

There were six of us and this was sounding promising. Our conversation went quiet. Then I had an idea. "If it helps at all, I am a licensed glider pilot," I said.

"Really," she said, "that's even better. I can give you a 20% discount because of that. That's better than the other discounts."

I was floored. "You're kidding," I said.

"No, I'll just put down here airline employee discount."

So she booked the tour and I did the math. I saved about $240 dollars by mentioning that I am a licensed glider pilot. That's enough for a couple of nice flights back home in the Grob out at the sailport, I thought! At the end of the conversation, I remembered what she had said and I just wanted to be sure she understood that I was not an "airline employee" but instead, I was just a private glider pilot.

She said "Oh, it's no problem. Just bring your pilot's license in and we will give you the discount."

I never thought I'd save any money with a pilot's certificate, especially not on anything that flies. Thanks Blue Hawaiian.

Lee La Follette, Scottsdale, AZ

Soaring Exposure Suggestion

We all know that general aviation needs help. I have a suggestion to expose more potential pilots to your publication.

I proposed the following to a GA publication a couple of years ago. It was adopted and used occasionally, but its use dwindled, so I suggest it to you again.

Please consider using fillers to encourage readers to pass on your publication rather than discarding it and having it die in the trash. You could suggest the readers take them to medical and dental offices, barber and beauty shops, auto repair stations, etc.

Graham Pitsenberger, Staunton, VA

This is an excellent suggestion. I know several SSA members who do just what is suggested here, and reminding the membership at large periodically of this opportunity is space well used. ± Editor

SOARING NEWS

INFORMATION, ANNOUNCEMENTS, and EVENTS

PASCO Private Pilot (Glider) Exam Support Scholarship Award

On Sunday August 23rd the Pacific Soaring Council (PASCO) board presented Pablo Saso-Perkins with the PASCO Private Pilot (Glider) Exam Support Program Scholarship. Pablo recently passed his flight exam and has strong ambitions to keep his flying career in the fast track. Making the presentation were (left to right): Hans Van Weersch (PASCO), Jan Driesen (Chief flight instructor and general manager of Soar Truckee), Pablo Saso-Perkins, Marianne Guerin (PASCO), Dan Colton (PASCO).

New Jersey Wing Cadet Named 2,000th Recipient of Top Civil Air Patrol Award

Cadet Col. Matthew Jackson, left, with Northeast Region Vice Commander, Col. Joseph Sirois

The most elite group in Civil Air Patrol's cadet program gained its 2,000th member today ± a milestone 50 years in the making ± when Cadet Col. Matthew Jackson of the New Jersey Wing's Twin Pine Composite Squadron achieved the Gen. Carl A. Spaatz Award.

Jackson, 17, joined his Trenton-based squadron and CAP in 2010 and has participated in many training opportunities, including a glider flight academy and numerous encampments, as well as CAP's last two annual legislative days on Capitol Hill in Washington, D.C. He is pursuing an appointment next year to the U.S. Air Force Academy.

Visit www.capvolunteernow.com for more information.

Statistics Show Slight Increase in Number of Fatal General Aviation Accidents

The National Transportation Safety Board released preliminary aviation accident statistics for 2014 showing a slight increase in fatal general aviation accidents, which increased from 222 in 2013 to 253 in 2014.

The overall number of general aviation accidents decreased slightly from 1,224 in 2013 to 1,221 in 2014. Despite reporting fewer accidents, the accident rate for general aviation aircraft increased from 6.26 per 100,000 flight hours in the previous year to 6.74 in 2014.

There were 28 accidents involving Part 121 operations (commercial air transport).

The number of accidents involving scheduled Part 135 (commuter) operations decreased from seven in 2013 to four in 2014.

On-demand Part 135 operations, which include charter, air taxi, air tour, and air medical flights, reported 35 accidents in 2014, down from 44 in 2013. The accident rate decreased from 1.30 per 100,000 flight hours in 2013 to 1.02 in 2014.

The 2014 statistical tables showing accidents, fatalities, and accident rates for

major segments of U.S. civil aviation can be found at: http://www.ntsb.gov/investigations/data/Pages/Accident-data-review.aspx.

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FAI Environmental Commission Newsletter

The latest edition of the FAI Environmental Commission Newsletter is now available at http://www.fai.org/downloads/envc/envc_newsletter_june_2015.

The content is the following:

• Angelo D'Arrigo Diploma – An appropriate and worthy winner for 2015

• Electric flight – Regulatory challenges of electric powered flight

• CAFE Foundation 9th Conference

• Why would AEROBATICS be the perfect "launch customer" for electric flying

• Ecological Aero Monitoring in Abkhazia

• One step for man ... Ecolabels and Buying Green

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WTS Transportation YOU Summit Attracts More Young Women to Industry

Washington, DC ± Senior U.S. Department of Transportation administrators, agencies such as the National Transportation Safety Board (NTSB) and Washington Metropolitan Area Transit Authority (WMATA), and high-profile leaders from transportation's private sector took the time to meet with select high school girls who

have shown an interest in learning more about career opportunities in the industry. Transportation YOU, a program

of WTS International ± the association for the advancement of women in transportation ± capped off its year-long programs occurring around the U.S. at its flagship DC Youth Summit created for the young women and their mentors, women who themselves are rising leaders in the industry.

"The success of the future of the transportation industry lies in its most important asset ± its workforce ± and its future leaders must be gender diverse to be successful. WTS International created Transportation YOU and this flagship DC Summit program to show young girls that developing their STEM talents can lead to a challenging and highly rewarding career in transportation," said Marcia Ferranto, WTS International's president and CEO.

The Transportation YOU DC Youth Summit spanned five days and included a visit to USDOT to meet with some of the young women from various modes who have chosen transportation as a career, and a meeting with Victor Mendez, Deputy Secretary of the U.S. Department of Transportation. In addition to visits to WMATA and NTSB to learn about data technologies and career paths in transportation investigations, the Summit attendees embarked on an academic challenge project coordinated by a special team from Rutgers and Carnegie Mellon about transportation technology. The project was woven throughout the robust Summit agenda.

The Transportation YOU initiative that takes place at the local level across WTS International's 60 chapters was spearheaded by USDOT in partnership with WTS in 2010 with the signing of a memorandum of understanding. The program is a source of scholarship, internship, and networking opportunities. It links young women with professionals in the field and inspires them to pursue STEM-related coursework and exposes them to career possibilities in the transportation industry not typically pursued by women.

For more information about WTS International and Transportation YOU, contact Marcia Ferranto at 202-955-5085 or visit www.wtsinternational.org.

The Flying Willats: Sailplane Magic Airshow Team

Since 1979, Bret Willat has been performing professional Airshows in sailplanes. Bret and Karen were married in a sailplane in 1980, so it would seem the Willat family is born into aviation. Now their sons, Garret and Boyd Willat, have earned their Low Altitude Waivers, allowing them to fly at Airshows also. Karen is the towpilot pulling the sailplanes at most shows, completing this family of performers.

The "star" of Sailplane Magic is the Grob G-103A sailplane that thrills audiences with its long graceful wings, soaring to music while trailing smoke from the wingtips and tail. The sailplane is towed into the air about 4,000 ft above the ground. The music starts and the sailplane pilot (Bret, Garret, or Boyd) talks to the audience about the sport of soaring, showing the dream and joy of soaring. Releasing from the towplane, the sailplane does smooth graceful aerobatics, doing loops and rolls upon the blue canvas of the sky. The smoke trails in the air, creating painted brush strokes in the sky. All to music, these artists of the sky draw you into the beauty of the sport of soaring.

Garret Willat has over 8,500 flight hours. He has two daughters, Leena (8) and Nadeen (5). Garret is the current US National Club Class Champion in sailplanes and is a member of the USA Soaring Team. When Garret turned 14, he soloed 18 different gliders which was an amazing world record. That's correct, you can solo a glider at 14 years young and many girls and boys have!

Boyd Willat is an airline pilot at the age of 24, with over 6,500 hours of pilot time. Boyd is the US National Junior Champion and is a member of the USA Junior Soaring team. Since his brother Garret soloed 18 gliders on his 14th birthday, Boyd had to solo 23! This is a record that should stand for many years or until one of Garret's daughters reaches her 14th birthday!

MCAS Miramar Airshow, Oct 2-4, 2015: Boyd and Garret will be flying the Day shows. Bret will fly the Night show.

Sky Sailing, Inc, Warner Springs, CA: Since 1959, a World leader in the sport of Soaring, with rides, rentals, and instruction in sailplanes, also known as gliders. Operated by the Willat Family. Open 7 days a week from 9 to 5.

2015 SAFETY PROGRAM

BY TOM JOHNSON, SSF TRUSTEE

Scenario Based Training

You are going to be hearing a lot about Scenario Based Training (SBT) in the coming months. The Safety Standdown at the SSA Convention in Greenville will center around introducing this topic to the community.

So, what exactly is SBT?

It is a system to help the pilot consider all factors of the flight as it progresses, and develop reasonable and prudent mitigation strategies for threats as they occur during the flight.

It is important to remember that SBT is a training system. Highly structured scripts of real world experiences are used to develop threat mitigation in our operational environment. The system concept should be integrated throughout the applicants' training. New and different experiences are important to the development of "staying ahead of the aircraft" to analyze the contingencies as the flight moves on. Most importantly, the scenarios must be real world, highly plausible, and applicable to the applicants' flight environment.

Or to put it another way, SBT is good ol' hangar flying put into a package for specific training purposes and objectives.

You did not realize or conceptualize that this was going on when you related your flying adventures to your peers. They were actually learning from your experiences. You described a situation, told what you did, and told what the outcome was. Someone usually would then comment on the soundness of any part of your story, or maybe offer an alternate to what you did. They were actually proposing different solutions for the situation you were in.

The airlines and the military realized that their pilots had excellent basic airwork skills, but lacked critical risk mitigation skills. They began to develop training syllabi to meet these objectives. The airlines use a Line Orient Flight Training (LOFT) approach to training. You will get to run the Flap/Slat Inoperative checklist as part of a flight from Denver to Salt Lake City. You will have to incorporate weather, terrain, fuel, and any "x" factors that may be present. No longer do you do a *flap malfunction/simulator reset,* followed by an *electrical failure/simulator reset,* etc.

The Navy took a much more Single Pilot Resource Management approach to the problem. The Naval Aviation Training and Operational Procedures Standardization (NATOPS or Navy's Attempt to Operate Planes Safely) was developed to provide a procedural framework for each type of specific aircraft. Naval Aviators are constantly being evaluated on Headwork, Basic Airmanship, and Procedures during all phases of training. From the start of Primary Flight Training, malfunctions and abnormalities were inserted into all areas of training and flown to completion of the maneuver.

The airlines and military learned that the scenarios had to be real world and plausible. Multiple compound emergen-

cies with adverse weather actually provided negative training. They were able to prove that even the best prepared pilot and crew could easily be overwhelmed and pushed to failure.

They also understood that constantly resetting the simulator to insert a different system malfunction disrupted the crew's flow and habit patterns. You do not get to reset the aircraft in an actual abnormal situation, so why do it in the simulator? For this type of training, it is actually better to sit at a table with the instructor and review the procedures.

SBT helps you develop the ability to deal with a situation that you may not have encountered before. It helps you realize there are multiple correct solutions to the problem. It helps you recognize which solutions are best left on the shelf.

A very wise soaring sage once rhetorically asked, "Why do smart pilots do dumb things?"

The answer lies in a lack of training, and specifically SBT.

If you look back at most of the accidents, the basic airwork skills were not really at fault. You could usually identify a failure to recognize a deteriorating situation, or a poor decision as the true cause of the accident. These pilots got into a scenario they had either never seen before, or thought about before. They were now in uncharted territory and were making the best decision they could on-the-fly in a high pressure environment. They were not dumb ± they were unprepared mentally for the situation they allowed themselves to get into.

SBT allows you to "what if" an unlimited number of scenarios on the ground. It allows you to brief, practice, and de-brief scenarios in the aircraft in a training environment. An example of this would be being below pattern altitude on the non-normal side of the airport. What would you do if you had never encountered this scenario before? With SBT, you can brief the scenario on the ground, get in the glider and go fly it, and de-brief it on the ground. Your CFIG can help you brief the flight with a heavy emphasis on thorough contingency planning. The CFIG can then steer you into a situation where you have multiple choices, and then let you fly it to completion. The CFIG should absolutely ensure the aircraft and occupants are not operating outside of acceptable margins of safety.

SBT helps you develop the "Rolodex" mitigation strategies to call upon when the need arises. Experience is not only having actually been in a situation before, but having thought through the possibilities. It allows you to build decision points into a flight. That is: If I see this, I'm doing that. And it allows you to tailor the allowable level of risk to the flight, the task, and the pilot involved.

It is important to realize that your Headwork Skills are perishable just like your Monkey Skills. If you do not exercise both sets of skills, they deteriorate and become unusable when you need them most.

Next month, we will explain how to incorporate SBT into your basic and advanced glider training.

SOARING Rx

BY DR. DANIEL L. JOHNSON

Eye Floaters

One early spring evening after work, Darrell turned off his office lights, and against the dark saw little flashes like lightning in his peripheral vision. He instantly remembered that his mom had told him she saw flashes when she had a retinal detachment. This had been sort of an unhappy time for her, so he felt anxious.

But his vision seemed clear as he went home, and his eye was comfortable, so he slept on it. He was relieved when his eye doctor said to come right in when he phoned the next morning.

After much peering and examining, she said, "You have a vitreous detachment. It's just an aging change, but sometimes it leads to retinal detachment, so I want to see you again next week."

He felt a little hurt to hear that Age had cut one more small notch in his belt and felt glad that nothing devastating had happened.

But he did notice, after that, some specks dancing gracefully around, getting somewhat in the way of fine print, especially on his computer screen or in bright light. Then, when the soaring season began, there were lots of little specks dancing gracefully against the sky. As he flew, every so often, he thought one was a bird or distant plane.

He began to wonder whether this was a risk for seeing other aircraft.

Are Ocular Floaters Important to Pilots?

If you're wondering what an ocular floater is, then you're still young, with optically pure clear eyes.

From the point of view of the victim, a "floater" is any little spot or blur in our vision that shows up when we look at a featureless background, especially in bright light, and that moves or jiggles when our eyes move.

From the point of view of the eye doctor, floaters are various little imperfections in the watery core of the eyeball, the *vitreous humor*. As in the archaic sense of humor, "fluid or juice of an animal or plant," which is not comical. Especially if your vitreous is not glassy clear ("vitreous" means "glassy").

To make this plainer, the eyeball is filled with a clear-as-glass (vitreous) wet gel (humor). Various imperfections cause motes to form within it when aging causes the proteins which form the gel to clump. When light shines into the eye (something we seek out, because vision is a Good Thing), any speck may cast its tiny shadow on the retina.

We see this as a (hold your breath) shadowy speck. The eye is continually in motion, and the gel jiggles accordingly, making the shadows seem to float around.

This feels like a problem only if the floaters are in front of the *fovea,* the tiny spot in the central retina that gives us detailed vision. Then it can be annoying, or can cripple our ability to see fine detail if there is a flock of central floaters.

The Problem with Floaters

Sadly, the brain is so very good at filling in gaps in our conscious picture of what's around us that it will invent stuff, filling in gaps with familiar patterns or adjoining textures.

On the favorable side, this lets us read degraded text and respond instantly when that is urgent without having to wait for all the dots to be connected. On the other hand, the filled-in gaps sometimes contain important detail. We've probably all had a car on the cross-street emerge unexpectedly from our windshield A-pillar.

This is important for see-and-avoid because the airplane we're going to collide with begins as a gnat-sized speck ± insect, bird, or airplane depending on the distance our brain assumes. This is made more difficult if we have tiny bits in the eye that hide this speck, or that cast their own shadow and mimic something.

False Impressions

We understand that "first impressions" are often correct. Yet our instantaneous "eureka" experiences are not reliable. We make mistakes repeatedly if we do not verify what we think at first is true.

In medicine, decades ago, German physicians admired those who could reach a diagnosis instantly by recognizing parts of a familiar pattern. This is great fun, and makes us look magically smart. They called it *blinkreit*, which seems to have spawned the Malcolm Gladwell book, *Blink*.

Yet in medicine, and in every occupation in which accuracy is crucial (or error damaging), self-doubt is important. We must be continually willing to discover ourselves wrong, *especially* if we are completely confident in our first impression.

Aviation is not different. We must always seek confirmatory evidence of what seems to be true, lest we be deceived by illusion.

Floaters obscure detail of the scene before us. This degrades the accuracy of pattern-recognition, and increases error rates. Will a distant fast-moving aircraft be obscured by the shadow of a floater? The aircraft with which we will collide does not move on our retina, so our motion-detecting system fails. The floater fails the flyspeck-detecting system.

Floaters also degrade reading of text on displays and charts (if you're old enough to remember what those are), and in the federal regs and club rules. (Perhaps this is a reason that so few airplane pilots over 60 who see me for flight physicals actually have read any of the rules.)

We are like the ducks in a shooting gallery: the more time we spend crossing the target zone, the more likely we are to get hit. Aging is pure time and chance as much as it is senescence.

What Are Floaters Made of?

It's my sad duty to tell you that these annoying spots are part of *you.* No maleficent force has inserted interstellar dust into your eyeball while you sleep.

A few floaters are lifelong, a result of slight imperfections at birth. For example, the eye forms as an extension of the fetal brain, at the front of which is the cornea and lens. During the first 10 weeks of fetal life, the ophthalmic artery to the eye has an extension through the center of the eyeball, the *hyaloid artery.* This then regresses, normally leaving a clear canal through the center of the vitreous humor.

Sometimes this regression is incomplete, leaving (usually tiny) free remnants, which are seen as floaters (mostly in bright light).

Anytime during life, infection or inflammation may affect an eye. There are many diseases that may be involved. Floaters can be tiny clumps of protein, white blood cells, or tiny hemorrhages.

In general, *new* floaters are a signal to urgently visit the ophthalmologist if light is painful or the eye itself is red or painful, if vision is blurred, or there seem to be flashes of lightning in your peripheral vision.

Having said that, acquiring floaters is also a natural aging change. If you're over 60, you've noticed that resilience and elasticity have been replaced by stiffness and sagging. As part of this general process, without your having noticed, the gel of the vitreous humor (glassy fluid) shrinks a little and may detach from the retina. This is called a "vitreous detachment."

Normally, this simply creates some loose debris ± new spots of interstellar dust in our vision. Rarely, the retina will tear. This is noticed as lightning flashes, and if it detaches, a grey curtain will be drawn across part of the visual field.

Sudden loss of vision is always an emergency, for much can be saved if the problem is not neglected.

Clues to hurry to an ophthalmologist, to summarize, are newly blurred vision, lightning flashes, light hurting the eye, redness around the rim of the cornea, and eye pain. The feeling of something in the eye should go away in a few minutes (a lash) or a few hours (a slight scratch).

Having said that, I'm continually amazed at how some people fail to notice severe vision changes. "I went to my eye doctor," the middle-aged college dean said to me recently, "And he found that I'd gone blind in my right eye. He took a cataract out, and my vision is much better."

Or, "I can't read street signs, but I can read road signs ± so my wife navigates." He chuckles, adding, "If it gets any worse, maybe I'll talk to my eye doctor." I ask who that is, and he says, "Wal-Mart."

At the other end of the pendulum is the perfectionist who notices every speck, and may try hard to persuade the ophthalmologist to vacuum out the vitreous and replace it with clean fluid. ☛

Do Floaters Ever Go Away?

Fortunately, gravity helps. As the months flow by, floaters tend to sink, migrate away from the fovea, and become less bothersome.

In addition, floaters are seldom obvious in dim light. The reason is optical: in dim light, the pupil is dilated (4-9 millimeters in diameter, varying with individuals) and every part contributes rays of light to every rod and cone. This causes the floater to become a small area that's slightly foggy.

Contrariwise, in bright light, the pupil is small (2-4 millimeters, across individuals), so that the floater is more likely to cast a sharp shadow. This is why floaters are most obvious when the light is bright and the background is featureless. We elders start seeing "insects" and distant "birds" against the bright sky that move with our eyes, not with the breeze.

So time and dim light are nature's remedies.

Are Floaters Disqualifying?

