



HIGH FLIGHTS SOARING CLUB, INC.

PILOT'S INFORMATION FILE

High Flights Soaring Club, Inc. (HFSC) is a non-profit organization formed to provide safe, educational and fun-filled glider flying. HFSC offers equipment, facilities, instruction and a program of challenging and social flight-oriented activities for experienced and low-time pilots.

Students are welcome as equipment and flight instructors permit.

First and foremost, HFSC is dedicated to ground and flying safety. Although basically a fun club for sport flying, there is a program for competitive flying for those who wish to sharpen their flying and navigational skills in the pursuit of badges.

Unsafe ground and flight practices will not be tolerated.

HFSC does not want anyone injured or killed in a flying accident.

Insurance rates are getting higher each year. It is imperative that each member exercise the safest of flying and ground-handling techniques constantly to minimize the possibility of even minor accidents.

The various sections of this Pilot's Information File contain information, rules and procedures for the use and guidance of club members. The Board of Directors is the governing body of HFSC and consists of a President, Vice-President, Secretary, Treasurer and Director-at-Large. See the Constitution and By-Laws for a description of their duties and responsibilities.

If, after reading this Pilot's Information File you have some questions, see an instructor or a member of the Board of Directors.

Separate files on each HFSC sailplane are maintained in the Operations Building, and individual copies of the Flight Manuals for each plane are available.

CLUB EQUIPMENT

- One Operations Building, (Trailer)
- 1 Super Cub towplane.
- 1 Schweizer 2-33A two-place sailplane, radio equipped.
- 1 Schweizer 1-26D single-place sailplane, radio and oxygen equipped.
- 1 Schweizer 1-26C single-place sailplane, radio and oxygen equipped.
- 1 Schweizer 1-34 single-place sailplane, radio and oxygen equipped.

- 1 L-13 Blanik two-place sailplane, radio and oxygen equipped.
- Trailers for each of the above sailplanes.
- One parachute.
- One barograph.
- Miscellaneous equipment in the form of tow ropes, tie down kits, etc.

INITIATION FEES, DUES AND EQUIPMENT RENTAL

New member initiation fee _____ \$200.00
 Additional family members _____ \$100.00

Monthly dues _____ \$30.00
 (\$10.00 of the monthly dues is credited toward flying costs. Only one credit per family)
 Additional family members _____ \$15.00

Tows:

Hookup fee _____ \$7.00
 Plus cost per 1000 feet _____ \$5.00
 Glider rental per hour:

2-33 _____	\$12.00
1-26 _____	\$12.00
1-34 _____	\$12.00
Blanik _____	\$12.00

CLUB INSURANCE

Costello Insurance Associates
 428 E. Southern Avenue
 P.O. Box 28280
 Tempe, Arizona 85282

Coverage:

Bodily Injury and Property (each passenger)
 Liability (each person)
 Medical payments (each person)
 Hull coverage, less deductible

Pilot Liability (deductible)

Not in motion \$100. In motion \$500.
 \$100,000
 \$1,000,000
 \$500 (stated value)

FLIGHT OPERATIONS

All flight operations of High Flights Soaring Club, Inc. will be conducted in strict accordance with "Federal Aviation Regulations for Pilots.

PILOT PROFICIENCY

It is the responsibility of each pilot to assure that he/she meets the current requirements prior to flight in any of the following applicable categories:

Tow Pilot	FAR--61.69
Student Pilot, glider	FAR--61.115
Private Pilot	FAR--61.115
Commercial Pilot	FAR--61.133
Flight Instructor	FAR--61.181

The following are authorized by HFSC to perform as club instructors:

Darrold Gray
Jim Pirtle
Bruce Mosier

The following are authorized by HFSC to perform as tow pilots:

