

The Frequent Flyer

The Monthly Newsletter of Caesar Creek Soaring Club

February 2008



**Our aviators check out old -135 with
Braden in back and Matt in front**

Flight Testing a 2-33

by Mark Miller

Two erstwhile young eighth grade students at St. Columban in Loveland, OH were trying to figure out a project for the annual Science Fair. These projects are about testing a hypothesis using scientific methods and presenting the results on a storyboard and in a project journal for a grade. Those projects that are graded superior and excellent are eligible for district presentations and awards, as well as, state level. Everyone in seventh and eighth grade has a project for Science Fair and all grade school parents are familiar with the drill: finding the poster board materials, helping commute between a team mate's and your house and watching them pull it all together at the last minute.

This year Braden Miller talked his classmate, Matt Bauke, into trying to do something involving his hobby of learning to fly sailplanes at CCSC. They made a trip to CCSC while I was traveling last October and interviewed several instructors about the project for submitting the initial idea for approval.

When I returned from a long international trip they were going to do some flight testing on a 2-33, but it was not clear what exactly they were going to test. I helped them obtain a flight manual on the 2-33 that had performance curves for min sink speed and proposed that they could simply test old -135 to duplicate the curve. Their hypothesis could be that old -135 doesn't fly like she used to due to wear and tear.

With this in mind they chose some speed points off of the flight manual curve and made up flight cards to hand record the data. The test plan was for Braden to fly the test points with an instructor and ask him to record the altitudes at the beginning and end of each speed point. Each speed point would be steady state for 30 seconds. Matt would then also fly with an instructor only he would record the data as the instructor flew the points. (It was also Matt's first flight in a glider.)

This all sounds simple enough, except that we all know there is a lot of scatter in flight test data. We also know that to duplicate the flight manual the data must be corrected to standard day sea level and the airspeed converted to true. They also had to set the altimeter to 29.92 to fly pressure altitude (all flight testing is done at pressure altitude), which just added a little math to the pattern.

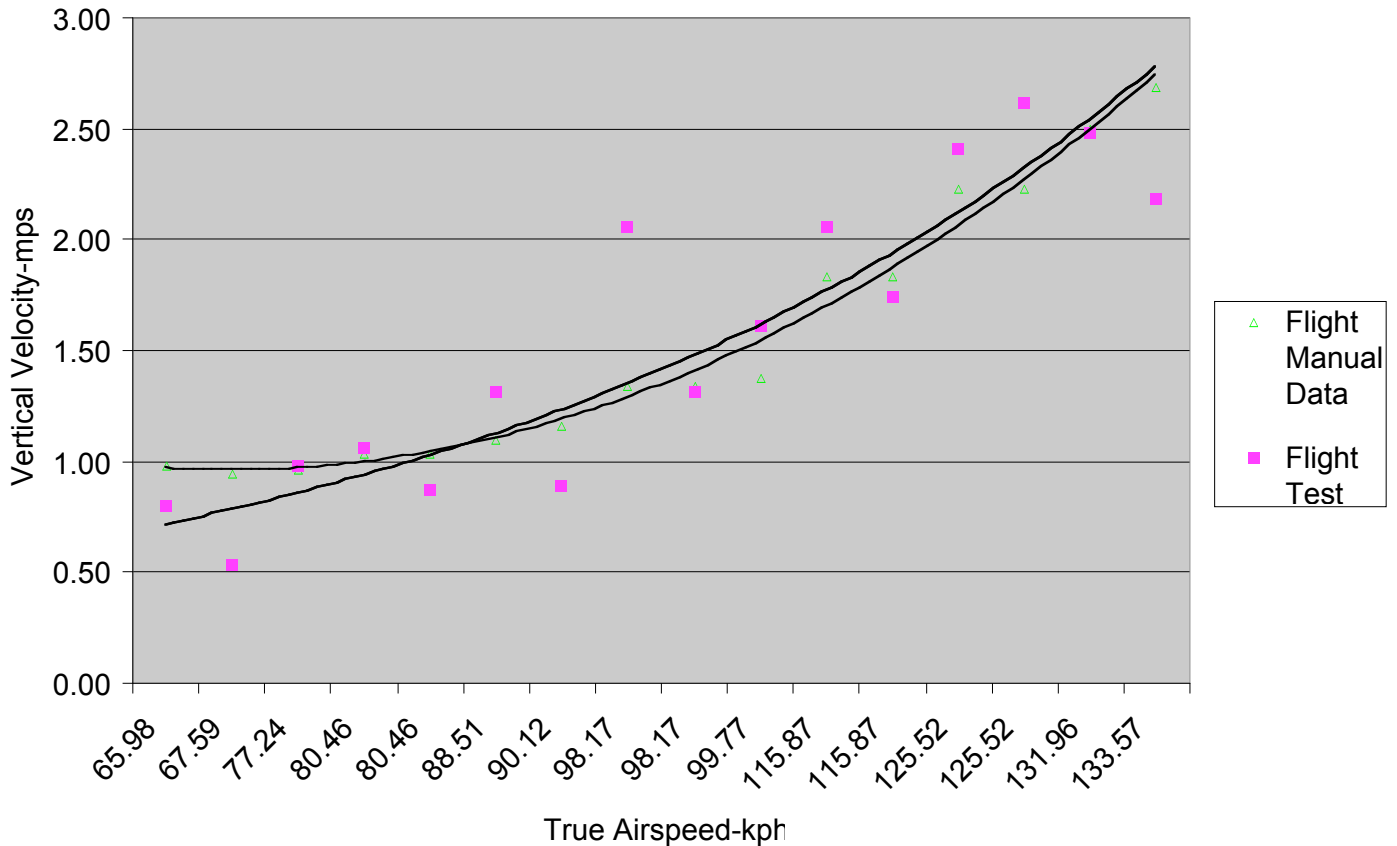
True airspeed, V_t must be converted for the air temperature from calibrated airspeed, V_c . The problem was that we did not have the actual aircraft manual for -135 (we searched the files in the office), so we didn't have the instrument error. The position error has to be determined through flight test using a known speed course, tower fly-by, GPS, pacer aircraft, trailing cone or special pitot-static test probe. Since this was impractical I told the boys the pitot-static probe on the nose of the 2-33 is pretty close to what would be installed on a test aircraft to isolate the position error. Based on that we decided to use indicated airspeed, V_i as V_c knowing that we at least had some unknown instrument error.