No. Floaters rarely decrease best visual acuity. The FAA standard is, frankly, pretty low for the 3rd class medical. The required best vision of 20/40 doesn't satisfy me with I'm in the airport traffic pattern with such "best" vision. The question is, "How far away can you see that collision coming?" At 20/40, we're lucky if the glider or small GA aircraft is visible from the far end of the downwind leg. (See this column, July, 2011, at tinyurl.com/see-and-avoid.)

A pilot who saw me for regular flight physicals for several years told me that the reason he stopped flying was that he had so many floaters he didn't trust himself to see distant traffic. He's a careful and wise man, who shifted his time to grandchildren, performing folk music, and remodeling projects.

For the person in his shoes who feels unsafe with their floater flock, there are two remedies.

Can Floaters Be Blasted or Vacuumed Away?

Yes. When these are merely annoying, it's not worth risking even rare major surgical accidents to attempt a fix. But because floaters are visually disabling, they are clearly worth a careful evaluation by an ophthalmologist.

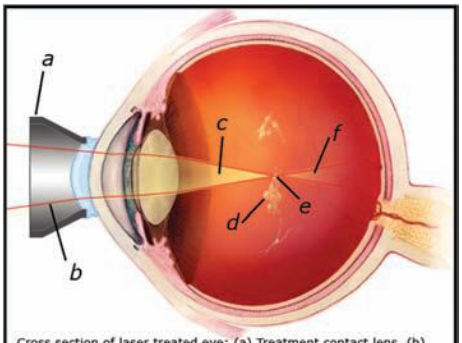
Laser Ablation of Floaters

A very few surgeons are using lasers to fry floaters. Only three ophthalmologists in the US have extensive experience with this technique. So this is not something you can ask your friendly neighborhood ophthalmologist to do for you.

Nevertheless, in these experienced practices, there is a very favorable risk. Reduction of floaters is excellent, though not always totally cleared, and serious adverse effects are almost non-existent.

It is attractive because laser surgery does not require the surgeon to poke a sharp needle into the eyeball (no risk of bleeding, retinal tears, or infection), no risk of cataract, and it's fast (two to four sessions lasting less than 30 minutes each, on successive days).

Laser ablation is aimed at destroying the most bothersome floaters, especially those located on the visual axis, not at completely cleaning out the eyeball.



Cross section of laser treated eye: (a) Treatment contact lens, (b) two red diode focusing beams, (c) converging YAG laser energy cone, (d) vitreous condensation (floater), (e) apex of energy cone. This is the only point in space where the energy is delivered, (f) diverging, dissipating laser energy

Courtesy of Dr. James H. Johnson.

And there are potential troubles. The most significant is the chance of injuring a spot in the retina. This is not what we came to buy, so would be a disappointment. It is avoided by not treating floaters within about 2mm of the retina. This also means that such floaters cannot be removed by laser.

Another troublesome effect is that if too much floater material is zapped in one session, the residue can plug up the eye's drain like oatmeal in the kitchen sink. This would lead to glaucoma. It is prevented by treating the floaters in two to four brief daily sessions to let the eye clear itself out overnight.

Sometimes the procedure just doesn't meet our hopes ± the floaters are too large or numerous, and disappointment may lead to derogatory or defamatory web comments about the surgeon.

If you consider having this procedure, which is effective and safe (it has fewer poor outcomes than LASIK), first see your local ophthalmologist or optometrist for an internal examination of your eye to determine if your floaters are visible, and to make sure that you don't have any other important eye condition.

You can expect the procedure to cost in the range of $1,500-2,000 per eye and any insurance reimbursement not worth the hassle.

Irv Arons has written an excellent summary of this procedure at tinyurl.com/irvarons-floaters that includes references. He describes European practice at tinyurl.com/EU-floaters. This summary is about five years old. An Internet search for "laser treatment of ocular floaters" reveals that this treatment is becoming more widespread, perhaps because Dr. John Karickhoff has written a textbook and designed a bespoke contact lens for surgeons.

Vitrectomy

As mentioned above, the vitreous can be vacuumed away and replaced with nice, clean salt water.

This *does* involve poking a sharp stick into your eye ± actually three ± and so the risks are greater.

It was developed, and is the right choice, for people who have really major clouding of vision from serious internal eye conditions.

For the person whose sight is in danger, this is very welcome. It goes well 90% of the time, more or less. However, removing the vitreous disrupts the nutrition of the lens, so most people get a cataract of the eye sooner than they would otherwise. The retina may be torn (< 1.5%) or the eye may bleed internally (< 2%). These are complications that can be very troublesome, and generally cause more floaters.

It's not fair to the eye surgeon to blandly compare this to vacuuming your

floors, for vitrectomy is a precise and fairly complex procedure in which tiny inaccuracies can cause trouble.

Essentially, a fine needle, in which is nested a minuscule blender, is inserted into the eye. The gel is liquefied by the cutter, then vacuumed out, replaced by gas and then salt water.

This was first developed in 1970, and many technical refinements have followed. 20-gauge instruments have been replaced by 23-, 25-, and now 27-gauge instruments. The smaller instruments are more comfortable for the patient and cause fewer complications. As these complex needles become smaller, they become more flexible and more challenging to guide.

Vitrectomy is used mainly to treat catastrophes such as retinal detachment, eyeball internal infection, penetrating foreign bodies, hemorrhage within the eye, and so on. In these conditions, the potential adverse outcomes are clearly acceptable, usually being less severe than the condition treated.

Complications are less acceptable when treating a condition that is predominantly annoying. We really hate to lose an eye that was functioning, even though suboptimally. The most common complication of vitrectomy is cataract (25-50% within 2 years). This and retinal detachment (5-10%) occur significantly less often with smaller-gauge instruments.

What to Do

Here's my free advice, for what it's worth.

1. If you have floaters, take the advice you shouted to the umpire, and have your eyes examined thoroughly by an optometrist or ophthalmologist.

2. If the floaters are visible, and you don't otherwise need eye treatment that is more important, read Irv Aron's online essay and schedule a consultation with one of the experts he names to find out whether your own floaters are best treated with laser, how much visual improvement is likely, and whether this holds any significant risks for you.

3. Waiting, after you've had your eyes checked out, is almost always perfectly safe. It's hard to make a good eye better, and that one on the other side is not a spare.

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Illustration courtesy of Dr. James H. Johnson.

Spotlight on Minden:
The 2015 1-26 Championships

by Gary B. Swift

In July 2015, the annual 1-26 Championships were held at Minden, Nevada for the first time in the 51 year history of this classic event. A big thanks goes to "Team Minden" (Minden-Tahoe Airport, SoaringNV, and Minden Soaring Club) for sponsoring and supporting the event. We are indebted to the following key players ± and their staffs and volunteers ± who helped us to run this contest safely and efficiently. Thanks to everyone who helped, including the ones who aren't listed here!

- **Harry Baldwin:** Competition Director
- **Reba Coombs:** Contest Manager
- **Tom Pressley:** Scorer
- **Phil Plane:** Weather Briefings
- **Bobbi Thompson:** Airport Manager
- **Laurie Harden:** SoaringNV
- **Mike Harbison:** Ground Operations
- **Alan Coombs:** Retrieve Coordinator
- **Mike Moore:** Chief Tow Pilot
- **Mike Kuenzi:** SoaringNV

1-26 Association President, Wick Wilkinson, with 2015 Championships Contest Manager, Reba Coombs. (Photo by Val Slocum.)

Pilots and crews stand by for launch on the first contest day of the 2015 1-26 Championships. This view is looking south and shows western Nevada's Carson Range, which is part of the Sierras. (Photo by Andrew Ebaugh.)

Pilots, crew, and contest support personnel pause for a group photo outside the SoaringNV hangar. (Photo by John McGrath.)

Of course, the STARs (Sociable Tenacious Aircraft Retrievers) were also vital to our success ± especially since we had several landouts during the contest. And we greatly appreciate the input from experienced 1-26er Jim Payne, who suggested several appropriate turnpoints to add to those in the already-existing Worldwide Soaring Turnpoint Exchange. Our CD used these additional turnpoints in most of our tasks. The line crew ± led by Mike Brooks, and staffed by local high school students on summer break ± did an excellent job of safely and efficiently launching our grid within the required time window. With three tow planes, we had a pretty quick turnaround. Several competitors traveled all the way from the east coast to

be with us to again prove that easterners can fly in the west, too! Our field included 18 pilots, flying 15 gliders (listed here by tail number).

008 (team)	Gus Johnson
008 (team)	Jonathon Leal
016	Bret Ebaugh
038	Jay Murphy
053	Neal Palmquist
190	Bob Hurni
238	Bill Vickland
244	Bob von Hellens
264	Tom Barkow
272	Vern Fueston
392	Cathy Williams
401	JimBob Slocum
428 (team)	Daniel Sazhin
428 (team)	Ron Schwartz
525 (team)	Bob Spielman
525 (team)	Cal Tax
555	Taylor Phillips
575	Milt Moos

In the days leading up to the contest, we were concerned about the Washington wildfire that was burning near Markleeville, about 20 miles south of Minden. The fire had burned more than 15,000 acres, and was only 15% contained just a few days before the contest started. A temporary control tower ± which was set up to coordinate firefighting operations ± added another dimension to our required radio communications at the airport.

But as if on cue, the rain began just as the contestants and their crews started arriving. During the week of the contest, National Weather Service issued 44 Flood Warnings, 22 Thunderstorm Warnings, 11 Flood Advisories, and one Dust Storm (Haboob) Warning for the Greater Reno, Lake Tahoe, and Douglas County areas, including Carson Valley. The good news is that the precipitation helped to extinguish the Washington wildfire very quickly. The bad news is that it caused us to scrub four potential contest days. Still, we ended up with four good days, making the contest official.

Tuesday, June 30: Practice Day 1

Local pilot Elizabeth Tattersall briefed us on the airport and surrounding terrain. Phil Plane (visiting from New Zealand) updated us on weather, which was forecast to be better to the north than to the south. CD Harry Baldwin assigned a task headed NE to the north end of the Pine Nuts Range along the east edge of Carson Valley ± then west to Carson City ± and south to Minden. Six pilots flew on the first practice day. Three completed the task, and all six received either speed or distance points. Tom Barkow won the day, with 33.9 mph and 45.1 miles. He commented that it was a good task, and he liked that he could see the Minden-Tahoe Airport all the way around the course.

Wednesday, July 01: Practice Day 2

The temporary control tower was closed due to extensive progress on containing the Washington Fire. With concurrence of the contestants, our CD announced that the release altitude would be raised from 2,000 to 3,000 AGL to minimize relights and maximize the potential for getting into sustainable lift. He called an ambitious task with nominal length of 96.9 miles. This one headed SE to Topaz ± then north to Rabbit Dry Lake ± and SW to Minden. Ten pilots launched and four attempted the task, with one pilot ± JimBob Slocum ± completing the course at 34.5 mph and 69.0 miles. JimBob reported that he stayed about five miles ahead of the afternoon overdevelopment, and flew back just in time to beat the rain to the airport. Following the mandatory pilots meeting, we ended the day with an excellent hangar barbecue! Laurie Harden's savory grilled chicken, stuffed trout, and green bean bacon salad were delicious, and no one left hungry!

Thursday, July 02: Contest Day 1

The contest opened with a dedication to iconic local soaring pilot, Rick Walters, who died in June following a bicycling accident. Walters had flown for much of his life, and was well known within the broader soaring community. His sense of humor was represented by his famous quote after winning the 15 Meter Na-

Below: 1-26A #008 dates back to 1953, and was the oldest glider in the contest. SoaringNV's tow pilots used a notch of flaps to slow their Pawnees down just a bit for us. (Photo by Andrew Ebaugh.)

tionals in the mid 1980s in a non-flapped ship. When addressing the audience after his win, he said, "That just goes to show you; you don't need no stinkin' flaps!"

Next, all of the key players were introduced, and it was nice to have longtime 1-26ers, Bud Mears and Del Blomquist, present as visitors. Phil reported that the anticipated maximum temperature would be 100 degrees, with a higher K index than yesterday and probably only light winds aloft. Harry called a 122.4 mile task, starting SE to the southern end of the Pine Nuts ± then NE to Hazen, and SW to Minden. All 15 gliders launched, with seven pilots completing the course and everyone earning either speed or distance points. Ron Schwartz won the day with 46.4 mph and 139.1 miles.

Ron shared that his favorite part of the flight was going deep NW of Hazen at about 13,000 MSL (the Hazen radius was a generous 25 miles). He reported that when he turned around to head SW to Minden, he could barely see Carson City. Bret Ebaugh had the most festive landout, just a few miles SE of the airport in an unfinished neighborhood development. The residents helped him disassemble and load his glider and gave him a celebratory cocktail to show their friendship. Representatives from Douglas County Sheriff's Office and East Fork Fire & Paramedic District showed up to make sure everything was okay at the "crash site." Everyone had a great time and our local first-responders learned something new.

Friday, July 03: No Contest Day

The weather forecast included a lot of moisture, with possible thermals to 14,000 MSL, cumulus over the Pine Nuts, and light winds. Always optimistic,

Top right: Tom Barkow preparing to launch in his 1964 1-26B, serial number 264. (Photo by Val Slocum.)

Middle right: Bob von Hellens (1st Place) staying cool through the courtesy of his friend Nancy Sharret and her stylish umbrella. (Photo by Val Slocum.)

Right: Part of what makes a 1-26 Championship contest so festive is that no two gliders are painted exactly the same. (Photo by John McGrath.)

we gridded at the staging area, but the day ended up being scrubbed due to early overdevelopment.

Saturday, July 04: No Contest Day

Persistent high overcast and more flash flood warnings caused the day to be scrubbed. Several of the participants enjoyed an evening dinner at the picturesque Stonefly Restaurant in Markleeville. This wouldn't have been possible a week earlier, as the town had been on standby for evacuation due to the approaching wildfire.

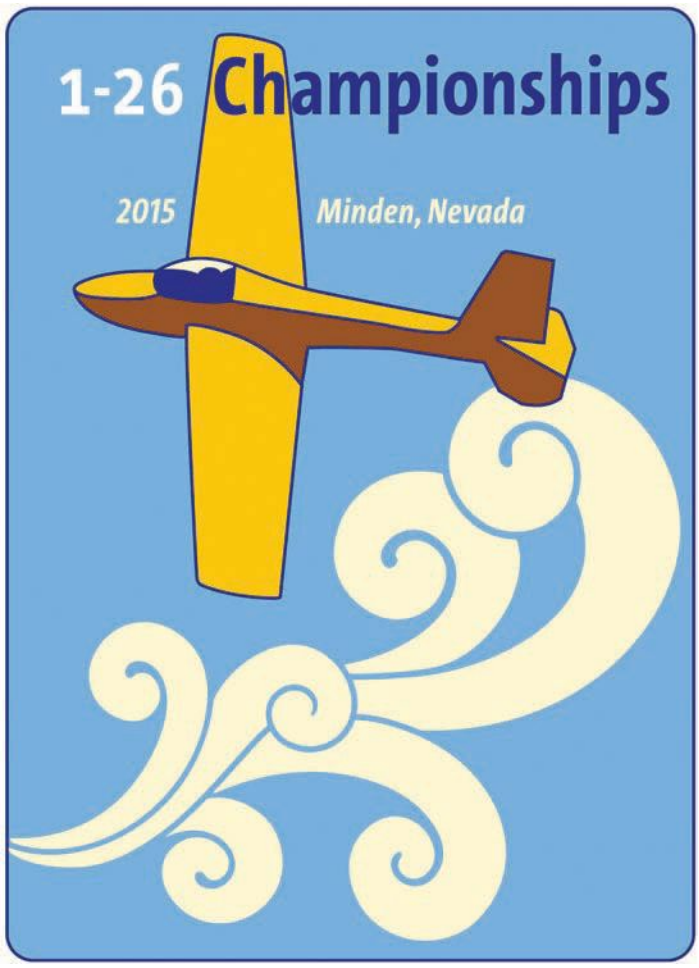
Sunday, July 05: Contest Day 2

Based on Phil's weather forecast, Harry called a 139.8 mile task headed SE to Bridgeport ± then north to the north end of the Pine Nuts ± and SW back to Minden. Eleven pilots started the task, with five pilots completing the course and three landing out. Bob Hurni won the day with 33.4 mph and 102.8 miles. He reported that he had some trouble getting lined up for a good start, and ended up over the field at 1,500 ft before climbing out and having a decent trip to Topaz. He avoided the overcast to sneak into the Bridgeport circle from the side, and then had fairly easy going back to the north. But every time he stopped to climb, he would look back over his shoulder to the south and see the towering thunderstorms getting closer, which motivated him to head home quickly! Bret Ebaugh had another interesting landout, this time meeting the owner of an immaculate private 3,000 ft gravel runway, who welcomed him with a ceremonial cocktail (is this a trend?). Daniel Sazhin had a more typical retrieve, from a Smith Valley rye field. Bobby Templin and Ron Schwartz helped him pull the glider about 1,500 ft (uphill, of course) through wet, sandy soil, to get to the trailer. Taylor Phillips landed at Topaz "International" airport, which made for an easy and uneventful retrieve.

Monday, July 06: Contest Day 3

The forecast called for light surface winds with significant southerly flow aloft. Our CD decided on a back-and-forth run along the Pine Nuts to avoid the predicted overdevelopment. The 71.2 mile task headed SE to the south end of the Pine Nuts ± then north to the north end of the range ± then back to the south end ± and then NW back to Minden.

Thirteen pilots launched, with all but one completing the task. Most returned by 3 pm, which was well ahead of the approaching storm. Ron Schwartz was the last pilot to return at about 4 pm ± just in time to land and tie down before a downpour as thunderstorms from the south finally reached the field. He won the day with 44.6 mph and 99.4 miles. Bob Von Hellens came in second for the day (40.9 mph, 81.8 miles) and was first of the individual competitors.



Artwork by Phil Jordan

Bob reported that he drove into the foothills low, and then managed to get on top. He ended up having several long runs without circling, including one that went for 31 miles. From 3,000 AGL at the final turnpoint, he flew the final 10 miles with full spoilers, still ending up with 1,000 ft to bleed off before entering the traffic pattern. Ron reported that he didn't have any long runs like Bob did, but that he was able to stay high. He was able to coast to Virginia City before returning to the

From our CD

Harry Baldwin

"Other than the sometimes disappointing weather, I was really impressed with the high quality of everything we experienced in the Minden area. The Minden-Tahoe airport facilities, the support we received from staff and volunteers, the excellent food and service that we enjoyed at the local restaurants, but especially the wonderful attitudes of all the pilots and crews despite the challenging conditions. And special thanks to Phil Plane for his excellent weather advice!"

From our President

Wick Wilkinson

"The Association appreciates all of the sponsors who made a bid for this contest and Minden won out as a very desirable soaring destination for many of the competitors. You are welcome to join us in Moriarty, NM for the 2016 contest! We are now soliciting bids to sponsor the 2017 contest, so if your club or operation may be interested, it isn't too early to start planning ahead!"

From our CM
Reba Coombs

Reba Coombs is holding the friendly "Old Buzzard" traveling trophy. (Photo by Dan Ernst.)

"I had a great time and met some wonderful people. The 1-26ers are a special group and it was fun having them here at Minden, even if they did bring the rain with them! I too, am indebted to all the volunteers, because without them, we wouldn't have had a competition. Special thanks also go to Phil Jordan, who designed a beautiful and fitting logo for the event."

Pine Nuts. The final turnpoint had black rain to the right and left, but was clear in the middle, where it turned out there was some lift. Ron made it to the center of the turnpoint, and then to the far side of the circle before the sky lit up. He pushed for home at 100 mph, with 3,000 ft of extra altitude remaining at the finish.

Tuesday, July 07: No Contest Day

Today's weather forecast was for light, low level winds, with SSE winds aloft and temperatures dropping slowly over the next few days. Harry assigned a short task, hoping that our contestants would be able to complete it before the flash flooding started as it did the day before. The task headed south to Alpine County ± then NE to the south end of the Pine Nuts, then NW back to Minden. We gridded at the staging area and launched the first pilot, Taylor Phillips, who would serve as sniffer. But as we watched Taylor,

Above: Silvio Ricardi of SoaringNV taxis out to provide towing services. (Photo by Andrew Ebaugh.)

