

# The Frequent Flyer

The Monthly Newsletter of Caesar Creek Soaring Club

Happy New Year!!! January 2005

## The View From The Front Seat of a SGS 2-33

### A student's recollections

By: Gene Wade

In the process of a recent move, I found two journal entries from Monday and Tuesday, May 18<sup>th</sup> and 19<sup>th</sup>, 1992. I was a student glider pilot at CCSC and had two instructional flights the previous Sunday. In my quest for a Private Glider Rating I flew with almost all of CCSC's instructors. I have hesitated to write this article because it reveals as much about me, as it does about some of the instructors with whom I flew. And because I am now a part of the instructor establishment.

However, it is helpful for me to remember how it is to be a student. Perhaps this will be valuable to others. I am writing as it was written originally, making corrections only for clarity:

1. My instructor talks too much. When I listen closely, I forget to watch my flying. I must focus on flying, not listening.
2. I only understand a tenth of what is said. It has to be said ten times for me to fully comprehend.
3. I can't learn to fly by following the instructor on the controls. I have to do it myself.
4. My instructor cannot teach me to fly. I will teach me to fly. He will catch me when I error. He will give me suggestions. He will protect me by staying close to the controls.
5. My instructor should give me information, but not too much. I came to fly, not to be an engineer.

### Upcoming Events!!

#### **CCSC Annual Dinner**

February 5, 2005  
Kings Island Inn

#### **The Buckeye Nationals!**

Standard Class National  
Soaring Championship  
June 14-23, 2005

Caesar Creek Soaring Club  
P.O. Box 918  
Waynesville, Ohio 45068  
(513) 932-7627  
See our website at:  
<http://www.soarccsc.com>

6. I see that to learn, I must be willing to accept my ignorance and tolerate correction. Such as when standing in front of the wing, signaling to take up slack, and hearing the Crew Chief yell, "What in the hell do you think you're doing?"
7. I know what I need to learn next. Please ask me where I am having trouble.
8. I learn by talking to other students, by discussing out problems, and the sequence of instruction.
9. I am not greatly interested in hearing the instructor talk of his skills, experience, and knowledge. I am not here for "flying appreciation".

10. Do not allow me so much freedom of the controls that I frighten myself or conclude that I'll never learn. Set limits on me. Help me stay in control.
11. I like those instructors who seem pleased to see me at the flight line.
12. Don't let me solo until I'm ready, or give me a license until I'm safe enough to take a passenger.

*End of journal entries*

In conclusion, let me say that learning to fly at CCSC was a great time for me. I have made many friends and have enduring respect for those that have helped me. There is no question that our club is number one. GW



### **SSA 2005 SOARING CALENDARS**

The 2005 SSA Calendars are here. They are on the display case in the clubhouse along with a sign-in sheet. Take as many calendars as you wish but be sure to fill in the sign-in sheet. We have about 40 calendars left and when they're gone, that's it. These calendars are \$7.50 each, a bit higher than last year, but a bargain when you consider they will cost you \$12.95 each plus shipping if you order them direct from SSA.

Check the calendars you select for missing pages. We have had a couple returned for that reason. Any of you who find you have taken a faulty calendar, bring it back to Sara or Pat, and select a complete replacement. We need those faulty ones returned so we can send them back to SSA for refunds.

## WEDNESDAY FLYERS

By: Jim Hurst

In May of 1991, a group of retired members decided start a weekday operation, where we would do our own crewing and have a chance to do some fun flying without formal crewing responsibilities. Bob Root volunteered himself as crew chief and was soon joined by Mel Williams, John Bennett, George Stillwagon and Jim Hurst. Andy Anderson and John Antrim, both of whom had been inactive for some time, were recruited in short order. I can't remember the order in which the group was expanded, but it soon included Tom Bales, Stew Trefzger, Bert and Walt Connolley, Wally Detert, John Biernacki, Jim Price, Tom Holloran, Paul Brown and Dick Eckels. Jim O'Quinn, Dana Colvin, Bob Carlson, Pat DeNaples and Roy Hennig occasionally joined us. The most recent joiners include Dave Edwards, Charley DeBerry, Don Green, Mike and Lucy Ann McKosky and Buck Towne. Forgive me if I've forgotten anybody.

