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Bungee Cord

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a 501 (c) (3) Charity
<**vintagesailplane.org**>
"Vintage & Classic Sailplanes"
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Promoting the acquisition, restoration, learning and flying of vintage and classic sailplanes and gliders and preserving their history since 1974.

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Vintage During the Dry Spell

This spring has been unusually long and dry. That is, dry, from the aspect of extremely limited (or non-existent) soaring possibilities due to the crazy pandemic hanging over us. Personally, I'm tired of hearing about it and would like at least to spend time productively working on, or dreaming about, my next vintage adventure. Some soaring sites are open, but others are not yet. Still we need ways to keep our sanity.

Well, there are glider projects. If you have a glider project to keep you busy and thinking of the wonderful future, you are among the lucky ones. Restoring and saving an old glider will certainly lead to hours of planning, finding tools, working with the tools after finding them, cussing and then realizing that warm feeling of accomplishment when all is done, just in time to fly. If you don't have a project, perhaps now is the time to find one. Almost nothing is as exciting as getting a new old glider. Flying will open up eventually and until then that new old glider will absorb lots of time and provide more than virtual happiness. In these columns we have discussed barn finds, but this may not be the time to poke around while viruses rampage. But maybe there is already a glider out there in the classifieds, Wings and Wheels, Barnstormers, Segelflug.de or maybe there is another glider you already know about with an owner just waiting for a phone call. If purchasing it solo isn't realistic, call your friends and arrange a partnership; surely, that can be accomplished while maintaining social distancing.

One can always dream (or call it "strategic planning" if necessary?) about some glider you don't yet know about. Most members probably know the book *The World's Sailplanes* that lists just about all the world's sailplanes from the post-WWII period through the late 1950s. It is the ultimate repository of "glider porn." It has pictures. Look, study, compare and develop a short list of all the new old gliders you can't live without. This will raise your heart rate, and surely you could find one of these gliders, so you can fly it when glider flying reopens.

Speaking of books, there are lots of other glider books, too, each with its own version of "glider porn." Then there are models. There are vintage RC (or even free-flight, for goodness sake!) glider models, and they can be pretty attractive, and some are even self-launching.

Potentially one can try glider camping. Even if the local glider club isn't flying, and there are not many formal meets, think of a neat destination where someone might provide a tow (there are some, if you ask). Call to find if you can visit, keeping physical distancing of course, and then travel off to that idyllic location and camp out so you can fly, fly, fly. Heck, you will be 200 feet behind the towplane! Stay safe, of course. Wear your mask, carry your disinfectants, read Burt Compton's article on page 4, and be reeeeaaaalllly careful as you get the rust off your wings.

COVID-19 is nothing to fool with. This is an important time to consider the suffering, pain and sacrifices everywhere. We all try to avoid infection, but we do need to find ways to maintain a healthy, positive attitude while we await our next rollicking thermal. Stay safe; the good times will return!

Jim

Front Cover: The green Schweizer 2-22 at Jersey Ridge Soaring, Blairstown, NJ, with a beautiful rainbow. Brenda and Kevin Martin sent us this spectacular photo.

Back Cover: Tom Baker finds the unexpected while annualing Kenny Chapline's Schweizer 1-23F in his TDB Aviation Shop in Olney, IL (see page 17). Jim Short photo.

VSA News & Updates

VSA Official Matters

We very much appreciate the support so many members are giving the VSA in so many ways. Interesting photos and short or long stories for *Bungee Cord* are coming in regularly for the next issue.

We also appreciate receiving financial and material support. As an example, we received a note from our printer in Great Falls, MT, in early January, simply stating: "You are one of the select few that have been chosen by PrintingCenterUSA as a top customer. We wanted to show our appreciation. We have added $50.00 to your account. No strings attached!" This on-line printer has served us well for the past ten years, and we happily accepted their donation, which helped pay for the printing of the Spring 2020 issue.

Several members also added some extra dollars to their dues payments, which is always a nice surprise: our thanks go to Walter Lamb, Ron Martin, Clayton Price and Charles Thuet.

Our Annual Vintage Meets

Much of the United States has been under "shelter-at-home" orders due to the COVID-19 pandemic. Many States are slowly easing these restrictions officially, and some of us wonder what the future will bring. Soaring, especially flying vintage sailplanes, will without doubt feel the effect for some time to come, as we are accustomed to being around people helping each other. It is sad to report that almost all the scheduled vintage meets have been canceled through July,with the event at Mountain Valley Airport at Tehachapi being the only exception. They staged their meet as scheduled on Memorial Day weekend, 22-25 May.

Most organizers have decided to postpone their scheduled events until 2021, instead of hoping for the best later this year. As Judy Newman from WAAAM wrote: "We are all hanging in here. We will have some local activity, but all larger events have been canceled. We will probably fly some vintage gliders with our small staff and volunteers, but will not host large groups. I do not think we will try for October this year, but just get ready for 2021, I hope." • *BC*

Michael Malis took this photo of the classic 2-32 that he believed to be the best looking glider at Mountain Valley Airport, Tehachapi, CA, during their Memorial Day Western Vintage/ Classic Regatta. Courtesy Tehachapi Soaring Group.

I finally got to proudly affix a **VSA sticker** to the tail end of my Nimbus 2C trailer. Now I wonder when my 1980 Nimbus will qualify as "vintage"?

Ridge Moreland, 1-26 Association President

Reasons for buying the Workshop Practice book.

Bought myself a present (in case I need to do any serious work on my SHK).

I own a classic Schempp-Hirth SHK-1, work number 58 (second to last one built) registered as G-CFJF. Hopefully, I will not need the book too soon or often! My SHK is a wooden glider built in 1968 and it will need work at some point. I was an aircraft engineer by profession. I last worked on a glider when I started gliding in 1969-70. I have been helping our glider engineer and inspectors at my gliding club. So, I thought the book would give me an in-depth understanding of the skills, techniques and methods that I need to master.

Dave McCormick, Scotland, UK

Workshop Practice
Blue vs Green Book?

Several people asked what changes were made to this second printing with a green cover, so we thought we should clarify.

Most of the changes do not affect the technical content of the original edition. But Chapter 7 was rewritten and clarified to make reading easier. However, in the Addendum, the paragraphs on plywood (pages 357-358) are worth sharing with those who own the previous edition:

> Thin birch plywood is typically utilized in vintage and classic European gliders while thicker marine fir plywood may be found in many homebuilt U.S. gliders. This reflects the regional availability of wood products during the time that wood aircraft were regularly being built. German gliders typically used birch plywood manufactured to DIN specifications contained in the *BVS* (see Chapter 5 Production Documents, page 187). The evaluation of physical properties of individual plywood sheets are carried out by Germanischer Lloyd using the procedures they defined for grades GL-1 and GL-2, which is analogous to Type 1 and Type 2 from the *BVS* (as discussed on page 70 of this book). In 2013, Germanischer Lloyd (Germany) merged with Det Norske Veritas (Norway) to form a corporation named DNV GL.
>
> In the UK, owners in the home- and kit-build aircraft market had concerns about the cost and availability of GL plywood, so an alternate standard, "Grade A," was developed and approved by the Light Aircraft Association (LAA); it is similar to GL-1. "Grade A" is acceptable to the LAA for aircraft built and repaired within the UK under LAA guidance. It is also acceptable to the BGA (British Glider Association) for repair of gliders where GL-1 has not been specifically required.
>
> At the time of printing, GL plywood is available in Germany through the Plandienst Company and Siebert Luftfahrtbedarf. "Grade A" plywood is available in the UK from the Swindon Aircraft Timber Company (SATCo) and The Light Aircraft Company (TLAC). Other suppliers may exist, and one would expect the list would vary over time.
>
> The majority of thin birch plywood is supplied from Finland for commercial use. These plywood sheets are fabricated from the same basic veneers and often using the same glue as for aircraft use; however, they have not undergone the testing that certifies they meet the GL or LAA specifications. While the face sheets may be of excellent quality, there could be small defects with the internal layers. One should endeavor to use official GL or "Grade A" certified plywood for all repair projects. However, if one cannot readily obtain this material, commercial plywood should only be considered if one has the means to carefully inspect and test it by the methods described in Chapter 4, Testing of Plywood on pages 70-71.