Above: "Sky so big ± Plane so small ...." (Photo by Andrew Ebaugh.) Below: Bret Ebaugh spots the photographer while rolling out in "Sweet Sixteen." (Photo by Andrew Ebaugh.)

we received new flash flood warnings. With another downpour imminent, Harry scrubbed the task, and we headed back across the field to the tiedown areas.

Our rainy day activities included a special presentation in the SoaringNV hangar. We watched a Discovery Channel special about intentionally crashing a 727 in the Mexican desert a few years back in the name of science and crash-safety testing. It turns out that one of our competitors, JimBob Slocum, is the pilot who flew the 727 until moments before impact, then bailed out (he's also a skydiver). It was fun to hear his discussion on what it was like behind-the-scenes of the filming. To cap off the day, most of us attended a big family-style dinner at JT, the local Basque restaurant. For those who haven't had traditional Basque food, it's pretty basic "meat-and-potatoes" fare, with PLENTY for everyone!

Above: Dan Ernst (1-26 Association Newsletter Editor) receiving our Per Ardua award for his noteworthy contribution toward promotion of the 1-26 and the 1-26 Association. Bob Spielman is standing on a chair in back. On the floor L-R: Tom Pressley (2015 Championships Scorer), Harry Baldwin (2015 Championships CD), Bob Hurni, Dan Ernst (with his award), Bill Vickland, and Del Blomquist. (Photo by Val Slocum.)

Below: Harry Baldwin is holding the original "Spiffy" award, which is a traveling trophy, and Mary Baldwin is holding a realistic duplicate, which this year's winner gets to keep. (Photo by Dan Ernst.)

Wednesday, July 08: Contest Day 4

Because of the weather, Wednesday ended up being the most exciting day of the entire contest. The editor of our local newspaper called our contestants "riders on the storm" for their accomplishments this day! Harry's nominal 71.2 mile task sent the pilots due east to the middle of the Pine Nuts ± then NNE to Rabbit Dry Lake ± then back to the Pine Nuts ± and finally west to Minden. With three pilots already out of town driving their trailers toward other adventures, only 12 pilots launched. Two completed the course, and we had six landouts, which were exciting due to outflow gusts from the approaching storms. Three of our pilots landed at Silver Springs Airport and one landed at Rabbit Dry Lake. Two more landed in agricultural fields when they became trapped on the "back" (east side) of the Pine Nuts.

Bob Hurni won the day with 49.7 mph and 37.1 miles, but second-place finisher, Jonathon Leal (47.0 mph, 36.8 miles), told the story. Everyone started out about the same, with very strong lift taking them right up to cloud base. Most pilots reported using full spoilers and flying very fast to keep from getting sucked into the clouds. When the task started, Jonathon shot east to the first turnpoint, then ran away from the storm toward the second turnpoint, only encountering a few raindrops on his way to the dry lake. The sky was beautiful to the east of the Pine Nuts, but the airport was temporarily obscured as he headed west toward home. He needed to "loiter" for long enough to let the clouds pass, and then headed the rest of the way to Minden without problem. He was surprised to see that a landmark called Thermal Hill just NE of the field was suddenly white instead of brown. Turns out it had been coated by a shower of small hailstones during his flight!

Thursday, July 09: No Contest Day

Our CD let Phil give his gloomy forecast first, and then he announced the task for the day: "Disassemble your gliders and put them on your trailers before the rain starts." Our Scorer, Tom Pressley, is from a warmer part of the country, and he summarized the conditions in his daily contest updates: "... sweatshirt and jacket weather most of the morning ...."

July 10: Awards Breakfast

We all met at the Carson Valley Inn for a breakfast buffet and presentation of the awards. Traditional 1-26 Asso-

ciation Perpetual Traveling Awards were announced and handed out by our CM, Reba Coombs:

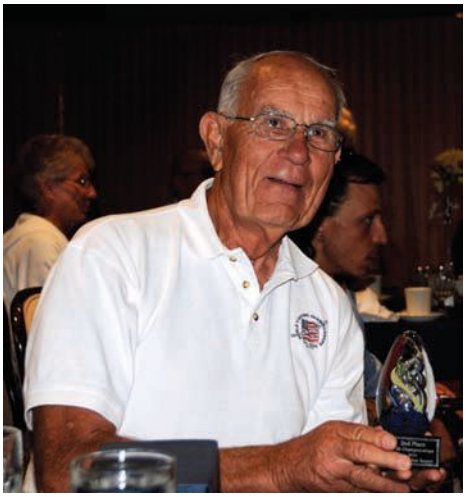
• Marion C. Cruce Trophy *(1-26 Champion)*: Bob von Hellens

• Bob McNeill/Fred Cuny Memorial Team Trophy *(Highest-scoring team)*: Daniel Sazhin and Ron Schwartz

• President's Trophy *(Highest-speed Championship Flight)*: Bob Hurni (49.4 mph)

• Old Goat Trophy *(Highest-scoring pilot over 70 years of age)*: Ron Schwartz

• David C. Johnson Memorial Trophy *(Highest-scoring first time Championship Pilot)*: Vern Fueston



Above: Bob Hurni (2nd Place) is holding one of the tasteful glass awards provided by Minden-Tahoe Airport to the top three individual pilots and to the top three teams. (Photo by Dan Ernst.)
Below: Ron Schwartz seems to be fairly enthusiastic about winning the "Old Goat" traveling trophy this year. (Photo by Dan Ernst.)

• Virginia M. Schweizer Trophy *(Highest-scoring female Championship Pilot)*: Not awarded in 2015 since we only had one female pilot in the contest this year.

• John P. Green Memorial Trophy *(Highest-scoring pilot under 30 years of age)*: Taylor Phillips

• Old Buzzard Trophy *(Oldest pilot entering the Championship)*: Bill Vickland

• Turtle Award *(Slowest-speed Championship Flight)*: Neal Palmquist (17.8 mph)

• Yardstick Award *(Shortest scored-distance Championship Flight)*: Jay Murphy (5.1 miles)

• Spiffy Award *("Spiffiest" 1-26 at the Championships)*: Milt Moos

In addition to the 1-26 Association awards, we also received special Minden-Tahoe Airport trophies, which were awarded by Airport Manager, Bobbi Thompson. These trophies aren't traveling-style awards, so recipients get to keep their prizes! They are in the shape of a blown glass egg this year, with swirly "thermal" bubbles inside.

• First-Place Individual: Robert von Hellens

• Second-Place Individual: Robert Hurni

• Third-Place Individual: James Slocum

• First-Place Team: Sazhin & Schwartz

• Second-Place Team: Johnson & Leal

• Third-Place Team: Spielman & Tax

Finally, special mention went to the person who best portrayed the spirit of cooperation and teamwork, "winning friends and influencing people" during his landouts:

• Landout Ambassador: Bret Ebaugh

About the Author: *Swift started flying power at Carson City Nevada in 1975. After leaving the US Navy in 1980, he took his first glider lesson (in a 2-33) at the old Sierra Nevada Soaring operation at Reno-Stead airport. His second lesson was 9 years later at Warner Springs in southern California, where he finally completed his add-on glider rating. He crewed for Don*

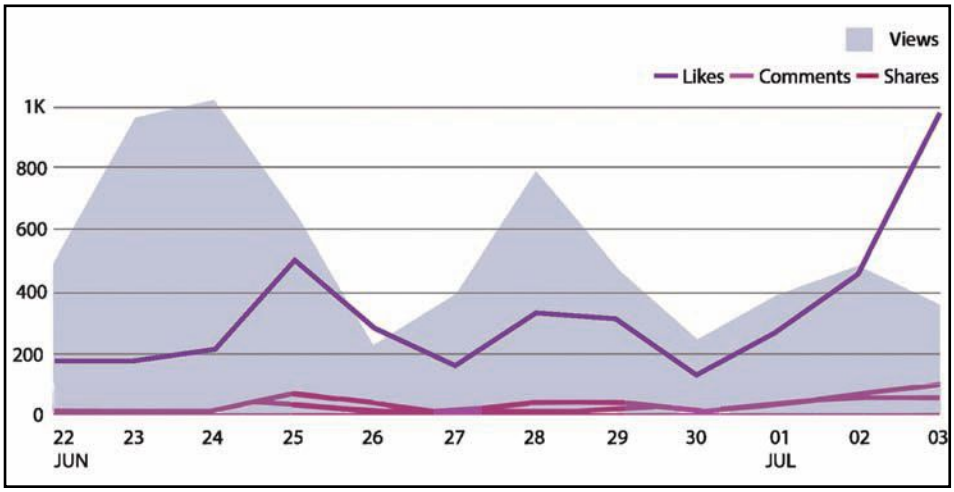
Wemple at the 1990 1-26 Championships (Odessa, TX), and for Del Blomquist in 1991 (Caesar Creek) and 1992 (Midlothian). He flew 1-26A #198 for three years before life changes took him away from flying for more than 20 years. He retired from GE's Bently Nevada business in Minden in 2014, and is working on becoming a proficient 1-26er again. He recently became a partner in 1-26D #405, and rejoined Civil Air Patrol to help with the Cadet glider program. Swift is currently serving as VP of the 1-26 Association's Western Division, and looks forward to editing the 1-26 Association newsletter starting in 2016.

2015 US National Sports Class Contest *Report*

by Chuck Lohre

The Sports Class Nationals Contest was run from June 22 to July 3, 2015, and hosted by the Caesar Creek Soaring Club in Waynesville, OH. This year's report is flavored by tracking the popularity of Facebook posts during the contest. This was the first time so many videos were posted relating to day-to-day activities at a National Contest. I uploaded and posted to the SSA's Facebook page during the day and then embedded them into official SSA reports in the evening.

The chart below shows Likes (top line), Shares (second highest line), Comments (lowest line), and 30 Second Video Views (shaded area) on the SSA Facebook page during the contest June 22 to July 3, 2015. The graph shows the big increase in Likes during the two National contests that were going on simultaneously. A photo posted from the Hobbs, NM 18-Meter and Club Class National contests caused the huge spike of Likes near the end. The shaded area, At Least 30 Second Video Views graph, best shows the increase in traffic caused by the Sports Class Nationals. I was the only one posting videos.



Social Media sharing results.

Because Facebook videos were viewable by everyone in SSA reports, you didn't need to be a Facebook member to view. Perhaps folks got used to the posts over time. I must admit we were pretty much making up news because there wasn't much flying going on. We didn't even have good enough conditions to make it an official contest. It was easy to take short videos and post them to the SSA Facebook page during all the activities. Even in the cockpit ready to launch. Take some video, launch the Facebook app on your phone, input a caption, attach a video, and hit post. For the formal reports on the Contest page, copy the embed code and paste it

Far left photo: Jim Price ready to go on a beautiful day, June 24. In the end it wouldn't be a contest day. We missed by the slimmest of margins, conditions just too low and soft (photo by Chuck Lohre). Left: Jim Lee, US Hang Gliding Champion in 1999 at Monte Cucco, Italy World Championships (photo by Kathy Lee).

into the html code field. You're done in a few minutes. Please give me a call or email for help. I'd like to see more live reporting. It gives us a great way to get to know the soaring community and maybe some of the videos will go viral (like the Hobbs' photo) and we'll attract more pilots to soaring. It's fun and easy with advanced smartphones.

My theme for the contest logo (following page) that I designed was about the ships. The craft are roughly lined up, left to right, top to bottom, in order of handicap. The weather prediction was so poor that some contestants didn't even show up.

489 video views ± Monday, June 22, First practice day

957 video views ± Tuesday, June 23, Second practice day

10:02 a.m. "Jim Lee, 1999 U.S. Hang Glider Champion, tells us what sailplane pilots can learn from hang glider pilots." Contestants: Jim Lee, Steve Arnst, Wally Barry, and CD John Lubon come from the hang gliding hobby. Jim shares that hang glider pilots are immersed in the thermal and can sense subtle temperature difference and smell the thermal. That could be toxic gases from a local steel mill or the pungent smell of manure! Normally it's the smell of dirt. Jim learned from those experiences that he needed to circle very tightly to stay in the thermal core, so that was his advice to sailplane pilots.

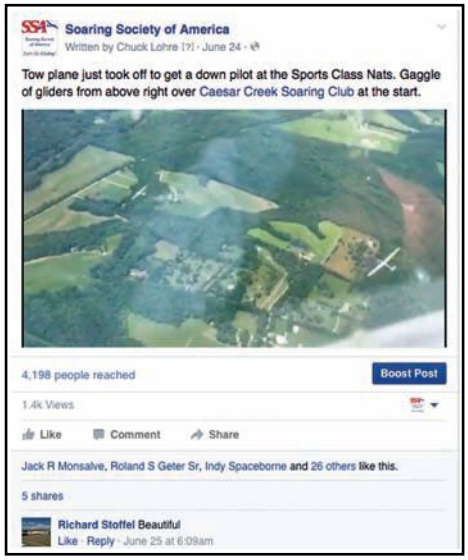
In this photo (left), Jim is flying a Wills Wing Fusion glider, and his harness is a carbon fiber pod that he designed and built to reduce the drag of his body. Jim won our unofficial Sports Nationals.

11:53 a.m. "Don Kroesck, DK, loves his new LAK 17bfes with a nose mounted sustainer engine." "I like the confidence of exploring the far reaches of the task area and not being concerned about getting back home, plus the benefit of having a 50:1 glider one second to having a sustainer after three switches but always still having a great glide ratio," Don shared.

1014 video views ± June 24

Task:
2 hr MAT (distance from Caesar Creek Soaring Club)
10-Clinton (13 miles to the east)

4:50 p.m. TOP VIDEO posted after landing, "Tow plane just took off to get a down pilot at the Sports Class Nats. Gaggle of gliders from above right over Caesar Creek …." This was the most popular video viewed. Everyone must love videos of gaggles.



Caesar from the air.

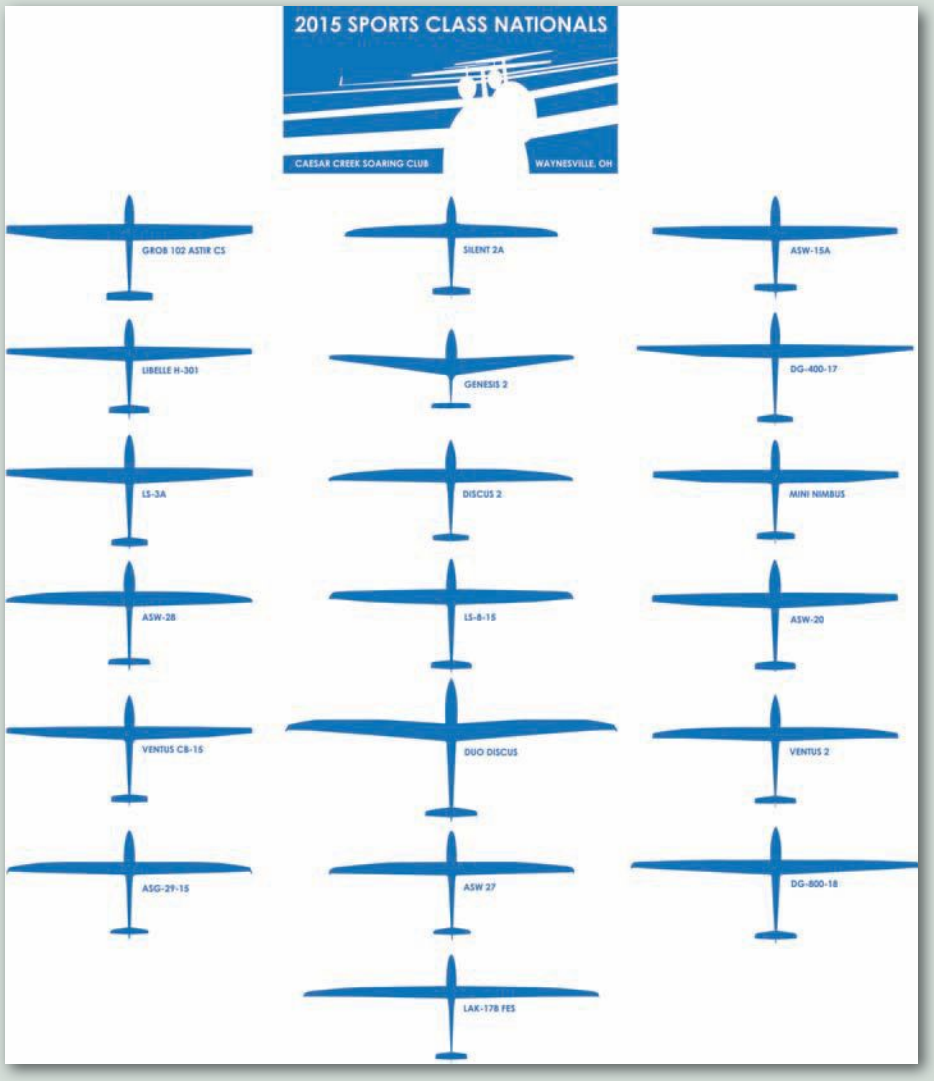
654 video views ± June 25, Rain today.
2:16 p.m. TOP VIDEO "Sports Class

Everyone needs a landout crew.

Nats launch (6/24) is half over. 2,500 AGL barely a knot reported. Notice the double ice crystal halo around the sun."

2:23 p.m. Joe Jackson's landout photos posted, 15K reach, 3.1K post clicks, and 198 Likes. This indicates photos are still a great thing to post.

At the pilot's meeting, Hank Nixon, OH, ASW-28, gave Second Place Finisher Manfred Franke, HF, LS-3A, the Razors Edge Award because yesterday he finished just 50 ft above the finish cylinder and only 150 ft over minimum distance but we still didn't make a day. Tom Holloran, TWH, Mini-Nimbus c, won the unofficial day. Here's how he did it ± "Good flight, strange start, everyone started for the first turnpoint, went over Caesar Creek Lake and hung out. Henry Retting, R, Discus 2b, took off first but we hung around until it got better, finally got to Clinton County, headed for the sunshine and to Lebanon, had more time so went to Harveysburg, Flea Market, Clinton County again, and back to CCSC. Fun time." But none of it mattered since 20% of the pilots that started didn't make 40 miles.



Contest logo.

221 video views ± June 26, Sunlight just broke through the clouds at the Sports Nats' third day but there are thunderstorms to the West, which meets the criteria to call the day.

388 video views ± June 27, 6:31 p.m., TOP VIDEO, "We did do some flying around the Sports Nats today. It was my radio-controlled glider at the Caesar Creek Lake dam."

786 video views ± June 28, Posted 13 videos today, that may have been the reason this day got the third highest video view day for the contest, besides the fact that we finally got a contest day in. Henry Retting, R, Discus 2b, won the day.

Task:

3hr TAT (distances from Caesar Creek Soaring Club)

43-Richmond, 20 mi radius, (40 miles to the northwest)

09-Clarksville, 10 mi radius, (16 miles to the west)

29-McIntosh, 10 mi radius, (8 miles to the southeast)

Distance: 146.68 min, 86.72, 206.6 max

464 video views ± June 29, Rainy and cold at the Sports Nats Day 6. Better luck tomorrow.

10:29 a.m. Henry Retting, R, Discus 2b, gave his success report, "Yesterday I had to say the whole day was a perfect day. I had a choice of two folks to

help me put my wings together, all done, had a golf cart ready, towed out to the grid and someone was there to mark the spot, it went on from there. 7th to take off and had time to prepare, unfortunately didn't connect right away, got down to 900 AGL, did a jog to avoid a tow plane and hit a three knotter, climbed right back up, then things started to pop, conditions got stronger as the wind died down, clouds streeting, took them to the back of the first turn point Richmond, fast 80 miles back to Clarksville, hit the steel mill and got really good thermal to cloudbase, a few people there, downwind dash, second one back to McIntosh, went soft, cycling, shift to the north which developed into another cloud street, went to back of third cylinder, came home 6 minutes over. Advice, dialed in 4 knots to the MacCready and followed it. 8:03 pm, TOP VIDEO, "We can only remember yesterday at the Sports Nats. For me it was one of the greatest soaring adventures ever. It might not look like it from my scores but it's evidence that my goals aren't the same as the others. Sure I like to go cross country but at a much more relaxed and conservative pace. If I had to do it again I would have tried to go a bit faster with a higher MacCready and explore the lift band some more but it wouldn't have been that much different. I had a ball!"

