



# AIRWORTHY



THE OFFICIAL JOURNAL OF THE BLACK FOREST SOARING SOCIETY



24566 David C. Johnson Loop  
Elbert, CO 80106  
(303) 648-3623



VOLUME X , NUMBER 6

DECEMBER 1995

**REMEMBER !**  
**BLACK FOREST SOARING SOCIETY CHRISTMAS PARTY**  
SATURDAY, DECEMBER 9, 1995, 6 PM, FRANKTOWN FIRE STATION

### DON'T MISS THIS ONE!

The annual BFSS Christmas Party is upon us! The date is December 9th, the time, 6 PM - Franktown the corner and 86. You ready re- turned - a form. If decided to be too late to call Hans Arnold ([303] 841-5126) and make amends. Remember, it's FREE - all you have to do is bring food



the place - the Fire station, on of highways 83 should have al- ceived - and re- reservation not, or you just come, it may not

according to the following schedule: A-C, salad or veggie plate; D-K, main dish; L-R, juice/soft drinks/hot apple cider; S-Z, dessert. Come, bring the kids and enjoy - there'll be good fellowship, sing-along and maybe even a visit from the bearded guy wearing the red suit!

### MEETING MINUTES

Following are combined minutes from the November Board of Directors and General membership meetings, held on November 11th, 1995 at the gliderpark.

- o Minutes of October meetings were accepted.
- o The "Group of Four" is working on a revised set of Field Procedures. these will be published upon completion.
- o John Goodlette has been appointed as a member of the SBF Board. Other potential new board members are being contacted.
- o The Christmas Party arrangements will be looked into by Hans Arnold.
- o Board meetings will be on Tuesday following the first Saturday of each moth. The December meeting will be on the 5th at the Village Inn in Monument, just off I-25 at the Highway 105 exit.
- o The Treasurer's Report was accepted as read. Premises insurance was paid in October. Increase of dues was approved at the Annual Membership meeting in September

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and John has sent bills to the membership reflecting the new rate.

○ BFSS received a letter from the SSA thanking us for the contribution to the Kolstad Scholarship. It is reprinted in this newsletter.

○ The policy toward allowing former members to rejoin was formalized. Motion made that for reinstatement, the member is obliged to pay the minimum of the applicable initiation fee or the back dues owed, whichever is less. Motion passed.

○ Motion made to allow Jim Schwerin to rejoin the club under a special exception to the above passed policy due to the unusual conditions under which he resigned. Motion passed.

○ Motion made to pay Joe Baer back for expenses incurred in radio work. Motion passed.

○ Discussion of issuing bonds to raise money to pay off upcoming debt. \$4000 needs to be raised before January 31, 1996, to prevent outing the club in to financial difficulties later. Early payment of dues helps out greatly according to John Goodlette.



○ Cumulative voting by the membership was suggested for future elections. Motion made that cumulative voting be the policy and added to the bylaws of the club. Motion passed.

○ BFSS has agreed to put a sign in front of the Ops building welcoming transient pilots to Kelly Air Park. Walt will ask Ben for the preferred wording.

○ Joe Baer will begin a dialogue with the FAA, on behalf of BFSS, concerning the routing of flights over Kelly Air Park, and the impact on our soaring and the obvious safety implications. Motion made and approved to have Joe pursue this.

○ Air Force Academy agreements: Landing agreement and wave window agreement need to be addressed. Tom Eggers will follow up on these items.

○ SBF reports that Marcia is leaving at the end of November and SBF is looking for someone to replace her. She will do training through the end of the year on

Fridays if needed. She will be missed - the commercial Operation has been in good shape as a result of her hard work.

○ The hangar 3 roof writing needs to be painted out now that the runway is in the name and frequency. This will be done as soon as possible.

These minutes are submitted by Bill Gerblick, BFSS President.

#### OCTOBER TREASURER'S REPORT

The financial summary for October 1995 follows:

Cash Balance	\$ 5,249
Bank Loan Liability	\$45,159
Total Liabilities	\$58,854
Equity	\$37,979

Our cash balance has decreased because of payment of \$7000 to Ben Kelly for the common area expense in accordance with the settlement reached in October. Also, the premises insurance was paid in October, which had been budgeted for November. Liabilities were increased by \$4000 for common area expense per the settlement. It becomes due in January 1996.

- John Goodlette, Treasurer.

#### THE "PREZ" SEZ:

At the last Board of Directors meeting, the upcoming obligation to Ben Kelly of \$4000 by January 31st 1996 was discussed. The obligation will be met through one means or another. But a simple solution was proposed. If as many members as possible pay as much membership dues in advance as they can, this obligation can probably be met with little impact on the club financially. The club will, in all likelihood, have no major financial issues in 1996 due to the dues increase that has already taken effect in 1995. But, a "hump" is coming in January and this proposed solution will probably get us over it. So, what I am asking is that as many members as possible do what I am going to do. I am going to pay all of my 1996 dues in advance and before the end of 1995 so that this club can more easily get over this financial "hump" coming in January. And instead of 12 checks in

1996, I only write one in 1995.  
- Bill Gerblck, President.