The Cincinnati contingent started meeting for breakfast every Wednesday at Frisch's on Fields Ertel Road, but later moved to the Village Restaurant in Waynesville until they stopped serving breakfast. Now we meet at Der Deutchler, and people straggle in from 8:45 AM to 9:30. We have an improvised set of tables for about 16 people and in good weather, the crowd may overflow. This is a fantastically talented group of people and you can hardly ask a question that someone can't answer, or is able to fake it adequately.

Accurate records are not available for the whole period, but from what we know, we can estimate that the Wednesday Flyers have logged over 8000 flights in these 14 years, which amounts to about 20% of the club's total operation. Since the operation was intended for our own amusement, we don't get crew credit. We are not committed to perform unlimited crew duties since everybody is allowed to fly his own glider and do his own thing. Nevertheless, we've probably done over 1000 instruction flights and scores of flight reviews. Many an instructor or tow pilot has cancelled his own flying plans to help with crew duties. Weekend flyers who are goofing off on Wednesday to fly their glass birds are frequently recruited for whatever crew duty they are qualified before they get a tow.

The Wednesday Flyers meet for breakfast EVERY week, rain or shine. We have missed due to a few blizzards! When the weather is bad, conversation after breakfast goes on and on through gallons of coffee refills. But we finally retreat to the gliderport, weather or not. More than one wife has asked "What do you guys do up there?" The answer is: we do whatever we see needs to be done. Thursday is garbage day, and especially after a social weekend, there is a LOT of garbage. The containers get magically trundled out to the road. Paul Brown cuts grass everywhere except the runway. Bill Maxwell who claims no knowledge about electricity has learned a lot, probing the innards of disabled golf carts. He also makes the lawnmowers work. John Biernacki is the Paul Bunion of CCSC who clears brush, cuts down unwanted trees, supplies firewood and burns debris. Wally Detert gets sucked into all kinds of repair projects because he hates to see a job done badly if he can do it himself. He complains about this loud and long, but it's his own fault.

Various and sundry other chores are performed as needed, such as auguring out the pond drain pipe, repairing the fence on Elbon road, switching the doors on the clubhouse which were originally (erroneously) installed to open into the wind, clearing the pigeons out of the barn, repairing the fireplace grate and getting aircraft to and from Cubby's for annuals and routine repairs.

Our youngest member was 62 years old in 1991. You do the math. We have lost John Bennett, Jim

O'Quinn, Bob Carlson and Andy Anderson. We started with five tow pilots and five instructors. Our group has been decimated by the recent installation of three pacemakers, and the ravages of time have reduced our effectiveness because of various medical inconveniences. We appreciate the presence of Don Green and Buck Towne whenever they can join us, and we encourage any member who can tow or instruct to join us whenever they can. We die without tow pilots. We think that the Wednesday operation has been a very good thing for the club, and we would like for it to thrive and continue as long as the club operates.

**Soar CCSC (.com)**

CCSC now has it's own domain name: [www.soarccsc.com](http://www.soarccsc.com)! Be sure to update your bookmarks.  
Happy New Year CCSC!

**CFIG Refresher Clinic at CCSC March 12-13**

All CFIG's mark your calendars. CCSC will host a CFIG Refresher Clinic at the CCSC gliderport during the weekend of March 12-13, 2005. The clinic may be used by current CFI-G's as a way to renew their flight instructor certificates. Many of CCSC's flight instructor's certificates are due to expire this spring since our last refresher clinic was held two years ago in March of 2003.

The refresher clinic will once again be conducted by Bob Wander of the Soaring Safety Foundation. The clinic will be open to both CCSC members and to the general soaring community. The clinic is not restricted to just CFIG's, but may be attended by any interested person. The clinics are a good way to learn about glider flight instructing if you have an interest in becoming an instructor and also serve as a good overall safety seminar on critical flying techniques.

The final cost of the seminar has yet to be determined. I will get an email out to all interested persons as soon as I can determine the fees from Bob Wander. I will also publish all the details in next month's newsletter. As in the past, CCSC will be subsidizing the costs of the seminar for active CCSC instructors (details to follow).

Any CCSC instructor or other individual interested in attending the seminar should contact me (Joe Jackson) as soon as possible either by email or telephone (email preferred). This will allow me to get an idea of the number of persons attending and ensure that I can keep all those interested in the details as they develop.

