



HIGH FLYER



The Official Newsletter of High Flights Soaring Club, Inc
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High Flyer is mailed free to HFSC members and other soaring associations. Otherwise, subscriptions are \$10.00 per year. Please mail exchange newsletters, letters to the editor, and material for publication to: John Scott, acting newsletter editor; 885 Northfield Rd, Colorado Springs, Colorado 80919; jdsco@valleypine.net

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1-34 north of the Mineral County Airport in September. Photo by Jim Densmore

Club and Member Notes

The club roster and duty schedule are available on-line at the club website courtesy of Jim Pirtle and Jim Densmore. Members are responsible for knowing when they have duty!

<http://www.highflights.com/members/roster/roster.html>

<http://www.highflights.com/members/sched/currentsched.html>

Next Board Meetings - Feb 11th & Mar 10th. All club members are invited (encouraged) to attend.

The **SSA Annual Convention** is Feb 8th thru 10th in Memphis. Steve Smith and Jennie Chiang and John and Kathy Scott are planning to attend. If you are going to attend, please let us know. The convention is worthwhile and very enjoyable

The **Colorado Soaring Pilots/SSA Governor's Seminar and Awards Banquet** is scheduled for February 24th, 2007, at the Clarion Hotel (formerly Holiday Inn) at Centennial Airport (same as last year). Price, menu selections, and presentation list to be announced, but will include history, technology, bragging rights, safety, and more. Mark your calendars. Let's plan to have a good contingent from High Flights attend this year.

The revised Club **Bylaws** as approved at the annual meeting have been posted to the HFSC website. Also the current **Pilot Information File (PIF)** has been posted. The PIF is a work in progress as we are converting it to an electronic format. Any comments should be sent to **Jim Pirtle**.

Thanks to **Frank Molli**, High Flights has an **Online Scheduling System** now. This is to be used in the future in place of the blue notebook sign up sheets. There is an article below on the new capability. **Students** are reminded that when using this system to schedule glider time, you **must also coordinate with your instructor** separately. This system is only for glider scheduling – not instructor schedule. This is the system I used to gather the time and flights flown information for the annual meeting presentation

Before Christmas the canopy on **22S** was not securely latched when the plane was tied down at the end of the day. As a result, the canopy blew open, broke the lanyard, cracked the Plexiglas on the wing, and bent the canopy frame. The Plexiglas has been repaired and the frame straightened, thanks to **Frank Molli, Gil Gildersleeve** and **John Galbraith**. However, our canopy now has a nasty crack in it. We choose not to replace the Plexiglas at this time due to cost, about \$400. Please double check the planes after tie down at the end of the day. **Always double check the canopy.**

On a similar note – we need to make sure all gliders have at least 2 tie down ropes on each wing, tied separately. **89H** and **7AS** each have 2 ropes on each wing. **47S** has had a second rope added for each wing. We will be adding second ropes for **643** and **22S** soon. On **643**, **22S**, and **47S** the second rope runs thru the same ground anchor and the same tie down on the wing. Please make sure both are always used.

Here are the URLs for the live Meadowlake weather and the airport webcam. The webcam does not refresh automatically, so you'll need to do that manually if you expect to see anything change.

Weather: <http://www.mlaa.org/weather/index.html>
Cam: <http://www.mlaa.org/weather/images/netcam.jpg>

Ops Trailer Deck by John Scott

Our deck on the Ops Trailer sustained some damage during the series of weekly storms that occurred beginning with the Christmas Blizzard of 2006. If you recall the cover photo of last months Newsletter, you saw the size of the drift, before 2 more snow storms.

When the weather cleared and we were able to shovel the snow (and much ice) off the deck, this is what we were greeted with:



After some work, we were able to get the siding mostly closed to protect from more snow blowing into the wall and floor. The deck is not completely back in place as and is sitting on some temporary support. On the next warm day, we will finish jacking the deck back into proper position and securing it with more permanent mountings.