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#### COMING EVENTS

Dec 5 - 7 PM - BFSS Board  
Meeting, Village Inn, Monument.  
Dec 9 - BFSS Christmas Party, 6 PM,  
Franktown Fire Station.  
Jan 9 - 7 PM - BFSS Board  
Meeting, Village Inn, Monument.  
Jan 13 - 5 PM - BFSS General  
Membership Meeting, gliderport.  
Feb 6 - 7 PM - BFSS Board  
Meeting, Village Inn, Monument.  
Feb 10 - 5 PM - BFSS General  
Membership Meeting, gliderport.

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#### MEMBER ACCOMPLISHMENTS

Dirk Van Westreenen - FAI number  
5808 (US #811).

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#### WE GET LETTERS

Soaring Society of America  
PO Box E  
Hobbs, NM 88241  
November 7, 1995

John Goodlette  
Black Forest Soaring Society  
24566 David C. Johnson Loop  
Elbert, CO 80106

Dear John,

One of these days I'm going to run out of superlatives to describe the support that BFSS gives to the Kolstad Scholarship. Your commitment is nothing short of phenomenal.

All of the members if the soaring movement benefit from your support of the Kolstad Scholarship. The scholarship is a truly significant program that supports youngsters involved in the sport.

Please convey our most sincere gratitude to all of your members who supported the fund raiser. Thank you, one and all.  
/s/ Larry Sanderson  
Executive Vice President

#### S A F E T Y A L E R T

We have imposed some altitude restrictions on BFSS flights in the immediate vicinity of Kelly.

The reason is that the FAA, not having been adequately informed of the presence and nature of glider operations at Kelly, implemented a 60-day test which began on 10/6/95 and which routes traffic from Colorado Springs to Denver directly over Kelly, at altitudes of 10,000, 11,000 and 12,000 ft. MSL. The FAA's objective is to alleviate noise complaints from various sources.

This situation presents a serious mid-air collision hazard between gliders and transport airplanes.

Details of the restrictions are available in the Operations Office. Please make sure you have read and understood them before take-off.

We owe a debt to Paul Janak for having alerted us to this situation. I met with this competent FAA Supervisor and his staff on 11/15. In the discussions, which lasted for an hour, the FAA was positive in its approach toward an early solution to the problem. They are now fully aware of the manner in which we conduct our glider operations, and of our constraints.

Caesar Flores and I have agreed that the preferred solution would be to have the FAA move the transport traffic 4 or 5 miles east of Kelly, since the vast majority of our cross-country flights depart toward the western sector. The FAA is looking into this. A less attractive alternative might be to leave the transport traffic on its present track and raise it to higher flight levels - at least 12,000 ft., preferably 14,000 ft..

We really did not need this headache, but the FAA and I are doing our best and I will keep you informed.

\* \* \*

Before your next flight, please make sure that you have looked at the shoulders of the newly resurfaced runway. They are soft and irregular, and could cause damage to a glider which attempts to turn and roll off the side of the runway into the grass. For the time being, it is recom-

mended that gliders not attempt to roll off the runway, except at taxi-way inter-sections. Work is in progress to remove this hazard.

\* \* \*

When closing the overhead hangar-doors, please remember that there are holes in the concrete door-sills, and corresponding steel pins in the bottom door frames which are intended to drop into the holes and secure the doors.

Any significant wind generates a horizontal "lift" force which tends to suck the door out. If the pins are not in place, the door bows outward and sustains damage.

The correct action is to lower the door to within an inch of the bottom, pull it inward at each pin-location and ensure the pin is in the corresponding hole, and then lower the door completely. Please make a final check by pulling and pushing against the door, to see that it is properly secured. This will prevent unnecessary repair costs.

\* \* \*

There have been stories from some other gliderports about difficulties in releasing from tow, when using Tost ring-pairs with Tost releases. I have had some three months' worth of correspondence and conversations with Tost and others on this subject, and I think I now have a handle on it.

There are three pieces to the issue: The Tost release, the ring-pair and the aircraft structure.