Joe Jackson  
CCSC Chief Instructor  
Tel: 513-851-4816  
email: joejackson<at>cinci.rr.com

## **CCSC Meeting Minutes December 4, 2004**

The meeting was called to order with the announcement of the newly elected Board Members. They are Dick Holzwarth, Dave Menchen, Dennis Fisher, and Linda Murray. The makeup of Board positions was discussed in order to best address maintenance and competition requirements. As such it was decided to separate the glider and tow plane maintenance and to combine the social and publicity functions. The publicity function will become much more involved in the local Township and County meetings to address the continuing development and encroachment issues. The new Board responsibilities are as follows:

|                                   |                                       |
|-----------------------------------|---------------------------------------|
| Dick Holzwarth - President        | Mike Karraker - Vice President        |
| Rolf Hegele - Secretary           | Jim Lowe - Treasurer                  |
| Linda Murray - Social & PR        | Brian Stoops - Operations             |
| Dave Menchen - Glider maintenance | Dennis Fisher - Tow plane maintenance |
| Dave Rawson - Grounds             |                                       |

Terry West presented an over view of his Aerospace Academy Program. He discussed his curriculum for 9th through 12th grades, fly-ins, booster club, and scholarships. It was agreed that we would continue to coordinate our activities through Buck Towne and Steve McManus, our youth soaring camp coordinators, as focal points. It was also brought up that the 2005 Youth Soaring Camp will be held starting Sunday, July 10.

Joe Jackson proposed that the club host another flight instructor training session and he has been in touch with Bob Wander for a possible 12-13 March date. The training will be open to all CCSC instructors, those interested in becoming an instructor, and the general public. The Board authorized expenditures up to \$300 for miscellaneous expenses. The Board also authorized 100% reimbursement of the program cost (expected to be between \$100 and \$150) for those CCSC instructors who are an active part of a monthly crew and have participated in at least 75% of their crew dates over the last year. For other circumstances, Joe will have the authority to determine the level of reimbursement.

The tow plane cost analysis was completed for the July 1, 2003 through June 30, 2005 timeframe. The analysis determined the following costs:

By flight hour - \$78.49                      By tow - \$13.82                      By altitude - \$.546 per 100 ft  
The costs included the wing upgrade on all 3 towplanes, does not include a reserve fund for new engines, nor does it address the recent gasoline price increases. Jim Lowe will follow up with a gasoline sensitivity analysis, to see if we can develop an approach for surcharges.

It was brought to the Board's attention that 48L with the four bladed prop might be marginal towing water loaded standard class gliders. One solution would be to replace the propeller with a standard two-blade design for the duration of the Nationals. Dennis Fisher will check with Cubby to see if we still have one. There was also discussion about the engine on 33Z and it will be reviewed during its upcoming annual. Pat DeNaples indicated that there is a state requirement to renew corporate registrations every five years. Pat has been that agent but has moved and the mail did not get forwarded correctly. The Board decided to have Sara as the agent using the farmhouse address. Mike Karraker was also asked to review the lease with Sara and determine whether we need to make any updates.

It was recommended that someone from the CCSC Board attend the SSD Board meetings for liaison purposes and Dick accepted that task. We also received our annual insurance estimate, which included an option for terrorism risk insurance. The option was rejected. However it was noted that the tow pilot qualifications were changed. Paul McClaskey will review and report on the impact for future tow pilots and Mike will discuss options with the insurance company.

Replacing the wire fence at the east end of the runway was also recommended. Somehow it was dropped from the action item list after the township cleared the brush from around the gliderport. Chuck Lohre had the action item to prepare options and alternatives. Dave Rawson will coordinate with Chuck on his results. The first Saturday of January is New Years Day and therefore the next Board meeting will be moved to the 2nd Saturday, January 8. The previous minutes were accepted, as was the Treasurer's report. The emergency phone list will be prepared and will include contact information for the Board members. Contact information will also be included in future Newsletters.

The Board is to provide Joe with their preferred contact information. Joe, as plane captain for the Grob, also indicated that he would prepare a punch list of maintenance items to be performed during the winter and review them with Dave Menchen. All plane captains should prepare any requirements for their ships. Joe also discussed the outlanding in a 2-33 that he was involved in. There was no Board action pending the Safety Committee report.

There being no further business, the meeting was adjourned at noon.