While the trailer did sustain some damage, I don't think it materially impacted the value.

Thanks to all those who helped shovel all of the snow and ice off the deck over a period of 2 days.



The trailer was supporting the side of the deck, however, it wasn't up to the weight of all of the snow. The floor of the trailer was pulled down under the weight. After the snow melted a little more and we had warm day, Gil and I worked to jack the edge of the deck back into place and support it with some pillars of concrete blocks.



2007 Camps

The following dates have been selected for our camps for 2007:

May 25 th – 28 th	Westcliffe
Jun 29 th – Jul 8 th	La Veta (2 weekends and a full week)
Sep ?? - ??	Creede

Since the 4th of July falls on Wednesday this year, we decided to extend the camp to include both the weekend before and the weekend after. Hopefully this will allow more folks to participate. There had been some discussion of moving the summer camp to Westcliffe, but after discussion we decided to keep it at La Veta due to the greater opportunity for activities for the families who aren't flying.

The exact dates for Creede are being investigated. There has been some suggestion to move the camp forward to the Labor Day weekend. However, there is some thought that the airport might be very busy that weekend with folks flying in for the "last good weekend" of the summer. We're checking to see what the activity has been like for the last few years before setting the exact dates.

Information on lodging for each site is on the HFSC website. Keep in mind that many of the accommodation in La Veta have closed in the past couple of years.

We need volunteers to be Camp Coordinators, just like last year. Given the length of the La Veta camp, 2 folks might want to work together with one taking the first weekend and packing for the trip and the other taking the second weekend and the return to Meadowlake.

We also will need commitments from our tow pilots as to which camps and which days they'll be able to participate. Our ability to hold camps, is directly related to the availability of tow pilots. In the past we have had to cancel camps due to not having tow pilots available.

Start making your plans. More information to follow as we get closer to each camp.

Online Rooster and Scheduling by Frank Molli

The next time you visit High Flights web page take a look at the new membership roster. There you will find a new web application that offers much more than simply a list of members and their particulars. That information is still present. But now, from this page you can view your account balance, view your flight activity, make glider reservations, and view club statistics such as flying time, flight counts, and average flight time for all members of the club. This information is taken directly from the treasurer's database so it will be up-to-date.

The page is very simple to use. When you first select the Membership Roster link, a page similar to the one shown below is displayed.