These comments are intended to provide a basic level of information about plywood. Remember that any material selection and repair should be done in consultation with the rules and guidance of the local certification authority, and with oversight by an approved inspector. • *BC*

Chilhowee Gliderport * Oktoberfest * Fall Vintage & Classic Gathering

October 16 – 18 (Friday, Saturday and Sunday). Then stay the rest of the week, relax and fly during some of the prettiest and best soaring and ridge conditions of the year in eastern Tennessee. This year vintage enthusiasts are invited to join in with Chilhowee's popular and well-attended annual Oktoberfest meet. Lots of new friends and gliders will be there for flying and partying. This is a bigger event than usual, and the fun factor should be "off the meter." Hosts Sarah and Jason Arnold invite everyone, regardless of the type of glider one chooses to fly. Check <Chilhowee.com> or call (423) 338-2000. • *BC*

When You Finally Get to Fly This Year ... Will you Exhibit Corona Corrosion?

It was a long winter and a very long spring with the threat of exposure to COVID-19 limiting our flying. If you, like me, have not flown consistently for several months, you may not be current and definitely not "proficient." Consider these checklists and add your appropriate items as you return to flying.

Personal:

- Flight Review expiration date confirmed (FAR 61.56).
- 90-day currency flights logged to carry passengers (FAR 61.57).
- Current (not expired) Government issued photo ID (FAR 61.3).
- Student Pilot or Transition Pilot: Solo Endorsement expiration date.
- Certificated Flight Instructor 24-months expiration date checked.
- Towpilot: Medical Certificate not expired. Basic Med renewal.
- Towpilot: 24-months currency (FAR 61.69).

Aircraft:

- Annual Inspection and new Airworthiness Directive research.
- Recurring Airworthiness Directive compliance.
- 100-hours Inspection if giving any rides or instruction "for hire" (FAR 91.409).
- ADS-B unit. Transponder checks if required.
- Lubrication, tire pressures, shock struts per the maintenance manual.
- Towplane Oil and Filters checked. Fuel samples clean and clear of water.
- Batteries serviced and charged in towplanes and gliders.
- Mice and spider check!
- Review Flight Manuals for limits such as Maneuvering Speed (Va).
- Review the glider assembly, pre-launch and landing checklists.
- Was any work done on the glider or towplane during the stand down?
- Conduct a preflight inspection, "Critical Assembly Check" and "Positive Control Check."
- Parachute 180-days inspection current. (FAR 91.307).

Airport:

- Review local NOTAMS, TFRs and any local airport rules.
- Runway condition (new obstacles, gopher holes, mowing).
- Look again at your "rope break" off-airport landing options.
- Do not rely on your memory or reflexes, and I am speaking to pilots of all ages.
- Note the recent trend in incidents and accidents by "experienced pilots."

Even as a designated pilot examiner and flight Instructor in gliders and airplanes with thousands of hours logged, I will assume that I'M RUSTY! Let us all make the effort to return to *proficiency* and not just *currency*.

Burt Compton

Soaring Safety Foundation Trustee and
FAA Designated Pilot Examiner

Timely advice comes from the Marfa Gliders Soaring Center in southwest Texas, where Burt Compton gives rides and training in his restored Schleicher ASK-13 "Cabriolet" open-cockpit sailplane.

Fresh-air cockpits are no problem for check rides! So let's fly!

SSF Soaring Safety Foundation

DESTINATION

Jim Short and I have discussed my proposal to host a vintage glider meet near my home in Bedford, Iowa. We are both enthusiastic about the timing and location. This is a very pleasant "antique" area, rural and beautiful, and it lends itself perfectly to vintage soaring. Naturally, gliders of any age are welcome.

Consider the following an invitation to glider owners and pilots to join me in establishing a new venue during May 2021, when southwest Iowa has the best predictable soaring. This would be a longer meet, over 10 to 12 days, including two weekends.

I hope you can join us.

Vintage Meet in Bedford, Iowa (Y46) Spring 2021. Bedford is on the Missouri border in SW Iowa, 118 miles north of Kansas City, 118 miles SW of Des Moines, 100 miles SE of Omaha.

1 We have a solid commitment from a towplane owner to be able to lease the aircraft. There will be a backup Waco biplane towplane on site.

2 Beautifully mowed smooth green grass runway 100 ft x 2710 ft. No airplane activity of any kind, perfect for glider use, staging, towing, etc.

3 No airspace issues of any kind within 70 miles.

4 I have permission from the City (airport owner) to host the event, with no restrictions whatever. I also have the help of a willing Airport Board member who is a great resource.

5 Clubhouse with usable kitchen, refrigerator, sinks and air-conditioning.

6 Trailer & tent camping on site with pressure water. Some outside electricity can be arranged.

7 One Bedford motel 3 miles away, many motels within a 16 mile radius.

8 Two-seat Bergfalke for rides or instruction, plus a Sagitta and the Midwest MU-1 to borrow.


Airport overview looking north

9 Dedicated athletic line person (age 23) to run ropes and wingtips, help with assemblies, and be a driver or a go-fer.

10 Destination airports or turn-points at 16 miles, 17 miles, and 24 miles. Ten airports circling Bedford within 43 miles,

Bedford, Iowa

all very low-use, for cross-country flights.

11 Good grocery store, cafe, coffee shop, pharmacy, hardware, banks, gas, etc. 3 miles to town.

12 Beautiful county campground on large lake, 4 miles.

13 Welding, machining, wood and fabric repair services.

14 Two hospitals, 17 and 26 miles distant.

15 Free Tows. The towplane owner and I have decided that in the interest of stimulating vintage soaring activity, free tows could bring greater interest in attendance. We feel it is worth absorbing the costs for the good of vintage soaring.

Entertainment / Other:

Antique open-cockpit airplane rides in a 1929 Waco 10 or 1931 Curtiss-Wright Junior, and in a 1936 Cabin Waco biplane.

Antique 1913 Buick car rides.

Motorcycles available for experienced riders.

Control-line model airplanes. R/C model airplane.

Bedford Historical Museum with rare restored 1900 round barn.

Live music on weekends at popular local cafe.

Since no large hangar is available for glider overnight storage at the airport, you need to plan on tie-downs or disassembly.

More information and photos will be included in a fuure *Bungee Cord* issue.

Chad Wille

Ami Eckard-Lee photos.

Stan Hall presented this talk at the dedication ceremony of National Landmark of Soaring No.10 in Arvin, CA in April 2000.

The Baby's First Soaring Flight

If ever there was one premier American sailplane designer and builder in the world, it would be Hawley Bowlus. Hawley taught Charles Lindbergh to fly sailplanes. He also led the construction of Lindbergh's *Spirit of St. Louis* and attended one of the early Arvin meets with his stunning new design, the Baby Albatross.

This machine was of a new breed, awe-inspiring in its beauty, a Cirrus or ASW, as it were, in an age of sticks and gussets and wires. Hawley's Baby Albatross was zephyr-like: all grace, gentility, elegance and breathless beauty. She was sleek, with a polished, natural-finish mahogany "pod" and a slender aluminum alloy tubular boom carrying a tail spangled with the stars and stripes.

The wing was a Bowlus trademark – a single spar, mahogany plywood-covered "D" tube leading edge and single strut. The cloth was treated with clear dope and every rib, spar and auxiliary structure was clearly exposed to the eye, like a butterfly. Hawley had a keen sense of form and beauty and it showed in every line and curve of the Baby. No question about it, only pilots having superior skill would be able to handle this spirited and magnificent machine.

It was on Easter Sunday in 1938 that a history–shaping event in soaring took place near the rural township of Arvin, California. Here, in the lupine–covered foothills in the shadow of Bear Mountain, a gliding meet was under way. And it was here that the late Hawley Bowlus' prototype Baby Albatross made its first soaring flight. I was there. I was the pilot.

Don Mitchell photo.

Earlier that spring afternoon I had joined the hundreds of spectators and glider pilots who watched with awe and envy as Stan Corcoran, designer and builder of the famed Cinema sailplane, made two quick slides to the valley in the Baby.

You can imagine my astonishment, then, when Hawley and Don Mitchell, his shop foreman, walked up and asked me if I'd like to try my hand at flying her. I was not one of the well-known pilots of the day as were such greats as Harland Ross, Woody Brown, Dick Essery, Frank Kelsey and others. I suspect, however, that my innate ultraconservatism showed through even then. I didn't question their wisdom, I merely blurted out a "yes!"

Before I had a chance to reflect upon my own poor qualifications as a pilot for such an incredible aircraft I was off the ground, whisked into the air under the steady hand of Jay Buxton, himself a famous designer, but today the winch operator. I pulled the towline release and headed immediately toward the valley, the same route Corcoran had taken earlier. I was vaguely aware of the almost total lack of sound. Despite there being no canopy, only a windshield, the machine was incredibly quiet. I was accustomed to the singing wires of Sven Ingels' and my Cherokee (not the Cherokee II, which many years later was to become famous in its own right, but a two-place, wire-rigged "secondary" glider) and the low sound level compounded the strangeness of this new environment.

