

Airworthy

The Official Journal of the Black Forest Soaring Society

24566 David C. Johnson Loop
Elbert, CO 80106



Volume 31 Number 4

April 2019

Club Web Page: SoarBFSS.org

Facebook Group Page: [BFSS Member Only Page](#)

Facebook External Page: [BFSS Public Page](#)

FROM THE EDITOR

Well, it's not been a great first quarter of the year. Between snow, wind, and cold, then melting and mud, there hasn't been much flying. And then the March 13th "bomb cyclone" hit. Apparently it detonated right over Kelly. Our on-the-ground reporter, John Gillis, reported gusts to 58 knots and barometer 28.98 and falling just before the AWOS failed.



Reporter John Gillis after the "Bomb Cyclone"

With all the mud it's more important than ever to be mindful of where we are on the field and to avoid creating ruts. Even if the runways and taxiways are dry, the access lanes can be very, very muddy. So keep that in mind.

With the coming of spring, the chances of snow will recede a bit, but thunderstorms and rain will bring more moisture. So obviously the mud is not going away for a while.



Thanks to Raul for a bit on PT3 and John Gillis for sharing his experience building his Sonex. Alice not only has the 840 update but also the second part of our report on small landing strips in eastern Colorado.

For me, the downtime is okay as I'm sitting here recovering from knee replacement surgery. At least I'll be able to walk down to the end of the runway by next month—I hope!

Mark Palmer, Editor

CALENDAR

Board of Directors Meetings

April 9, 2019 6:30 – 8:45

Castle Rock Library

100 S. Wilcox St.

Castle Rock, CO

<https://www.dcl.org/castle-rock/>

May 14, 2019 6:30 – 8:45

Castle Rock Library

100 S. Wilcox St.

Castle Rock, CO

<https://www.dcl.org/castle-rock/>

Minden Wave Camp

April 8 – 12, 2019

Minden, NV

Contact www.soaringnv.com

2019 OLC League Starts

April 20, 2019

BFSS Annual Meeting

May 18, 2019

Barbeque after flying and then annual meeting

1-26 Championships and Low Performance Contest

May 28 – June 7, 2019

Moriarty, NM

Women Soaring Pilots Association Seminar

July 1-5, 2019

St. Louis, MO

FLEET UPDATE

ASK-21 – The front canopy has been repaired. Thank you Dave Rolley and others! (See Thank You section below.)

2-33 – Restoration continues. See Alice's article below.

AC-4C Russia – Awaiting time in Dave Rolley's shop.

PW-5 – The club is purchasing a transponder from Dave Rolley to be installed in the PW-5.

Blanik L-23 – Nothing to report

Pawnee – Nothing to report

FRIENDLY REMINDER

Mud season is really here! Heavy spring snows and rain will make the grass portions of the field very muddy. Please, under any circumstances, DO NOT drive the golf carts on the grass. Driving on the grass could result in deep ruts and a lot of headaches for the club and airpark users.

OPS DUTY CALENDAR

Here is the Ops Duty schedule for late March, April, and early May:

Peaslee, Gerald	03/30/2019
Price, Brian	03/31/2019
Rolley, Dave/Ravotti, Chris	04/06/2019
Sherrard, Jeff	04/07/2019
Szwagrzyk, Jerzy	04/13/2019
Urschel, Peter/Fry, Peter	04/14/2019
Abbe, Joshua	04/20/2019
Aksonov, Vitalii	04/21/2019
Anderson, Eddie	04/27/2019
Baker, Gary	04/28/2019
Beineke, Jacob	05/04/2019
Bohrer, Tim	05/05/2019

Every flying member who does not have other duties in the club, such as instructor or tow pilot, is on the schedule for line duty. If you are either a pre-solo student or have never performed this duty, Ingo has paired you with someone who has experience. Please check this list carefully to see when you're on duty and if you're working with someone.

Remember, if you can't make your duty assignment, you must find a replacement. Once that is done, contact [Ingo Kuenzel](#) and let him know so he is aware of the change. Be sure to go to the Calendar page on the website and put yourself down for the day you're assigned.