Open Items were reviewed with the following held over or new from this meeting:

- Review the available Public Use Airport documentation from Jim Micelli and prepare a presentation to the membership - Joe Jackson, Mike Karraker, Rolf Hegele
- Document Tow Pilot Qualification process - Paul McClaskey
- Emergency Response Plan - Buck Towne
- Update Emergency Phone List - Joe Jackson
- Purchase driving directions software
- 1-34 flying cost review
- Terms and conditions for using Cubby's tow plane - Joe Jackson
- Trailer park planning - Dave Rawson/Bill Paar
- Continue ground and launch crew discussions for the Nationals – Board
- Resolve insurance issue requirements – Mike K
- Review new tow pilot requirements - Paul McClaskey
- Grounds coordination letter – Joe
- Gas cost analysis - Jim Lowe
- Check on 2 bladed prop – Dennis Fisher
- Review Sara lease – Mike K
- Coordinate fence line options – Dave Rawson/Chuck Lohre
- Present outlanding report to Board - Safety committee

## A Supersonic Glider???

*I received this in a Newsletter, via email, from Tom Knauff. It is a personal account, from another person, of a lecture give by Mike Melville, the pilot of Space Ship One. Pretty interesting stuff...  
- Brian Stoops*

I just had the extreme pleasure of speaking with Mike Melville yesterday, the pilot of SpaceShipOne's first two flights above the Karman line of 100 km MSL, and with his wife. He gave a 45-minute presentation to the Aircraft Owners and Pilots Association (AOPA) conference in Long Beach on Thursday, and got a several-minute standing ovation. I was able to speak with him for a short while after his talk.

Since he was speaking to pilots, he didn't have to translate for the "general public" or pull many punches. He spent almost half of his time going over the flight controls and the entire cockpit layout inside of Spaceship One, explaining how it is flown. I think this is the first time this has been explained publicly in such detail, and it was amazing. There are actually four separate flight regimes, and each is flown differently. Just after launch, it flies like a piper cub, using a joystick and rudder pedals with mechanical linkages to the controls (no hydraulic assists). When it goes supersonic, the aerodynamic forces are too high to be able to move the stick, and the controls are subject to flutter. So they use an electrically powered trim system, flown using the "top hat" switches on the joystick and a couple of grips on the arm rest of the pilot's seat. (There are backup switches to the left of the instrument panel, which had to be used on one flight.) This moves the entire horizontal stabilizers, not just the elevons on the trailing edges. Eventually, they get high enough and the air gets thin enough that they can again use manual controls, although the response is totally different than lower down. But that goes away as they exit the atmosphere; the Reaction Control System nozzles are then used for maneuvering in space. Coming back down, the pilot has to reverse the sequence. There is no automated switchover of control systems; the pilot has to remember to move from one system to the next at the right times.

The rudder pedals are not linked. Each controls one of the two vertical stabilizer rudders separately. You can push both rudder pedals at the same time, and get a fairly effective speed brake, with both rudders canted outward. Push both fully forward and they engage the wheel brakes. But these are not very effective and are only really useful for steering input during rollout. The real brake is on the nose skid: a piece of maple wood, with the grain aligned down the centerline of the airplane. He said it was the most effective braking material they could find.

Stephen, we talked about G forces on Tuesday, and I got some of it wrong. He says that he gets hit with about 3Gs kicking him backwards as soon as he lights the rocket motor. He's supersonic within about 9 seconds later. But he immediately starts to pull up into an almost vertical climb. So he also gets over 4.3Gs pushing him down into his seat just from that maneuver. The combined force is "very stressful" and Mike says it's "important not to black out" at that point. He's going 1880 knots straight up within 70 seconds. On re-entry, the aircraft goes from being absolutely silent while in space to generating a deafening roar as it hits the atmosphere again. He's going about Mach 3.2 by that time, and has to survive about 5.5Gs for over 30 seconds, and lesser G forces for longer than that, as it slows back down. It sounds really intense, both as he explains it and on the radio.

A couple of interesting side notes: SpaceShipOne has a standard "N" registration number; but it is licensed as an experimental "glider". Apparently there was a huge bureaucratic hassle trying to

license it as a rocket powered spacecraft, which they just sidestepped by calling it a glider. I asked him if it had a yaw string; he laughed and said that would have burned off. By the way, the registration number is N328KF, where 328 are the number of Feet in 100 km. (The White Knight is N318SL – Burt Rutan's 318th design.)

