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The Beacon
The Official Newsletter of the Green Castle Aero Club
June/July 2006

Fundraiser!

Another lucky crowd gathered at Green Castle Aero Club on June 17 for the sixth annual Bill Kimble Flight Scholarship Concert. Vocal and instrumental music included opera, classical, polka music, show tunes, a bit of country, and some old standards. No rock or rap, but there were no complaints.

The weather threatened for most of the day, but only produced a few light showers during the concert. The tent was up again this year, so few people got wet. What most concert-goers did not see was the excellent team of volunteers that somehow put up the tent without losing it to a wind storm.

The Leonard Reyman Quartet warmed up the crowd with some lively accordion music that included polka and a fun solo sung in Czech by Leonard Reyman.

Following the warmup, Charles Wendt and new guest artist Gary Palmer entertained with an accomplished performance of Duetto for Cello and Bass Viol by Gioachino Rossini.

Charles Wendt and guest artist Jay Gantz continued the show with a sterling performance of Three Duets for Two Cellos, Opus 53, by Reinhold Gliere.

Soprano Trisha Dunn, (member Bob Dunn's daughter) with accompanist Josh Russell on the piano sang opera by Puccini, a medley of Irving Berlin tunes, and the traditional "Danny Boy". Trisha's explanations and the translations in the evening's program pamphlet helped us to understand the opera parts.

During the intermission, club president Rick Treiber gave recognition to the volunteers and contributors who made the concert possible. Following Rick's comments, Jim Beeghly introduced this year's scholarship winner Gabe Lenz and last year's winner Delinda Stacy. (Editor's Note: Gabe has already soloed!)

Following intermission, Lisa Pulsipher (Don's granddaughter) changed her pace from last year's all country to this year's mix that included show tunes and a little bit of country. Lisa dedicated the song "Grandpa" to Don and was treated to a nice hug from her grandpa.

The Beacon's Back!

After a three-year hiatus, the Beacon is back in business. Your new editor is Larry Wood (elwood140@aol.com). The content and frequency of the resurrected newsletter will depend on inputs from the membership. Please send material by e-mail or just drop it off at the airport. Trips, experiences, jokes (if fairly clean), and whatever else comes in will be considered.

Josh and Anna Russell took over the stage following Lisa. Josh started with music from "Peanuts" and was soon joined by Anna. Wonderful serious music by two talented pianists all of a sudden turned into "Chopsticks" to delight the crowd.

Charles Wendt and Josh Russell brought the concert to a close with a sonata by Brahms. Charles was aided by a sip of champagne to finally get the notes right in "The Swan". It was all in fun.

Private Pilot Practical

by
Alan D. Sigler

I departed Greencastle in Ercoupe 3893H at 7:20 AM on March 15, 2006. Weather was clear with light winds and 10 miles of visibility. The trip required about 45 min. and I flew primarily by compass heading (155). I briefly tracked an Iowa City VOR outbound radial, and a Burlington inbound radial (later I found it to be convenient to have the Burlington VOR already tuned). When I arrived. Burlington ASOS reported 7 kt. winds at 50 degrees, so I chose runway 12 which has a right hand pattern. I made three touch and goes to familiarize myself with the airport and the right hand pattern.

The exam began with the oral - focusing primarily on chart depictions of airspace in the immediate (50 -250 mile radius) of home base. I needed to know the classes of airspace. limitations and requirements for entry-. floor of airspace (and where that floor went to the surface), viability and cloud clearance requirements for VFR flight. TRSAs were covered and the examiner pointed out that a class D airport with a tower and radar (small blue circle with an "R") amounted to the same thing (e.g. Waterloo). I referred to the legend several times. and the examiner had no problem with that. He accepted the flight plan that I used for the trip down and didn't have me plan another cross country. Weight and balance are somewhat problematic in an Ercoupe, but there are overall weight limits. Since I was taking the Private. the plane could be flown in the "normal" category at up to 1400 lb gross, and we had no problem: but it might not be possible to use full fuel for the sport (1320 lb). In general. I felt that the oral was much less rigorous than I might have expected.