231 video views ± June 30. The day was called. It looks better tomorrow.

10:32 a.m. Admiral Hank Nixon, OH, ASW-28, gave an interesting safety report about post stress decision effects and water landings. Always land with the gear down. And John Lubon, JL, ASG 29, mentioned to turn the master switch off if you think about it.

377 video views Ð July 1, Tom Holloran, TWH, Mini-Nimbus, won the day.

Task:

2hr MAT (distances from Caesar Creek Soaring Club)

32-Moraine (17 miles to the northwest)
25-Lebanon (9 miles to the west)
19-Haines Rd. (7 miles to the north)

475 video views ± July 2, the fourth highest video view day.

8:36 a.m. TOP VIDEO, "360 view at cloud base Wednesday at the Sports Nats …."

10:44 a.m., "Day 9 Sports Nats ± yesterday's winner, Tom Holloran, TWH, Mini-Nimbus, his report of his win July 1 and the prognosis for today." Tom Holloran, TWH, with his new to him Mini-Nimbus C, tells us how he won the day yesterday at the Sports Nats. Pretty good for the seventh flight in your new ship! Tom hit a beauty right off launch, started out the northeast side, headed to Moraine, went east over Dayton Wright on the way to Lebanon, went to next turnpoint then to Dayton Wright and Moraine again, then Green, then Clinton, then to Haines Rd. and back to CCSC.

355 video views ± July 3.

12:32 a.m. Frank Whiteley posts, Landout at Hobbs, 32.7 K reach.

12:10 p.m. "Sports Nats is in the bag for this year. Thanks to everyone for participating and we look forward to seeing you on the grid next year. My article for *Soaring* magazine will cover the few days we did fly but I'd like to also report on the new members of the soaring community. I met a lot of new pilots to the sport both coming back and transitioning. I think the sport has a great future and we'll help spread the word." As for the final standings for the two day: 4th place Tom Holloran, 3rd place Mark Culpepper, 2nd place Henry Retting, 1st place Jim Lee. It was sad that those beautiful trophies couldn't be handed out and the contestants got no ranking points.

12:21 p.m., last post by Chuck Lohre, "Ending on a pleasant note at the Sports Nats, here's a video of the great conditions last Sunday."

I hope you enjoyed the new way of reporting. I got many compliments and inquiries on how I did it. Soaring is such a visual sport and easy to record. Our new unlimited bandwidth smartphones are bound to help us promote the sport to the small screen. Our 3,357 fans come from the United States, 2,421; Brazil, 83; Germany, 66; Argentina, 52; Italy, 49. Japan, 47; France, 41; United Kingdom, 41; Canada, 38; and so on. In conclusion 86% of the "Likers" on the SSA's Facebook page are men, and 20% are in the 45-54 age group.

About the author: *Chuck Lohre is 4th Saturday Crew Chief at the Caesar Creek Soaring Club and his day job is running Lohre & Associates Marketing Communications. He lives with his wife, Janet Groeber, in Cincinnati, Ohio. (Photo by Jim Price.)*

A New SIMPLER Sporting Code
Takes Effect on October 1, 2015

by Rollin Hasness

The rules have been reorganized, chapters have changed, and some rules have been changed.

If you are looking for *Badge and Badge procedures*, they are all now located in Chapter 2. No longer will you need to attempt to determine what applies to badges and what applies to records.

Notice the change to SILVER DISTANCE ± now it is a distance flight to a finish or turn point at least 50km from release or MOP.

If you are looking for *Records and Records Procedures*, they are now all located in Chapter 3.

Download your own copy of the Sporting Code at http://www.fai.org/igc-documents > Sporting Code.

For those making record applications, do not forget your Required Sporting License: https://naa.aero/membership/fai-sporting-license.

An FAI Sporting License is required for all record attempts and all FAI sanctioned events and competitions. Sporting License applicants must be a member of NAA and/or a current member of the appropriate NAA Air Sport Organization. NAA members participating in competitions and/or record setting activities can receive a one-year FAI Sporting License at no cost, but must complete an application for the sporting license.

Due to FAI policy changes, you must apply for a Sporting License at least 14 days prior to your record attempt or competition. Applications submitted less than 14 days prior to the event may not be processed in time to allow you to participate.

Stand-alone Mechanical Barographs (remember paper and foil) are no longer permitted under the rules ± only the barograph functions of Pressure Recorders and Flight Recorders are allowed if they have been calibrated within the last 5 years.

Many definitions have been simplified: ***FLIGHT TERMS*** and ***SOARING MEASUREMENT TERMS.***

Be sure to look at the revised chart for ***SOARING PERFORMANCE REQUIREMENTS.***

DECLARATION REQUIREMENTS have not changed much but should be reviewed. A Pressure Recorder REQUIRES a written declaration.

		1.2 DEFINITION of FLIGHT TERMS
SOARING PERFORMANCE	1.2.1	The portion of a glider flight from the START POINT to the FINISH POINT.
WAY POINT	1.2.2	A point specified by a set of coordinates. A WAY POINT may be a START POINT, TURN POINT, or FINISH POINT. If a word description, abbreviation, or code is used in a paper or internet declaration, its coordinates must be taken from a published source designated by the NAC.
LEG	1.2.3	The straight line between two successive WAY POINTS.
COURSE	1.2.4	All the LEGS of a SOARING PERFORMANCE.
TURN POINT	1.2.5	The WAY POINT between two successive LEGS.
OBSERVATION ZONE	1.2.6	The airspace a glider must enter to attain a declared TURN POINT. It is either: a. a CYLINDER having a 500m radius and unlimited height, centered on the TURN POINT, or b. a SECTOR, a quadrant having unlimited radius and height, with its apex at the TURN POINT and oriented symmetrical to and remote from the bisector of the inbound and outbound LEGS.
FIX	1.2.7	A single data point selected from recorded flight data giving latitude, longitude, time, and from a FLIGHT RECORDER, barometric and GPS altitude. Height from a POSITION RECORDER may be either pressure data (if available) or GPS data. A FIX does not have an OZ.
RELEASE POINT	1.2.8	The WAY POINT where the glider releases or ceases using a MoP.
START POINT	1.2.9	The WAY POINT that marks the beginning of a SOARING PERFORMANCE at either:

a. the RELEASE POINT, or
b. declared coordinates, or
c. a FIX selected post-flight.

FINISH POINT 1.2.10 The WAY POINT that marks the end of a SOARING PERFORMANCE at either:
a. the landing, where the nose of the glider comes to rest without external assistance, or
b. declared coordinates, or
c. a FIX selected post-flight, or
d. a FIX established by the starting of a MoP.

CLOSED COURSE 1.2.11 A COURSE requiring the FINISH POINT to be at the same location as the START POINT.

START / FINISH LINE 1.2.12 A 1 km line centered on the START / FINISH POINT. For a CLOSED COURSE using a START FIX, the FINISH LINE is centered on the START FIX. A START LINE is perpendicular to the first LEG and a FINISH LINE is perpendicular to the last LEG.

1.3 DEFINITION of SOARING MEASUREMENT TERMS

START TIME and ALTITUDE 1.3.1 The time and altitude (msl) at which a SOARING PERFORMANCE begins, both determined by the type of SOARING PERFORMANCE and the type of START POINT claimed:
a. When a declared START POINT is required, START TIME and ALTITUDE shall be taken at the START LINE as the glider crosses in the direction of the first leg.
b. When a declared START POINT is not required, START TIME and ALTITUDE may be taken at the RELEASE POINT or, for DURATION and FREE DISTANCE claims, at a FIX selected post- flight as the START POINT.

FINISH TIME and ALTITUDE 1.3.2 The time and altitude (msl) at which a SOARING PERFORMANCE ends, both determined by the type of SOARING PERFORMANCE and the type of FINISH POINT claimed:
a. For a finish at landing, FINISH TIME is the time of landing and FINISH ALTITUDE is the landing site msl elevation.
b. When a declared FINISH POINT is required, and for any free CLOSED COURSE, FINISH TIME and ALTITUDE shall be taken at the FINISH LINE as the glider crosses in the direction of the last leg.
c. When a declared FINISH POINT is not required, FINISH TIME and ALTITUDE may be taken at the start of a MoP, a FIX selected as the FINISH POINT, or at time of landing, whichever occurs first.

DURATION 1.3.3 The elapsed time between the START TIME and the FINISH TIME.

LOSS OF HEIGHT 1.3.4 The START ALTITUDE minus the FINISH ALTITUDE. An excess LOSS OF HEIGHT shall be corrected as given in 2.4.5 for badges and in 3.1.5 for records.

GAIN OF HEIGHT 1.3.5 The recorded altitude difference between a high point and a prior low point.

OZ CORRECTION 1.3.6 When a TURN POINT is achieved using the CYLINDER OZ, each time a LEG crosses the cylinder boundary, 500 metres shall be subtracted from the length of that LEG.

OFFICIAL DISTANCE 1.3.7 The COURSE distance, less any OZ CORRECTION and less any LOSS OF HEIGHT correction. The OFFICAL DISTANCE shall be used when calculating the distance to be credited and the COURSE speed.

1.4 SOARING PERFORMANCE REQUIREMENTS

1.4.1 **General**
a. Electronic flight data and a DECLARATION are required except where specifically exempt.
b. Specific soaring performances place limits to given COURSES as defined in 2.2 for badges and 3.1.5 and 3.1.6 for records.

1.4.2 **Soaring performance types**
a. ***GAIN OF HEIGHT*** A SOARING PERFORMANCE conducted per 1.3.5 for a given badge (see 2.2.1c, 2.2.2c and 2.2.3c) or a record (see 3.1.7a).

b. ***ABSOLUTE ALTITUDE*** A SOARING PERFORMANCE for maximum altitude (see 3.1.7b).
c. ***DURATION*** A SOARING PERFORMANCE required for the Silver badge (2.2.1b) or Gold badge (2.2.2b).
d. ***STRAIGHT DISTANCE*** A COURSE without TURN POINTS allowed for the Silver, Gold, and Diamond distance badges (see 2.2.1a, 2.2.2a and 2.2.3b).
e. ***GOAL DISTANCE*** A COURSE without TURN POINTS from a declared START POINT to a declared FINISH POINT.
f. ***3 TURN POINT DIST.*** A COURSE from the RELEASE POINT or a declared START POINT to any type of FINISH POINT, using one to three declared TURN POINTS in any order (note that turn points may include the start point and/or finish point).
g. ***OUT & RETURN*** A CLOSED COURSE having only one declared TURN POINT.
h. ***TRIANGLE*** A CLOSED COURSE via 2 or 3 declared TURN POINTS. When 3 TURN POINTS are used, the COURSE distance is the sum of the legs between the TURN POINTS.
i. ***FREE DISTANCE*** A COURSE from any START POINT to any FINISH POINT.
j. ***FREE 3TP DISTANCE*** A 3 TURN POINT DISTANCE flight having FIXES for some or all WAY POINTS.
k. ***FREE OUT & RETURN*** An OUT & RETURN flight having FIXES for some or all WAY POINTS.
l. ***FREE TRIANGLE*** A TRIANGLE flight having FIXES for some or all WAY POINTS.

Table of Soaring Performance Requirements

<table>
<tr><th rowspan="2">Performance Type</th><th rowspan="2">SC3</th><th colspan="3">Declaration requirements* & course elements</th><th colspan="3">Start Options</th><th colspan="3">Finish Options</th></tr>
<tr><th>Way Points declared</th><th>Max #TP declared / claimed</th><th>Legs claimed</th><th>Release or MoP Stop</th><th>Fix</th><th>Start Line Crossing</th><th>Landing or MoP Start</th><th>Fix</th><th>Finish Line Crossing</th></tr>
<tr><td>Gain of Height</td><td>1.4.2a</td><td colspan="3">Not Applicable (n/a)</td><td>OK</td><td colspan="2">Not Applicable</td><td>OK</td><td colspan="2">Not Applicable</td></tr>
<tr><td>Absolute Altitude</td><td>1.4.2b</td><td colspan="3">Not Applicable</td><td>OK</td><td colspan="2">Not Applicable</td><td>OK</td><td colspan="2">Not Applicable</td></tr>
<tr><td>Duration</td><td>1.4.2c</td><td colspan="3">Not Applicable</td><td colspan="3">OK</td><td colspan="3">OK</td></tr>
<tr><td>Straight Distance</td><td>1.4.2d</td><td>Not Required</td><td>n/a / 0</td><td>1</td><td>OK</td><td>No</td><td>OK</td><td colspan="3">OK</td></tr>
<tr><td>Goal Distance</td><td>1.4.2e</td><td>Start & Finish</td><td>3 / 0</td><td>1</td><td>OK if declared</td><td>No</td><td>Required</td><td>No</td><td>No</td><td>Required</td></tr>
<tr><td>3TP Distance</td><td>1.4.2f</td><td>1 to 3 TPs</td><td>3 / 3</td><td>2-4</td><td>OK</td><td>No</td><td>OK</td><td colspan="3">OK</td></tr>
<tr><td>Out & Return</td><td>1.4.2g</td><td rowspan="3">All Way Points must be declared</td><td>1 / 1</td><td>2</td><td rowspan="3">OK if declared as start/finish point</td><td rowspan="3">No</td><td rowspan="3">Required</td><td rowspan="3">No</td><td rowspan="3">No</td><td rowspan="3">Closed course required</td></tr>
<tr><td>Triangle (2 TP)</td><td rowspan="2">1.4.2h</td><td>2 / 2</td><td rowspan="2">3</td></tr>
<tr><td>Triangle (3 TP)</td><td>3 / 3</td></tr>
<tr><td>Free Distance</td><td>1.4.2i</td><td rowspan="4">All Way Points are optional</td><td>n/a / 0</td><td>1</td><td colspan="3">OK</td><td colspan="3">OK</td></tr>
<tr><td>Free 3TP Dist.</td><td>1.4.2j</td><td>0 / 3</td><td>2-4</td><td colspan="3">OK</td><td colspan="3">OK</td></tr>
<tr><td>Free Out & Return</td><td>1.4.2k</td><td>0 / 1</td><td>2</td><td colspan="3">OK</td><td rowspan="2">No</td><td rowspan="2">No</td><td rowspan="2">Closed course required</td></tr>
<tr><td>Free Triangle</td><td>1.4.2l</td><td>0 / 3</td><td>3</td><td colspan="3">OK</td></tr>
</table>

** All claims recorded by PR or FR require a pre-flight declaration; see 2.3.2a ± 2d for badges, 3.2.1a ± 1d for records*

2.3 DECLARATION REQUIREMENTS

2.3.1 **Declaration handling** The last declaration made before take-off is the only one valid for that flight, regardless of the method of storing it or the number of FR/PRs carried.

a. The declaration may be input to a FR or be written. **If a PR is used (see 2.6), a written declaration is required.** When written, it shall be on a single sheet of paper or be transmitted either to the OO as an e-mail or input to a NAC-approved website. The declaration time is the time the e-mail is received by the OO or the website. Internet-based declarations are described in Annex C.

b. Evidence of any written declaration shall be submitted with claim materials. For a declaration made on paper: the original, a scanned copy, or a digital photo of it is acceptable. For a declaration sent by internet (note: an OO must still be present), include an electronic copy or printout.

c. A pre-flight declaration is required except for duration flights.

d. If the pilot or glider information is omitted or incorrect in the FR declaration for a Silver or Gold claim, the OO certificate required by 4.4.1c shall take precedence.

See Annex C-3.4 for general notes on declarations and C-6.5 on the format of a declaration as it appears in an .igc file. Consult the FR manufacturer's user manual to determine which method a FR uses to record declaration date and time.

2.3.2 **Declaration content**

For all claims recorded on a FR or PR:

a. Date of flight.

b. Pilot name.

c. Glider type, and its registration or serial number or unique NAC-assigned contest number.

d. The make, model and serial number of the FR as recorded in the .igc file of the flight. When a PR is used, the make, model, and serial number as verified by the OO before flight.

For any distance claim other than straight distance:

e. Way point coordinates, when required.

For any FR or PR-recorded claim using a written declaration on paper:

f. Pilot and OO signature(s) with date and time of signing.


PW5

Sky Soaring Gliderport
The Great Pumpkin 2-33 in seasonal garb,
along with John DeRosa ready for a ghoulish ride.
(Photo by Greg Palmer.)

Three Romeo – Beyond Cloudbase

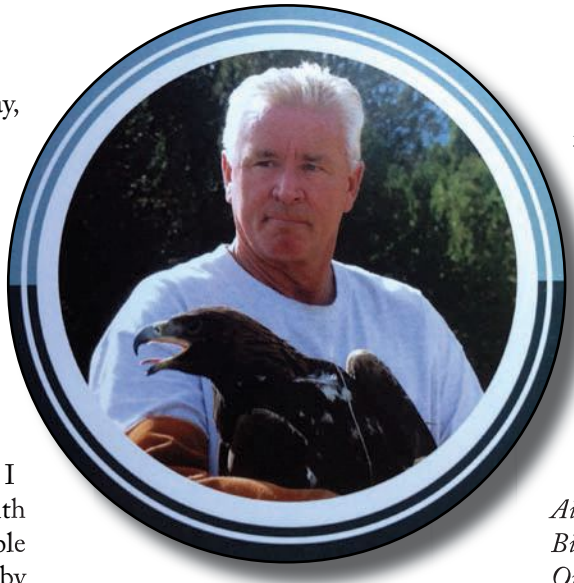
by Reba Coombs with contributions by Jeff Walters

A few weeks before his 61st birthday, Rick Walters was doing his "Rick thing" and riding fast on a beautiful, windy, mountain road aboard his new titanium bike. For unknown reasons, he and his bike parted ways. But this story is not to relive the days that followed, but to celebrate a life that was lived to the fullest.

I don't presume to be Rick's oldest or best friend, but for the years that I knew him, he always impressed me with his passion for soaring, his incredible craftsmanship as a builder (evidenced by the many things he built in my home), his athletic prowess, and his ability to charm anyone ± and oh my gosh, was he tall and handsome!

I had known Rick for years having been around the Minden-Tahoe Airport since the late 1980s. He was always a presence, especially as part of the Minden Soaring Club which I have acted as treasurer for a number of years. He was always showing young people around the airport and taking many for glider rides.

My first real interactions with Rick came about with bringing sailplane racing back to Minden. He was the driving force behind the 2013 Open Class Nationals, the 2014 18-Meter Nationals, and lastly the 1-26 Championships this year, in which he had hoped to fly. He was adamant that racing should return to Minden after a hiatus of nearly 16 years. Little did I know what I was getting into when I offered to help and ended up being the Contest Manager (CM) for the last two competitions. Rick taught me everything, from the selection of the competition committee, maps, turnpoints, insurance, applying for grants, and simply being able to correctly read the scores from the previous day! Without his guidance and enthusiasm, Minden would not be on the "bucket list" for many racing pilots today.



Rick and Golden Eagle. Photo by Kathy Bradford

Personally, my favorite story about Rick was from the Open Class Nationals where he was flying with Pete Alexander in the Arcus "98." When I spotted him talking with another pilot at the launch point, he was holding a colorful umbrella over the pilot, his parachute was fastened, and he was standing in his stocking feet. When I asked where his shoes were, he told me that his feet were too big and he couldn't fit in the cockpit with shoes on! Oh my, the first thought was what would have happened if he landed out and had to walk for help? As I discovered later, he did have a pair of shoes with him.

Jeff Walters, Rick's younger brother, recently shared the following at Rick's memorial service (abridged):

Rick was a competitive sailplane pilot and then some. Rick could design, build, or fix almost anything. Generous with his knowledge, a mentor, prankster, Porsche fanatic, fly fisherman, water skier, skilled craftsman and mechanic, adventurer, and a friend to most everyone he met.

Rick's father, Fred, was a pilot in the Air Force and a glider pilot during the Bishop Wave project in the '40s and '50s. On December 29, 1949, Fred flew out of Bishop, California and reached 26,700 ft to claim the Two Place National Altitude record. I am sure Rick picked up the gliding gene from his dad.

As brothers we started with hand launched free-flight gliders and airplanes. Rick would design and build his own, especially his original design "White Trash." We progressed into radio controlled gliders and travelled all over the country to participate in contests. Rick won many times and ultimately flew to three wins, earning the coveted perpetual trophy. But Rick still yearned to fly full-sized gliders just like his dad and during high school he began to take flying lessons at Sky Sailing Airport in Fremont, California.