Mike says that the flight director system (called a TINU) was developed completely in-house by a couple of 28-year-old programmers, and is absolutely fantastic to fly. That's why they don't need a yaw string. But I had heard over the radio that Brian Binnie had re-booted the TINU just before the landing approach during the X2 flight, and it took quite a while for it to come back up. So I asked Mike what that was about. He says that during re-entry, the TINU loses its GPS lock. So it keeps trying to go back to catch up, re-interpolate and compensate for the missing data, and this keeps it a little behind in its actual position calculations. The pilot has no straight-ahead vision at all, so they have a real issue landing: they can't see the runway! The way they do it is to fly directly down the runway at 9000 feet; then they do a (military style) break and fly a full 360-degree pattern right to the landing. The TINU gives the pilot a "blue line" to follow and a target airspeed (which produces a given rate of descent). If the pilot follows the blue line, right to the break point and through the two 180 degree turns, it will put him right onto the runway at whatever touchdown point he selects. But the TINU has to be absolutely current when this is going on. So at something above 15,000 feet they reboot the TINU and get it re-synched with the GPS satellites again before setting up for the landing!

He also talked in detail about the rocket motor, and had photos of its insides after firing. The nozzle throat actually ablates as the motor burns, enlarging the interior throat diameter as the burn progresses. He described the problem they had on the June 21 flight: The rocket motor nozzle was skewed by about ½ degree to one side. This generated a surprisingly high lateral torque trying to turn the aircraft. If it had been up or down pitch rather than lateral, the controls could have handled it; but the lateral yawing forces were too great for Mike to & compensate as the atmosphere thinned. The result was that he was pretty far off course. Mike says he reached apogee, rolled the spacecraft over, and was surprised to see the Palmdale VOR directly beneath him. That was 30 miles away from Mojave and a long glide home. He says it's amazing how fast a relatively small deviation can produce large distances when you're going Mach 3!

For one of the static burn tests, they had fire and safety crews all standing a mile away, ready to duck if anything went wrong. In the middle of the test, Mike and Burt Rutan walked up to the front of the motor assembly and felt the pressure vessel that contains the N2O. Mike knew he was going to have this same thing strapped onto his back soon, anyway, and he wanted to know how much it vibrated, how hot it got, and how loud it was. It was deafening, literally. It turns out that, with the nozzles they use at high altitudes, it's actually not that noisy inside the spacecraft. But he still wears hearing protection.

Scaled Composites seem to have fabricated quite a bit of the rocket motor themselves, including the N2O tank (which is also the structural core of the spacecraft) and the nozzle casings. It would be interesting to hear from Michael's friend exactly what parts SpaceDev Designed and what they manufactured.



## Classifieds

### Partnership Wanted:

1/3 or 1/2 partnership wanted for Duo Discus (EWF). Well equipped and well maintained. All the performance for 1/2 the money! Must have 25+ flights in 40:1 gliders and over 300 total hours to qualify for insurance. Contact Brian Stoops for details. (937) 438-8877 or [eagleyez39@earthlink.net](mailto:eagleyez39@earthlink.net)

### Wanted:

Share of glass sailplane capable of badge pursuit and competitive contest soaring. Please contact Dennis Fisher at [dmfcavu@ameritech.net](mailto:dmfcavu@ameritech.net) or 937-885-9074/Home, 937-304-4156/Cell.

### For Sub Lease:

Space in trailer storage barn (two doors). Three years remaining as of Nov. 1st. Contact John Antrim (513) 825-1447 or Bob Root (513) 575-5494.

### For Sale:

LS-1F, N261EH, built 1975, 1950 hours, easy to fly, good choice for transition to fiberglass; \$18,000. Will also consider 1/4 shares. Email: [Dieter.Schmidt@uc.edu](mailto:Dieter.Schmidt@uc.edu) or by telephone at (937) 748-5390.

### For Sale:

1-26B, N1230 with trailer \$6500. Trailer needs TLC. Contact John Antrim at (513) 825-1447 or Andy Swanson at (937) 376-9473.