The flight portion began with the preflight (for which the examiner was not present). We departed runway 18. then made a touch and go on 12. I made a good landing and was glad that I had practiced here and picked out some landmarks for the right hand pattern. We climbed to 2500 ft MSL and tried to track the outbound 282 radial from the Burlington VOR. There was some trouble here because the compass heading simply wouldn't agree with the VOR needle. When he gave up and just let me fly the needle I had no trouble keeping it centered and after a short time he was satisfied.

He then had me put on the Foggles. Straight and level briefly, then some turns. Since the Ercoupe has no Gyros. these were timed turns; a 180 (1 min) and a 90 (30 sec) both came out well: probably the best I've done despite the fact that turbulence made it impossible to hold the rate of turn constant, forcing me to average . Last was unusual attitudes - descending left hand approach to a spiral. I recognized the condition and got my wings level but held back pressure too long and got slow (nose up). I recognized this also and got it corrected before he had to intervene - so I was technically within the PTS standard, but this was definitely my worst maneuver. In my defense I must point out that weather and mechanical difficulties with the plane kept us from practicing this, so the check ride was the first time that I actually did it.
the Foggles and a Steep turn to the left - a good one; I held my altitude so well that I crossed my own propwash - a fact that the examiner noted. Power-on stall - not much in an Ercoupe but you do have to watch your direction; then power off started from a descending left turn (standard rate). I was a little surprised here since this is not usually taught (though it is in the PTS) - it didn't amount to much in the Ercoupe but it could be interesting in a C-150 (particularly Power on).

Next we descended to 1000 AGL for ground reference - S-turns and turns about a point. What he wanted here was for me to fly over specific points on the ground adjusting bank and rate of turn as necessary constant distance. This wasn't particularly difficult (especially since there was almost no wind) and it corresponds pretty well to what you actually have to do in the pattern: but again it wasn't exactly what I had been taught. Simulated emergency next. I was headed north and the putative wind was out of the south. Since I had 1000 ft of altitude. I decided I could make a 180 and head into the "wind" but at that altitude in an Ercoupe you'd better do several things at once - establish best glide, begin your turn and try restart procedures. I explained this as I was doing it. When we were pointed south, there

was a wonderful series of fields straight ahead and it was immediately obvious that I could have made them so he had me do a go-around.

At this point we returned to the airport. I had a little trouble with the right hand pattern but was able to adjust and make a good landing very close to the end of the runway (just over the threshold). Full stop and we were done.

Finally a Real Cross Country

By
Tony Condon

Many of you read my flight report from my last attempted cross country flight with Matt Michael in his Lark. Last June, he and I set the un-official Multi-Seat Free Distance Record at about 10 miles. We decided to try and best that last Saturday, April 22.

We had been keeping a close eye on the weather all week, and everything seemed to drop into place. Dr. Jacks Blipmap forecasts were promising. Friday was spent with Matt readying the glider and trailer, and me working and driving to Ames. While the rest of the Iowa State campus was celebrating the comeback of VEISHA by ensuring they would forget the comeback of VEISHA, I was getting the best nights sleep I could.

Saturday morning had Matt and me at the airport around 9 AM making final preparations. The trailer and car had to be ready to go for our eventual crew, if needed and we had to get the glider in order for the flight ahead. Mounting the camera, getting the barograph installed as well as the usual food and water and other support equipment took its time. We kept a close eye on the sky and kept moving. We also spent a good portion of this time trying to concoct a game plan for the flight. A morning call to Flight Service had yielded winds forecast out of the Northwest at 10-15 knots. Matt was really focused on trying to get a record and preferably making it back to Ames to avoid having to derig the glider and then put it back together Sunday morning. I just wanted to go cross country.