All I could consciously think of was Hawley's last admonition as he hooked up the towline, "Corcoran flew too fast, which is why he went down. Keep the speed down to around 40 and it should go better." So, I kept my eyes glued to the airspeed, neglecting even to look out at the wings. I bored straight for the valley precisely at 40 miles per hour, sometimes daring to move my eyes to the variometer (another strange instrument) which always indicated "down."

As my confidence grew I made some gentle turns, a few degrees in either direction. In doing so I found myself inadvertently trying to rotate the wheel about

its vertical axis as though that would make the sailplane turn. I knew better, of course, but I had never before flown anything with a wheel control, only a stick.


Don Mitchell photo.

I had been in the air about fifteen minutes and had managed to glide down within 800 feet or so of the valley floor. Maybe I should start looking for a place to land, I thought. So, with all that altitude (for 1938) to play with I began to plan for just what had to be the best landing I had ever made – for Hawley's sake, if not mine. Unexpectedly, I felt the bird shudder a little, then surge upward as though the gods of weather had suddenly lifted me by the scruff of the neck. Wow! A thermal! I had never before encountered anything but slope lift and, if I hadn't learned as other pilots described their adventures with "thermals," I would have sailed right through it.

However, I rolled into a turn and the lift didn't go away. We were climbing! I concentrated on the variometer, which was now saying "up," and we whirled around and around, with me unconsciously pulling sideways on that wheel as I fed in the rudder. Nothing else mattered in the world. I had to stay in the lift. And the only thing that seemed to be keeping me there was turning. Centering the thermal be hanged, I don't think many of us in 1938 knew that a thermal had a center!

After a while I made two important discoveries. One was that the thermal was so large in area that despite my stumbling around in it I had gained so much altitude that I was now 500 feet above the takeoff point. The other discovery was that the wind had carried me right over the takeoff point. This was simply too much. Here I was; I had successfully "mastered" the Baby Albatross, I was right over the field – and I had just blundered out of the thermal. What better time to simply spiral down, get on the ground in one piece and walk away with the knowledge that I had just flown the most beautiful sailplane in the world? But fate was not yet through with me.

As I continued spiraling, now downward, I heard a great "pop!" in the structure. "My God," I thought, "I've got a structural failure!" But nothing other than my heartbeat going over redline happened. We just continued spiraling down.

After what seemed an eternity I gingerly exercised the controls. They seemed okay. The wings were still there – but I couldn't turn my head enough to see the tail. It must be there, I thought. Not wishing to make any unnecessary moves I just sat there immobile, preferring not to wake the tiger but simply to wait for the time to straighten out and land, hoping that the ship would indeed straighten out. One thing I was certain of, we would land, straight or crooked. But I was terrified at the thought of possibly demolishing Hawley's new creation, and maybe myself, in the process.


Frank Kelsey photo.

At the appropriate point I rolled the wheel and pushed the rudder pedal. The ship straightened out and we landed, soft as thistledown. People came running from all directions. I felt like Lindbergh at Le Bourget - except I was scared stiff. The first person to reach me was

Some of the ships at the last meet SOARING, April 1938 SSNC photo by Hoeflich

Hawley Bowlus, himself. He said, "You're pale as a ghost, Stan. Are you okay?" I replied, "Hawley, something broke in the air and I don't know what it is." Then he turned pale.

I crawled out of the cockpit amid the snapping of cameras while Hawley and Don dove headfirst into it. After a few seconds Hawley came up for air with a grin. He said, "I've found it!" You who are familiar with the Baby Albatross will recall the control wheel sits atop two vertical tubes, inside of which runs a chain that passes over a sprocket on the wheel. The wheel and sprocket, which make the ailerons move, are contained in a casting that is riveted to the upper end of the tubes.

In their haste to get the Baby completed and to the Arvin soaring site, Hawley and Don had apparently forgotten to replace with rivets the two self-tapping screws that temporarily held the casting in place. What I had done in about an hour's tugging sideways on the control wheel was to break that temporary joint. The only thing holding the assembly together was the tension in the cables. The sound of the joint letting go, amplified by the mahogany plywood pod and my own psychological receptivity, was one I will never forget.

Looking back, I remember thinking, "Gee, Hawley must consider me an unusually talented pilot to risk flying his precious Baby." When reality finally set in, I realized he was trying to sell me a kit. The reason it did not happen is, I design and build my own aircraft. I do everything but plant my own spruce trees.

Neither will I forget any of the detail texture of the experience that Hawley Bowlus, Don Mitchell and the incomparable Baby Albatross brought me that glorious, innocent spring day in 1938.

It was an important day for me, yes, but more importantly it signaled a new era in soaring. People from America's four corners began building the Baby from Hawley's kits. And, as a result, many of our best pilots and designers took paths from which to this day they have never swerved. They are now making their own contributions to soaring.

Hawley Bowlus himself was a legend in his own time. The trouble was that nobody realized it. The impact of the Baby Albatross on the advanced state of design and soaring as we now know it is felt to this day. Hawley remains, in my mind, one of the most talented and ingenious designers of that time or any other, including the present one.

Bowlus died in relative obscurity to soaring and today his greatest contribution, the Baby Albatross, has gone to its reward, too. There are still a few around, but when they appear at the gliderport, they are mostly objects of amusement to those insensitive souls who, because Hawley left his mark, now ride the wind in sophisticated, space-age fiberglass chariots. But in 1938, and for many years to follow, it was not like that. Hawley Bowlus and the Baby were the best. The very best.

Stan Hall

The Tehachapi Gang in 2000. NLS10 Archive

Aidan's Story
Growing Up with Gliders!

The Capps family: dad Tim, sister Emma and mom Kristina. Aidan is showing off his latest model, a motorized sailplane. He reports that it is a blast to fly, and it even has LED light strips in the wings and fuselage so he can fly it at night too.

Since a very young age, I have been thoroughly indoctrinated in all things aviation. I owe this to my grandfather, Ron Martin, and the amazing people at Skylark North in Tehachapi, CA. My grandfather, who doubled as my instructor, began training me in flying gliders when I was thirteen. As I started instruction with him, it was very gratifying for me that I was able to control the glider myself and actually fly around. Training intermittently for the last few years got me to my first solo in the fall of 2018 and my private glider license this last March, now that I am sixteen.

Some of the oldest memories I have are of my grandfather and me working on our J-4 Cub project and flying his Stinson. Because he has also flown gliders for many years, it was inevitable that I would eventually get a ride in one. The astounding quietness of that first gliding experience in Tehachapi left me in awe. As there is no engine on his antique Ka-4, the only sound left to disrupt our conversation was the whistling of the glider itself. This was quite a change from always having to wear a headset in powered aircraft. In addition to the lack of engine noise, I was surprised at how long our flight was sustained only by these rising columns of air called thermals, not that I understood that at the time.

Working on the J-4 Cub

My hope is that flying gliders will make it easier when I begin working on my airplane rating and in pursuing my career goals. I have already found that, as of the last time we flew the Stinson, controlling the plane felt much more natural. Becoming a pilot in the Air Force has been a dream of mine for a long time. After talking to recruiters and officers who commissioned through Air Force ROTC, I believe that having a head start with flight time in gliders will help me achieve my career goal.

Without my grandfather and the great people at Skylark North, I would never have found soaring and would not have the same advantages in pursuing a career as a pilot. Thank you to everyone who has supported me in this endeavor.

Aidan Capps

First helping Ron Martin with the 2-8 restoration, then flying and finally soloing in this glider. One step at a time!

The Rebirth of a Schweizer 2-22E … a long way from home

In the 1930s and most of the 1940s all ab-initio training to become a glider pilot in Sweden was done in so-called primaries. These were single-seaters in which the student received instruction from the instructor while on the ground and then was sent up alone in the air to try out what they had been told. In these primaries you sat completely out in the wind on a simple seat with no cockpit around you. And no radio. Surely a crazy feeling for most, and many crashes occurred. As a result, the desire to have dual instruction instead, with the instructor sitting in the same glider, grew and the Swedish gliding movement started to look for a suitable two-seat trainer. As gliding was not allowed in Germany after World War II, everyone looked to Great Britain and the USA for a suitable type.

In 1946 the Schweizer Aircraft Corp. had designed a new two-seater, the 2-22, for training. One, SE-SGU, was purchased and delivered to Sweden in 1947. The Royal Swedish Aeroclub did all training of instructors and therefore was a suitable place for evaluation. The 2-22 was excellent for the mission as a trainer, but, unfortunately, the $ US had become so expensive that no more were imported. The British Slingsby T21 was cheaper, and about six were imported. The big change came a few years later in the mid-1950s with the Bergfalke; more than 160 were imported to Sweden in the next 25 years. The Bergfalke was chosen as a monotype two-seater for the clubs and was sponsored by the Air Force to about 50 percent as a source of recruitment and thus became readily affordable for the clubs. And that sponsorship made it possible to only allow one type, which was good for keeping spare parts and knowledge about repairs.