Rick attended Cal Poly San Luis Obispo and graduated with an engineering degree. Eventually Rick moved to Minden, Nevada to be closer to the exceptional soaring. He started a contracting business, Sage Design and Build, designing and building homes, performing remodels, and, of course, he went soaring when he wasn't working.

I sometimes felt that Rick lived his life just as he flew gliders. He didn't stay in one location long as he was always pushing on to his next adventure, whether it was a job, a sport, or another contest. In his life he had many adventures and interests including driving a 1968 VW bug to Alaska and back; skied all over the US and Canada; fly-fished

in New Zealand; soared in the French Alps, New Zealand, Spain, Germany, Sweden, and of course all over the US; owned and rebuilt over 50 Porsches; and built many homes (including two for me) and a truly unique solar home.

Here are just a few of his adventures with me and others:

• Rick and I drove his 1969 VW van from Saratoga, California to Chicago, Illinois to participate in a national RC soaring contest. The van was only stopped for fuel. There was no cruise control so we placed one of our flip flop sandals under the accelerator pedal and then placed a tool box on top of that which locked in the speed at 55 mph. We flew in the RC contest and then drove home where the engine in the van died just a few days later.

• He used to take me steelhead fishing on the Klamath River in Oregon and Smith River in California where we would camp out and fish all day in the rain. We did a trip leaving Saratoga on Thanksgiving night, drove all night to the Smith River, fished for salmon and steelhead, drove all night to Sun Valley, Idaho, skied all day, and then drove a couple of hours to a hotel to sleep. He crammed as much into his life as possible.

• One summer he and a friend took off on their road bikes with backpacks and rode from Saratoga over Mount Hamilton, across the central valley to Yosemite National Park. There they rode over Tioga Pass (9,943 ft) down to Lee Vining, north on Highway 395 over Sonora Pass (9,624 ft), and eventually home to Saratoga. When he returned home, he was thinner after surviving the week-long ride, but thrived, I believe, on oatmeal.

• For my birthday many years ago Rick had arranged a special delivery birthday gift. I was hiking in the Mokelumne Wilderness for several days. One day, after I reached the summit of Mokelumne Peak, Rick flew over in his Cessna and air-dropped a still-frozen quart of Häagen-Dazs® ice cream!

Rick was very competitive and always had high standards in his work product and his flying. He loved flying with and competing against many other pilots. While he was never one to gloat over his soaring awards, he certainly relished winning. He won the following US National Championships:

1991 Sports Class in Cordele, GA
1991 15-Meter in Hobbs, NM
1993 Standard Class in Uvalde, TX
1999 18-Meter in Reedsville, PA
2007 Pre-World Gliding Championships in Lüsse, Germany
2008 Sports Class in Montague, CA

Rick also represented the US as a member of four World Teams in Sweden, Germany, New Zealand, and Spain.

Rick did go through some tough times as he battled vertigo, cancer, broken bones, and the downturn in the economy. But he came back strong and was always pushing his physical endurance to get in better shape.

He was a fantastic water skier who found many friends to go any time of the year, even winter … as long as the water was flat calm. He loved water skiing on Lake Tahoe but especially on Cascade Lake, a private lake located just above Tahoe's west shore.

Rick at Open Class Nationals, 2013. (Photo by author.)

Rick's last flight was in June 2015 during the Region 8 contest in Ephrata, Washington where he and Keith Essex won the day by over 5 mph.

In addition to these amazing accomplishments as relayed by Jeff, Pete Alexander, Rick's longtime friend and racing partner, told me that Rick was the chairman of the US Team Committee from August±June 2015 and a member of the US Team Committee from January 2007±December 2009 and again from May±August 2012. Unbeknownst to me, Rick also was the recipient of the

esteemed Hatcher Trophy in 1993 ± let me quote the criteria from the SSA ±

The Soaring Society of America's most prestigious competition award, also known as "Sailplane Racing's Top Gun" award, the Hatcher Trophy was created in memory of Ron Hatcher, a well-known contest pilot. At the end of each racing season, the scores of national champions from the four FAI Classes and the World Class nationals are compared to determine which achieved the highest percentage of the maximum cumulative score possible for the competition.

When Rick's memorial was held in Minden on July 11th, SoaringNV's hangar was filled to capacity. Many friends, family, and associates told amazing stories of their individual interactions with Rick over the years. Sadly, sometimes it is only then that we learn the scope and breadth of a person's life ± and Rick lived his life to the fullest. I am so glad to have known him and considered him my friend.

Good finish 3R!

About the author: *Reba Coombs started flying gliders at the Deeside Gliding Club in the early 1980s while based in Aberdeenshire, Scotland (husband Alan was in the oil industry) and relocated to Minden in 1986 with a DG 300 in tow. They had a share in a Nimbus 3DT for a number of years and sold both gliders to upgrade to a Ventus C. She has a commercial glider rating and after a hiatus from flying due to being a good government bureaucrat for 25 years, she retired from the State of Nevada and now spends her time working part time at SoaringNV and managing gliding contests. She is also a member of the 99s and volunteers nearly every year at the Reno Air Races. Reba and Alan make their home in Carson City, Nevada with two spoiled cats.*

Above: Dynamic duo ready to go. Left: Rick and Pete on scales in Mifflin. (Photo by author.)

A scholarship in Rick's name has been established ± the Richard Frederick Walters Scholarship for US junior glider pilots. If you wish to contribute to this scholarship fund, please mail checks to the ***Minden Soaring Club****, designating them for Rick's scholarship,* ***PO Box 361, Minden, NV 89423****. The family will be establishing scholarship criteria and application process which will be published in the near future.*

Rick and Pete Alexander at Open Class Nationals 2013. (Photo by author.)

Reba and Alan

Cognition, Aging, and the Soaring Pilot

by Key Dismukes

Matt Herron's article in the September 2015 issue of *Soaring* reminds us we should be thinking about whether we can continue to fly safely as we enter our senior years. Fortunately, several large research literatures provide information that can help us make that assessment wisely and help us extend our flying time as much as can be done safely. I do not have space in this article to discuss those literatures in detail or technical depth; rather I will give you a high-level summary and raise some questions to think about. Let's start with this one:

True or false? "I continue to hold an FAA third-class medical and had a recent flight review with a CFIG, so clearly my flying is not at risk, even though I am 76."

Well, maybe, maybe not, let's see.

What I will talk about here is called normal aging, the inevitable changes that affect us all throughout our lifespan but which usually do not become serious challenges until the last several decades of life. In many ways it is the normal aging changes ± particularly changes in cognition ± that are the most insidious, affecting us all in subtle and complex ways we may overlook or may assume will not affect our flying.

(You young whippersnappers, do not think this is a topic you can ignore for many decades; some important cognitive functions begin to decline even by our thirties, which is why mathematicians typically do their best theoretical work in their twenties.) I will not talk about age-related pathologies or changes in vision and hearing, subjects treated in Dr. Dan Johnson's superb monthly columns.

Cognition refers to how the brain/mind takes in, processes, and uses information to perceive, remember, think, and take action. Many aspects of cognition have been studied extensively, but one particular distinction is especially relevant to piloting performance. We speak of two basic modes of cognitive processing: *executive* and *automatic*. Age affects these two modes differentially.

Executive processes, closely associated with attention, working memory, and deliberation, are slow and effortful. These processes operate serially (one step at a time) and can handle only a very small amount of information at any moment. Executive processing is required when we are learning new skills, dealing with novel or difficult situations (e.g., dealing with a jammed aileron), planning future activities, or solving problems. Dealing with emergencies, equipment failures, or high workload situations is challenging in part because these situations often overwhelm the limited volume of information our executive processes can process at a time.

In contrast, automatic processing develops over time from practicing specific tasks repeatedly. It is fast and efficient and requires little mental effort, and in most situations is robust and reliable. Automatic processing underlies humans' extraordinary capacity for recognizing familiar patterns.

Think about when you were first learning to drive a car or fly an airplane. Initially, it was difficult to keep up with all that had to be done, to perform each sub-task smoothly and correctly, and you probably found the mental effort required to be quite high. But over time, as you became proficient, the various tasks seemed to become easier, eventually stick and rudder coordination seemed to happen without trying very hard. Actually, the tasks themselves did not change, what happened is that with practice automatic processing took over, procedural memory guided action, and much less executive processing was required. Performance became smooth and fluid and you were able to think about other aspects of flying while manipulating the controls. (Hmm, is that dry lake a good landout spot?)

Piloting involves diverse tasks which require differing combinations of skill, knowledge, and thinking, and thus draw upon executive and automatic processes to different degrees. Stick and rudder skills, with practice, become largely automatic, but managing unfamiliar situations, dealing with emergencies, solving problems, and juggling heavy workload depend heavily on the executive mode. Decision-making lies between the two modes. It can be fairly automatic when dealing with familiar situations, such as when to deploy spoilers in the landing pattern. But in other situations, such as judging how far to penetrate into a circle in a contest turn area task, decision-making draws heavily on executive processes.

Aging affects automatic and executive processes quite differently. The good news is that automatic processing is fairly resilient to aging; consequently well-learned stick and rudder skills can remain quite high with consistent practice even in our eighties. The not-so-good news is that executive processing inevitably declines with age. Information-processing speed slows down, and the rate at which we can take in and learn new information slows down. Multi-tasking ability, reasoning, problem-solving, and recall of factual information all decline substantially. Consequently, an older pilot may perform superbly on a vanilla flight review but be at risk in seldom-practiced situations and under high workload.

The decline in executive processes actually starts in our twenties, though typically we do not start noticing it until we are in our early sixties, by which time the amount of loss is substantial. But wait a minute, perhaps you are saying, this does not square with real-world experience; I know that professionals in many domains perform quite well long past their sixties. Pablo Casals and Arthur Rubenstein, for example, gave profound performances well into their eighties.

Several reasons account for this apparent difference between the well-documented decline of measurable executive functions throughout adulthood and the impressive performance of some individuals until late in life. In youth, we probably have considerable cognitive reserve; most tasks do not require maxi-

mum cognitive ability for prolonged periods (theoretical mathematics being one clear exception). And of course, cognitive ability is only one factor; even in intellectually demanding professions, other factors, such as motivation, are important. Also, as individuals age, they often modify their activities to make them less demanding; older drivers, for example, often stop driving at night or in heavy traffic.

Perhaps most important for preserving performance in the face of declining cognitive ability is the role of experience. For example, a low-time cross-country soaring pilot faced with an imminent landout may find the mental workload of assessing potential landing fields quite high, not to mention stressful. In contrast, a high-time soaring pilot may draw upon extensive experience in similar situations, automatically retrieving from memory the best action for the situation. For this experienced pilot, the mental workload is much lower, and perhaps the stress is less because he or she knows that the situation can be handled. (Look for a later article on the effects of stress on pilot performance.) Fortunately, pilots ± like all skilled experts ± can build up an enormous body of domain knowledge and procedural skills over time.

Thus, we have a trade-off: the long, slow decline of executive processes over the decades versus the steady growth of experience for those who practice their craft consistently. At some point, inevitably, the two curves cross, and the net result is eroding ability. Where exactly the two curves cross varies greatly with the individual, for several reasons. The rate of decline of executive processes differs substantially among individuals and is affected by genes, physical health, exercise, diet, mental activities, and social engagement. And of course individuals vary greatly in how much and how consistently they practice their skills over the years. Clearly, a pilot who has flown a great deal every year throughout adulthood is much better protected against age-driven deterioration in performance than pilots who fly only sporadically. The upshot of all this is that no one-size-fits-all rule can tell us when it is time to stop flying or even when we should start changing the kind of flying we do.

One might think that aviation accident rates would tell us much of what we need to know about the effects of age on pilot performance. A fair number of studies have examined accident rates as a function of age, but unfortunately, these are of limited help for those of us in the 60-90 age range. It is difficult to separate out all the factors that co-vary with age, and the few well-designed epidemiological studies have focused mainly on the age at which to require airline pilots to retire. Even epidemiological studies of accidents have not taken into account the changes that older general aviation pilots often voluntarily make in the extent to which they fly in challenging situations.

More informative for us are the studies that have examined pilots' performance in flight simulators, comparing groups of pilots of different ages (cross-sectional studies) and also following changes in individual pilots' performance over time (longitudinal studies). The effects of age and experience have been examined on pilot performance aspects such as accuracy of following ATC instructions, aircraft control accuracy during approach in a cross-wind, appropriate land/go-around decisions in IFR, scanning of cockpit instruments, and avoiding conflicting VFR traffic. Even these simulation studies have inherent methodological limitations: only moderate fidelity simulators have been available, only a limited range of pilot tasks have been examined, and no studies of soaring performance have been published (to my knowledge). However, the data, which are fairly consistent across studies, are relevant to all pilots, so let's briefly review two of these studies.

The most extensive of these simulation studies has been conducted over a period of more than ten years by a team at Stanford University and the Veterans Administration. In one of their reports Taylor, Kennedy, Noda, & Yesavage (2007) compared performance of pilots in age groups 40-49, 50-59, and 60-69 at three different levels of experience: VFR-rated only, instrument rated, or instrument instructor/airline transport pilot (CFII/ATP). The performance of each age group was substantially lower than that of the younger groups, but in all three age groups the more experienced pilots performed better than those less experienced, partially compensating for the effect of age. In fact, the CFII/ATP 60-69 group appeared to perform as well as less experienced pilots in the 50-59 group. In a related study, Yesavage and his colleagues (2011) found that pilots with higher scores on laboratory tests of information processing speed and executive function showed reduced decline of simulator performance over the four years they were studied.

The upshot of all this research is that, yes, we senior pilots should be concerned with our ability to continue flying safely as we age. We are especially vulnerable in situations that combine unfamiliar aspects, high workload, time pressure, and high consequence of errors. Most at risk are older pilots with limited experience and low currency. But keep in mind that, regardless of flight experience, risk varies substantially among individuals; further, the level of risk varies considerably for

each individual as a function of the specific task being performed.

There is some good news. Our acquired knowledge (the best place to find a thermal when getting low) and procedural skills (getting the most out of every turn in the thermal) can grow throughout the lifespan (though not as fast in our senior years). When not under heavy workload, older pilots can shine at judgment and decision-making because of our experience with a broad range of situations, and ± one hopes ± we become less impetuous as we get older.

So, what's an old geezer pilot like me to do?

Several things can keep us flying longer with acceptable levels of safety. First, exercise regularly; a large body of research shows that consistent exercise slows the effects of aging, in part by keeping the flow of oxygen to the brain open. A healthy diet also helps, as does working with your physician to stay on top of medical issues. We should continuously self-evaluate our performance in both routine and challenging situations (not a bad idea for pilots of all ages!), and stay extremely current. Depending on that self-evaluation we may find it wise to gradually reduce our exposure to high-workload, time-pressured situations and reduce the complexity of the type of flying we do.

Cultivating a deliberate, systematic approach to everything we do around airplanes and using checklists religiously can help protect us against distractions, tunneling of attention, and forgetting to perform critical actions. When taking passengers up, tell them about the "sterile cockpit" rule to prevent distracting conversation during critical phases of flight such as take-off and landing. Extend the concept of the sterile cockpit rule to rigging and performing the positive control check. These protective measures can help all pilots avoid making errors, but they are especially important as we get older.

How do I know when it's time to stop flying solo?

There is no simple answer to this question. You might consider keeping a self-appraisal log: track instances of getting behind the airplane, getting confused, not noticing things, or forgetting to do things, minor incidents, etc. We all experience occasional incidents like these even when young; the point is to keep track of the trend. And keep track of the good stuff too, to put it all in perspective.

Fly with a CFIG more than every two years. The FAA requirement for flight reviews is ridiculously inadequate. Airline and military pilots train much more frequently. Performing adequately on a typical flight review will not necessarily expose the subtle impairments to executive cognitive functioning associated with age; these impairments may show up only in challenging and unpracticed situations. Thus, we should ask our flight instructors to challenge us meaningfully. (I know, I know, as an instructor myself, I hate nothing more than having another instructor point out my deficiencies; we just have to put our egos aside.)

Finally, at some point, we may want to ask: **has it stopped being fun?** An honest answer to this question may help avoid a world of hurt.

About the Author: *Key Dismukes retired as Chief Scientist for Human Factors at NASA Ames Research Center. His research addressed the ability of experts to manage challenging situations, error vulnerability, risk management, prospective memory, attention management in multitasking, and learning and memory. He holds ATP, B737 and Citation-type, and glider instructor ratings and received the 2013 Laura Tabor Barbour Air Safety Award.*

Further Reading

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Ely 1,000 km day end.
Photo by Darren Braun

Soaring
PHOTO SHOWCASE

Over the White Mtns.
Photo by Rick Leffingwell

Following heavy rain, the Chicago Gliding Club had to operate from the "taxiway." Thus the final for our ASK 21 was almost above the mail boxes!
Photo by Christian Pelaud

Paul Robinson over bristlecone pines in the White Mtns.
Photo by Rick Leffingwell

REPAIRS, MAINTENANCE, AND UPGRADES

BY MIKE BUSCH

Is Your Aircraft Okay to Fly?

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Who decides whether or not your aircraft is airworthy?

Earlier this year, I wrote an article titled "Fix It Now … Or Fix It Later" that was published in a major general aviation magazine. The article discussed how to deal with aircraft mechanical problems that arise during trips away from home base. It offered specific advice about how pilots and aircraft owners can decide whether a particular aircraft issue needs to be addressed before further flight or whether it can safely wait until the aircraft gets back home. I considered the advice I offered in this article to be non-controversial and common sense.

I was surprised when I received an angry 700-word email from a very experienced A&P/IA ± I'll call him "Damian" (not his real name) ± condemning my article and accusing me of professional malfeasance in advising owners to act irresponsibly and violate various FARs. Damian's critique started out like this:

After reading Mike Busch's commentary "Fix It Now … Or Fix It Later," I must take exception to most, if not all, the points made in his column. I believe his statements are misleading as to the operation of certified aircraft, to the point of being irresponsible for an A&P to suggest or imply that it's up to the owner/operator whether or not to fly an aircraft with a known discrepancy. The FARs are quite clear on this matter, and there have been numerous certificate action levied on pilots who have operated aircraft with known discrepancies.

Damian went on to state that the FARs require that any aircraft discrepancy, no matter how minor, must be corrected and the aircraft approved for return to service "by persons authorized under FAR 43.7 (typically the holder of a mechanic certificate)." He went on to explain that the owner/operator may only approve for return to service those preventive maintenance items listed in FAR Part 43 Appendix A. He went on:

It should be noted that the FAA does not take into consideration the inconvenience or cost related to addressing a known discrepancy. Nor is it up to the owner/operator to determine the significance of a discrepancy as the FARs do not confer this discretion privilege to the owner/operator.

Damian's attack on my article continued at great length, making it quite clear that his belief is that pilots and aircraft owners are mere "appliance operators" in the eyes of the FAA, and that only certificated mechanics are empowered to evaluate the airworthiness of an aircraft and determine whether or not it is legal and safe to fly. He ended his diatribe by saying:

I hope that others in the aviation community such as FAA Airworthiness Safety Inspectors and aviation legal professionals weigh in on this commentary. I believe all will agree that this commentary is misleading and uninformed to the point of being irresponsible even to publish. At the very least, pilots that follow the advice of Busch's commentary should enroll in the AOPA Pilot Protection Services plan because they're likely to need it!

Whew! Strong stuff! If Damian is right, then the FAA had better lock me up and throw away the key. Fortunately for me, I believe he isn't and (at least so far) they haven't.

Where Damian Has It Wrong

Damian and I do agree on at least one thing: FAR 91.7 does indeed say quite unequivocally that it is a violation to fly an unairworthy aircraft, and that if the aircraft becomes unairworthy in flight, the PIC is obligated to discontinue the flight. I would never suggest for a moment that any pilot fly a known-unairworthy aircraft, at least without a ferry permit. That's a no-brainer.

The much more difficult question is: exactly how does the PIC decide whether or not an aircraft is airworthy or unairworthy, and therefore whether he is or isn't allowed to fly it? On this question, Damian and I part company. In fact, his view and mine seem to be diametrically opposite.