WARNING! DON'T BE ON THE NO-FLY LIST!

It's that time of year again. Club rules mandate that all active members take the KAP/BFSS Ops Knowledge test every year. Failure to do so will result in you being placed on the no-fly/no-tow list. The test is on the club website, in the Members Only area. The cutoff for completion is **SUNDAY MARCH 31ST**! Do it now, do it today!

You must score 100% on the test to pass. The test is auto-scored and you'll receive results

immediately. If you scored less than 100% on the first try, retake the test to achieve 100%.

THANK YOU!

Dave Rolley, Doug Curry, Jeff Maki, and Chris Dunmall – for repairing and reinstalling the ASK canopy.

Steve Johnson and Gary Baker – for work on the 3rd hangar shop, including Steve’s work repairing and completing the outlet wiring.

Alice Palmer, Kyle Kendall, Becky Kinder, Bill Gerblick, and more for helping to dig out after the last big snowstorm!

Neighbor **Ben Duarte** and his John Deere tractor for helping to plow!

John Gillis – for his constant updates from Ice Station Kelly.

Bif and Ceil Huss – for donating and mounting the beautiful Raven maps of Colorado and New Mexico in the clubhouse. **(Please do not put pins in the maps and do not mark on them!)**

THE 180 DEGREE TURN by Raul Boerner

We used to call it a rope-break maneuver. But as it turns out, there are many reasons to abort the tow before reaching release altitude. We now call it the PT3 maneuver: Premature Termination of The Tow.

Here are a few reasons for you or the tow pilot to prematurely terminate a tow: Rope break, canopy not latched, flight control not connected, controls hooked up backwards, wing drop, air brakes open, flaps in wrong position, towplane power failure, tow speed too slow or fast, being towed too far downwind, tire blowout (either glider or towplane), glider gets too high, runway incursion, slack rope wrapping around the glider, turbulence, poor visibility, overrun tow rope, traffic conflict, wing runner error, smoke in cockpit, panicky passenger, seat

belts undone, snake in the cockpit, bee or wasp in the cockpit, water ballast spills into cockpit, etc.

Excerpts below are from *Transition To Gliders* by Thomas Knauff.

“Notice the minimum altitude loss vs. angle of bank indicates the optimum angle of bank is 45 degrees. You lose less altitude performing a 45 degree banked turn.” – TK

Angle of bank degrees	Sink Speed knots	Rate knots	Load factor	Radius of turn feet	Time for 180° seconds	Altitude lost in 180° turn
60	64	3.92	2.0	208	6.1	40 ft.
50	56	2.69	1.6	236	7.8	36
45	54	2.34	1.4	255	8.8	35
40	52	2.07	1.3	281	10.2	36
35	50	1.87	1.2	315	11.8	37
30	48	1.72	1.2	361	13.9	40
25	47	1.61	1.1	427	16.8	46
20	47	1.52	1.1	528	21.1	54
15	46	1.46	1.0	698	28.2	70
10	46	1.42	1.0	1040	42.5	102
0	45	1.39	1.0	-	-	-

WELCOME NEW MEMBERS!

Welcome **Doug Houston!** Doug was an instructor and CSA club member from the old Black Forest Gilder Port days. Doug has moved back to Denver and is joining the club. Great to have you back Doug!



N65840 TANKER 2-33 REFURB by Alice Palmer

This month the 840 team kept moving forward in spite of very challenging conditions. We lost about every other week due to cold or snow, including the Bomb Cyclone. With 58+ knot winds (before the AWOS wind indicator failed), blowing snow found every gap in the hangar walls. When **Kyle**, **Becky**, and I arrived to shovel snow that Saturday, there were 1 to 2 inches of snow *inside* areas of the hangar shop, including deeper drifts in the southeast corner.



Kyle and Becky clear snow from the work table.

Fortunately, we are heading into spring and the warming weather allowed us to finish prep work for the finishing tapes. Just this past week we started applying tapes, a great milestone for us!