V0.17

High Flights Soaring Club Member List

HFSC Member List

First	Mi	Last	Spouse	Address	City	State	Zip	Home Phone	Work Phone	Mobile Phone	E-mail
PAUL		ANTOINETTE	SUZANNE	1047 Eagle Ct.	Louisville	CO	80027	303-971-2786	303-981-2524		paulantoinette@msn.com
ALEX		BARCLAY	BETH	9072 Hadley Place	San Diego	CA	92126-1523	858-549-8221		858-603-3064	alex@planet-barclay.com
JOHN		BROWNING	KATHY	6610 QUARTER CIR RD	Colorado springs	CO	80922	719-573-4641	719-535-4500		john.e.browning@edscom
KEVIN		BROOKS	DONNA	12536 Jetton Ct.	Falcon	CO	80831	719-495-2930	719-554-2553		kbrooks758@aol.com
JENNIE		CHIANG	STEVE	6360 Moccasin Pass Ct	Colorado Springs	CO	80919	719-260-0767	719-592-6700	719-200-7382	jennie.chiang@hp.com
MATT		COTE		9 Route 36	Fairfield	VT	05455	802-527-5064			
WILLIAM		CREECH	BARBARA	2091 Country Road 329	Westcliffe	CO	81252-9159	719-783-0428	719-549-4143		wacreech47@yahoo.com
DAN		DALY		983 Pulpit Rock Circle South	Colorado Springs	CO	80918	719-559-5470	719-554-7556	719-229-1415	dalydaniel@msn.com
JAMES		DENSMORE	LINDA	6670 Sky Hawk Court	Colorado Springs	CO	80919-1530	719-535-8978		719-339-6757	jim@densmore.org
MARK		DICKERSON	PHYLLIS	P.O. Box 1142	Lancaster	CA	93584-1142	661-948-2453			mpdicker@verizon.net
JOHN		FLICK	JOLETTE	526 Oak Point Dr.	LA Place	LA	70068	504-415-1044			wkdgtpl@ yahoo.com
LYNN		FRENCH	DEBRA	6932 Granite Park Drive	Colorado Springs	CO	80918	719-528-7111		970-921-7700	FLF450@aol.com
TOMAS		FREDRICKS		4782 W Ponderosa Dr	USAFA	CO	80840	719-472-8650	719-333-3998	719-331-1300	tifredricks@yahoo.com
JOHN		GALBRAITH	COLLEEN	675 Rock Creek Mesa Rd.	Colorado Springs	CO	80926	719-576-1343			Johngalco@aol.com
GIL		GILDERSLEEVE	JEAN	911 Ellston St.	Colorado Springs	CO	80907	599-3307		719-510-0468	gilShp@aol.com
DARROLD		GRAY	DARLENE	3045 Fascination Cir.	Colorado Springs	CO	80917-3709	719-591-2630		719-332-0640	gdarrold@msn.com
MARTY		GROVE	PAM	8 Escondido Valle	Manitou Springs	CO	80829	685-1472	590-2427		marty_grove@agilent.com
ROB		HAMALAINEN		935 PINENUT CT.	COLORADO SPRINGS	CO	80921	719-488-1080			R2H@ADLPHIA.NET
JOHN		HARDY		14404 Canyon Dr	Bellevue	NE	68123				john.hardy@tinker.af.mil
MIKE		HART		675 Corbett Av #302	San Francisco	CA	94114	415-285-5787	415-626-7527		MHHSF@aol.com

DateRange

From (MM/DD/YYYY)
11/17/2006

Through (MM/DD/YYYY)
01/17/2007

Member Account Status

Member Flight Listing

Club Statistics

Glider Statistics

Glider Reservations

Return To HFSC Main Page

Please notify:
[Frank Molli](#) or [Jim Pirtle](#)
for changes or corrections.



Internet 100%

On this page you can scroll up and down to get membership information such as addresses and phone numbers. If you click on a member's name, after a few seconds it will be highlighted in blue. Then if you click the Member Account Status button, the account balance and transactions for the selected date range are displayed for that member. If you click the Member Flight Listing button, then the flights that the member has made in the selected date range are displayed. The selected date range is set on the roster page in the lower left panel.

The Club Statistics button will display the number of flights, total flight time, and average flight time for each member within the selected date range. Once it is displayed you will be able to sort the list by number of flights, total flight time, or average flight time by simply clicking the title of the column.

The Glider Statistics button is similar to the Club Statistics except the total times and counts are listed for each glider instead of each member. These features are fun to play with because you can easily see who flew the most flights in 2006 by setting the selected date range starting at 1/1/2006 and ending with 12/31/2006 and clicking the Club Statistics button. Of course, if you use your imagination, you will realize that you can do this for any year, month or season.

The last item to discuss is glider reservations on-line. From the roster page you will notice the Glider Reservations button. When you click the button, a reservation page will appear.

To make a reservation simply type your name into the time slot for the desired glider. Each time slot represents one half hour. Be certain to look at the date at the top of the page. This is the date of the reservation. You can make a reservation for any date in the future by using the calendar panel on the lower left of the form. To make a reservation for a future date, simply click on that date on the calendar. The new reservation form for that date will appear. Then type your name into the appropriate time slots. Once you have completed this click the Submit button. You are encouraged to use the on-line reservation system. You can still call the treasurer, Frank Molli, to make a reservation if you wish, but he will simply enter the reservation on the web page for you.