The 2-22, SE-SGU, was sold to Norway several years later, as was the 1-19, SE-SGX, which was imported as a kit to Sweden in 1947. Both gliders were decommissioned, but the parts were preserved.

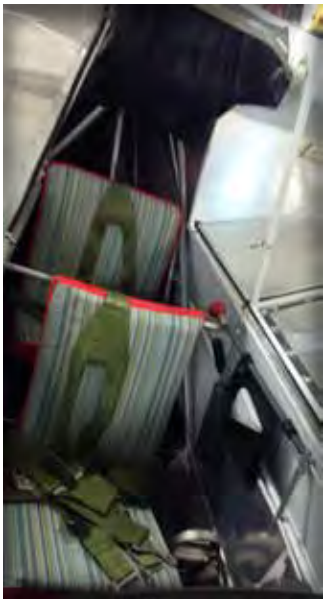
Inside view of the Ålleberg Museum

The Glider Museum at Ålleberg/Falköping was started in 1984; at that time, it was the only museum in Northern Europe dedicated to gliders. The Swedish Veteran Glider Club (SVS or Segelflygets Veteransällskap) was founded in 1992. This group runs the museum today and maintains the gliders in static as well as in flying condition. Nowadays both England and Denmark also have very nice and active glider museums.

Some time later, under the leadership of the very active chairman Rolf Algotsson (1928-2015), an effort was started to import to Sweden a two-seater for dual instruction in a glider. With the help of Jan Scott in the US, one 2-22E-model, built in 1964, was found for sale in Canada for a reasonable price and was shipped to Sweden.

After arrival in Sweden the 2-22 was made airworthy, registered as SE-SMM and moved to the Ålleberg museum. We flew it for about three years before putting it in storage. Of the fifteen or so gliders in the museum about one-third are airworthy, or could easily be made airworthy, and the others are permanently static. We also have a storage facility in a barn 10 km away that houses many more gliders in various conditions with the intention to rotate these into the museum or for major overhaul now and then.

Two summers ago, our Kranich fuselage required an extensive overhaul and was grounded; the following year the cloth on our Slingsby T21 was found in need of replacing. Thus, our two most interesting and most



Jim Daum's just restored 2-22, showing the headrest in place.

L>R: Björn Svensson, Hans Rolandsson, Ingemar Brottare, happy after Hans found the headrest.

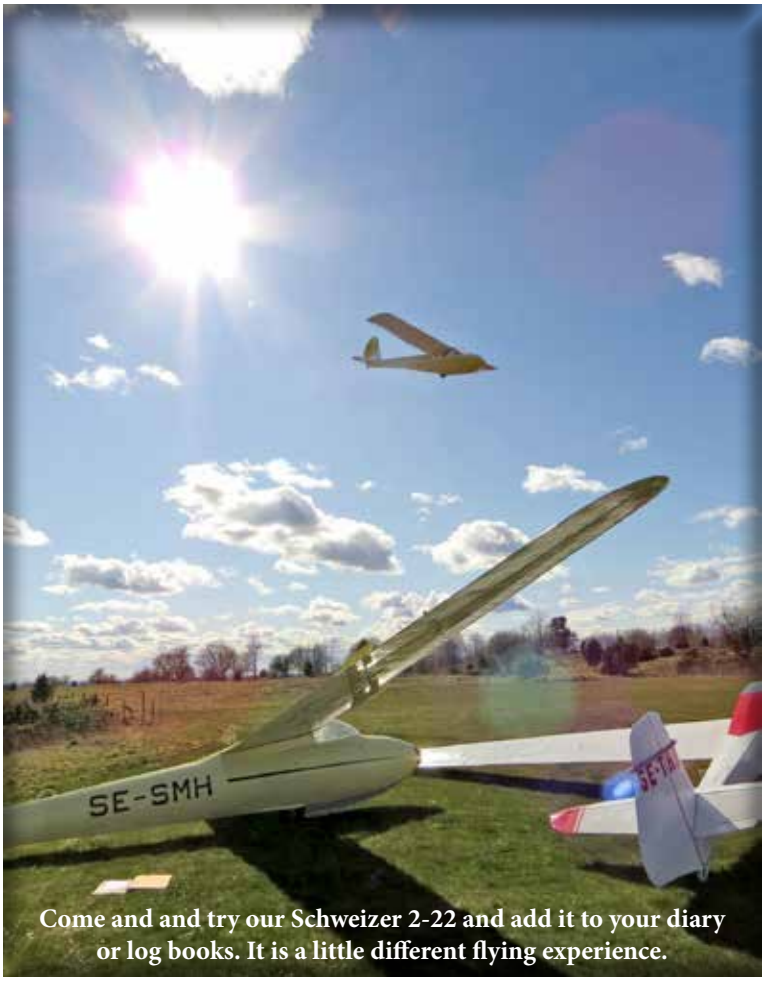
Getting ready for the first flight. Bernt Hall in the front seat and Conny Anderson holding the canopy.

used two-seaters would be out of service for the next several years. Thus, we decided to put the Schweizer back into action, not only for the public, but also for our members as an "exotic" glider, or a glider with a door. It would join our workhorse, a Bergfalke II/55 with the old fashioned "square" canopy. To our knowledge this 2-22 is the only airworthy one in Europe.

As the glider needed an extensive annual, we had to find all the pieces which were stored some seventeen years earlier. For the first rigging we discovered that we had mixed up the strut bolts and had to derig again. We have to admit that none of the members who were familiar with the technical side when this glider was flying previously are still with us. A new weight and balance was performed.

We thought the gap above the backseat door and window was huge. So we asked questions and consulted with K&L Soaring, but also received good advice and photos from Jim Daum, current 2-22 expert, and Jim and Simine Short. We learned that there was a combined headrest and gap seal. But since we could not find that piece, we received a drawing on how to fabricate a new one from K&L Soaring. Many thanks for that.

A few weeks later, during our yearly spring cleanup and waste collection in the museum, one of our members found an aluminum piece, painted blue, and asked if this was for disposal. We immediately recognized the headrest and our problem was fixed instantly!



Come and and try our Schweizer 2-22 and add it to your diary or log books. It is a little different flying experience.

The first flight, by yours truly, on 25 April was uneventful, apart from the rear door opening at about 100 meters in the air, no big deal. The flight lasted 1 hour 18 minutes, the longest flight on that day. Just to show that even if it sinks like a brick, it climbs well, too. A pity we cannot show the glider to others at the VGC Meet this year since it was cancelled due to Corona virus. Thanks to all involved in this project for your support and help.

Bernt Hall

SVS Secretary

With apologies to Lewis Carroll and the original *Alice in Wonderland*, written in 1865, and the immortal Laurence Wright, who adapted the story for us glider pilots seventy years later. Extracted with permission from *Sailplane and Glider,* July 1939.

Alice in Bunjyland

As Alice came over the hilltop, she heard a mild and mournful voice singing the following song:

Twas mornig, and the sliding coves
Did gyre and gimble on the ground.
Reversed were all the rudder feet
And loud the landing sound.

Just over the edge was a glider which appeared to have landed rather heavily on the hillside. In the cockpit sat the Kite Knight, singing:

Beware the bunjybang, my son,
The landingbiff, the turningstall,
Beware the terrordive, and shun
The yankup most of all.

Seeing Alice, he stopped abruptly. "Have you crashed?" asked Alice politely. "Not at all," said the Kite Knight, offended; "I am practicing down-wind up-hill landings."

"That sounds very difficult," said Alice.

"It isn't difficult," said the Kite Knight indignantly, "it is impossible. But," he added, hopefully, "I shall try up-wind down-hill landings to-morrow … Excuse me for not getting out, but the machine might fly away."

"It doesn't look as if it would fly again for a bit," ventured Alice.

"True," he said gloomily, disentangling a piano wire from his whiskers; then, brightening up, "but I've had crashes, compared with which this would be a mere bump. Why, the last days of the camp I learned at were like the last days of Pompeii … How big would you say the biggest part of a sailplane was?" he asked suddenly.

"I suppose about twenty-five feet long …" began Alice.

"When I've crashed them," interrupted the Kite Knight, "you can take them away in matchboxes."

"It must take a lot of matchboxes," said Alice thoughtfully.