As usual, the conditions of the day dictated our decision. Around noon, the first cumulus of the day started to pop up, and we could see that the place to be was not over Ames. Beautiful clouds were within sight to the North, probably about 10 or 15 miles away. Clouds were present around the airport, but were scattered around and didn't look very promising. We decided we would start heading North up I-35 and then go where the conditions were good. We pulled down to the runway and made final preparations.

Darrel Mullins was our tow pilot and Paul McIlrath and Paul Kaufmann helped get us launched. The barograph was turned on before takeoff and the tow went smoothly. We got off at about 2000 feet above ground in some decent lift at 12:56 PM. We started working to get high above the airport. It would be our first turn point so we needed to get as high as possible south of it.

We struggled over town for a while and got down to 2500 feet above sea level but found some lift at about 500 feet per minute and were on our way up through 5000 feet by 1:20. We soon got our picture of the Ames airport and were headed north. By 1:40 we had made it to Roland, about 10 North of Ames and were at 4500 feet and were getting closer to the good looking clouds to the north.

Another 10 miles or so to the NNE and we were over the town of Radcliffe and had reached the excellent conditions as we were now at over 7000 feet. It was in this portion of the flight that we reached our maximum altitude at cloud base of 8000. At this vantage point, we started formulating our the rest of our plan. We knew that if we wanted a downwind run home to Ames so we needed to head northwest. This choice was easy to make as the clouds were streeting from Northwest to Southeast in our area. We got within about 5 miles of the Iowa Falls airport. At one point we got kind of low in this area, down to about 3500 feet, but made a good climb and got back to cloud base. Then turned directly upwind and flew the streets.

We cruised upwind between cloud base at about 7500 and down to about 6000. Stopped occasionally to circle but tried to climb straight ahead as much as possible. The street we were

on seemed to start to overdevelop. It was getting pretty shady and cool around us, but we were still getting decent lift so we continued to Clarion. We snapped our picture of Clarion at about 3:50 and headed directly west. Our plan was to go to Humboldt and possibly Pocahontas depending on conditions. That would place us upwind of Ames for an easy trip home.

The trip from Clarion initially involved very little turning, and the Barograph showed that. We were past the Eagle Grove airport, about 8 miles west, in 12 minutes with only a 300-foot altitude loss. The next 7 or 8 miles got us within 7 miles of Humboldt, but down to 4000 feet and we were starting to get a little worried.

By now it was about 4:15 and we were still East of Humboldt 5-7 miles, working very weak lift trying to make it to the airport to get a picture and get back to Ames. Matt made two masterful low saves here, both about 1500 AGL. At one point we noted that the averager on the palm was showing .3 knots up, only 30 feet per minute! Throughout this period of the flight, I was mostly scoping out fields to land in and looking for any sign of lift. We saw a few hawks near us and managed to stay afloat. There were several good sized dust devils to our west about 5 miles. One looked like a tornado, reminded me of something from the desert southwest. By 5:20 we were still struggling to make it to the airport for a picture and were within 2 miles of the airport. Finally at 5:25 after more than an hour long struggle we got a picture of Humboldt from about 3300 feet and headed downwind. We knew there was some lift still out there, after seeing at least 3 dust devils in the area, and the sky still had good clouds. We hoped for an easy trip back home.

It turned out that the day was totally dying. The best lift we encountered in the next 8 miles was 100 feet per minute. Even that was not steady and pretty choppy. The cores were impossibly small and everything was generally unworkable. Being blown downwind almost immediately put us out of range of the Humboldt Airport, especially since we would have had to approach it into the wind and over town. I was once again back in my role of scoping out signs of lift and landing spots. Matt was working the lift to the best of his abilities, but sadly I was watching the altimeter unwind. Just before we were about to give up I spotted a Vulture a quarter mile north of us. I believe he was there just to torment us.