Jim Densmore
John Galbraith
Darrold Gray
Lee Hattrup
Joe Personnett
Jim Pirtle

PILOT IN COMMAND

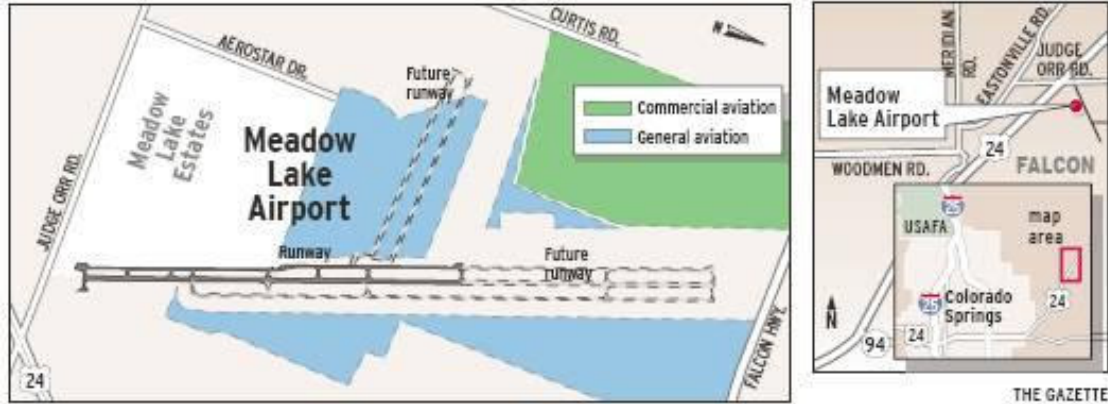
No person may act as pilot-in-command of an HFSC glider carrying passengers unless within the preceding 90 days he/she has made 3 take-offs and 3 landings as the sole manipulator of the flight controls in a glider. (This is a paraphrase of FAR 61.67).

RECENT FLIGHT EXPERIENCE

Members who do not fly regularly on a year-round basis are encouraged to get a check ride with a club instructor after a period of inactivity.

In the interest of safety pilots who, in the opinion of the Board of Directors, exhibit sloppy or potentially unsafe flying techniques will be requested to take a check ride with a club instructor.

AIRPORT TRAFFIC PROCEDURES



HFSC has control of glider operations on Meadow Lake Airport granted by action of the Board of Directors of Meadow Lake Airport Association, October 28, 1981.

HFSC operates WEST of Runway 15/33 power traffic operates EAST of the runway. Gliders may operate east of the airport above 8500 ft. MSL.

The mix of power and glider operations is intensified frequently by weekend activities of transients, sport and ultra-light flying. Some of these occasionally stray into the glider pattern WEST of the runway. It is imperative that we be vigilant when departing and entering the glider traffic pattern.

Refer to the airport layout for pattern procedures, but the following general procedures apply to HFSC operations:

Departing gliders under tow from runway 15 will make a slight right turn to the west and fly a southerly heading far enough or high enough to clear the pattern for landing gliders.

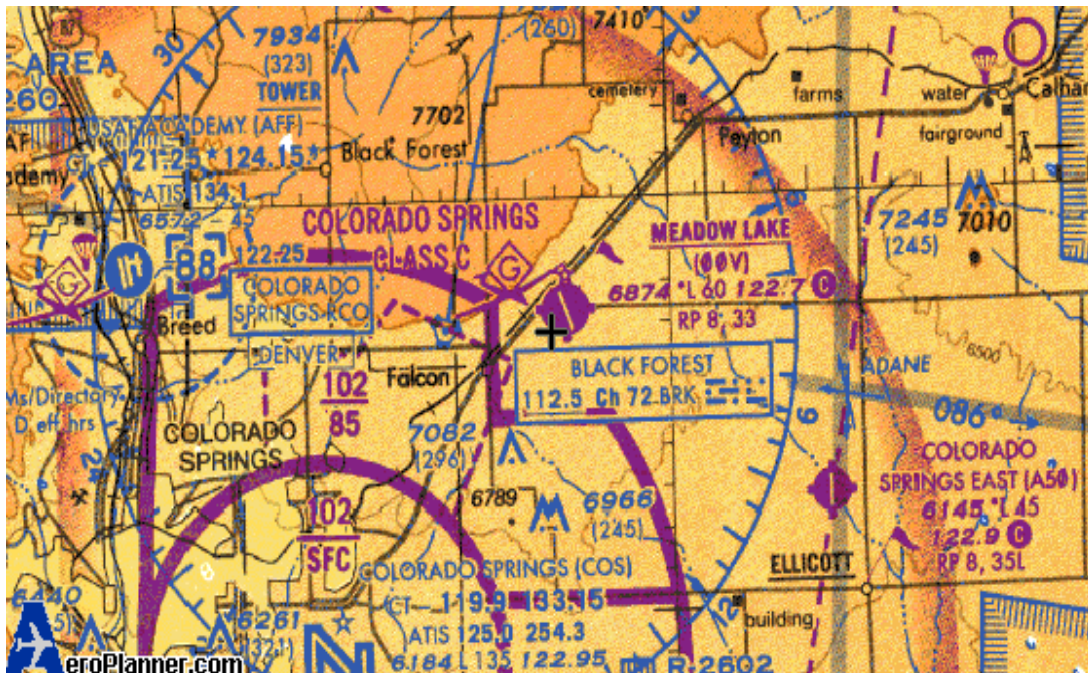
Exercise caution when departing in crosswinds from the west to avoid drifting eastward toward the power asphalt runway. Tow pilots will begin the right hand turn shortly after takeoff so that glider pilots will be able to assume the "trail" position shortly after becoming airborne.