First, the release: An appreciation of the design and operation of the Tost release is essential for understanding its proper function as well as possible mis-function. Here goes:

The essence of the Tost release is a spring-loaded, over-center toggle-link. (Over-center toggles are quite common in gliders: We find them in wheel-retraction mechanisms and in dive-brake linkages. The most familiar example is, of course, the human knee.) The essence of a spring-loaded toggle is that the spring supplies only the initial force necessary to close the release and hold it locked. Once the toggle is on the "locked" side of dead center, the greater

the tension on the tow-rope, the stronger the release locks. Conversely, provided the tow-rope is under tension, all that is necessary to release it is the application of the small force required to overcome the tension of the toggle spring and move the toggle to the "unlocked" side of dead center. The release linkage needs to be moved only a small fraction of an inch for this purpose. There is an audible click when passing dead center under tension, following which the tow-rope tension does the work and the hook opens.

However, when the tow-rope is partly or completely slack, there is no tension available to do the work. There is no click when the toggle passes dead center, and the release linkage must be pulled fully against the stop in order to release the tow-rope. This requires more movement and force - up to 31 lbs. - than the habitual, "normal" release - and the audible cue is absent. For these reasons, Tost recommends that the release be actuated completely, several times.

(Note that the toggle spring is always under tension. This is a major reason for the requirement for periodic overhauls of Tost releases. Another reason is that the construction of the release precludes an effective visual inspection of the moving parts.)

The Tost release exists in two basic forms; viz., the nose-release and the center-of-gravity (C.G.) release.

The nose release will retain the tow-ring with cable deflection angles up to 90° upward, downward and to either side. The C.G. release will retain the tow-ring with deflection angles up to 30° upward, 83° downward and 45° to either side.

The essential difference between the two forms is that the C.G. release - unlike the nose release - incorporates an automatic (backward) release which functions when the angle between the tow-rope



and the glider reaches  $83^{\circ} \pm 7^{\circ}$  in a downward direction, with a tension of at least 44 lbs.; this ensures the automatic release of the glider in case it inadvertently overflies the winch.

Most Tost releases - nose and C.G. - are similar, in that the hook which engages the tow-ring is located in a ring-shaped "basket", which guides the tow-ring. In the nose releases, this "basket" is fixed. In the C.G. releases, the "basket" is pivoted toward the back and spring-loaded, and this provides the automatic release function referred to above.

There is, in addition, a slightly different version of the Tost C.G. release, which is used on some gliders with a max. gross weight of 1,100 lbs. (including the Salto, as well as Glasflügel ships such as the Libelle and Kestrel). In this version, the "basket" is absent. Instead, there is a pair of pivoted, spring-loaded pawls - one on each side of the main hook - which provide the automatic release function. In order to ensure the proper functioning of this type of release with the deflection angles mentioned above, it is mandatory that the glider be equipped with a pair of cable-deflectors; one on each side of the release. These deflectors are part of the aircraft, not part of the release. Typically, they consist of a pair of metal angle pieces, several inches long and attached to the fuselage bottom close to each side of the release, parallel to the direction of flight. Their presence is an airworthiness requirement. If your glider has a C.G. release, check its version and, if it is as described in this paragraph, verify the presence of the cable-deflectors.

Next comes the ring-pair. Until 1985, the standard was the so-called DFS ring-pair, consisting of two oblong rings. The larger ring was connected to the tow-rope or cable, the smaller engaged the release hook. A major purpose of using a ring-pair instead of just a single ring (as in the Schweizer ring and release) is

to prevent parts of the tow-rope from inadvertently jamming the release.

In 1985, the German Standards Institute issued a new standard (LN 65091) for ring-pairs. The major effect of this is to replace the smaller oblong ring by a round ring; also, the material strength has been increased. There were several reasons for these changes.

1: There had been reports of the old style rings becoming deformed with prolonged use, and eventually causing release malfunctions. (I have even heard of some clever soul in Germany managing to insert the ring broadside in the release, causing a jam.)

2: An oblong ring always seats in either of the same two positions in the release, eventually causing it to become notched and resulting in accelerated, localized wear. A round ring will seat in an infinity of positions, and therefore wears evenly.

3: The new ring-pair was optimized to work with other, common release types (i.e., British, French and other European standards).

Tost states that the LN 65091 ring-pair will work properly with all old and new Tost releases which are in proper condition.

However: The small, oblong ring of the DFS ring-pair was 35 mm long, and 30 mm wide. The small, round ring of the LN 65091 ring-pair has a diameter of 35 mm! And here we come to the crux of the matter.

First, on pre-1985 gliders equipped with cable-deflectors (as described above), the spacing between the deflectors is designed to accommodate a 30 mm wide ring. If you are lucky, it will be impossible to attach a 35 mm diameter ring. If you are unlucky, it may be possible to force it between the deflectors and attach it to the release; the chances are that, in this situation, it will be canted obliquely and may jam.

Second, if the C.G. release is recessed into the glider's skin, the skin's aperture may be slightly too small, either preventing the attachment of the ring or causing it to jam. The obvious cure for this is to slightly increase the size of



the aperture.