Also, when flying has been canceled for weather or other reasons on a particular date, an image will appear on the glider reservation page indicating the flying has been canceled. Take a look at January 13 or January 14.

Please note that on all of the pages in this application the normal "back" button on your browser will not function. You must use the back buttons provided on the page itself. The are shaded in blue.

The data for the accounts and flight statistics goes back to November of 2003. Data prior to that was not captured in the database.

If you see any errors or need to make changes to the information please notify Frank Molli or Jim Pirtle.

HFSC OLC Status

The laptop software is being update and SeeYou installed. The seminar on using the loggers, SeeYou, and the OLC will be held shortly after I return to Colorado at the end of February.

Remember: Take a logger when you fly!!

A Tow in the Life of a Tow Pilot by Jim Densmore

Easily one of the most amazing occurrences in my aviation life is that moment, oft-repeated in this wonderful club of ladies and gentlemen, when someone thanks me for his/her tow. I have just finished having just about as much fun as it is possible to have in an airplane with an engine, and here's this person *thanking* me for it. Every aspect of a tow is unique in my aviation life, and I revel in the challenge of getting it right. I was pondering once why I like flying so much, and Dad said, "Son, I like the challenge of trying to get every little thing right. Never have, but it sure is fun to try." I'm with Dad. He's got 50 years of aviating under his belt, so I'm thinking I'm not ever gonna either, but I'm sure having fun trying.

So how do those tows go? I'm hoping you will find it interesting for me to share with you what I think about during the average tow. I think it's what most of the tow pilots think about, more or less. Perhaps in subsequent issues we'll hear from other tow pilots.

As you know, prior to first flight of the day we get pretty carried away being sure that rope is going to do the trick. I also take a pretty close look at the entire tail section, including, of course, the release. I'm really happy with that new release, by the way, it seems nearly bullet proof.

What you may not often see occurs a little earlier, as we perform the preflight in the hangar. The Cub takes a lot of punishment out there, so every time one of us tuggers is about to fly it, we give it a pretty good onceover. I check the fuel for quantity and consistency and color. I check the fuel caps for proper positioning and tightness. I go through the engine compartment very carefully, looking at the engine mount, the control connections to the engine, the plugs, the exhaust system (for signs of overheating, among other things). I look for leaks especially. I check the propeller for nicks. I look for bird nests. I check all the control surfaces. I look at all the bolts and nuts I can for tightness (and presence!). I take a really close look at the tailwheel and the release. Found the tailwheel with a huge crack in the leaf springs one day. (We didn't fly.) For the first flight of the day I also go through a complete internal checklist while in the cockpit. Finally, we usually make that first flight without a glider just to be sure things seem right.

Before the first glider tow, there's one more thing to do: we call Springs Approach. We have an agreement with them to let them know when we're flying. All the tow pilots know this and give them a call. Usually they ask when we think we're going to stop flying for the day. We call them back if that estimate proves seriously incorrect. You can find out if we called the tower: dial up the COS ATIS on 125.0 and listen for the warning that glider operations are in progress at Meadow Lake. Sans this conversation with Approach Control, they'll route big iron with glider sucking gas turbines over Black Forest VOR all day long, usually at 9,000 MSL, prime airspace for our sailplanes.

Okay, time to take a glider up. I enter the cockpit. Half the fun of the Super Cub is just getting the heck into the thing. I settle into the seat and strap in with the four point harness. Then I don a headset. Hey, it's noisy with that big propeller thingy up front!