With that decided the boys flew a total of three flights. One for each of them on 25 Nov 07, and then Braden duplicated some speeds on another flight on 1 Dec 07. Once they had the data I showed them how to correct it all to standard day and weight using the temperature at the field and the weight of the instructor, student and any ballast versus the max TOGW in the flight manual.

The boys plotted up the data and then I showed them how to do a polynomial curve fit in Excel. The results were very surprising to me. Flight testing usually results in a lot of scatter due to all of the variables with the atmosphere and weather on a given day, but their data was dead nuts on the flight manual. A quick statistical check revealed no difference in the data sets, so the only difference at the low speeds was probably due to an airspeed error from an unknown position or instrument correction. Either that or they hit lift. Both days they flew were cloudy and calm, but nothing is ever perfect for performance.

The boys would like to thank the following instructors for their assistance and great support for the project that received an “A” and was rated “Superior” - Joe Jackson and John Lubon, who flew with the boys and Rich Carraway and Eric Hinz, who provided advice and counsel on their approach to the project. The results were very close to the current flight manual.

Flight Test Data Vs Flight Manua



CCSC Flight Instructor of the Year

by Joe Jackson

The winner of the 2007 CCSC Flight Instructor of the Year was announced at the recent CCSC Annual Dinner held on Saturday, January 19th, at the Kings Island Inn. This award has traditionally been given to the CCSC Flight Instructor having conducted the most number of instructional flights at CCSC during the year. This year the award was presented to Rich Carraway who made a grand total 95 instructional flights at CCSC in 2007. Honorable mention was also given to Jim Goebel and Chuck DeBerry who had 78 and 66 instructional flights respectively.

In 2007, there was a total of 885 instructional flights made at CCSC. Of these flights, approximately 1 out of 9 of them were conducted by the Instructor of the Year, Rich Carraway. Together, the flights made in 2007 by the top three instructors Rich Carraway, Jim Goebel, and Chuck DeBerry alone accounted for more than 1 out of 4 of instructional flights made in 2007.

Obviously the significant contributions of these individuals are extremely important to the ongoing success of the CCSC flight instruction program, along with the contributions of all of the other CCSC Flight Instructors and other members. So please help me in extending our appreciation to Rich Carraway, the 2007 CCSC Flight Instructor of the Year, Jim Goebel, and Chuck DeBerry for their exceptional contributions in 2007 the next time you see them at the club.