On very rare occasions towing operations are conducted from the south end of the field. Takeoffs to the north are avoided as much as possible because the northern end of runway 33 is approximately 80 feet higher than the southern end. In addition, obstructions such as road, railroad tracks, utility wires and poles and trees present an array of potential problems to emergency landings caused by problems during or just after takeoff toward the north.

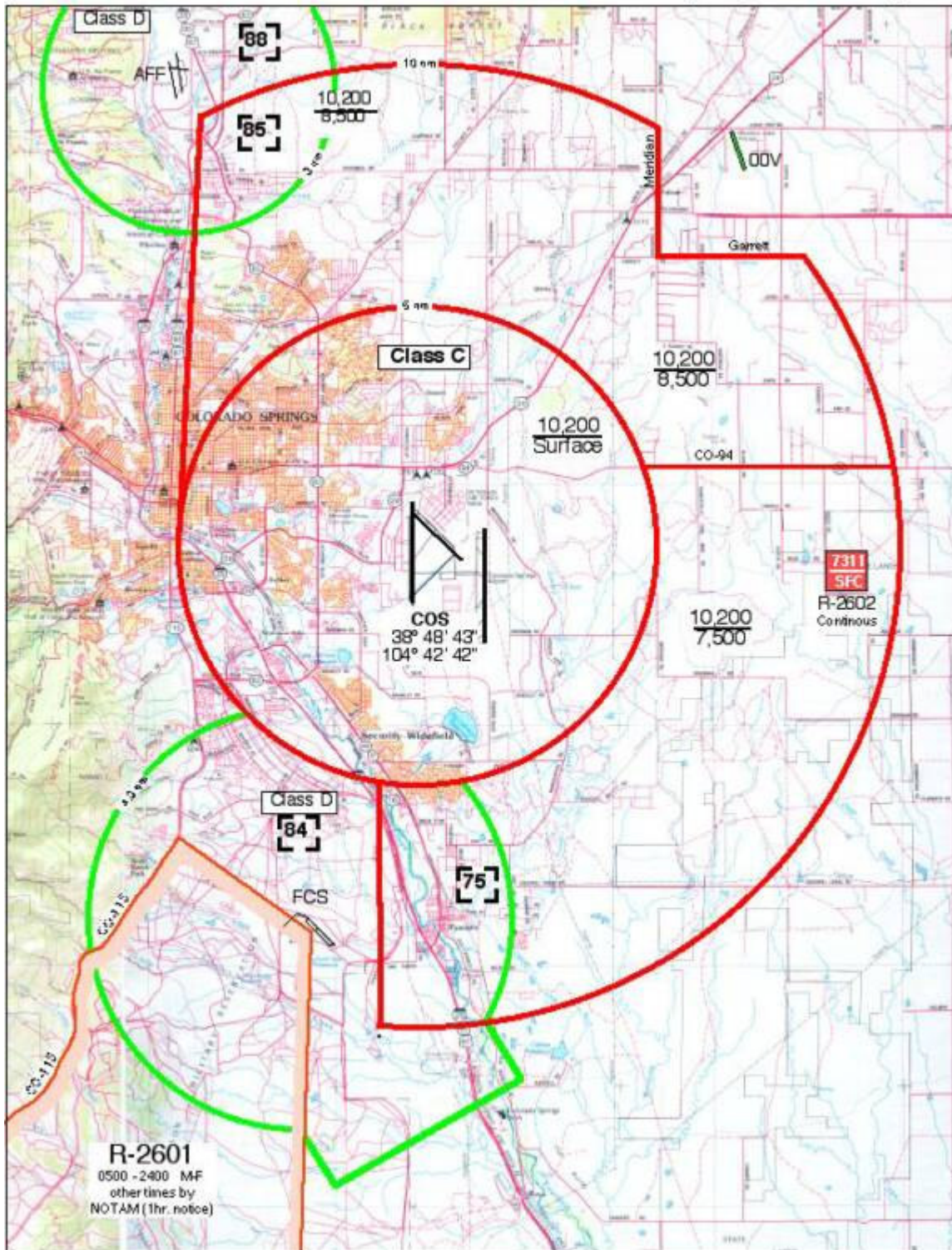
Departing gliders under tow from glider runway 33 will make a slight left turn to the west to remain clear of power traffic operating from power runway 33.