### For Sale:

For Sale: One share of Redwings Soaring Club, "Two 1-26's." Contact Tom Bales @ 937 256 4843 or [tombales@donet.com](mailto:tombales@donet.com).

### For Sale:

1/3 share of ASW-15 "6V" \$4800.00 Contact [gstengel@fuse.net](mailto:gstengel@fuse.net) or 513-470-6372

### For Sale or Rent:

26' Kencraft 1966 Travel Trailer. Located at the glider port. \$1500. Contact Gloria Dalton for rental information at 704 394-0401, or e-mail [gbdalton@juno.com](mailto:gbdalton@juno.com).

# Crew Schedule

| Crew Chief                 | Tow Pilots                 | Instructors                            | Ground Crew                                  |   |
|----------------------------|----------------------------|--|--|---|
| 1st Sat<br>& 4/30          | G. Daugherty<br>D. Edwards | J. Armor<br>T. Hudson                  | R. Eslinger<br>McClaskey***x                 | J. Beaupre, J. Chiles, A. Colvin, J. Lowe, T. James,<br>L. Sergent  |
| 1st Sun<br>& 5/29          | M. Karraker<br>D. Rawson   | M. Maurer<br>N. Maurer<br>D. Schmidt   | G. Penner - x<br>A. Swanson<br>R. Carraway-x | M. Munz, W. Van Breukelen, D. Burns, G. Yee, M.<br>Anthony, D. Gold, M. Miller, M & A. Rytel, T & M<br>Schopp, W. Smith                       |
| 2nd Sat<br>& 1/29          | R. Root<br>D. Staarmann    | R. Anderson<br>B. Towne                | J. Price<br>J. Hurst<br>M. Williams          | J. Antrim, J. Biernacki, B. Connolly, D. Colvin,<br>W. Detert, S. Trefzger, J. Benner, J. Inman,<br>B. Towne Jr., C. Welsh                    |
| 2nd Sun<br>& 1/30          | D. Menchen<br>T. McDonald  | F. Hawk<br>T. Holloran                 | G. Wade - x<br>T. Rudolf                     | P & D Cahill, M. Debeque, J & H Goebel, G.<br>McDonald, J. McDowell, M & L McKosky, K.<br>Menchen, P. Pedersen, R. Sexton, M. Ganis, E Dorosz |
| 3rd Sat<br>& 10/29         | R. Hegele<br>S. McManus    | D. Green<br>R. Scheper<br>A. Widner    | C. DeBerry – x<br>B. Gaertner                | B. Boesel, T. Bresser, M. Drummey, P. Vintrup,<br>R. Griffiths, L & K McManus, C. Richardson, R.<br>Greenlee                                  |
| 3rd Sun<br>& 10/30         | J. Morari<br>B. Paar       | G. Owens<br>R. Hennig - x              | R. Eckels - x*<br>B. Gabbard R.              | T. Bonser, M. Keller, J. Koons, J. MacNicol,<br>K. Sorrell, J. Sorrell, A. Sorrell,   |
| 4th Sat<br>& 7/30<br>12/31 | J. Miceli<br>H. Meyerrose  | L. Kirkbride - x<br>G. Byars<br>S. Day | J. Jackson **                                | T. Scott, C. Lohre, J. Murray, E. Saladin, R.<br>Holzwarth, A. Dignan, D. Corni, T. Bales   |
| 4th Sun<br>& 7/31          | M. Statt<br>G. Crook       | D. Fisher - x<br>T. Blume              | J. Lubon<br>B. Gabbard                       | R. Cedar, M. Jett, G. Berneir, B. Stoops, C. Sheets,<br>B. Cooper, Dr. Krejci, P. Callihan, B. Kish   |

\*FAA Flight Examiner    \*\* Chief Flight Instructor    \*\*\* Chief Towpilot    x – Tow Pilot & Instrctr

**\*\*\* NOTICE : 5<sup>th</sup> Crew Days for 2005 \*\*\***

For additions or changes please contact Brian Stoops at eagleyez39.at.earthlink.net or (937) 438-8877

Submissions for *The Frequent Flyer* should  
be sent to:

[aaronzorrell@ameritech.net](mailto:aaronzorrell@ameritech.net)

- or -

Aaron Sorrell  
128 McDaniel St.  
Dayton, Ohio 45405  
(937) 220-9026

Submissions are due by the Monday before the  
first Saturday of each month.