Third, on gliders on which the release is not flush with the skin of the glider, but recessed behind an aperture in the skin, it is conceivable that the dimensions of the recess could be such that the small ring could become wedged inside the recess after being released. Thus, although the release would have opened properly, the tow-rope would continue to pull the glider. This possibility exists with both nose releases and C.G. releases. Presumably, in this situation the ring would eventually free itself if the glider pilot alternately allowed slack to develop in the rope and removed the slack again.

If you have a glider with a Tost C.G. release and cable-deflectors, take some time on a non-flying day: Get hold of a weak link with an LN 65091 ring-pair. Have a helper actuate the C.G. release while you verify that the ring-pair engages easily, has enough play to rattle when engaged, and drops to the ground (under its own weight) when the release is pulled. If it does not, you need to have your glider's cable-deflectors replaced before taking a tow or a winch-launch on the C.G. release, using an LN 65091 ring-pair. In the meantime, make sure to use only an old style, DFS ring-pair for tow-launch.

Modified cable-deflectors for Saltos are available for about \$60 from Frank + Waldenberger GmbH, An der Kühweid 3, 76661 Philippsburg (Huttenheim), Germany. (They should also fit the Glasflügel gliders mentioned above, but F+W will not confirm this.)

In any case, make a test on the ground to ensure that a ring cannot become trapped inside your glider's structure.

The golden rule holds: After attaching the tow-rope or cable, insist that the line-crew person shake it, and listen for the rattle. If the ring is not free to rattle, abort the launch!

- Joe Baer, BFSS Safety Coordinator.

## FOR SALE

Ventas A,  $\frac{1}{2}$  or full ownership. LX 4000GPS/computer, pop-up panel, Dittel, Scheumann vario, winglets, O2, newer Cobra, towbar and wing dolly, beautiful condition. call Doug Houston, (303 799-0930.

- Doug Houston

LS-4 in almost new condition. Low total time, completely refinished in 1995. Comes complete with S-NAV, Becker com, trailer, ground equipment. It's a great handling ship! Asking \$36,000. Call Jim at (719) 630-2277 days or (719) 685-9609 evenings.

- Jim Schwerin.

## SWAN SONG

in the summer of 1989, when I first began the editorship of this, your newsletter, I asked for the help of the members to make it an interesting monthly publication. As I noted then, my first issue was the work of other people - all I did was gather the information, take it to the printer, assemble the finished product and mail it to you. Little has changed in the intervening years. What you have read and, hopefully, enjoyed since, has been reports of the exciting flights, contest experiences, near misses, and the joy of soaring, as seen through your eyes. My thanks to each of you who have offered articles, advice, criticism and support. "AIRWORTHY" would have not been possible without you, and I am grateful for your help.

Now I am moving on to other things, and your newsletter deserves a new look. Effective with the January 1996 issue, Walt Weaver will assume the job of editing "AIRWORTHY". I wish him well and ask that you support him as you have me. Thank you all - Get High - Stay High!

- Bob Simon.

*Season's Greetings*



## AIRWORTHY

### OFFICIAL JOURNAL OF THE BLACK FOREST SOARING SOCIETY A NOT-FOR-PROFIT CHAPTER OF THE SOARING SOCIETY OF AMERICA

"AIRWORTHY" is published monthly for the Black Forest Soaring Society members and lot owners at Kelly Air Park and contains notices of the Society's business meetings. Newsletter exchange with other soaring clubs in Colorado is encouraged. Non-members subscription to "AIRWORTHY" is \$10/year. Direct all correspondence to :

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#### STATEMENT OF PURPOSE

The purpose of the BLACK FOREST SOARING SOCIETY, a not-for-profit corporation, is to provide the location, equipment and know-how to guarantee the safest, most enjoyable soaring experience possible; to provide the opportunity for the education and training of sailplane pilots; and the advancement and development of their piloting skills and judgement. The creation of SOAR BLACK FOREST as a commercial soaring operation provides the resources to achieve that goal, gives BFSS members a base of operations for continued personal achievements and future group projects, and provides access for the general public to the world of soaring.

#### KELLY AIR PARK

Kelly Air Park is a subdivision of individually-owned residential lots with a common area dedicated for use as a private airpark. Lot owners comprise the Homeowners Association which governs the use of the common area. BFSS owns one lot and maintains its property, buildings and equipment for use by members, lot owners, invited guests and customers of Soar Black Forest.

#### SOAR BLACK FOREST

SOAR BLACK FOREST is a subsidiary corporation of the Black Forest Soaring Society. Its sole purpose is to operate the commercial glider facility at Kelly Air Park. All use of facilities, aircraft and instructors must be scheduled through Soar Black Forest.

PHONE: (303) 648-3623

BUSINESS HOURS: OPEN THURSDAY THROUGH MONDAY  
8:00 AM - 5:00 PM

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