"It does. Ever such a lot. But we don't usually bother to take my crashes away. We get spades and dig it in."

Alice was toying with the two little tubes on the nose. "Be careful," he warned her. "Those are to work the air-speed indicator."

"I don't see any air-speed indicator," said Alice.

"There isn't one," said the Kite Knight; "this is a secondary machine, and we aren't allowed them."

"I should have thought it would be very useful to know how fast you were going," said Alice, "especially when you are learning."

"It *would* be useful," he agreed, sadly, "it would be very useful."

"But I suppose you always know when you are flying too fast," said Alice, comfortingly, "because you get down so quickly."

"Yes, but how do you suppose we know when we are flying too slow?"

"Because you get down so slowly," said Alice promptly.

"That's what I thought," said the Kite Knight miserably, "but I found that if you fly too slow you get down faster than ever."

"That doesn't make sense," objected Alice.

"I didn't say it made sense," retorted the Kite Knight; "nothing connected with this business

makes sense. For instance, which is the rudder and which is the elevator?"

Alice pointed them out.

"And if I were doing a 75-degree banked turn, which would be which?"

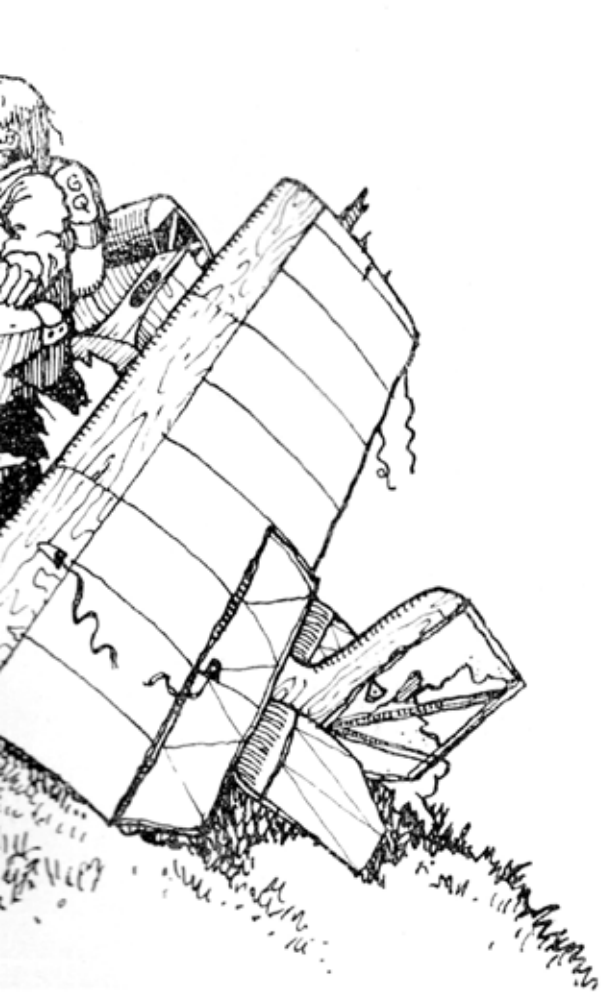
"An elevator must always be an elevator ..." began Alice, but was rudely interrupted: "That shows how much you know. And I suppose you think you go up if you pull the stick back?"

"I'm quite sure you do," said Alice indignantly.

"Not if you were flying upside down," he retorted.

"You wouldn't be likely to be doing that," argued Alice.

"Wouldn't I, though? You haven't watched me fly. But even flying the right way up," he went on, "you don't always go up if you pull the stick back. Not beyond a Certain Point ..." a far-away reminiscent look came into his eyes ... "I found that out when I was on DAGLINGs."



"I suppose you start on those because they are easier to fly than sailplanes?" ventured Alice.

"They are much harder to fly than sailplanes," said the Kite Knight in hurt tones; "we start on the hard ones and end on the easy ones."

"That seems a very silly idea," said Alice.

"It is a very silly idea," he agreed.

The wind by this time was howling furiously, and Alice had to sit on a wing tip.

"Call this a wind?" muttered the Kite Knight, "why, I've seen winds, compared with which this would be Force One on the Beaufort Scale. Do you know, I once flew east at forty miles an hour, and landed an hour later twenty miles to the west?"

"Where I come from," said Alice, "if we travel at forty for an hour we arrive forty miles away."

"We might have to fly at a hundred miles an hour to do that," said the Kite Knight grandly; "why, we sometimes have to fly at sixty just in order to stay in the same place."

"Aren't you afraid that the wings might come off?" asked Alice.

"They do come off,'" he answered gloomily.

"That must make it very difficult to get down safely," said Alice.

"You mean it makes it very difficult to stay up safely," he corrected her, "and now do you mind staying on the wing whilst I get a retrieving car?"

"I don't think you can drive a car up this hill," Alice called after him as he disappeared down the slope.

"Nor do I," he shouted back, "but I often try."

And as he hurried down, the following song was wafted back on the wind:

But I was thinking of a plan
(Since WRENS are painted green
And always fly so near the hill
That they can not be seen)
Involving Klaxons, coloured lights
And poles marked off with various heights.

My scheme to slot the DAGLING wing
Would end for good and all
This bandying with the burbling point
And flirting with the stall.
One might do well to raise K1
By fitting flaps to the nacelle.

He was now at the foot of the hill, but his last words came back faintly:

My wingtip wheels, my triplane KITE,
My bumpers for KADETS,
My scheme for landing in the night
In floodlit safety-nets,
My floats for FALCONS lost at sea,
Are all a great necessity ...

ANON.

Moderne Svæveflyvning

This interesting little softcover Danish book was published in 1959 and discusses the Danish contribution to the sport of soaring, along with some basic information on how to become involved in the sport.

The book brings many photos, including one showing Harald Jensen with his wife Alice, and his "*Flying Sink,*" his German Lo-15.

Danish-born Jensen and his brother Sven eventually owned a company that manufactured steel sinks in the Chicago area.

It is curious that the cover of the book shows a picture of a US Air Force Academy 1-26. And photos of a Schweizer 2-22 and a 1-26 at the Air Force Academy are shown inside.

The author, Per Weishaupt, a well known glider pilot, was a member of the Royal Danish Aero Club (KDA) and writer and editor of the Danish *FLYV* magazine between 1964 and 1988.

Although it clearly helps to be able to read Danish, this little book compares specifications of 33 sailplanes of the 1950s and earlier, recaps record flights of the time, and lists the first 107 three-diamond pilots on a worldwide basis. Significant flights, mostly in Europe, are reported, but there is also a nice write-up of the American wave flights at Bishop, CA, as well as Project Jetstream.

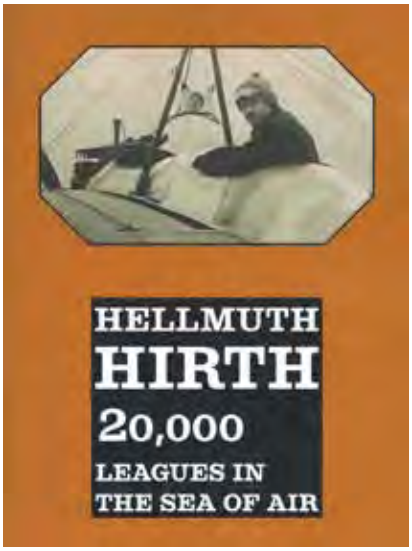
All in all, this is an excellent overview of mostly American and European soaring as seen first-hand in the late 1950s. Jim Short

Hellmuth Hirth

Hellmuth Hirth is a colorful early flying pioneer, who learned to fly in a biplane glider in 1909, but then moved to airplanes. His autobiography, highlighting his beginning steps in this new sport, was first published in 1915. The book was recently translated into English by Shirley Girard and makes interesting reading.

Below are two sections from the book that I found fascinating.

"In Darmstadt I had the opportunity to try out a sailplane constructed in the manner of Chanute [in 1909]. We took turns, August Euler, Colonel Ilse, my father, and then I, taking off from the *Chimborasso*, a small hill at the military training field. We were able to glide short distances up to 40 meters (~130 feet) with a strong wind. The descents with this motorless glider usually proceeded smoothly, although I had the feeling that a glider was more dangerous than a motorized aeroplane.



"At the ILA'09 in Frankfurt I had seen for the first time a Blériot in the air. This convinced me that the monoplane was far superior to the biplane and that it would surely be the design of the future."

In 1911 Hirth learned to fly powered aeroplanes in Wiener Neustadt with Edmund Rumpler, and earned aircraft pilot certificate No.79. In 1912 he joined the Albatross Works as technical manager and flight instructor.