A quick checklist: check that the *airplane is untied*. Fuel: check *fuel levels* and check *fuel selector lever* (two fuel tanks, one in each wing) at desired position. *Radio master off*. *Electrical master on*. *Mixture rich* ... well, not too rich, there is an intermediate position we tow pilots have come to know as a good position for starting, as we are, of course, well above sea level. *Magnetics on both*. Two independent and redundant magnetics serve as the Cub's ignition system. Normally both are used. Yell *CLEAR!* Then *actually look* to be sure no one will be thrown up into the air by the turning propeller. (You do not want to see this happen. Dad told me to trust him on this.) Push the starter button. Once the engine is turning, one or two pumps on the throttle exercise an accelerator pump which primes the engine for starting. Usually it starts right up. This is a great engine in this regard, some airplane engines are remarkably cantankerous, particularly when they're hot. Not this one; it's nearly always easy to start.

Now that the engine is running, I turn on the radio master switch and check the oil temp, the four cylinder head temps (CHT) and the four exhaust gas temps (EGT). Heat is a constant worry: hot days, heavy gliders, slow air flow over the engine, full power climbs. I start worrying as soon as the engine is running, and I want to know where those temps are. Another reason to do so is to calibrate the gauges. They're electronic and they're in a really high vibration environment. Sometimes weird things happen to electronics in such environments.

When it looks like we're about ready, usually when someone starts to hook the rope onto the sailplane, I call on the CTAF that we're about to depart. It's funny, everyone has a slightly different call, but it is what works for them. I normally use, "Meadow Lake Traffic,

Super Cub 7 8 0 8 Zulu on the glider strip, departing southbound with glider in tow, right hand turnout, one five glider strip Meadow Lake" or a minor variation thereof. I've evolved this call for several reasons. It says "glider strip" twice for emphasis. It says "southbound" as well as "one five" – not everyone thinks of the glider strip as another runway since it's unmarked, and not all the time are we operating in the same direction as other traffic, so I want to say that in two different ways. It says Meadow Lake twice as recommended by the AIM.

Then I taxi into position. I glance at the windsock and ensure I have the controls in the proper position for the current winds. With a positive angle of attack even at rest, Taildragger pilots are taught to fly the airplane whenever we're not in the chocks to avoid upsets. Wind from one o'clock? Then stick back and right aileron. Wind from 8 o'clock? Then stick forward and right aileron. And so on.

We have a nice rear view mirror, so we tuggers can actually see behind the airplane pretty well. I look for a lot of things through that mirror. Sometimes have to reach up and touch the mirror to get it to stop vibrating. It often vibrates enough to make it difficult to see enough detail otherwise. I generally can see the rope, so if everyone is clear I may move slowly forward until it is nearly taut. Otherwise I'll wait for the signal and bring the line taut then. Meanwhile, I listen for traffic on the main runway and try to track anyone I'm aware of visually. Okay, are we ready? I waggle the rudder. I get a waggle back. But I also wait for the signal from the wing runner. Both should agree that we can launch. It can be confusing to understand what to do when I don't get a launch signal from the wing runner, because often the failure to get a signal is due to the wing runner not understanding what signal he should provide. Fortunately we almost never have that problem in our club, but sometimes new club members are still becoming acclimated to the routine. It's best if the new member is being mentored, but that doesn't always occur. Of course, I will err on the side of caution in such circumstances. If the wing runner appears alert, then his failure to provide a launch signal is going to be for a good reason, for example landing traffic. It helps to have been listening to the radio to understand what landing traffic their might be.

I also take one last gander at the glider wing to look for spoilers. If I see spoilers I make the assumption that the glider pilot is trying to keep the rope taut and I'll begin adding a little power. However, if I don't immediately see the pilot begin to lower the spoilers I'll come to a stop and try the radio or another rudder waggle. This happens most often with the 1-34. Notice that I should never see spoilers with the Blanik just prior to the takeoff roll, because brakes and spoilers are on different lever controls in the Blanik cockpit.