Damian's view is that almost any aircraft discrepancy requires the involvement of an A&P mechanic to evaluate and clear the discrepancy and approve the aircraft for return to service. I see absolutely nothing in the FARs to support such a position, particularly when it comes to non-commercial aircraft operated under Part 91.

To begin with, the basic airworthiness rule (FAR 91.7) is crystal clear about who is responsible for determining whether or not the aircraft may be flown. It says:

The pilot in command of a civil aircraft is responsible for determining whether that aircraft is in condition for safe flight.

The regulation places the burden squarely on the shoulders of the PIC. I don't see anything there about A&Ps or repair stations having to be involved, do you?

Looking a bit deeper into the FARs, I can find only three circumstances under which a mechanic is required to get involved in making any sort of airworthiness determination on a Part 91 aircraft used for non-commercial purposes:

1. Exactly once a year, FAR 91.409 requires that an annual inspection be performed by an A&P/IA or a Repair Station. But the other 364 days of the year, it's the PIC who determines whether the aircraft is airworthy.

2. When an Airworthiness Directive or Airworthiness Limitation becomes due, FAR 91.403 requires that a mechanic must certify that the AD or AL has been complied with (with rare exceptions where the PIC may do so).

3. When an owner actually hires a mechanic to perform maintenance on an aircraft, in which case the mechanic is required to document his work and sign it off to testify that the work was performed properly. Note, however, that the mechanic's signature in the logbook entry does NOT signify that the aircraft is airworthy, only that THE WORK PERFORMED by the mechanic was done in an airworthy fashion.

This third point is one that is frequently misunderstood by mechanics

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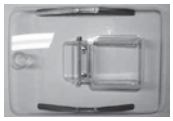

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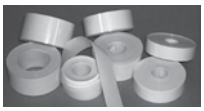

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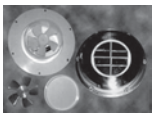







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and owners alike. When I teach this stuff at IA renewal seminars, the hypothetical example I often use to illustrate this important point involves an owner who takes his aircraft to a mechanic for repair. The mechanic immediately observes that the aircraft has two obvious discrepancies: the right main landing gear tire is flat, and the left wing is missing. The owner asks the mechanic to fix the flat tire. The mechanic does so, makes a logbook entry describing the work he did on the right main landing gear, and signs it. His signature denotes only that the work he did (fixing the flat tire) was done properly. When the owner picks up the aircraft, the mechanic tells the owner, "I couldn't help but notice that your left wing is missing. If you'll permit me to offer you a word of friendly advice, I would not attempt to fly the aircraft until that issue is resolved." But the missing left wing does not prevent the mechanic from signing the logbook entry. In fact, the mechanic is required by regulation to sign the logbook entry, regardless of whether the aircraft is airworthy or not. The mechanic's signature addresses only the work performed by the mechanic, and nothing else.

The PIC's Burden

If you're on a trip and some aircraft discrepancy occurs ± assuming the aircraft isn't in the midst of its annual inspection and there's no AD involved ± it is up to you as PIC to determine whether or not that discrepancy makes the aircraft unairworthy or not. If you decide that it does, then you can't fly the airplane until the airworthiness issue is rectified (and that might require hiring an A&P). On the other hand, if you decide that the discrepancy doesn't rise to the level of making the aircraft unairworthy, then you're free to fly home and deal with the issue later.

Under the FARs, it's totally the PIC's call. There's no regulatory obligation for the PIC to consult a mechanic when making such airworthiness determinations. Having said that, however, it would certainly be a wise thing to do if you feel uncomfortable about making the decision yourself. It's your call.

The FARs provide considerable help to the PIC in making such airworthiness determinations. FAR 91.213(d) describes a specific algorithm for deciding whether or not it's okay to fly an airplane with various items of inoperative equipment. FAR 91.207 says that it's okay to fly an aircraft with an inoperative ELT to a place where it can be repaired or replaced, no ferry permit required. FAR 91.209 says that position lights needn't be working if you're flying during daylight hours. And so on.

If your experience is anything like mine, what most of us call "squawks" are common occurrences, but the majority of them don't rise to the level of being airworthiness items that cause us (in our capacity as PIC) to conclude that a fix is required before further flight. Even if you do encounter a genuine airworthiness problem ± say a flat tire or dead battery or bad mag drop ± that still doesn't mean that you necessarily need to get a mechanic involved. The FARs provide (in Part 43 Appendix A) a list of roughly three dozen items that a pilot-rated owner or operator is permitted to perform and sign off on his own recognizance (without getting an A&P involved).

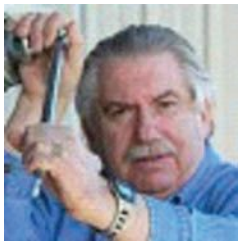
If you have a flat tire, for example, you (as a pilot-rated owner) are permitted to repair or replace it yourself. If you have a dead battery, you can charge it, service it, or even replace it. If you have a bad mag drop, the most common cause is a defective or fouled spark plug, and you're permitted to remove, clean, gap, and replace spark plugs yourself. You are also allowed to make repairs and patches to fairings, cowlings, fabric (on fabric-covered aircraft), upholstery, and interior furnishings. You can replace side windows, seat belts, hoses, fuel lines, landing and position lamps, filters, seats, safety wire, cotter pins, and more. You can even remove and install tray-mounted avionics from your panel.

Now, you might well prefer to hire an A&P to do some of these things rather than do them yourself, especially when on the road, far from your hangar and toolbox. I know I certainly would, and I'm an A&P myself. But Damian's contention that you are compelled by the FARs to place your aircraft in the hands of an A&P any time any sort of discrepancy arises is simply not supported by the regulations.

Contrary to what Damian and many of his A&P colleagues may believe, the FARs place the responsibility for determining the airworthiness of the aircraft squarely on the PIC, except for once a year when an IA is required to make an airworthiness determination after performing an annual inspection.

My colleague Mac McClellan pointed out to me that this closely resembles how the FAA determines whether a pilot is "airworthy." One day every year or two or five, we pilots are required by regulation to go get an examination from an Aviation Medical Examiner who pronounces us medically fit to fly, or not. The remaining 364 or 729 or 1,824 days in between, the FAA expects us to self-certify that we're medically fit. "Can you imagine," Mac asked me rhetorically, "if we had to go to see an AME every time we got a sore throat or runny nose?"

About the author: Mike Busch *is arguably the best-known A&P/IA in general aviation, honored by the FAA in 2008 as National Aviation Maintenance Technician of the Year. Mike is a 7,500-plus hour pilot and CFI, an aircraft owner for 45 years, a prolific aviation author, co-founder of AVweb, and presently heads a team of world-class GA maintenance experts at Savvy Aviator. Mike's book Manifesto: A Revolutionary Approach to General Aviation Maintenance is available from Amazon.com in paperback and Kindle versions.*



BY BILL SCULL

Teaching Spinning

This article is an abridged reprint from the August 1992 issue of Soaring magazine. Those interested in reading the entire article, including the British pamphlet on spin training can find it in the SSA archives, available through the SSA website. This is the third in a series of articles on spin training, following the two in the September 2015 issue.

Bill Scull passed away in January, 2000. Bill made a great contribution to British, European, and world gliding over many decades. At various times he was Chief Flying Instructor at Lasham, Director of Operations for the BGA, a contributor to IGC meetings, a leading figure in the European Gliding Union, Chairman of the OSTIV Training & Safety Panel, plus other activities associated with soaring. Ð Editor

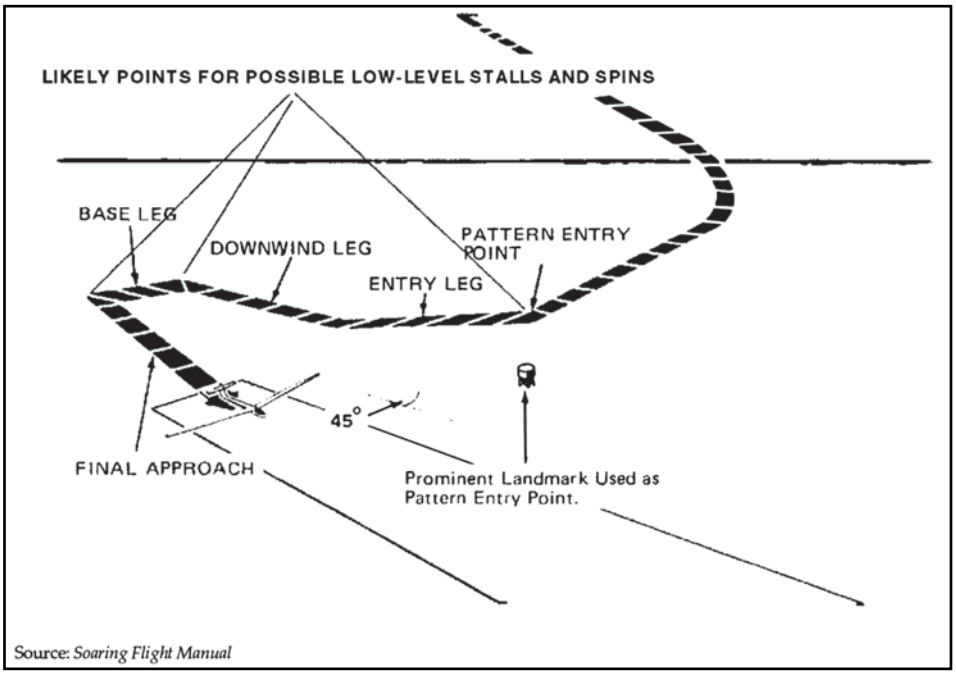
Risks

In real terms stalling and spinning accounts for a significant proportion of gliding accidents. The circumstances leading to the eventual spin may be winch launch failure or cable break, running out of height in the circuit pattern, field landing, or ridge soaring. All, or most, of the accidents are from an inadvertent spin starting at a height from which recovery is unlikely or impossible. Injuries are usually serious or fatal.

So, the risks are real and despite increased emphasis in training and additional exercises to heighten awareness of the risk, the accidents continue. What then is the problem?

The Problem

Most accidents in sporting and private aviation fall into the category of "pilot error." This may mean a lack of skill, a failure to manage the workload, a lack of awareness of the risk, or simply a lack of imagination. Once a pilot is past the stage of regular checks, maintaining an adequate standard is a matter of regular flying practice and having a personal philosophy to "do it right," that is, within safe limits. Maybe it's the philosophy that slips since a significant number of spinning accidents happen to pilots who are in practice and experienced. This may indicate that a combination of overconfidence and complacency are the root of the problem. Whatever the factors, it seems that too many pilots do not appreciate the risks which need to be considered in both the context of dual training and solo flying.



Source: *Soaring Flight Manual*

Training Philosophy

In regard to stalling and spinning, various views are put forward representing extremes of caution and risk taking. This can be best appreciated by considering the height at which such exercises are carried out. As a young (or new in the job) national coach I well remember being asked to make a safety audit of a club with a poor record, particularly stall/spin accidents. I flew with most of the instructors, none of whom would teach stalling, let alone spinning, below 1,500 ft. The obvious implication was that stalling and spinning are dangerous, but we all know that, don't we? Interestingly, although the demonstrations of stall and recovery were satisfactory, good pattern, etc., they had little or no indication or emphasis that stalling and spinning are fraught when it happens near the ground. The only emphasis was: "We don't do it below 1,500 ft."

The other extreme is to carry out the training, some or all of it, at a height which really emphasizes the message by frightening the student. Obviously, this would incur significant risk and, let me stress, I am not advocating such practice. The necessary balance to be achieved must be based on what risks the instructor takes during training with the aim of minimizing the overall risk. Without getting into too much detail, I believe that the balance is achieved for each individual student by giving him or her a "calibrated fright." Let me qualify that point. A "calibrated fright" will have achieved its objective if at any time a pilot finds himself flying too slowly he recalls the fright; better never to fly too slowly. Generally, the training exercise will involve a contrived inadvertent stall

in circumstances which will alarm the student sufficiently, despite the fact that there are adequate safety margins.

Calibrated Frights

The circumstances may vary, the message should not. A good example might be soaring a ridge. "Fly a bit slower," you may say. Continue beyond the best lift, even into sink. Prompt a turn now, and maybe the turbulence will do the rest. Obviously this only applies if you have enough height above the valley floor and may be more appropriate to hilltop sites. Whether the emphasis comes from the altimeter reading or the proximity of the ridge behind you is not important, so long as you get the message across. Other circumstances are possible, flying slowly in turbulent conditions or thermaling (so long as there are no gliders below). In any case, there may be a contrived element; afterwards, you should point out that flying too slowly is not efficient.

Begging the Question

I have still avoided the $64,000 question ± what is the minimum height at which stalling and spinning should be completed? A difficult question because the answer depends on several factors: the philosophy of the instructor (in this context), his perception of his own ability ± which may be flawed ± and his skill and experience in stalling and spinning, the student's confidence or lack of it, the spin and recovery characteristics of the glider being used, the weather conditions, and even the height available (consider a winch-only operation.) Each of these factors warrants separate consideration even though they are to some extent interdependent.

The glider's characteristics are an important factor. How readily does it spin? What is the height loss per turn? Does it recover on command, that is, with good authority? To what extent does the incorrect recovery ± say less than full opposite rudder ± delay recovery? Do the characteristics differ between forward and aft cg? The answers vary from type to type and each factor needs to be taken into account. More importantly, these are questions you must answer.

Obviously minimum safety height doesn't vary all that much but, based on height after pulling out from the dive, 700 or 800 ft for an ASK-13 but not less than 1,000 ft for a Puchacz. There, I've put numbers to it, but these will still be qualified by the other factors. The instructor's personality profile can be quite important. The implications of the macho image are obvious. Impulsiveness ± a tendency to act without reflection ± may be a compounding factor, as may invulnerability or, accidents don't happen to me! Opposition to authority may lead to flouting any height guidelines or limits. It is hoped that the selection and training of instructors goes some way to avoid or modify some of the least favorable traits. In principle, letting pilots elect to become instructors is not good practice.

The instructor's philosophy should influence the conduct of the stall/spin exercises. His aim should be to convince the student that the risks are real and serious ± like death! To achieve this metaphorical impact requires a good understanding of the hazards and a fine balance to give thorough training and bring the right degree of emphasis to the calibrated fright. Confidence is relevant to both instructor and student. For the instructor, his personality profile will interact with skill and experience. It is interesting to note that the break off height goes up with age. A significant element in the training is to build a student's confidence. Confidence should be the determining factor when a particular exercise is taught; stalling and spinning too soon may destroy confidence which can be difficult to restore. In reality, a pilot who continues to be nervous (for "nervous," read "frightened") may never be safe in a spin-prone glider. The weather conditions should also be considered. There may be adverse factors of turbulence, wind gradient, and poor visibility, which may affect the conduct of the exercise and even whether you carry it out at all.

The Emphasis

To bring to bear the right degree of emphasis for each individual is obviously not easy and, as was said earlier, has to take the various factors above into account. If the height at which the spin recovery is made was the only factor then it might be relatively simple to give guidelines, such as the heights given earlier. However, spinning low down is clearly a relatively basic approach to bring the right degree of emphasis. A key factor in determining the minimum height is the fact that the ground looks noticeably closer after the recovery than it did on entry. This is sometimes known as the "ground rush effect." Why is this important? Simply because it should make a student or any pilot aware of a serious risk in the inadvertent spin, that is of pulling too sharply out of the spin recovery dive. Of course, we all know the risk, a high-speed stall. One final point: continuous spins have a place in training insofar as they ensure that a pilot is not disorientated or disconcerted during the maneuver. A real test of ability and state of mind is to enter and stay in a spin, counting the turns, monitoring the height loss, working out the height loss per turn and then recovering on a heading. There is no merit in combining this maneuver with the low-level recovery justified in the previous paragraph.

Rules

Why not a rule that says no spinning below X ft? In the circumstances, who will decide X? Will it be a figure which precludes teaching spinning at winch launch operation except on soaring flights? If there is a rule, would everyone comply? We all know rules which are more honored in the breach than the observance, don't we?

In the Final Analysis

Philosophies with regard to spinning vary. Is this a counsel of perfection? I think not. The exercise was dropped from the PPL syllabus in the USA years ago and more recently in the UK. It is interesting to note the fresh emphasis on spinning in glider pilot training in the USA. One thing is for sure ± despite recent trends towards gliders that seem to spin less readily, most of them will. Accidents still confirm this and no doubt will continue to do so. Your only insurance is good dual training and regular practice, both dual and solo. Or would you rather travel hopefully?

SOARING STORIES

TRUTH, FICTION, & FANTASY
BY DALE MASTERS

CATCH ME YOU CAN, IF …

We have so many special treats in Crystal's soaring playground they often compete among themselves for our attention, and there's no better example than the variety of shear lines that regularly form in certain places. The most accessible lies along Pinyon (the 2nd) Ridge, six miles south of the airport. Occurring almost daily in summer when marine flow off the mountains wedges under drier air from the desert, it often connects to a similar shear that runs above nine mile long Blue Ridge. And that one intersects at its far end with another leading north from Mt. Baldy along the Mojave valley to El Mirage and beyond. With light winds from both sides common after noon, these shear lines (and others somewhat less predictably) gather thermals into reliable clusters, zones of solid convergence, or maybe so much of both you need to fly fast just to stay below cloud base. Clouds or no, such corridors of lift can be miles across, or so narrow that the slightest deviation puts you off one side, but normally they're at least a few wingspans wide. They may run continuously for great distances but often they're intermittent. And no surprise, the sink within a strong shear line can be impressive too. For each moment's a new one here in Paradise and you can bet there's always sink ahead somewhere.

During those breathless moments of roaring along a thermal street where you know there's more lift ahead than a thousand sailplanes could harness, you know as surely there's lots and lots of sink in the very same place, directly ahead. What to do about that? As with any hindrance you can't avoid, see it as an opportunity. Find a way to use it.

Paddy and I were cruising in identical sailplanes along a line of absurdly periodic lift and sink. In learning to wield sky power through fingers and toes Paddy was a devout novice, keen with ambition and starving for info. There he sat a few lengths ahead and one to the right, holding steady as if for a portrait. Loving life no doubt, yet failing to harness much of the atmospheric bounty all around us.

When he entered a sharp sinker I pushed over in a shallow dive and broke squelch on 123.5 to say, "Papa Delta, look ten o'clock low." Passing below, I also passed *by* him and pulled up in the next lift, now ahead and *higher*. By the time he reached that same lift seconds later I was already diving again in the next sink, soon to zoom higher still and even further ahead.

Paddy keyed his mike and laughed, "Whaddya got in there, JATOs?"

Knowing he was a lifelong skier, I answered, "Like humping moguls, but going up instead of down."

To certify it was no fluke I swung around and formed up beside him, still ambling along straight and level at fifty something. We exchanged waves and I said, "Okay, your turn. When you feel sink dive into it, and when you feel resistance pull up. I'll wait here and watch."

He overdid it of course and plunged hundreds of feet before bottoming out, then pulled up harder than necessary too, one quick yank *wasting* much of the energy absorbed from tons of boiling air. Yet even after those excessive inputs Paddy still had enough juice to loft all the way back up where he started ± a fine first try.

At the same time he demonstrated a major point about speed-to-fly of which many glider pilots apparently are unaware: the penalty for dolphining too aggressively is appreciable, yes, but no worse than doing nothing!

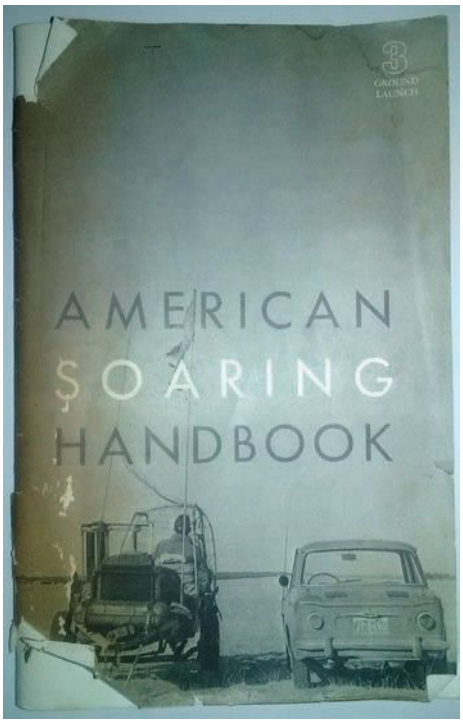
Or viewed the opposite way, the *benefit* from *any* combination of faster in sink and slower in lift will be appreciable in the *good* way.