"Now to flying itself! After my tenth solo flight, it became clear to me that flying is not an art. I maintain today that flying is merely overcoming the fear of being alone in the air. The maneuvers that one makes with a stable machine - and there are only a few - are child's play, even for beginners, because every move he makes with the controls is a natural and instinctive activity in almost all aeroplanes with normally arranged steering systems.

"Wing-warping on a machine that is as stable as the Rumpler Taube is only there for rare emergencies. I myself have only used wing-warping to see how it works, and when there are strong wind gusts, but only until I noticed that even in the strongest gusts I didn't need it. The wing-warping system is retained in order to give the pilot moral support, something to use in an emergency, though a skilled pilot will only need to use his rudder. The young aviator should consider it a last resort security measure, rather than a system to be used regularly."

After the first World War, Hirth turned to the development of engines and propellers and played an important role in the development of German aircraft engines. Hellmuth's younger brother Wolf is better known to most of us, as he became one of the all-time great sailplane pioneers.

The self-published book *Hellmuth Hirth. 20,000 Leagues in the Sea of Air* (ISBN 978-3-00-060431-7) is available for €19,80 plus postage from the translator <Shirley@mudflap-aviation.com>. Simine Short

The Wing and I.

Jim Marske explains in the introduction to his latest book: "The research and development of the designs described in this book was inspired by the groundbreaking work of pioneers Charles Fauvel and Al Backstrom. It is hoped that this book will encourage others to carry on where this author has left off."

Jeff Byard was excited reading the book and shares his comments with VSA members:

I'll bet that most of us either have, or have had, some sort of fascination with flying wings. For me it started in the early 1960s after building a plastic model of a Messerschmitt Me-163 Komet and also seeing a flying wing sailplane at an airshow in Chino, CA. This was probably Jack Lambie's Fauvel AV-36. I remember that it had two vertical fins and rudders and the skid looked as if it was made of

push-broom bristles. Reading about the Horton and Lippisch's other flying wings just added fuel to the fire.

Jim's book is a chronology of all of his flying wing sailplanes from the early 1950s up to the present. Each chapter details one of his various flying wing designs, from his early XM-1 Flying Planks through his Pioneer series of sailplanes. With the advent of all-composite structures came the Monarch ultralight flying wing sailplane and along with some new stable reflexed laminar wing sections, the Genesis 2 Standard Class sailplane was created.

After the Genesis project was completed, armed with the latest composite and airfoil technologies, Jim has been continuing the development of the Pioneer flying wing series. His current design is the Pioneer 4 and he hints at the possibility of a Pioneer 5 and maybe even a Pioneer 6! In the description of each of his sailplane designs, Jim takes us through his thought process. He describes the lessons learned from each design, then to either be carried on to his next design or to explore new ideas.

This book is not only an entertaining read but also very educational as well. This is a beautiful hard cover, 160-page, $8^1/_2$ x 11 inch, self-published book, profusely illustrated with black & white and color photos along with detailed drawings of each type. The book is available from Marske Aircraft <https://marskeaircraft.com/new-book-the-wing-%26-i> for $69.99 plus $10 shipping and handling. Money well spent! I thoroughly enjoyed Jim's book and learned a lot!

I am now inspired after reading the book. I think I will fly the Genesis today, even though it is "unofficially" our vintage/classic weekend at Tehachapi, with social distancing of course.

Jeff Byard

Now that the "Lock-Down" has been lifted in many areas, do not forget that annual inspections are due, just like they always have been.

Social Distancing among the 60-Year-Olds in the Wabash Valley Soaring Association hangar. Note the regulatory distancing and "N95 masks" on these gliders. All they need to do now is get outside for some fresh air under their wings! The photo shows Dave Schuur's Ka-6E, Jan Steenblik's Zugvogel 3A and Ka-7. Jim Short

Prepping for the flying season in Lawrenceville. The photo shows four of the six of us who were helping Tom Baker do annuals on the Wabash Valley Soaring Association's classic Twin Astir, ASK-13, Ka-6 and Astir CS. They also complied with the new Grob Service Bulletin for the elevator pushrod on the Astirs. From left to right: Tom Baker, Nick Baker (mostly hidden behind Tom), Ron Elpers and Austin Payne, an airplane CFI from Evansville who is considering joining the club. Also present, but not in the photo, were Jim Short and me, Jim Croce. Ron Elpers got in a flight to cloudbase in the club's open-cockpit Ka-8, the first glider flight for the club since New Year's Day.

Jim Croce

Chad Wille's Skylark 3F wing restoration at St. Croix Aircraft in Corning, IA, begun after removing the old fabric. Chad said the wing was in good condition, but added that cosmetic restorations can take nearly as long as mechanical ones. Fuselage and tail are complete through finish coat of color and only the wing restoration remains. And then comes building a trailer for an 18-meter three-piece wing!

Kenny Chapline from Tennessee visited Tom Baker's TDB Aviation shop in Olney, IL, for the annual inspection of his 1-23F a couple weeks before it made its first official flight in 2020 on 2 June in Lawrenceville.

Jim Stoia from Manning, SC, reports that he has decided not to sell his Ka-6CR and has restored it instead. It actually flew better than he remembered, so he had fun flying it a few weeks ago.

For L-K Lovers! Gene Cope informs us of his latest glider model project. It will be a **Bunny Nose LK-10A** based on Dean Gradwell's bare frame components. Many of us probably remember seeing the "uncovered glider" at the SSA Convention in Las Vegas or at the IVSM 2016 at Harris Hill. Gene reports, "I had much help from Doug Fronius who is providing photos and information on forming the extra large wing fillets. It will be a 1/3 scale model with a 16-foot 8-inch wingspan."

Dean Gradwell's LK at Las Vegas

Progress report by Gerry and Kristin Wild on their 1-19: "We are in the middle of moving our home, so we have not made much progress on the 1-19 lately. But since the 1-26 belonging to Andrew Meads is out of the paint booth, we took the opportunity to cover the 1-19 tail feathers. Andrew and Kristin helped with the covering, and Kristin and I have stitched them. They are now ready for tapes. We hope to be settled into our new home soon and be able to create some shop space so that we can begin assembling wings. We basically have a kit made, with all ribs, fittings and spars ready to go!" Gerry Wild

Andrew Meads from Hatfield, PA, is making good progress restoring his 1-26A s/n 118. It was stripped down and inspected, revealing a few tubes that needed replacing due to rust. The old fiberglass nose

was removed and replaced with an original style fabric-and-wood-stringer nose. The instrument panel was redone, keeping all original instruments including the pellet vario, participation badge from the 1965 1-26 Regatta, and a pull-out ashtray! Apparently, the original owner used to smoke cigars while he flew. A CG release was installed, and then it was all recovered and painted. It was just assembled for the first time after painting and looks pretty sharp! Looking forward to seeing it back in the air. Gerry Wild

Behind the wings of the Baby is MAM's Bücker Jungmeister and anti-aircraft range finder.

The Grunau Baby at the Virginia Beach Military Aviation Museum (MAM) has been moved from storage into the Cottbus Hangar for work and display of the project. A group of volunteers from the Tidewater Soaring Society (calling themselves the KTFC, "Keep Them Flying Club") began the project back in 2013 (see *Bungee Cord* Winter 2013), but had to stop when the work space was needed for higher priority projects. The second wing had been uncovered, but work then stopped. I had donated all the drawings that I purchased from the VSA to the MAM. Of course, the MAM is closed now, making any further queries difficult.

Robert "Boom" Powell

Our Slingsby T-61A had about five flights when I grounded it for a fuel leak. I had noticed that the gas level had dropped a couple of gallons over the three-week period when it sat in the hangar since the last flight. I removed the panel behind the pilots seats and could see the blue staining from the avgas that had leaked out. The leak was so slow that there was not even a smell of gasoline. I have since removed the tank and the fuel valve, which also had a small leak, and discovered that the tank had a hairline crack at one of the welded seams. It is now at a local shop awaiting repair. After the crack is repaired, the tank will be coated with a fuel tank sealer to make sure that there are no further leaks, and the fuel valve will be replaced.

Jim Croce

Chad Wille of St. Croix Aircraft reports on the complicated Limbach installation on Richard Bracy's Scheibe SF-28A motorglider, which was recently rebuilt. It is now running with new dual ignition system and add-on oil cooler. Manufactured in 1974, this glider is currently registered in the Experimental Category and has about 800 hours total time, 50 percent of which is under power.