As I add smoothly add power for takeoff I glance at the windsock to understand how the wind will affect our takeoff, and adjust accordingly. As power reaches by sound about 2000 RPM I quicken the movement of the throttle a bit. Our 180HP Lycoming and propeller combination does not like being in the RPM range between 2150 and 2300, as it causes an undesirable resonance. The tach is redlined in this range and one should move quickly through it. Once power is at full throttle I glance down to see what the tach reads to ensure we're making full power, and take one last look at the oil pressure to see that the engine is reasonably happy. Of course, it's a good idea to stay on our narrow runway as well. Excursions can happen very quickly with any wind, a malady common to all taildraggers, so I have to keep my eye on the runway at all times, especially when it bends to the right near the end!

Especially in a tailwind or on a hot day, the Cub sometimes will roll off the end of the runway without true flying speed. I follow the drop in the terrain while remaining in ground effect. If I see that this is going to happen I may add one notch of flaps. However, we tow pilots must be extremely careful using flaps on takeoff. With flaps, the Cub can climb while flying very slowly, slower than it is comfortable for most of the gliders to fly out of ground effect. Therefore, if I'm using flaps, I'm careful to ensure we have an honest 60 mph (65 mph or more if towing the 1-34) before I start to climb. As soon as we have that I retract any flaps slowly. (For those of you who might not ever have looked, manual flaps with a Johnson bar in the Cub. No electric flaps here, nor are any wanted.)

Now we're airborne, and I initiate a very slight turn to the right to angle away from the airport along and just east of the residential fence line. If it's really hot and/or heavy, there might be some worry about whether we'll clear the airport fence. If this is the case, I don't turn so far right so that we can continue down the grass just west of and adjacent to the main runway while we gain energy.

I'm also on the lookout during this time for any gliders landing on the grass and any aircraft operating on the main runway, regardless of direction. If the power traffic is operating on 33 and a landing aircraft decides to go around for some reason, he might come at us. If 15 landing traffic should decide to abort their landing for some reason, it would be normal for them to drift right to keep any power traffic already on the main runway in view. This definitely will put them in our path. It's worth remembering also that there is no requirement for anyone to operate with a radio at our airport.

When we reach 200 feet AGL, I turn our tandem to the right over the houses. Much of my focus turns to the cluttered land immediately below us as I lose the ability to turn back to the east and land in the open field should I have engine trouble. We're over houses now, and we're low, and while there are a number of safe areas to land they are very difficult to pick out. Wires are especially hard to see (ask Gil!). Today (unlike 10 years ago) many of these safe places have fences; we're going to damage the airplane going through the fence, but if we've lost an engine it can't be helped. Any time you're a glider on tow over those houses and the Cub engine signals any lack of desire to continue, you're going to get the fastest "rock off" you ever saw, and if you're not gone instantly you'll have the rope all to yourself. By the way, fellow glider pilots, don't neglect the big open field behind you. We're over 200 AGL. The Cub probably can't get back to it, but you may be able to even if you can't reach the airport.

The low turn over the houses may look like a bad idea given the thoughts in the preceding paragraph, but there are several other factors at work. The one that causes us to turn anyway is maintaining a departure pattern that maximizes the probability of getting the glider can get back to the airport should there be a rope break. While we're on tow, I am always thinking about the glider in this regard. The second factor is that big home with the lake next to it and the tennis courts. I heard once from Lew that we are never, ever supposed to fly over that house. Generates a complaint every time we do so. On the other hand, there's the third factor: the owners of these homes were told in their covenants about the airport. While we need to be good neighbors, at least for now they have no legal recourse for airplanes flying over. They signed up. Those homeowners south of Falcon Highway don't have the same set of covenants. They've got every reason to whine if we buzz over their house.

Now we're through the first set of houses and on to those along Cottontail Drive. I generally fly up Cottontail to the red barn and turn right to follow Route 24 for a short distance. I try to vary my path a little bit each time, though it's difficult to do so if we're still fairly low. In doing so, I'm following Larry Garrett's advice: try not to go over the same house twice in a row. The turn back to the right to follow 24 is simply to get back closer to the airport for the glider and that always unexpected rope break before making the wide, 180° left turn. During this first run to the North, I've also got my eyes out for other gliders. If one has been dropped one off previously, he's probably marking lift by now. If there isn't lift, he might be preparing to enter the pattern and land.