Joe Jackson CCSC Chief Instructor

SSD Board Elections Coming Soon - Candidates Needed!

Have you ever wondered who makes the decisions about buying and selling equipment or constructing or renovating buildings at CCSC? Those responsibilities belong to the Soaring Society of Dayton, a for-profit corporation which owns the property and equipment used by CCSC. SSD is governed by a 9-member board whose members serve 3-year terms staggered so that each year 3 board members are elected. Current board members whose terms are due to expire in April are Norb Maurer, Bill Maxwell, and Bob Root. Continuing board members are John Lubon, Pat DeNaples, Wally Detert, Dave Edwards, Lucy Anne McKosky, and Dieter Schmidt.

Elections for the SSD Board will take place at the SSD Annual Meeting on April 9, 2008. Ballots will be mailed to all stockholders in late March and should be returned promptly. Stockholders get one vote for each share of stock they own, and a quorum equal to 50% of the total number of outstanding shares is required.

There will be at least one open position on the board in this election. If you would like to get involved in making decisions about the property and equipment which CCSC depends on, you are invited to run for a seat on the board. All you need to do is to let a board member know that you want to be a candidate and send a brief resume of your flying experience and interests to Lucy Anne McKosky, 47 Lammers Ave., Dayton, OH 45459 or e-mail to Lmckosky@sbcglobal.net. But don't delay – ballots will soon be printed and in the mail.

Lucy Anne McKosky

February Potluck – Saturday, February 16th

Please plan to attend the CCSC February Potluck dinner at the club on February 16 beginning at 5PM. Beer, pot and snacks will be provided. Hope to see you there.

Maury

Ohio's Winter/Spring brings with it difficult and less predictable flying days!

- On soggy days: Take care to tow out, launch, land and retrieve from firm(er) grass/ground. (This means knowing where "dry" and "the other, bad(er) stuff" is. So, mark the bad stuff and use the better lanes/areas/spots. I'm thinking here of smart launching, and spot/on-speed landings.) Pilots, gliders and tow planes, use soft field procedures. ...tail down/nose high. (A glider in ground effect or on the top of the sod has much less drag than one plowing ruts. Ground rolls can be significantly shorter and less damaging to field and equipment.) Gliders - Land in a dry area accessible to the retrieve vehicles (not on an island or in a bog). Tow planes - Know and use the dry(er) lanes; try low speed launching and accelerating in ground effect; if landing downwind, find the "right" spot/combination to touchdown on, on-speed (not short with a long taxi, nor long with braking in these soggy conditions) and watch the soggy conditions/braking/winds to prevent a nose-over. Crews - Don't get the trailer and vehicle stuck, or golf carts and gliders. Don't damage the equipment moving them about. Save some time and crews at the end of the day for clean-up and storage.

- On cold days: Protect yourself from the cold and wind chill. Batteries wear down/out quicker. Things become brittle and stiff; don't force/break them. Other things freeze, beware. Other things thaw as the day progresses; be prepared to regress to soggy day operations. On the good side, the air is thick, tow plane engines and thermals are powerful, the weather is mostly flyable and the short days really are reluctantly yielding to the longer, more soarable days of summer. Pre-flights and post-flights are just as important in the cold.

- On windy days: Practice your crosswind procedures. Expect low altitude turbulence (especially if there is that crosswind). Higher altitude winds can be stronger too, and from other directions; anticipate shears and stay upwind. If you find a thermal, it'll be smaller than on a calm day; so steeper banks and higher speeds might be appropriate. Use those crisp control movements you've been practicing all year. Fly the correct, accurate pattern for the day; don't get blown to a long, drug-in final; keep the upwind wing down (even after landing/stopping). Don't exceed your skill level without an instructor/safety pilot on board. Ground handling might require extra folks, and occasionally, tiedowns and windbreaks; don't be "caught" short (by damaging something, or hurting someone).