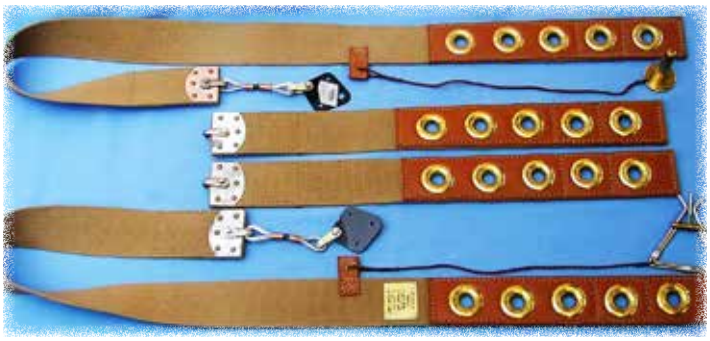
Neal Pfeiffer and his Ka-2 Project

The shop has been busy since towing the Schleicher Ka-2 from Georgia to Kansas.

After investigating obvious root rib damage further, the cloth needed to come off both wings so that all the glue joints in the trailing-edge ribs could be inspected. This inspection led to many rib gussets being reglued. In addition there was an area on the outboard left wing, where two skins had been replaced, apparently when the spar had previously been repaired. A thick layer of filler had been applied to correct waves in the skins. These two skins were removed and new skins were formed and glued in place. I was glad that no issues were seen with glue joints in the leading-edge ribs in this region. Next the fabric-glue residue will be scrapped off and after a fresh coat of epoxy varnish is applied, the wings will be ready for new fabric.

The first photo shows the skins removed from the outboard wing and curved pine strips glued to provide scarf backups for the new skins. The second photo shows a combination of fitted wood strips, bar clamps, and band clamps being used to hold the new skin in place while the glue cures. The third photo shows the new leading-edge skins installed, along with new skins for the wing tip.

Neal Pfeiffer



UK member Bruce Stephenson reports that he is working on his Slingsby Gull 3 replica restoration between duties with the Vintage Glider Club, working on *VGC News,* and his "daytime" flying job with DHL.

The accompanying picture shows the original style Sutton Harness seat belt and shoulder harness used on his Gull, which needs the fabric portion replaced. He is looking for a source in the US who might be able to provide this service, and would appreciate any advice. BC

In honor of her 73rd birthday, Schweizer 1-21 s/n 2 is receiving its first real radio, installed by Tom Baker of TDB Aviation. Some of the newly engineered changes include a cross-fuselage speaker bracket, low-drag antenna, boom mic and push-to-talk switch. They nicely offset the vintage Cosim pellet variometer. Jim Short

Remember the Award Miniatures?

Back in the late 1960s, small scale model kit sailplanes were very hard to find. In fact, mye local hobby shops had not heard of any at all. I had never seen any until my Dad and I were having lunch in Ann Briegleb's coffee shop at El Mirage Field. Hanging from the ceiling were several beautiful little models of various popular sailplanes. At the time I was learning to fly in their TG-3s. We were told that these were solid balsa models available as kits, and that they were advertised in the back of *SOARING* magazine.

Back then, the SSA membership only started in January or June of each year. It was probably February or March of 1968 before I became a student member and began receiving *SOARING*. When the first two or three issues finally arrived, sure enough, there was a tiny ad in the back of the magazine for Award Miniatures model sailplanes. The ad said to send a self-addressed stamped envelope for more information. After what seemed like weeks, my envelope came back with a mimeographed catalog of all sorts of sailplane models, from the big Graupner flying models, to the little scale balsa models. The info said that the kits contained precision cut balsa parts and detailed instructions. I ordered a TG-3 for $1.25.

Again, after what seemed like an eternity, my TG-3 model finally arrived. In the box were the "precession cut" (sic) balsa parts. The fuselage block came with the side profile and a cut out for the wing already shaped. The wings had the planform already cut out and there was a $^{1}/_{32}$-inch sheet of balsa to trim out the tail feathers and landing wheel. There was also a $^{1}/_{16}$ x $^{1}/_{16}$-inch balsa stick for the skid and steps, plus a clear plastic sheet to form all the flat wrap canopy segments. On models with compound curved canopies, a neat little vacuum formed canopy was included and there were also some very basic decals. The "detailed" instructions were a nice three-view drawing with a photo or two and some design history. The wing and fuselage cross-sections were also shown on the drawing. The text basically said to trim and sand away everything that did not look like a TG-3. Simple!

Top to bottom: TG-3, 2-22, 1-26 and 1-26 with its original box, 2-32, and the unbuilt Minimoa kit. The Zögling is damaged and not shown.

This was new to me; I had only built plastic scale models. My Dad said that all the models he built had come this way. The TG-3 came out pretty good, but my first attempt at the canopy looked more like a "bunny" nose LK-10. After a couple more tries it finally came out OK. I have also built a Schweizer 2-32, a 1-26 and a Zögling. More recently I have been given a nicely built Schweizer 2-22 and an unbuilt Minimoa kit. I am still looking for a Baby Albatross; perhaps someday one will come up on eBay!

Here is a list of my Award Miniatures sailplane kits: TG-3, 1-23, 1-26, 2-22, 2-32, Skylark 4, Zögling, Minimoa, BG-12, Prüfling, SISU and LK-10.

Today there are quite a number of plastic, resin, vacuum-formed, and even some very detailed paper model sailplane kits available, with many of them being vintage ships. These seem to mostly come from England, Japan and some Eastern European countries. I wonder if anyone has made a complete list of these? Some of the brand names that I have seen are Revell, Planet, Ardpol, Czech Master Resin, Hasegawa, HPH, KORA, HUMA, Phoenix, Awol Model, Lineside Models, and Fiddlers Green for the paper card models. I see that some of these are available in the various soaring supply catalogs. The National Soaring Museum gift shop generally has at least some of these kits in stock as well.

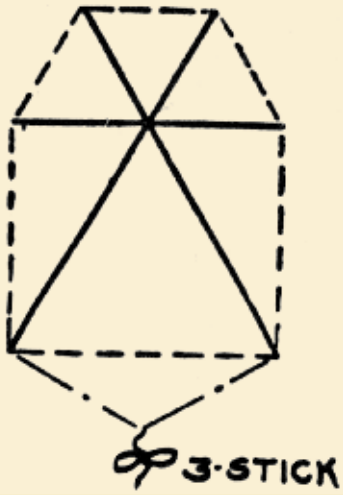
Jeff Byard

Kite building series from *Evening Star*, Washington, DC, 10 April 1930.

Kites — How to Build Them

Article 5: A Three-Stick Kite.

This is a favorite in some localities. It is a type of which I have made many, and of which many are flown in the region around New York, Philadelphia and South Jersey, but I have not seen many of them farther south. It has a good broad surface, which can be used for decoration, if the maker wishes to have a fancy kite. Some boys paint faces on such a kite. It should be made about three feet long, of sticks about 1/4-inch or 5/16-inch square. The proportions are such that the cross stick is to the long sticks as two is to three—that is, for a three-foot kite, the cross-stick would be 24 inches, the long ones 36 inches. The sticks are lashed together 12 inches from their end, and so spread out (see drawing) that the three triangles at the top are the same, and equilateral. This makes the sides of the kite parallel, and the large area becomes a square. This frame is bounded by a string outline, which is retained in the ends of the sticks by passing it through a slit, as explained and illustrated in Article 3 of this series [Winter 2019 *Bungee Cord*]. Keep the shape true. To cover, lay the frame on the paper and cut out the shape with a l-inch margin; fold over this margin and paste it down, making a neat job, especially around the corners, where the margin must be cut about the sticks.



The bridle is made of three strings, attached to opposite ends of the sticks, and joined above the crossing point about a foot distant. The kite string is attached to the apex. When a kite has been made untrue, and flies with a tilt, this can be corrected by shifting the point of attachment of the bridle to the low side. For strong winds move the point of attachment toward the top of the kite.

This kite requires a tail. It is made of pieces of paper 10x5 inches tied at their centers in a piece of string about 20 feet long—that is, long enough to balance the kite in the air. Use enough tail to get a good balance, but no more than is necessary, as useless weight will hold the kite down.

The next time—The Eddy Kite.

Paul E. Garber

Engineering Plans from the VSA Drawing Archive

The VSA Drawing Archive team continues to be on the lookout for engineering drawings, parts lists, assembly instructions, and other pertinent documents and material on vintage gliders.

The Drawing Archive team has collected quite a few complete sets of plans for important gliders from the United States and Europe. Considerable effort has been made to digitally scan and catalog these drawings. Using skilled volunteer help, many of these drawings have been cleaned to remove decades of background noise, tears, and other disfigurement, so that they may be more easily read and used.

Many other sets are in the archive, but they may not be complete or be fully cleaned. If you have a specific interest for your glider or project, feel free to inquire.