Once we circle back around and are heading south, things usually depend on who's behind me. If it's a student, s/he probably wants a simple race track pattern so that wake boxes, slack lines, or other maneuvers can be practiced. If a more experienced glider pilot is behind me, then you guessed it, we're on the prowl for lift. Between one and two thousand feet AGL I'll search for lift west of the airport and east of the Class C airspace. (Everyone knows where the Class C is, right? South of Falcon Highway, West of Meridian up to the high school where it starts to curve around to the West, between 8,500 MSL and 10,200 MSL. You know not to get caught in the Class C airspace without being in contact with Springs Approach (91.130 (c) and (d)) too, right?)

If the glider pilot is experienced enough and I find a strong enough thermal, I may even circle in it. Ask Mary about circling in that thermal at Creede a few years ago. Previous glider tows may have made clear that the lift is hard to find. If so, then the thermal we've found may be the only around. If there's a fair amount of lift, it's usually worth trolling so that the glider pilot knows (a) that there are several places with lift, and (b), where they were, at least when we flew through them. If I do circle, I'll circle left. I want the glider pilot to feel free to get off tow any time s/he likes, and if I'm circling to the left, they usually feel more inclined to do so. However, it actually doesn't matter. I almost always know immediately when you release. I can feel it if there's tension in the line. I can see it in the mirror if not. As soon as you release and I'm sure you're clear, I'm in a left turn even if I was in a hard right turn beforehand. (But ask Luan about making sure ... and it's her story that leads me to be sure that you're off first. Trust me, if I'm not sure you're gone and off tow, I won't make any maneuvers you would have trouble following.)

If I'm not circling, I'm probably doing three things, looking for other gliders or birds in lift, keeping you upwind of the airport, and keeping you within gliding range of the airport. The only good reason to get downwind of the airport is that's where the only lift is. Well, four, I'm looking for other traffic too. You know that a tow plane on tow with a glider has right of way over everything except balloons, right? We have the right of way over other gliders too, but I try real hard not to take advantage of it, especially if we might get in the way of a glider pattern.

Once you are off tow, the first thing I do is make that left turn and then fly straight ahead for a bit. It's good to get down in a hurry for the next tow but it's more important to make sure the tow plane is clear of the glider. If I'm pretty sure the glider is looking for lift or got off in lift I'll start circling to descend quickly sooner. However, if there's any chance the glider might engage in maneuvering or spins (taking a really high tow, especially on a no-lift day, is a sure sign someone want to do spins) for training or any other reason, I'll make sure I'm well clear before circling back to avoid getting under the glider. We place the tow plane in a slip to the left. We keep the engine RPM at 2000 to avoid shock cooling the

pistons, which occasionally crack if care isn't taken. The slip also allows us to keep our speed to about 70 MPH to avoid cooling due to high speed airflow through the engine.

As soon as I start the descent and engine cooling phase, I start thinking about the landing of course. In the first turn I can see if a glider is staged on the pavement. If this is so, I'm more likely to try a landing to the north. Otherwise, when the wind is from the south I will probably set up for a landing to the south – no need to do an unnecessary downwind landing. If I'm not sure about the wind I'll use the super Unicom (if the silly thing is working). If the wind has been tricky and the SU isn't working there's no reason not to call High Flights Ground and get a wind check.

Rolling out of the descending slip at about 1,000 feet AGL I enter the pattern, looking for other traffic. I'm easy about exiting the pattern for a glider, all the tow pilots are. If we're not sure we're clear of you, we'll just get out of your way. Believe me, unless a glider is attached to the tow plane, with 180 HP that airplane climbs away like a Grumman Bearcat, the proverbial homesick angel.