- On low, broken ceiling days: (Until I can get a "pattern only/1000 ft" fee added to the club's rates page...) Stay current and proficient by taking an IP along and working on precision while on-tow/flying/patterns/landings, and work on simulated off-field landings and Premature Termination of the Tow (PTT) procedures and techniques. On cooperative days for those who are a little adventurous, beautiful and interesting conditions and views can be had above and around scattered/broken clouds. (Remember, its 1SM and clear of clouds in the traffic pattern and 123-5 VFR-rules above, below, and around clouds. Beware of Wilmington and Cincinnati transitioning traffic. And, don't get disoriented {lost} because of fewer ground references.)

- On beautiful days: Expect a few low, small and broken up thermals over soggy grounds and on windy days. Expect excellent visibility and many higher, bigger, stronger thermals on more dry days. Frequent inversions will dictate the top of most lift. Take advantage of these short days for a couple of currency/proficiency flights, or an upwind, cross-country dash and return if you're qualified (or with an IP or X/C Mentor if you aren't). Or don't fly; just come to the club and socialize, do a chore or two, or just hang out and watch the glider and airfield action and scenery.

Coming to the club on these days will brighten your Winter/Spring day and prepare you for the coming soaring season. I hope to see you there and hear of your flights and progress

Jim, CCSC Crew Chief

Flight Instructor's Meeting – March 22

Flight Instructor's Meeting There will be a Flight Instructor's meeting in the CCSC clubhouse on Saturday, March 22, 2008. All CCSC Flight Instructor's are requested to attend. The meeting will start at 9:30 AM and is expected to end no later than noon. Any Flight Instructor wanting to add items for presentation and/or discussion at this meeting should contact me prior to the meeting.

Joe Jackson, CCSC Chief Instructor

CISS Spring Safety Meeting – March 22

Central Indiana Soaring Society will have its annual Spring Safety Meeting on Saturday, March 22 at the Alexandria Indiana Airport. Bob Wander will be the speaker from the Soaring Safety Foundation. The event will begin at 10:00am and continue until about 4:30pm. A \$5.00 boiled fish luncheon will be served. Members of Caesar Creek Soaring Club are invited, provided they register individually, by email, no later than March 15. Limited to 100 attendees. Register by sending your name and CCSC affiliation to: nyalwilliams@comcast.net.

Hanger Space Verification

I need all members who have a space in any of the hangers (enclosed or open shed) to either email me with the tail number of your aircraft, the kind of plane, the date that you first occupied your space, & the location of your space (reference your space as the number of spaces from the North end of the hanger*), or give me a call at 513-934-1398. I need the information so that I can finish getting my records together. Also, I am going to be putting up plaques with space numbers and occupants name on them. Any comments or questions can be directed to Gerry Proffitt, CCSC Director of Facilities, grpdrv@yahoo.com.

Gerry Proffitt, CCSC Director of Facilities

* The North end of hangers is the end furthest from the runway.

Minutes of the Joint CCSC- SSD Board Meeting
January 19, 2008

Present: John Lubon, Andrew Dignan, Pat DeNaples, Maury Drummey, Wally Deter, Jim Goebel, Bob Root, Norb Maurer, Paul McClaskey Bill Maxwell, Dave Menchen, Lucy Anne McKosky, Gerry Proffitt, Dieter Schmidt
The meeting was called to order at 10:15 a.m. by John Lubon, SSD Board president. Minutes of the previous year's joint meeting were reviewed.

John Lubon presented a list of capital expenditure items (more than \$1000) which had been proposed by members of the two boards. After a thorough discussion of each item, each participant voted for a total of \$30,000 of projects. Results were tabulated to produce a list of priorities. Projects given top priority were repair of the 48L towplane engine, replacement of the farmhouse oil tank, improvement of the drain line to the pond, replacement of one 2-33, installation of doors and electrical service for the towplane hangar, and purchase of GPS and radios for the fiberglass gliders.

An action plan was established as follows:

- Towplane engine repair is in progress and will proceed as determined by the SSD board with the recommendation of Paul McClaskey.
- Pat DeNaples will contact a re-builder of Schweizer aircraft to investigate the availability of a rebuilt 2-33 with the possibility of trading in one of the club 2-33s.
- John Lubon will contact the contractor who built the towplane hangar to get a bid for installing doors.
- Wally Detert will pursue electrical service for the towplane hangar.
- The farmhouse oil tank will be replaced immediately.
- The SSD board will consider alternatives for pond drainage improvements and determine a course of action.

The meeting was adjourned at 12:35 p.m.