Questions about the VSA Drawing Archive, including drawing availability for other glider types, can be sent to Jeffrey Stringer <jhstringer.jhs@gmail.com> or Neal Pfeiffer <nealpfeiffer@sbcglobal.net>.

Note that our volunteer archivists also work with modelers to assist them with specific drawings from a particular set so they can create their subscale replicas of vintage gliders as accurately as possible.

These drawings are available to VSA members for a donation to the VSA to support this continued effort. General information on suggested donation levels can be found on the VSA website <vintagesailplane.org>.

Drawing Sets for Basic Vintage Wood Gliders Include:

- **Denver Pioneer Utility**
  (drawings plus excellent assembly manual)
- **Hütter 17**
  (drawings in German and English)
- **Grunau Baby II and IIb**
  (the IIb drawings are a nice, clean collection)
- **Kaiser Ka-1**
  (this set has been assembled from various sources and cleaned)

Drawing Sets for Vintage Wood-Wing Gliders with Steel-Tube Fuselages Include:

- **Briegleb BG-6 Utility**
  (9.8 meter span, drawings plus assembly instructions)
- **Briegleb BG-7**
  (12.3 meter wing for BG-6, drawings plus instructions)
- **Kaiser Ka-3**
  (a good set that has been used for a very nice model)

Drawings for More Complex Gliders Include:

- **Bowlus BA-100 Baby Albatross**
  (drawings plus assembly instructions)
- **Olympia Meise**
  (very complete nice set in German)
- **Rhönbussard**
  (good German & Danish sets)
- **Hütter 28**
  (Gull-wing glider, nice set in German)

Ninety Years Ago

Elmira Star Gazette, 2 October 1930 - Editorial

Elmira, the Glider Capital of the World!

Such it deserves to be, declare famous airmen who have been making record-breaking flights during the national glider meet. And why not?

Elmira has everything needed to make it the center of gliderdom. The contour of the country hereabouts, the sloping hills, the bluffs from which to take off, level spots below on which to land; valleys ramifying in many directions so advantage can be taken of winds from any point of the compass, the airport always within easy reach for landings, storage and repairs. Good roads make every available spot easily and quickly accessible; comfortable accommodations are to be had at all times for the airmen; the intense interest here in aviation generally, what more could be asked? What place anywhere can provide as much?

Gliding today is a noble sport, like yachting. Gliding also has a serious side. In a glider the novice can learn to fly more easily and better than in powered planes. The flyer who has used a glider knows what to do when the engine of a powered plane stalls. Overseas transport aviators have to have a glider's license before they can qualify. The glider is going to come into far more general use, both for sport and for training. The manufacture of gliders is going to become an industry. If Nature made Elmira an ideal spot for glider soaring, certainly Elmirans should be quick to sense the fact and take every possible advantage of it. Let's get the glidermen coming here. Let's get a factory or two to make gliders right here where they can be tested and used. Elmira is having a national meet with international significance.

Why not make Elmira the glider capital of the world?

2020 Calendar of Events

June 26-29 • IVSM Vintage Rendezvous. Massey, MD
CANCELLED.

July 4-11 • International Vintage Sailplane Meet IVSM 2020. Harris Hill, Elmira, NY
CANCELLED.

July 25-August 9 • Vintage Glider Club (VGC) Rendezvous and Rally
CANCELLED.

September 4-7 (Labor Day Weekend) • Experimental Soaring Association Western Workshop/Vintage Sailplane Regatta

Mountain Valley Airport (L94), Tehachapi, CA. Tows, flying operations and camping facility provided by Skylark North (661) 822-5267. Information: Jeff Byard (661) 609-4848 or <jgbyard@gmail.com>.

September 17-20 • Great Plains Vintage/Classic Regatta

Wichita Gliderport, two miles east of Jabara Airport in Wichita, KS. Hotels and restaurants nearby. Saturday features vintage glider topics colloquium. Information: Neal Pfeiffer <nealpfeiffer@sbcglobal.net> or Tony Condon <abcondon@gmail.com>.

NEW DATES! October 16-18 • Eastern Vintage/ Classic Gathering and Octoberfest

Chilhowee Gliderport, Benton, TN. Tows and flying operation provided by Chilhowee Soaring Association, Inc. Stay after the 18th for another week of beautiful fall soaring. Visit <Chilhowee.com> or call Sarah Arnold (423) 338-2000 or (423) 506-9015.

Looking ahead to 2021 ...

January 1 • Polar Bear Glide at Tehachapi, CA; Lawrenceville, IL; Tidewater Soaring Society, VA; Independence, OR; and possibly others

Watch for more details and contact individual sites directly for last-minute weather-sensitive plans.

July 10-17 • International Vintage Sailplane Meet IVSM 2021. Harris Hill, Elmira, NY

National Soaring Museum, Harris Hill Soaring Corporation and VSA welcome you to Harris Hill for a week-long gathering of some of the world's most significant and beautiful vintage and classic gliders. Information and registration: NSM (607) 734-3128, <www.soaringmuseum.org> or <info@soaringmuseum.org> or contact Chairman Bill Batesole at (603) 762-8137.

The Vintage Sailplane Association is pleased to print notices of events and meets that it receives from its members. VSA does not sanction or sponsor events or meets or accept any liability for them. VSA urges event sponsors and those submitting notices to provide information as accurate as possible and to indicate any restrictions or special requirements regarding participation in their events.

Please contact the event sponsor with any questions.

Reprinted with permission from South Bend (Indiana) Tribune, 7 April 2020

Local Raptors are busy making more Raptors this Spring.

Four peregrine falcon eggs have been laid in the nest on top of the County-City Building in downtown South Bend, IN, in late March; it may be late April when they hatch. The falcons are known as Maltese and Peace. The eggs typically hatch about 30 days after the parents begin to incubate them, but former raptor rehabilitator Carol Riewe of South Bend said she is not exactly certain when that happened. Maltese, the female, who had flown here from Milwaukee, WI, is marking her fifth year in the nest, Riewe said. Peace, the male who had come from Mt. Clemens, MI, marks his third year.

And the first of three bald eagle eggs hatched on Saturday while the second one broke through its shell on Monday, 6 April 2020.

Joseph Dits

Photos supplied by the author.

Classifieds

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Phoenix T, s/n 8. Built 1962. 1200 hours total time, 480 flights. Flew world distance record of 875 km in 1963. Excellent condition, enclosed trailer, Jaxida covers. Asking price €16,500. This type is the world's first fiberglass aircraft. Located at Terlet in the Netherlands. Contact Hans Disma at <Disma@online.NL> for further information.

WANTED for Pratt-Read LNE-1/TG-32 Restoration Project: Parts, technical drawings and manuals, and even a trailer are needed to complete this project and bring it back to airworthy condition. Contact Leland Cowie at (419) 307-7564.

HP-14 project/parts for sale. More or less complete glider, drawings, plus set of new wing ribs. Good project to finish or use for spares. Reasonable offers accepted. If interested, call Gerry Wild at (215) 407-3137. Located in Eastern PA.

For Sale. Early short-wing 1-23 with open trailer. Stored at Caesars Creek Soaring Club near Dayton, OH. $12,000 or serious offer. Tom Bonser (513) 673-7746 or <bonsertom@aol.com>.

FOR SALE: Slingsby T53.b "Phoenix."
Built 1971, TT 1790 hrs. Current registration as of March 2020. Complete log book provides history back to manufacture and test flights. All ADs and SBs complied with. Honest 29 to 1 performance. Will legally carry more than a SGS 2-32. Great for taking friends and family for rides, teaching hand/foot coordination, and basic cross-country methodology. Will provide fresh annual upon sale. Open trailer (licensed and roadable), canopy covers (2) and many other accessories included. Asking $23,000, serious inquiries only. Contact Art Babiarz at (610) 823-6385.

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<esoaring.com>

VINTAGE, OLD-TIMER & CLASSIC GLIDERS — VINTAGE GLIDER CLUB
<vintagegliderclub.org>

NSM NATIONAL SOARING MUSEUM HARRIS HILL, ELMIRA, NEW YORK
<soaringmuseum.org>

VSA MEMBERSHIP APPLICATION

Name: _____

Address: _____

E-mail Address: _____ Phone: _____

Glider(s) Owned: _____

Enclosed is $ _____ for _____ years membership and $ _____ donation.

- Please make check or money order payable to VSA or use PayPal on <www.vintagesailplane.org>.
- Rates for US and Canada are $35 for 1 year, $65 for 2 years, $155 for 5 years.
- Members with mailing addresses outside North America, please add $18 per year for postage.

Mail to: VSA Membership Coordinator
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