In the late stages of the pattern, I become very aware of the rope. If the rope is dragged over something that snags it, we'll lose a piece of it. Or worse, if it drags near a person it might snag that person. (I don't have to tell you what happens after that, do I?) Landing to the south is where I'm most cautious, especially if I'm landing on the grass. I go by the ops trailer just as I'm in the flare about to touch down. If someone walks past the trailer and out to the pavement at that moment, they might run into the rope. If I'm on short final and see someone starting to do this, I may call on the radio to see if they hear on the speaker that I'm coming. If I don't see an immediate response, then one of two actions are warranted. If I'm far enough away and high enough, I can just go around. If not, it may be necessary for me to drop the rope to avoid any chance of hitting the person with the rope. I've done this more than once. It costs us little and is the safe thing to do.

Finally I get the landing in. The Cub is comfortable in the short field we have to work with as few powered aircraft are. Nonetheless, the prudent tow pilot does not want to be too fast on approach. At 65 MPH on approach the ground roll is impressively long. The right approach speed on final is 55 MPH. If you get a little low right at the end, it's easy to drag it in and put it right on the spot you want, and the airplane will drag along with a little power at 50 MPH indicated. Going slow like that, it comes to a stop quickly and easily. If I'm in a crosswind, we have a pretty wide runway with the grass, I may take the opportunity to turn into the wind and land across. If there's a reason to eschew this and I'm on the pavement, I may "wheel" it on – land on the mains first – as this brings greater directional control to the landing. Some feel that wheel landings in Super Cubs are difficult, but I've found that they are a useful tool in the tow pilot's arsenal and I always practice wheel landings as well as "full stall", or three-point, landings. Wheel landings are a lot easier in the Cub, by the way, than they are in some other tailwheel airplanes like my 180.

If there's another glider to tow, I bring the tope to the line crew. I mark down the tow altitude from the previous flight and start looking for traffic and such. If we're finished for awhile, I position the rope appropriately and put the Cub in its parking space. After shut down I make sure the magnetos are both off and the master electrical switch is off. Then I exit the cockpit and tie the airplane down. Just as with the gliders, the freakish Colorado winds can take the Cub away in moments if it isn't firmly affixed to terra firma. Finally, if I

take that walk across the grass, I do so only after noting that there is no glider traffic landing on the grass.

For all that detail, I'm going to get several comments from the tow pilots, and probably from some of you glider pilots too, regarding things I neglected to comment on. There's a lot to think about isn't there? That's the thing I like about aviation, there is a tremendous amount of detail to work on perfecting. I have done camps where I have made over 30 tows in a single day. At the end of that long tiring day, the last tow has to be as safe as the first one. Nothing else will do.

Current Duty Schedule

		Chief	Line	Towing
Saturday	Jan 20	Frank Molli	Art Romero	Jim Densmore
Sunday	Jan 21	Marty Grove	Kevin Brooks	Gil Gildersleeve
Saturday	Jan 27	John Scott	John Browning	Lee Hattrup
Sunday	Jan 28	Don Shearn	Marsha Hawk	Jim Pirtle
Saturday	Feb 03	Al Spratford	Robert Wirth	Jim Densmore
Sunday	Feb 04	Tomas Fredericks	Matt Neal	Gil Gildersleeve
Saturday	Feb 10	John Norton	Rob Hamalainen	Lee Hattrup
Sunday	Feb 11	Mary Hoddinott	Matt Sheldon	Jim Pirtle
Saturday	Feb 17	Steve Smith	Jennie Chiang	Jim Densmore
Sunday	Feb 18	Frank Molli	Gilles Marty	Gil Gildersleeve
Saturday	Feb 24	Marty Grove	Art Romero	Lee Hattrup
Sunday	Feb 25	John Scott	Kevin Brooks	Jim Pirtle

<http://www.highlights.com/members/sched/currentsched.html>