We are happy to see that **Gary** is recovering well after his back surgery and can join the team again. **Mark** is still recovering from knee replacement surgery but is continuing to support the team as Parts Guy with trips to Univair. **Raul** continues his tireless and dedicated work on the project, week after week. **Julie** and **Becky** bring their experience on other aircraft projects to this one. **Kyle** is contributing his expertise on panel repairs. **Ed** helps with some of the support projects that will help get us to our goal. And we can't forget to thank **Doug** for his continued support and guidance as our IA.



Gary, Raul, and Becky apply a finishing tape.

We now have the first half dozen tapes installed and are looking forward to continuing in the coming weeks.

Thank you to everyone for your work!

Raul Boerner
Becky Kinder
Julie Kinder
Gary Baker
Mark Palmer
Kyle Kendall
Ed Anderson
Doug Curry

And, thank you to **Dave Allen** for his continued support on our project. Can't wait to hear about his trip to Sun 'n Fun in Florida!

SPRING TRAINING SEMINARS by Dave Rolley

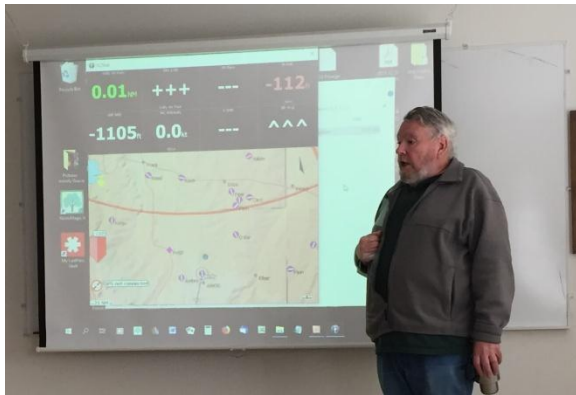
Dave's seminars have been a great hit with attendees! He will continue to hold them every two weeks running through the spring. The sessions will be 1 to 3 hours in duration. Starting time will be 10 AM. Most sessions should be about 2 hours. Here's the remaining schedule:

Session 4: March 30, Collision Avoidance Technology: Transponders and FLARM, types of units, usage, what they can, and what they cannot do.

Session 5: April 13, RASP-based weather forecasting.

Session 6: April 27, Flight Tracking: Satellite based (SPOT, InReach), smartphone based (GlideTrack), FLARM based.

Session 7: May 11, OLC: It's all for fun, but if it isn't on the OLC, it didn't happen.



FOR SALE

Ilec SN10b flight computer with remote variometer, SN10-R remote control, cabling, PDA mount and cabling, serial and USB panel mount ports, serial to USB converter, Volkslogger GPS with cabling to SN10, plus manuals for all. \$900. Contact [Mark Palmer](#).



SSA BADGE WORK by Alice Palmer

We are encouraging pilots to pursue their SSA badges to increase safety, improve skills, and, for those who are interested, to prepare for cross country or contest flying. The SSA badge program is designed to do just that, with a series of structured goals to make your soaring experience more rewarding and fun.

I'm hoping there is enough interest among our members to plan some workshops in support of the SSA badges—especially the B, C, and Bronze Badges. Are you interested in pursuing those goals? If so, please email me, [Alice Palmer](#), to let me know of your interest. I'd like to meet as a group to discuss ways I and the other instructors can support you. That could be with a series of workshops like those Dave Rolley is giving for the more advanced topics, or we can take a more individualized approach. Please reach out to me and let's get together to talk about your ideas.

BUILDING THE SONEX by John Gillis

While not directly soaring related, club member and KAP resident John Gillis shares his experience building his beautiful Sonex.

Hello, John Gillis here. I'm a BFSS member, commercial glider pilot, tow pilot, and Kelly Airpark resident for 2.5 years. Previously, my wife Deb and I lived in Perry Park for 25 years, raised two kids and countless dogs there. After the nest emptied, I was able to convince Deb that living under the constant threat of wildfire could be traded for living under the constant

threat of being buzzed by a glider, so she agreed to move out here.

I'm a software engineer by trade, with a long history of working for Lockheed Martin in environmental and safety systems. I now work for the US Antarctic Program and recently was able to deploy to the ice for a bit of the season.