We turned final for the field I had chosen, a freshly planted bean field, and made a nice landing with a slight crosswind and rolled as close to the house as possible.

Now the easy part was over and we had to figure out how to get home. Immediately we started calling everyone we knew in Ames to find someone to come get us. Unfortunately Dave Hill was unable to come get us, but his wife Sharon volunteered to come get us. While we waited Matt and I met the nice folks we had landed next to, Dave and Nikki Hanna. Dave was kind enough to bring his tractor out in the field and pull the glider to a driveway where we could derig. After this we waited for Sharon to arrive. She arrived about 8:30 and we quickly got to work with Dave's help to get as much work done as possible before the sun set completely. The derig went very well and both Matt and I noted how easy it was compared to earlier attempts. We finished about 10:00 PM and were headed back to Ames. A quick stop in Fort Dodge for McDonald's gourmet dinner and check the trailer, followed by a good nap for Sharon and I, and we were back in Ames.

Total flight time was 4 hours and 53 minutes. We covered about 135 kilometers. While my last cross country flight was more drifting with the wind until we couldn't maintain altitude anymore, this flight finally put to use all the theory I have been learning and teaching about speed to fly and cross country decision making. As far as the level of challenge and reward, I firmly believe that no other form of flying compares.

Some Fun Last Night

By Ryan C. Braun

(Editor's Note: The following story was sent to Terry Koehn by one of his former students.)

Terry, I thought I would share a story with you and thank you again for your training! A little virtual hangar flying here.

I flew from Schaumburg (Chicago) to Dubuque yesterday afternoon (June 12) and started back last night. I was in one of the club's older 172s, one that I had not flown before. Certainly not the fanciest plane in the fleet, not as nice inside or out as Green Castle's. The radios weren't the greatest, and there was no GPS or DME. The flight over was uneventful and I made good time.

There was a thunderstorm that moved through the area so I delayed my departure from Dubuque about an hour, and ended up taking off at around 10:30pm. It had been a few months since I had flown at night so I did two stop and goes in Dubuque. figuring I would get number 3 in Schaumburg. Everything was going well. I overflew the city then turned east to go back home. I climbed to 5500. a bit of a safety margin as I like to have at night. I might have considered higher but there were some scattered clouds along the route at 6000. I leaned the engine and was making good time with very little wind.

As I flew over Freeport, 22 miles west of Rockford, I picked up Rockford for flight-following. About that same time I noticed what seemed to be a slight roughness in the engine. but I couldn't tell if I was dreaming. Maybe I was just overly sensitive at night? Scanning my gauges, I had good oil pressure but the RPM seemed to be a little under what I had set it at. I tried enriching and leaning the mixture, but it was already correct and only had the obvious negative impacts.

Things seemed to be getting worse, and I was about 6 miles past Freeport, another 16 to go to Rockford. I had my handheld GPS mounted on the yoke and was able to quickly assess the closest airfields. The options were not good other than Freeport. I immediately made a 180 and informed Rockford that I was experiencing engine roughness and was going to try to make Freeport. I knew if the engine failed on me completely at that point I was at the far end of my glide range in zero wind. I had no interest in nursing it along to try and get any further.

After getting turned back, I started through the obvious checks while maintaining altitude, figuring I may need it at some point. My plan was to try and make the airport at altitude while determining if somehow I had fouled the plugs, managed to get carburetor icing, had some bad fuel, bad mags, or if I could get the engine to clean up. I checked the outside air temp also noting it was very humid. Carb heat had no eventual effect. I cycled through the mags continuously. noting that the left mag seemed worse than the right, but neither was close to providing full performance. Strangely the left made a worse sound than the right, which seemed to be smoother. I switched tanks back and forth trying to figure out if I had fuel problems. I was having trouble maintaining 2000 RPM now, but I reached the airport having only descended about 1000 feet. Oil pressure was still nominal.