Run some simple numbers and you'll see that precision, though helpful, is unnecessary. The penalty for dolphining artlessly is *less* than the penalty for doing nothing. Think about that awhile, then next time you're working a line of intermittent lift and someone's out ahead see if you can overtake them with nothing more exotic than timely changes in airspeed ....

WINCHING WORLD

BY BILL DANIELS

ASH Chapter 3



Those were the days.

Long ago, my first encounter with winch launch was reading the American Soaring Handbook Chapter 3 titled "Ground Launch" (ASH Ch. 3). Finding a copy of this long out of print document is difficult but I recently came across a faded copy with a copyright date of 1967. I suspect the author, Maj. William Fuchs USAF, then Officer-in-Charge of the USAFA Cadet Soaring Club, wrote it about ten years earlier. Maj. Fuchs acknowledges guidance from soaring luminaries of the day such as Dr. F. P. Bundy, Ed Byers, Harold Drew, Larry Gehrlein, Dr. Harner Selvidge, Floyd Sweet, and Jack Wilkins. Reading ASH Ch. 3 again provides an interesting historical perspective.

So, after six decades, how does ASH Chapter 3 stand up to current knowledge about winch launch? In many ways, pretty well. This column will look at the main points Maj. Fuchs made and examine how they match current thinking.

The winches of the day used steel cable exclusively which strongly influenced ASH Ch. 3. It says the maximum that could be used effectively is 6,000 feet due to the weight. Some today would put the figure at 5,000, but close enough. Maj. Fuchs liked surplus military target towing cable despite its poor strength to weight ratio. Others used 3/16" diameter 7x9 aircraft control cable which was stronger and lighter but more expensive. A few used single-strand oil well logging wire because it could be obtained free. ASH Ch. 3 acknowledged problems with all steel cable saying constant flexing and overloading would cause metal fatigue, leading to frequent breaks. When it did break, "bird's nest" tangles were almost inevitable. Of course, ultra-strong, ultra-light UHMWPE fiber rope (generically called "plastic rope") had yet to be invented.

ASH Ch. 3 described building drums which were strong enough for steel cable which, unlike plastic rope, has considerable friction between wraps so constriction forces build up slowly. Maj. Fuchs couldn't have known that plastic rope would crush many of these drums a half century later.

Insightfully, Maj. Fuchs strongly recommended a pay-on leveling system to prevent tangles and lock-ups as the wire was pulled off the drum for another launch. He doubted the effectiveness of simply separating the guide rollers from the drum by a distance variously said to be 10-20 times the drum's width and then letting the cable randomly find its own winding pattern. He relates a story of two identical winches where the "random-wind" system more or less worked on one but constantly suffered wire tangles and lock-ups on the other. The only difference was the troublesome one used new, oiled cable and the successful one used old, kinked wire, strongly suggesting successful "random wind" depends on both the wild behavior of curled and kinked steel cable as well as a substantial drum-to-fairlead distance.

That's an interesting point. Plastic rope never kinks or curls and is always slippery. Recent experience proved again that using it on an old "random wind" winch risks "dive-in" lock-ups when it's pulled off the drum just like the oiled cable in Fuchs' day. Plastic rope manufacturers recognize the problem and prescribe a "cross-winding" pay-on system which produces a winding pattern such as one finds on a new roll of twine. The crossed wraps simply can't "dive" into lower layers of rope.

Maj. Fuchs correctly insisted that winches must never shift gears during a launch. To achieve that, he endorsed the 1947-1963 Buick Dynaflow transmission which used a complicated torque converter/fluid coupling instead of automatic gear changes. Today, the Dynaflow's behavior can be largely replicated by installing a $200 manual valve body in non-electronic automatic transmissions, forcing them to stay in one gear throughout the launch. Maj. Fuchs deserves much credit for this insight.

Maj. Fuchs also insisted that winches should have excess power saying, "A modern automobile engine of 200 HP or more should be used to insure ample power." This would have been more than enough for the light gliders of his day that didn't put much load on a winch engine. However, 200 HP is hopelessly underpowered for today's heavy composite gliders which can demand more than 400 HP.

Perhaps most insightful of all was Fuchs' comments on tension control which may surprise those who think it's a new idea. He wrote, "A highly desirable addition is a tension meter. This instrument, which gives an indication of the tension on the tow line, adds greatly to the safety of the operation and improves the launching capability of the winch …. This instrument enables the operator to adjust power to keep the tension the same regardless of wind velocity." Today, we understand that controlling rope

tension not only automatically adjusts for wind but also for lift and sink encountered during a launch.

Despite this insightful call on tension meters, Maj. Fuchs didn't take the next step by suggesting a pilot could control a glider's airspeed during a launch with pitch changes. This is understandable when one considers that nose hook-only gliders common in the day flew the climb with the stick against the back stop, leaving no elevator authority for airspeed control.

In fact, those light, nose hook gliders could briefly accelerate as they rotated into the climb leading some to conclude raising the nose always causes airspeed to increase ± a dangerous misunderstanding that still persists. Significantly, ASH Ch. 3 did NOT say the pitch/airspeed relationship was reversed during a winch launch. Then as now, the pilot must LOWER the nose to unload the winch engine so it can accelerate the glider to a higher airspeed. Modern, heavy, high performance gliders with CG hooks have a dominant upper hand in the tug-of-war with a winch, so raising the nose increases the load on the winch engine, reducing RPM and therefore airspeed. With these gliders and a modern winch, a pilot controls airspeed during the launch just as in free flight.

While ASH Ch. 3 got many things right, there are some areas where modern best practices differ significantly. For example, it called for vigorously rocking the wings to signal for more power. This is now viewed as dangerous for a glider which may be low and slow. Instead, pilots are taught to simply lower the nose to maintain a safe airspeed. The winch operator will see this as a signal to add power.

With the "winch controls power and the pilot controls airspeed" control scheme used today, there is rarely any need for signals. When a pilot actively adjusts pitch attitude to maintain the best climb airspeed, power changes at the winch simply cause a change in climb angle ± more power equals a steeper climb angle and less power equals a shallower climb. Good winch operators quickly learn what a good climb angle looks like and will adjust power as needed to achieve it. If they have Fuchs' tension meter, they will nail it the first time.

Another difference is managing launch failures. Diagrams in ASH Ch. 3 show bizarre low-level maneuvers to align the glider with a runway. This was probably in deference to gliders of the day which tended to have weak spoilers or, in some cases, no spoilers at all. Precise maneuvering was the only way accuracy landings could be achieved without spoilers.

A much simpler launch failure recovery method is now commonly taught so the pilot doesn't have to think too much about what to do. If there is sufficient runway to land ahead, do it ± no turns required. If there isn't, fly a simple 360 degree overhead pattern and land into the wind on the departure runway. CS-22 certificated gliders have very effective spoilers so the maximum altitude allowing a straight-ahead landing is almost always well above the minimum height for a safe 360 pattern.

ASH Ch. 3 included photographs showing the parachute only a few feet from the tow ring which risks it becoming entangled with the glider. Weak-links, if used at all, were just twisted rope whose strength was based on guesswork. Today the glider-end rigging is comprised of a stiff strop, a POH specified weak-link and a long safety rope to safely separate the 'chute from the glider.

Despite a few problematic areas, ASH Ch. 3 got most of the story right. So, why didn't winch launch become widely used in the US? One reason was that few winches of that era were actually built to Maj. Fuchs' guidelines. Most were cobbled together as cheaply as possible by dispensing with basic systems like safe cabs with logical controls, winding systems, and tension gauges which made it difficult to deliver consistent launches. Cable breaks and snarls were inevitable. The gliders of the day were equally problematic with most under 25:1 L/D and few having CG hooks. These things make a big difference. Even a modern winch can't transfer much energy to them so achievable release heights are barely above pattern altitude. The problems inherent in launching low performance gliders with poorly designed winches understandably discouraged many pilots who had access to cheap aero tows.

Maj. Fuchs could not have known about the revolution in glider performance that would begin a decade or so after ASH Ch. 3 was written or the introduction of ultra-high strength "plastic" rope a few decades after that. These and many other advances have made winch launch vastly better than it was 60 years ago. High performance gliders with CG hooks can be safely and conveniently launched by powerful, easy to use modern winches to astonishing heights ± sometimes over 5,000 feet AGL. Maj. Fuchs & Co. would be pleased.

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SSA & FAI AWARDS

Approved or Recorded through August 15, 2015 • Rollin Hasness

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Class, Subclass, Pilot category
Record Task
Estimated Performance
Takeoff Location
Date of Finish (UTC)
Name of Pilot, and Co-pilot if applicable
Glider make and model

- Mail Original Documentation and Flight Record File to SSA
- Documentation should be mailed within 30 days of the flight
- For those making US NATIONAL, CONTINENTAL or INTERNATIONAL record applications, do not forget your Required Sporting License:
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750 km Diploma

32; Tom Seim; Ely, NV

GOLD BADGE

2709; John Bentley
2710; William Corbin

SILVER BADGE

6979; David Joyce
6980; Dave Heffel
6981; Rachel Conklin
6982; Dan Colton
6983; Alan Walls
6984; William Snow
6985; Charles Norman
6986; Gary Forister
6987; David Sherrill

Kolstad Youth Cross-Country Awards

Century III; Katherine Smith
Century I; Samer Sholi

DIAMOND GOAL

Ryan McMaster; ASW27; Harris Hill, NY; 326 km
Jim Greeson; Silent Electro 2; La Belle, FL; 306.1 km
Uwe Goehl; LS4; Tocumwal, Australia

DIAMOND DISTANCE

Kelvyn Flavall; ASW41mi; Davenport, WA; 501 km

GOLD DISTANCE

Bryan Regal; ASW 20c; Harris Hill, NY
Ryan McMaster; ASW27; Harris Hill, NY
David Joyce; ASW20; Mifflin County, PA
John Bentley; ASW27; Bend, OR
William Corbin; Nimbus2b; King Mountain Gliderport, ID
Dave Heffel; PIK-20D; Jean, NV
Uwe Goehl; LS4; Tocumwal, Australia

GOLD ALTITUDE

William Corbin; Nimbus2b; King Mountain Gliderport, ID
Samer Sholi; Duo Discus; Moriarty, MN
Roman Michalowski; ASW-28; Nephi, UT
Alan Walls; Mosquito; Nephi, UT

SILVER/GOLD DURATION

David Joyce; ASW20; Mifflin County, PA
Thomas Irlbeck; PIK-20B; Osceola, WI
Rachel Conklin; 1-26; Middleton, NY
Alan Walls; Mosquito; Nephi, UT
William Snow; DG300; Truckee, CA
Charles Norman; H201b; Front Royal, VA
Gary Forister; DG303; Bishop, CA
David Sherrill; ASW-28; Sterling, MA
Uwe Goehl; LS4; Tocumwal, Australia

SILVER ALTITUDE

David Joyce; ASW20; Mifflin County, PA
Samer Sholi; Duo Discus; Moriarty, MN
Thomas Irlbeck; PIK-20B; Osceola, WI
David Sherrill; ASW-28; Sterling, MA
Alan Walls; Mosquito; Nephi, UT
Stephen Layton; 1-26c; Hobbs, NM
Gary Forister; DG303; Bishop, CA
Bret Ebaugh; 1-26; Stanton, MN
Uwe Goehl; LS4; Tocumwal, Australia

SILVER DISTANCE

David Joyce; ASW20; Mifflin County, PA
Don Jones; Russia AC-4a; Stafford, KS
Dave Heffel; PIK-20D; Jean, NV
David Sherrill; ASW-28; Sterling, MA
Dan Colton; G102; Truckee, CA
Alan Walls; Mosquito; Nephi, UT
Stephen Layton; 1-26c; Hobbs, NM
Gary Forister; DG303; Bishop, CA
Uwe Goehl; LS4; Tocumwal, Australia

1-26 ASSOCIATION RECORDS

OPEN REGION 2; 4/11/2015; Ronald Schwartz
Triangle Distance 325.94 sm
Free Triangle Distance; 331.15 sm
Speed over 300km Triangle; 38.81 mph

NEW JERSEY STATE RECORDS

4/4/2015
Ronald Schwartz; 1-26D; Blairstown, NJ
SPORTS/15M/OPEN/SINGLE
Free Distance; 271.83/434.93
4/24/2015
Paul Seifried; LS-4; Blairstown, NJ
SPORTS
Free Distance; 258.41/413.46
15M/STANDARD/OPEN/SINGLE
Free Distance; 319.25
15M/STANDARD/OPEN/SPORTS/SINGLE
Straight Distance to Goal; 313.24/296.58

OKLAHOMA STATE RECORDS

6/27/2015
Ryan Grover; Discus A; Hinton, OK
STANDARD
Free Out and Return Distance; 318.204 sm

PENNSYLVANIA STATE RECORDS

4/4/2015
Ronald Schwartz; 1-26D; Delaware Water Gap
SPORTS
Free Distance; 258.41/413.46

A BADGES

Soren Adams; Louisville, KY
Robert W. Arant; Omaha, NE
Austin Bowers; Allen, TX
Paul Boyett; Cairo, GA
Riley Campbell; Frederick, MD
Duncan C. Campbell; Frederick, MD
Bernard T. Carlin; Winter Haven, FL
Merrick Cohn; McMurray, PA
Chandler J. Demler; Wilmington, OH
Micah Ferguson; Martinsville, OH
Austin P. Jones; Lufkin, TX
Morgan Joslin; Sulphur Springs, TX
Peter G. Kelly; North Haledon, NJ
Rustam Khashimkhodjaev; Parker, CO
Christian Maurer; Loveland, OH
Paul D. McLemore; Richmond Hill, GA
Timothy B. Moran; Arlington, VA
Brittany Morgan; Friendswood, TX
Thomas Nowelsky; Bradenton, FL
Daniel T. Rials; Spring, TX
Norman W. Robinson Jr.; Fort Mohave, AZ
Thomas E. Schaap; Omaha, NE
Justin Spotts; Austin, TX
Jarrett Steiwig; Lubbock, TX
Powell Stone; North Port, FL
Thomas H. Weiss; Mt. Pleasant, MI

B BADGES

Austin Bowers; Allen, TX
Richard Brents; Albany, GA
Duncan C. Campbell; Frederick, MD
Mark V. Cleugh; Houston, TX
Evan Dosik; Arlington, VA
David Hart; Pittsburgh, PA
Morgan Joslin; Sulphur Springs, TX
Patrick R. Kay; Tampa, FL
Peter G. Kelly; North Haledon, NJ
Rustam Khashimkhodjaev; Parker, CO
Norman W. Robinson Jr; Fort Mohave, AZ
Jarrett Steiwig; Lubbock, TX
Powell Stone; North Port, FL
Eric Tarring; Washington, DC
David Wren; Eagan, MN

C BADGES

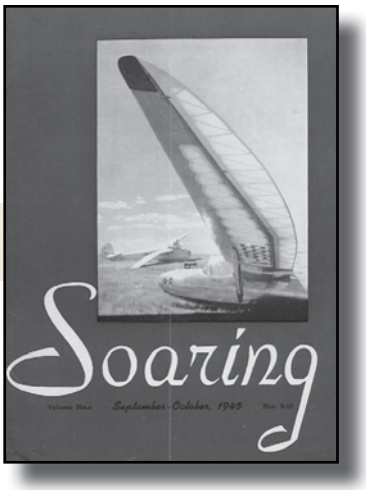
19104. Keenan A. Bouden; Vancouver, WA
19105. Peter G. Kelly; North Haledon, NJ
19108. Jarrett Steiwig; Lubbock, TX
19107. Powell Stone; North Port, FL
19106. Jim Thompson; Monroe, MI

BRONZE BADGES

2276. Powell Stone; North Port, FL

SOARING MEMORIES

REMEMBERING THE PAST BY BERTHA RYAN

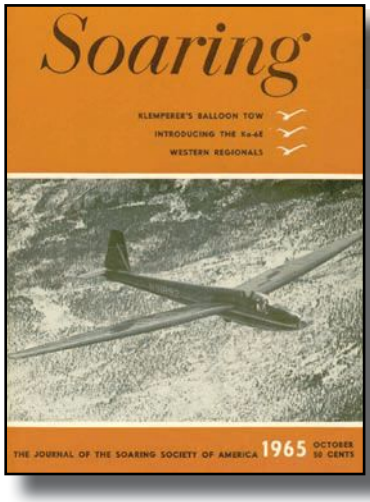


Seventy years ago: September / October 1945

Schweizer Aircraft is assisting employees in rapidly achieving pilot certificates and soaring awards. Bill Schweizer, Howie Burr, and Dick Powell have earned private glider licenses, and Ernie Schweizer renewed his. Bill Schweizer and Dick Powell earned "C" badges flying the Schweizer 1-7. Clarence See made his five hours flying a TG-2 on the ridge. Paul Schweizer and Franklin Hurtt need only the altitude gain to complete the coveted Silver badge.

The SSA Motorless Flight Conference, scheduled for October 12th and 13th at the Polytechnic Institute of Brooklyn, will feature talks by Captain Ralph Barnaby, Art Schultz, Bill Schweizer, Howie Burr, Eliot Noyes, Jack Laister, Gus Raspet, Barney Wiggin, and others.

James and Rita Simpson offer "A Glimpse of the Future" (page 9 of this issue) using time graphs. There have been no new records since 1942. They comment there is no sign the altitude curve has reached a peak ± maybe 60,000 feet someday? Plots suggest distance flights, with emphasis on increased cruising speed and flying through the night, will reach 1,000 miles by 1950.



Fifty years ago: October 1965

The Western Regional Soaring Championships at Minden, NV had 19 contestants flying over 16,400 cross-country miles in six contest days. Ages of the pilots ranged from 27 to 52; professions from engineer to pilot to welder to chemist to architect and physician. Bruce Beebe won (Foka SZD-24C), beating Ed McClanahan (1-23H-15) by three points.

Bill Holbrook (Austria SH) won the 8th Annual Mid-Atlantic Regional Soaring Meet at Cumberland, MD, beating number two pilot, Robert Litle (HP-9), by 66 points. There were 17 pilots in the three day contest flying sailplanes ranging from 1-26s to a Sisu 1A. Tasks were free distance, 149-mile triangle, and a 68-mile goal and return.

Part Three of the Southern California Soaring Championships at Inyokern, CA had distance flights by Paul Bikle (Prue Std) of 355 miles, Graham Thomson (Ka-6) of 343 miles, Bud Mears (Prue Std) of 303 miles, and Al Leffler (LM-1) of 265 miles.

92 CAP cadets went to Elmira and Harris Hill for the first Cadet Flying Encampment. See page 16 to learn how many flew sailplanes and/or airplanes.

Twenty-five years ago: October 1990

Stewart Aleshire says he "just flies for fun" and there should be a badge for that. He has thousands of flights, every one different, every one close to the airport. He has no desire for records or awards ± flying only for the beauty of flight. See his fun badge design on page 4.

Eighty-two pilots from 21 countries flew Ameriglide at Minden, NV. Germans took the top two places in Open Class with Klaus Holighaus 1st (Nimbus 3). Three of the 19 pilots were Americans ± placing 6th (Dale Bush, Nimbus3), 14th (Tom Knauff, Nimbus 3), and 16th (Al Leffler, Nimbus 3). Three USA pilots flew Standard Class (no Germans competed), won by Chip Garner flying a Discus. Rick Walters was 3rd (Discus) and Jim Payne 5th (Discus A) out of 27 competitors. Justin Wills of Great Britain (LS-6) won the 37 pilot 15-Meter Class, flying an LS-6, followed by Eric Mozer of the USA in a Ventus in 2nd place. Americans Roy Cundiff placed 4th in a Ventus and George Moffat 6th, also in a Ventus.

Exploring the Archives

- The world records in 1939 are listed in the October 1939 Soaring, page 13. They are held by Germany, the U.S.S.R., and a few by Poland. How were the Americans doing at the time? This table also lists the USA national records.
- Contest rules are a continuing and evolving subject. Soaring flight and, thus, contest rules were in flux in the post WWII time frame. For example, points for duration discouraged speed. See how the discussion by Contest Committee Chair Fritz Compton compares with modern considerations on page 10 of the Sep/Oct 1947 issue of Soaring.