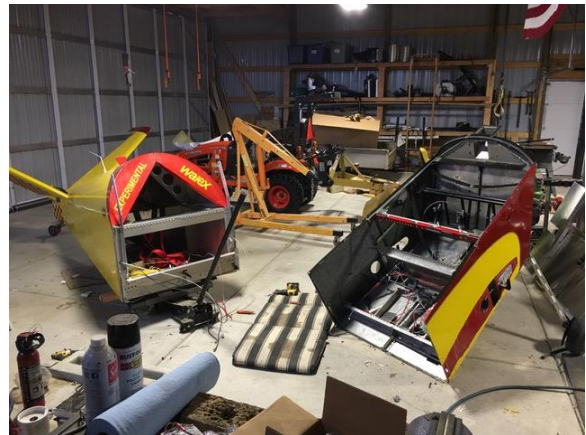
I received my pilot's license back in spring of 2010, bought a Cessna 150, and put a hundred hours on it. I then traded it for an unfinished Sonex kit because I had the opportunity to ride right-seat in an RV-7 to Oshkosh that year and got hooked on experimental aircraft. The Sonex build took me 3 years and I drove back to Oshkosh (18 hours) every year to buy more parts. The plane's first flight was March, 2013, with me as the test pilot. I keyed the mic on rollout (Luck is not a factor; Failure is not an option; Hope is not a plan). I didn't have enough hours on the plane to fly to KOSH that year, so another road trip. In 2014, I flew the plane back to AirVenture and have been every year in the plane since (5 times). The flight to KOSH from CO15 takes about 6 hours flight time, but three fuel stops, so it turns into a long day. This last trip though would be its last.



At the show, I purchased the "B" model conversion kit, which transforms the original plane into their new "B" model. A bigger cockpit (four inches wider), more fuel, nicer canopy, etc., etc. Also just looks better. And I had the itch to build again, but starting from scratch is a bit overwhelming. So I placed the order at the

show, expecting delivery sometime later. The kit came a week before I deployed to Antarctica, so I just stuck it in the hangar and waited until I returned after Thanksgiving.

Upon returning, I dug into the kit, building as much as I could before I had to take the "A" model down. Having previous build experience and all the tools helped. The final flight of the "A" model was December 16th, 2018, with just under 400 hours on her. I pulled the engine and the wings in January and started disassembling the forward fuselage. The empennage and wings are reused. I've attached some pictures of the destruction. As of 3/1/2019, I'm just waiting on some key backordered parts from Sonex and the plane will be reassembled. I'm taking the opportunity to rewire the entire aircraft, rewrap it in vinyl (Super Bee Theme), adding a Trig22 ADS-B transponder, and two-axis autopilot.



The obvious question is, how can one possibly do this legally? Well, that's the beauty of the plane being certified as Experimental/Amateur Built or E/AB. I hold the builder's certificate for this plane and am allowed to do modifications and condition inspections on it (and only it). When I received the initial airworthiness certificate in 2013, I was restricted to Phase 1 flight testing for 40 hours that restricted my flights to eastern Colorado and outside controlled airspace. During that time I had to prove the aircraft was controllable, demonstrate all maneuvers (this one is aerobatic so had to do those too) which were

laid out in the operating limitations, and determine gross weight and all V-speeds. After completing Phase 1, I put the plane in Phase 2 and was allowed outside my restricted flight area, and I could carry passengers. So the rules state that any major modification requires the plane be put back in Phase 1 for a minimum of 5 hours.



Once flying again, I'll place her back in Phase 1 flight test (by logbook notation) to prove this major modification is still airworthy; basically I have to redo all the testing. Satisfied, I'll place her back in Phase 2.

From the chrysalis I hope the "The Super Bee" will emerge in time to take her back to Oshkosh for her sixth time in late July.

ADVENTURE ON THE EASTERN PLAINS (Part 2) by Alice Palmer

Last month I shared our cross country scouting road trip along I-70 through Limon, with an outbound destination of Burlington. After learning about the big picture route out east, our next goal was to start to get to know some of the private airstrips and other potential landing areas around KAP.