I contacted Rockford and told them that the airport was assured and I would be going off frequency. I got the AWOS and clicked on the lights. Certainly a welcome sight. I slowly began a spiral or loose pattern descent, staying where I knew I could make the field in the event of a complete power loss. I wanted to try some different mixture settings at lower altitudes and to collect as much information as possible to tell the mechanic. Nothing provided any relief.

As I closed in near pattern altitude the engine began running rougher, especially as I began to pull power back to set up. I started to line up for final but was too high without an awfully high rate of descent. I did a 360, lined up again. put in 20 degrees of flaps. The plane began shaking far worse as I pulled the power back. I was still a bit high and had to give it a pretty decent slip. At this point the engine was in bad enough shape that I knew there was no way I could go around so I wanted to make sure I wasn't landing long.

I touched down uneventfully, gave the brakes a few good nudges and taxied towards the FBO. I wasn't sure if it would make it or not. but it managed to hold on until I got it parked and shut down.

The FBO was obviously closed. being almost midnight. I got out, looked for obvious oil leaks or intake blockage, but nothing was to be found. I waited about 45 minutes, tried to restart the plane to check a few more things, and managed to get it going for all of about 3 seconds. Eventually I called a cab, got a hotel room in

town. and called my Schaumburg FBO in the morning to let them know where their plane was.

The shop at Freeport pulled the cowling that morning and it didn't take long to figure out the problem. Actually it didn't even require removing the cowling. The mechanic tried pulling the prop through and got through half of the cylinders before the third one fell right through. The cylinder jug had cracked quite nicely and had reached the point of no compression.

Interestingly, the part is an ECi cylinder jug, one that is subject to a current and fairly new AD for just this mode of failure. Apparently it had not yet been replaced on this plane. The mechanic stated that had I tried to go any further the entire jug / head would have cracked off and then I certainly would have had a far worse problem. The last thing I needed was a few quarts of oil on my windshield or a fire while trying to land with no power at night at an unfamiliar field. Or worse. not at an unfamiliar field, but in between Freeport and Rockford.

I stuck around for a while. Someone from the FBO flew in to pick me up around noon in a Diamond Eclipse. It was nice flying back because I hadn't had any time in that (just the Diamond Star). So I did get 0.9 hrs free PIC in a new type for my trouble!

Anyway, the point of this was just a thank you for the training. Believe me, your voice was in my head as I went through the motions.

I'm glad I was up high enough that I had the glide distance even if I had completely lost power immediately. I was VERY lucky it occurred when it did, however, because it easily could have happened 5 minutes later and I would have been out of glide range to a lighted field.

I suppose I was most pleased with my decision to turn around immediately upon suspecting trouble. It might have been easy to convince myself that I could limp on a little further. In the end. I might have been able to make Rockford, but it would have been dicey, and I certainly could not have made it to Chicago. I may have been in denial about how serious the problem was, but I wasn't stupid enough to assume the worst was impossible. Self-preservation: 1. Get-there-itis: 0.

I was also happy that I was alone in the plane, free to concentrate on the problem myself instead of explaining things to a (non-pilot) passenger. I was especially happy that my girlfriend was not in the plane with me. She has not flown with me yet and God forbid had that been her first flight! She was thinking of coming but I recommended she not fly at night on her first time.

Any other lessons? Definitely memorize the glide ratios. I always think about them a lot and try to remember them for each plane, but I will be more diligent on putting them in my checklists from now on.

Anything else? I probably should have not spent such as much time diagnosing as I did and made such a gradual descent. Had the jug cracked through and separated it would have certainly made life more difficult. My desire to make sure I hadn't caused and couldn't fix the problem and to get as much information as possible was probably not in my best interested at that point.

In the end I was very lucky: engine failure at night certainly isn't on the top of my list of things to experience again, but I felt capable of handling it, and the cards (airport close enough. not an immediate power loss) fell in my favor. There was no panic or question of what needed to be done. Thank you for that!