THE SOARING SOCIETY OF AMERICA, INC.

Eagle Fund

Please continue your generosity in 2015 to help the Society grow and serve you better as the below-listed members have.

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Eagle Fund Contributions entered between August 1 and August 31, 2015.

Gold Level ($500 ± $1,999)

Mikel Atkins

Silver Level ($101 ± $499)

David Lehman

Bronze Level ($1 ± $100)

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Douglas Butler
Catherine Cluett
Tom Conte
Henry Derrick
Wilhelm Doeweling
Haidyn Dunn
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William Murphy
John Nagle
Bobby Rutledge
Kevin Shultz
Richard Whittington
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SOARING CALENDAR

CONTESTS and SPECIAL EVENTS

Event sponsors are requested to submit details of their events for the calendar. The submission deadline is the 15th of the month, at least two months prior to the cover date (e.g. February 15 for the April issue). Email calendar listings to: feedback@ssa.org

October 10, 2015 (7:00 am-3:00 pm), Aircraft Spruce West Customer Appreciation Day ± Aircraft Spruce & Specialty Co., 225 Airport Circle, Corona, CA 92880. 951-372-9555 • 1-877-477-7823. This is the time of year when we go all out by offering spectacular discounts on our most popular products and provide a chance for our loyal customers to meet our vendors. So come join the fun and get a chance to win big prizes. Enjoy a free grilled hot dog and cold soda on us!

October 10-11, 2015 (Columbus Day Weekend), Massey Vintage/Classic Rally ± Massey Aerodrome (MD1), 1.5 miles east of Massey, MD. Airport information: 410-928±5270 or www.masseyaero.org. Contact: Rusty Lowry at 240-925±5683 or Lowry94@verizon.net.

October 11-17, 2015 Region 4 North ± Fairfield, PA ± Sponsored by Mid-Atlantic Soaring Association ± Practice day October 10, 2015. Contact: Mary Nelson at 540-535-1275 or region4n@yahoo.com.

October 17, Saturday, 9th Pungo Glide-in ± Virginia Beach Military Aviation Museum. Soar in sight of Atlantic Ocean. Vintage gliders welcome. Possible flights by TG-4, besides TSS vintage gliders. Hosted by Tidewater Soaring Society. Event is FREE, including museum admission, but membership in TSS (temporary available) required, and normal, reasonable tow fees apply. Contact: Boom Powell at vigihawk@cox.net or 757-201-5525. More info at www.militaryaviationmuseum.org and www.tidewatersoaring.org.

2016 Events

March 12-18, 2016, Senior Soaring Championship ± Clermont, FL ± Sponsored by Seminole Flying and Soaring ± Practice day March 11, 2016. Contact: Ky McAteer at 407-925-6859 or kymac@cfl.rr.com.

March 18-20, 2016 and May 20-22, 2016, The Associated Glider Clubs of Southern California (AGCSC) Winch Clinics ± Jacumba Hot Springs International Glider Airport in San Diego County. Max of 4 Pilots per class. This will allow glider pilots to remove their "Air tow only" restriction from their license. The price of $500 will cover a maximum of 8 flights, including the instructor and glider. You'll get a chance to launch off of a newly designed winch sponsored by Roman's Design. Contact: Bud Robinson at 610-436-8010 or bud.robinson@gmail.com.

March 20-16, 2016, Seminole Lake OLC Camp ± Clermont, FL ± Sponsored by Seminole Flying and Soaring ± Practice day March 19, 2016. Contact: Richard Owen at 407-325-6500 or stillflyn@aol.com.

May 11-20, 2016, 18 Meter National ± Sponsored by Bermuda High Soaring ± Practice days May 9-10, 2016. Contact: Frank Reid at 803-475-7627 or soaring4fun@mindspring.com.

June 11-19, 2016, Club Class Nationals ± Wurtsboro, NY ± Sponsored by Wurtsboro Flight Management LLC ± Practice days June 9-10, 2016. Contact: Warren Cramer at 845-741-2354 or cramer.warren@gmail.com.

June 21-30, 2016, 15 Meter Open and Std Nationals ± Sponsored by Utah Soaring Association ± Practice days June 19-30, 2016. Contact: Bruno Vassel IV at 801-652-6631 or brunovassel@gmail.com.

July 9-16, 2016, 6th International Sailplane Meet (IVSM) ± Harris Hill, Elmira, NY ± Hosted by the National Soaring Museum, Harris Hill Soaring Corp, and VSA. Information: NSM www.soaringmuseum.com or 607-734-3128 for updates.

Soaring Magazine Milestones Guidelines

Milestone entries are welcomed for soaring pilots who have soloed, received their private pilot rating, added-on the glider rating to a current power rating, and any additional ratings added to a current glider certificate. Due to the increasing number of Milestone submissions being generated by the membership, the *Soaring* staff asks that the following guidelines be followed:

Text: Individual entries are limited to a minimum of 50 words and a maximum of 100 words per pilot. Entries with multiple persons being mentioned are allowed the same minimum and maximum per person mentioned. Identify everyone shown in photos. Insure that you the text includes; *Who*, *What*, *When*, and *Where*. Text must be written in the body of the email, no attached text files. Please include a headline.

Photos: Must be digital, high-resolution .JPG image files, submitted in the same email as the text file (as a separate .JPG file, *not* embedded in a page of text). The smallest image file size that we are generally able to reproduce in print is about 150 kb, at 300 dpi. Entries with image files smaller than 100 dpi will be returned for correction and re-submission. Generally, the photo files directly from the camera works best. Do not send links to online services such as Shutterfly, send the image file.

Date Format: September 10, 2015 ± not 9/10/15, not Sept. 9, 2015.

Changes or Re-Submissions: Re-submission or changes to an entry for any reason require a new text file and a new photo file to be submitted via email.

The *Soaring* staff makes every effort to run all Milestones entries in as timely a manner as possible. The very soonest to expect a Milestones entry to appear is 90 days after submission. Much longer delays can be expected after the end of the soaring season.

If you have any questions, please contact the editor via email: editor@ssa.org

SOARING MILESTONES

GLIDING ACHIEVEMENTS and FINAL GLIDE

Stanton, MN ± Steven Fischer, DPE, congratulates Roy Forsstrom on receiving his Commercial-Glider certificate on May 30, 2015. Roy would like to thank Minnesota Soaring Club instructor Dick Andrews and the staff at Estrella Sailport in Arizona for their support.

LLANO, CA ± James Walsh flew his first glider solo on July 12, 2015 at the Southern California Soaring Academy, Inc. James is shown with CFIG George Govednik.

LLANO, CO ± Michael Marshall (second from L) passed his CFIG check ride on July 25, 2015 at the Southern California Soaring Academy, Inc. This was Michael's initial flight instructor certificate. In the photo are FAA Pilot Examiner Scott Krantz (R), Designated Pilot Examiner Dan Gudgel (second from R), and CFIG Brian Neff (L).

LLANO, CA ± Paul Riley flew his first glider solo on July 12, 2015 at the Southern California Soaring Academy, Inc.

BOULDER, CO ± Dominik Pasalic soloed a Schweizer 2-33 glider on June 25, 2015, at Mile High Gliding, Boulder, CO. Dominik came and spent a week with us to achieve this feat. He is planning to come back and complete the checkride in the next few weeks.

FINAL GLIDE

Richard Walters ± Gardnerville, NV

Donald Hobel ± North Tonawanda, NY

Kenneth Arterburn ± Refugio, TX

David Webber ± Oxford, PA

Joe Shepherd ± Alhambra, IL

R. Joseph Eisele ± Seattle, WA

Bruce Carmichael ± Capistrano Beach, CA

BOULDER, CO ± Dominik Pasalic (L) with DPE Elliot Crawford on the successful completion of his Private Pilot Glider checkride on August 16, 2015 at Mile High Gliding in Boulder, CO. Dominik is looking forward to more weekend visits to Boulder to expand his soaring horizons. Good start, Dominik!

WAYNESBORO, VA ± DPE John Molumphy (R) congratulates Chris Nye on July 18, 2015, for successful completion of Chris' Private Pilot Glider check ride. Chris is a member of Shenandoah Valley Soaring in Waynesboro, Virginia. Congratulations, Chris, from all of your fellow Club members!

ORBIT, VA ± TSS scholarship student Josh Shaver soloed on July 25, 2015 at Garner Gliderport in Orbit, VA under the watchful eye of his instructor Mike Keefe. Josh is a recent high school graduate and is joining the Army in August. (Photo by Frauke Elber.)

ORBIT, VA ± On July 2, 2015, TSS member Joe Ethridge (L) successfully completed his first solo at Garner Gliderport in Orbit, VA. Here, he is congratulated by his instructor Mike Keefe (photo by Frauke Elber).

AUSTIN, TX ± Julius Tabery, age 14, made his first solo flight in a 2-33A at Fault Line Flyers glider club on July 24, 2015. Following a one half hour flight and smooth landing, his father, Ron Tabery, and mother, Gena Tabery, share in celebrating his accomplishment. Julius is a third generation glider pilot and the fourth one in his family.

North Plains, OR ± 14-year-old Morgan Thiers flew his first solo flight on July 29, 2015 in Willamette Valley Soaring Club's Blanik L-23 at the North Plains, OR Gliderport. Morgan is shown here with his flight instructor, George O'Leary.

MONTAGUE, CA ± Chris Tyhurst (R) of Grenada, California is congratulated by flight instructor Vern Fueston after making his first solo glider flight on July 17, 2015. Chris is a private power pilot and often flies a Sonex which he constructed himself. Chris flew a Schweizer 2-33 operated by Montague Soaring Center at Rohrer Field.

MONTAGUE, CA ± John Pomeroy (R) of Miami, Florida made his first solo glider flight on July 20, 2015 at Montague Soaring Center. John recently sold his beloved Bonanza, and while visiting Northern California stopped by the Montague Airport to look in to flying gliders. After several days of instruction he made his first solo flight and is planning to finish up his license when he returns home. John is pictured with flight instructor Vern Fueston.

BOULDER, CO ± Pictured is Harrison Mast (L), with parachute, on the occasion of his Private Pilot Glider checkride. Harrison flew with DPE Elliot Crawford in the Soaring Society of Boulder's ASK 21 on July 31, 2015. Conditions were just challenging enough to make the flights interesting and Harrison did a fine job proving himself worthy of his new certificate. Well done, Harrison!

BOULDER, CO ± Paul Hoffman after his first glider solo at Mile High Gliding in Boulder, Colorado. Paul worked hard over a ten day period to accomplish this feat on July 30, 2015. Great job, Paul!

WELLINGTON, CO ± Tyler Bragg (R) is congratulated by DPE Elliot

Crawford on receiving his Commercial Pilot Gilder certificate. Tyler is a member of the Colorado Soaring Association at Owl Canyon airport.

LAKE ELSINORE, CA ± The Lake Elsinore Soaring Club would like to congratulate Chris Connelly on his first solo flight in a glider. Chris soloed in a Schweizer 2-33 on June 29, 2015 at Skylark Field in Southern California. Chris has been training with club CFIGs Mike Havener, Dave Bowden, and Bob Bell. Chris comes to soaring with a power flying background and is currently working as a UAV chase pilot.

BLAIR, NE ± On July 23, 2015, Paul Jelinek achieved the Commercial G rating added on to his ATP certificate. Pictured on Omaha Soaring Club's "Glider Grass" at the Blair, NE Municipal Airport, Paul (R) is congratulated by DPE Bert Aagesen (L). Paul is also one of our club tow pilots. And yes, he once upon a time towed gliders in the San Diego Area. Picture taken and article written by recommending CFI Jaime Alexander.

WILEY FORD, WV ± Charles Fulton had his first solo flight in a glider on April 12th, 2015 at Cumberland Soaring. Pictured is instructor Marvin Holland (standing) and Charles in the SGS 2-33 glider.

BLAIR, NE ± On July 23, 2015, Patrick (Pat) Greenwood earned his Private Pilot-Glider certificate flying Omaha Soaring Club's L23 Super Blanik. Photographed after parking the L23 in the club hangars at Blair, NE Municipal Airport, Pat (R) is congratulated by DPE Bert Aagesen (L). Photograph and blurb by recommending CFI Jaime Alexander.

OMAHA, NE ± On July 18, 2015, Tom Schaap accomplished the significant step of initial solo as PIC of a glider on his journey to add a glider rating on his Private Pilot certificate. Tom had not flown for some time (think decades) prior to joining the Omaha Soaring Club. The combination of his study, attending ground school, and flying with our cadre of CFI's all came together during a great afternoon on the Omaha Soaring Club's Glider Grass. This blurb and photograph of Tom in our Super Blanik (posed after moving the glider ± yes, we use the harnesses) by endorsing CFI Jaime Alexander.

BLAIR, NE ± Bob Arant's Private Pilot certificate was so long unused it was an antique. But through the magic of faa.gov, Omaha Soaring's CFI team, his attendance at the weekly ground school sessions, and latent airmanship from owning a Taylorcraft rejuvenated, Bob flew his first solo as PIC in a glider category on July 18, 2015. The photograph is Bob in the club L23 after his landing and walking the wing back to the ops area on Omaha Soaring's Glider Grass at Blair, NE Municipal Airport. His endorsement, the photograph, and this blurb are by Jaime Alexander, CFI.

TRUCKEE, CA ± Pablo Saso-Perkins (C) earned his private glider rating on 08-03-15 at Soar Truckee. Jan Driessen (L) and Mark Montague (R) are proud to present his license. Pablo is an expert in Condor and was able to get his rat-

ing much sooner because of it. Pablo is on our line staff and we congratulate him.

BOULDER, CO ± Allistair Moses (R) completed his first four solo flights in a Schweizer 2-33 on Saturday, August 8th, 2015 at Mile High Gliding in Boulder, CO. Allistair's brilliant CFI, Richard Bevington, is shown on the left.

CLERMONT, FL ± Right after his first FAA check ride on 8/8/15 out at the Seminole-Lake Gliderport in Clermont, Florida; Dwight Jenkins passed all tests and now has his glider rating. He's looking forward to learning to soar now. Much fun!

PEORIA, AZ ± This a picture of myself, Roy Coulliette, and Andrew Winslow on his 1st Solo at Pleasant Valley Airport. He soloed July 27, 2015 in an SGS 2-33A. He plans to first get his Commercial add-on Rating then go on to his Glider Instructor add-on.

TRUCKEE, CA ± Thomas Greenhill, 15, accomplished his first solo flight on July 17, 2015 in Truckee, California. He is pictured (R) with his instructor, Jan Driessen (L). Thomas has been a member of the Soar Truckee Line Staff for the past few years, and plans to work towards his Private Pilot Glider rating. In celebration of Thomas's accomplishment, he was doused with five buckets of cold Sierra water. We wish Thomas luck in his future flight adventures! Congratulations, Thomas!

ADRIAN, MI ± Photo is of SSA Instructor James Vincze CFI on the right and James Thompson (student) on the left. James Vincze has been an Instructor since 1989 and an SSA member since 1987. He is affiliated with the Adrian Soaring Club in Adrian, MI. The Club operates out of the Lenawee County Airport. James Thompson (student) has been a member since 2009 and earned his C Badge in July.

BOULDER, CO ± My name is Daniel Torres and I fly with Mile High Gliding in Boulder, Colorado, and on August 10, 2015, a day after my birthday, I soloed for the very first time. It was one of the most surreal and magical experiences. So here's my picture and thank you guys for what you do!

TRUCKEE, CA ± Matthew White soloed August 1, 2015. As usual everybody was happy and had fun at Soar Truckee. Matthew on the left with his instructor Jan Driessen on the right.

TRUCKEE, CA ± David White (L) retired 747 Captain, Evergreen, obtained his commercial add-on today, August 17, 2015 at Soar Truckee GliderPort. Jan Driessen, his instructor, is on the right.

TULLAHOMA, TN ± On July 15, 2015, Noah Henry (14) celebrated his first solo flight with his instructor, master pilot Ted Brousseau, at CAP's National Glider Flight Academy. Noah is a Chief Master Sergeant of the Dekalb County Cadet Squadron (Georgia) and member of the Soaring Eagles Soaring Club in Warm Springs, Georgia. Noah thanks club instructors Tim McGowin and Delta pilot Glen Klingshirn for their excellent training support.

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ZUNI 2

Zuni 2 for sale. Complete. Needs some work to be flown. Make offer. Call Darren 505-328-3682.

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SCHWEIZER 2-22

Schweizer Glider 2-22 for sale. $11,000. Contact William Rogers at 678-450-6729 or email easyaces@att.net.

NOTICE TO ADVERTISERS

The deadline for Classified listings is the 15th of the month for two months in advance. *Soaring* Classifieds can also be found online at www.ssa.org.

DEADLINE FOR THE DECEMBER 2015 ISSUE IS OCTOBER 15

SELF-LAUNCHING AND MOTORGLIDER

FLUGZEUGBAU DG-400

DG-400 for sale, tow vehicle, many DG400 parts. Cdn C. Current annual of A. Location: Toronto. For info, email: gerrardwood@rogers.com.

AMS

Carats for sale. AMS/USA 707-942-5727. amsaero@aol.com. CA

2007 Carat s/n026 NDH Excellent condition 110 hrs TTAF well instrumented, many extras. Custom Cobra trailer. $105k, best value on market today. Call or email George 610-213-6023, gfel640946@aol.com.

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1974 Sportavia Putzer RF-5B Sperber, N66GL Limbach (tach 400, 10 SMOH), Hoffman three position prop. Recent: paint, fabric, interior, transponder, comm, strobes, audio-vario. $52,500. 908-227-4916, mlo93@aol.com. NY

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Hang Gliding & Paragliding Magazine – Monthly magazine of the United States Hang Gliding Association, Inc. Covers all aspects of foot-launched flight for rigid and flexible wings. Full membership $59, subscription $42. USHGA, PO Box, Colorado Springs, CO 80901. www.ushga.org. 719-632-8300. Fax 719-632-6417. CO

Australian Gliding – Monthly publication of the Gliding Federation of Australia. Editor, Anne Elliott. Subscription by airmail AUS $102.00 (includes GST) by check on Australian bank. MasterCard, Visa card quoting all card details or international money order. Email: Secretary@sec.gfa.org.au, or Gliding Federation of Australia, 130 Wirraway Rd., Essendon Airport, Victoria, Australia 3041.

Free Flight – Quarterly journal of the Soaring Association of Canada. A lively record of the Canadian soaring scene, including relevant international news and articles. US $30/yr. US $55/2 yrs., US $65/3 yrs. Soaring Assoc. of Canada, 71 Bank Street, 7th Floor, Ottawa, Ontario, Canada K1P5N2. sac@sac.ca. Web: www.sac.ca. Canada

Sailplane & Gliding – The only authoritative British magazine devoted solely to the sport of gliding and soaring. 64 pages of fascinating material and pictures. Published every other month. Send $53 US for delivery by surface mail. For airmail send $68 US to: British Gliding Association, 8 Merus Ct, Meridian Business park, Leicester, LE19 1RJ, England.

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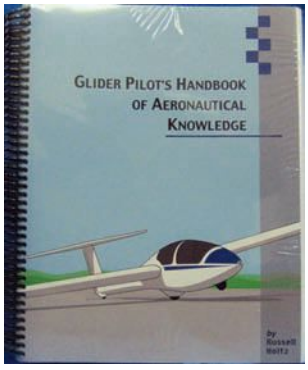

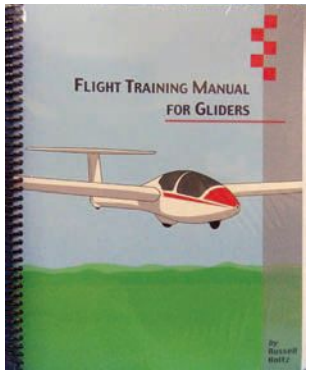

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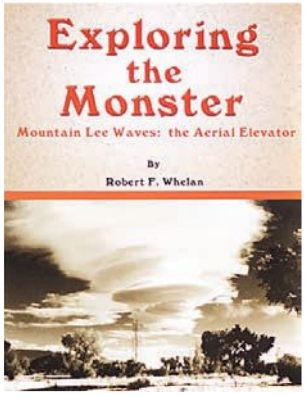

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