SSD Board Meeting Minutes
January 19, 2008

Present: John Lubon, Pat DeNaples, Wally Detert, Norb Maurer, Bill Maxwell, Lucy Anne McKosky, Bob Root, Dieter Schmidt Absent: Dave Edwards CCSC representatives: Andrew Dignan, Gerry Proffitt, Paul McClaskey

The meeting was called to order at 12:40 p.m. by John Lubon. The minutes of the previous meeting and the treasurer's report were deferred until the next meeting.

Old Business: Paul McClaskey presented options for the repair of the Pawnee 48L engine. He recommended having the engine torn down and inspected and any damage repaired by the Signature Engine shop at Lunken Field. Most of the cost would be covered by the insurance. Total time and TSMOH would be continued, giving the engine approximately three more years at the normal rate of use before an overhaul is required. The board voted to accept McClaskey's recommendation.

New Business: Gerry Proffitt discussed runway drainage issues. A spring is causing water to accumulate on the field, causing sinkholes to develop along the existing drain line to the pond. Also, tree removal has

increased the likelihood of gliders reaching the rock patch where water drains into the pond. The board inspected the problem areas and directed Gerry to get cost and schedule estimates from the contractor who did the initial drain line work.

The board discussed the need to replace the farmhouse oil tank and the possibility of converting the heating system to propane. They voted to authorize Chris Palmer to proceed with propane conversion if the cost would be \$3000 or less; otherwise to have a new above-ground tank installed.

Pat DeNaples presented one request for redemption of 12 shares of stock, and the board voted to redeem the shares.

The meeting was adjourned at 2:10 p.m. The next board meeting will be held Saturday, February 16, 2008, at 10 a.m. at the CCSC clubhouse.

Lucy Anne McKosky, Secretary

4th Saturday January 26th Crew Day – We don't need no stinkin' sunshine!



Henry Meyerrose prepares to launch



Henry takes a snowy tow



Dave Corni assists Joe Jackson



Garry Print buckles up

Upcoming Events – Mark Your SSA Calendar

- 16 February- SSD Board Meeting, 10:00 AM at the clubhouse
- 16 February - Monthly Social, Pot Luck Dinner, 5:00 PM at the clubhouse
- 1 March - CCSC Board Meeting, 9:30 AM at the clubhouse
- 15 March - Tow Pilot Meeting, 1:00 PM at the clubhouse
- 22 March - Flight Instructor's Meeting, 9:30 AM at the clubhouse
- 5 April - CCSC Board Meeting, 9:30 AM at the clubhouse
- 5 April - Crew Chief Meeting, 1:00PM at the clubhouse
- 3 May - CCSC Board Meeting, 9:30 AM at the clubhouse
- 7 June - CCSC Board Meeting, 9:30 AM at the clubhouse
- 5 July - CCSC Board Meeting, 9:30 AM at the clubhouse
- 13 July - 2008 Youth Camp

Classifieds

Editor's note: Ads will be re-run monthly unless otherwise advised. Thanks!

For Sale: 1965 Schweizer 1-26B, SN 322, approx. 1700 hours TT, two varios, Ranger enclosed trailer, Oxygen bottle and mount, Oxy gauge, parachute, \$9000. Contact Bob Anderson 937-609-8937 or bob@constructionaccessories.com

For Sale: Can't be a Thunderbird? The next best thing is to buy my 1/4 share of the best looking best flying 1-34 for sale anywhere. A9 come completewith parachute, trailer, great co-owners and a beautiful Thunderbird paint scheme. \$3,750 Call Dave Menchen (513) 313-2315

For Sale: Udo Rumpf one man rigging dolly, \$750. Strong 303 parachute, \$650. Garmin GPS Pilot III with EW-D data logger, \$600. Contact Greg McDowell, 937-382-5065

For Sale: STRONG PARA-CUSHON 303 PARACHUTE, like new \$650. Contact Greg Crook at (614) 932-9979 or greg.crook@sbcglobal.net

Wanted: 3-5 partners in new DG-1000T. 30k-40k per share, 1 to 3 years until delivery. Contact Rob Cluxton at rjcluxton@cinci.rr.com or phone 513-702-3925

Submissions for *The Frequent Flyer* should be sent to

Tammy Scott at: tspot1@sbcglobal.net

Submissions are due by day's end on the Monday before the second Saturday of each month.

Caesar Creek Soaring Club

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See our website at: <http://www.soarccsc.com>