We chose a sunny Friday (the week before the Bomb Cyclone struck) for the second part of our adventure. We couldn't get on the road until late morning so we narrowed our list of destinations to half a dozen fields nearest to KAP. What better way to start than with a

hamburger lunch at the **South Forty Saloon** in Elbert? If you haven't had their burgers, you need to give them a try sometime.

After refueling with burgers, we headed north to our first destination, the **D BAR D**, 5 NM northeast of KAP. This strip (approximate headings 15/33) is carved into a hillside, with a steep dropoff on the west side of the runway, especially along the southern two thirds of the runway. There's a pond about midway, and a windsock on the north end. The slope and uncertain width makes this questionable for offfield landings, but it might make a great landmark for a practice triangle if you're trying to stay close to the field.

A better choice for landing, should you find yourself too low near Elizabeth, is **Pine View**. Caution though, this is under the edge of the Class B airspace, but the base there is 9800 feet. There are two hangars on the west side of 16/34, with a windsock at mid-field and two crossing roads. The best landing area appears to be the south half of the runway. The north end slopes up to the north.

There are a couple of other private fields near Elizabeth, but we either could not find them or they are not on public roads. The access would be difficult, at best.

Our third destination was east of Kiowa, and quite a challenge to find. **Comanche Creek** runway 02/20 is a worn spot along a hill in rolling terrain. It doesn't look well used. I would guess it's as difficult to find from the air as it is from the ground, although the green-roofed building nearby may be a hangar. Given the terrain in the immediate area, there aren't too many other options if you can't find it. Not a great choice.

We headed southeast to find **Flying G**, another good practice turnpoint about 8 NM directly east of KAP. This 08/26 runway is long, but slopes down steeply to the east. There's a steep dropoff on the north side of the runway close to

the mid-field windsock and seasonal pond. The best landing area looks to be landing west along the last 1000 feet of the west end. Watch for powerlines along the roads.



Aero Bear slope on the south end of RWY 18.

The last private strip we saw on this adventure was **Aero Bear**, approximately 15 NM east-southeast of KAP. Runway 18/36 slopes up very steeply near the south end, but otherwise looks very landable. Be aware of the powerlines along the north side of the road on the approach end to RWY 18. Look for the windsock on the north end.



Calhan—wind indicator and AstroTurf!

We capped off our adventure for the day at **Calhan**, about 20 NM southeast of KAP. This is a great field not only as a practice turnpoint, but is also very landable. A large aircraft-shaped wind indicator is located near the AstroTurf (yes, AstroTurf) comprising the first 1000 feet of the north end of 17/35. Watch for runway lights on either side spaced a few hundred feet apart. Since this is a public use airport, we can even do aero retrieves from this field. Offfield landing practice anyone?

Now the disclaimer: We did our assessment and took notes about these fields while getting as close as we could from public roads. We did not try to reach any landowners to get a closer

look (or to ask for permission to use their runways). We highly recommend doing your own assessment. Seeing these fields for yourself will give you more information than I can provide in these short snippets—and, road trips are fun!

Also, if any of you have landed at these places and have more actual data to share (or good landout stories), please submit them to your editor!

I want to recommend a great free iPhone app we use called **FlyQ Insight**. It gives some basic data and satellite views of most public and private fields, and you can set favorites and search for nearby fields. It's a good resource along with others for your flight planning.

Next goal: Seeing more of the private fields south of KAP. We'd better hurry though. Soaring season is almost here!

PHOTOS



"Bomb Cyclone" photos by John Gillis (above) and Alice Palmer (below)





And while we were all digging out from the "Bomb," Bif and Ceil were at the Seniors in FL...



Before the "Bomb" – the promise of spring



Our Wyoming correspondent, Mike Cavanagh, sent this picture of wave near his home in Dubois, WY.



Hangar Soaring editor Frauke Elber sent this photo of the Ka-8 that she and her late husband Wolf owned. Just too pretty not to share!



Dreaming of warm weather and high cloud bases