CAUTION--Power traffic at Meadow Lake Airport does not always observe strict airport pattern procedures. **BE ALERT AT ALL TIMES WHEN FLYING NEAR THIS AIRPORT.**

CAUTION--The Colorado Springs VORTAC is located 4 statute miles west of Meadow Lake Airport. That navaid plus Peterson AFB generates a lot of traffic through this immediate area. **BE ALERT AT ALL TIMES WHEN FLYING IN OR NEAR THIS AIRPORT TRAFFIC PATTERN.**



Colorado Springs Area Airspace



Colorado Springs Area Airspace

Landing gliders enter a downwind in the usual 45 degree manner for our strip which parallels the asphalt power runway 33. Pattern entry altitude is either 800 or 1000 feet AGL (see airport diagram). 360 degree

overhead patterns are also permissible. Meadow Lake Airport elevation is 6880', but for convenience HFSC sets altimeters to 7000' prior to takeoff.

Winds from the south occasionally require landing to the south. A standard 45 degree entry is made to downwind for a right hand pattern to the strip.

CAUTION--Obstructions noted earlier at the north end of the strip make it advisable to maintain extra speed and altitude on final approach. Be careful to avoid drifting eastward into the power final approach leg to asphalt runway 15. Stay well above restaurant height when passing it.

Radio procedures at Meadow Lake are simple. HFSC gliders are radio- equipped. Normal practice is to advise traffic at or just prior to downwind entry or when established on downwind.

Suggested radio procedure is:

Tune radio to 122.7Mhz.

"Meadow Lake traffic, glider (call number) left downwind, landing glider strip 33". Use appropriate changes for right pattern 15.

As a courtesy to a power pilot, it is advisable to call in on base leg if power traffic is observed on base or final to the power asphalt runway.

DUTY LIST FOR GROUND CREW MEMBERS

The duty roster is compiled approximately two months in advance. It is impractical to gather information on possible individual conflicts.

Therefore, in event of a personal, individual conflict with your duty date, we ask that YOU trade the date with another member. Please be considerate and do this as soon as you know of the conflict; last minute attempts at a trade are frequently unsuccessful and result in loss of duty coverage. If you do change duty dates, you must change the master record in the "Book" when you are on the field, or call the change in to the Treasurer, who has control of the books Monday thru Thursday. This procedure was implemented so that the members on the field know who is scheduled for duty that day.

When you are scheduled for duty, do not schedule yourself for flying. However, if there are vacancies in the flying schedule on your duty day, you are permitted to fly provided your crew-mate agrees to cover for you and the level of activity permits your temporary absence. Please keep your flight within one hour, and do not plan on duration or cross country flight on your duty day.

The Line Chief is in charge of ground operations and will direct the division of the following tasks:

Arrive at 0930 to ensure your duties are performed prior to 1000 hrs. The club should be ready to start towing gliders at 1000 hours.

Unlock the Operations Building. You will find the books in the cabinet above the refrigerator. The key to the small trailer is hung from a ceiling hook. Unlock the small trailer. Turn on the phone.

Remove tow rope reel from small trailer, unreel rope toward west edge of asphalt runway and inspect for condition. If in doubt as to condition, consult club officer or tow pilot. If rope is unusable, replace with another tow rope from small trailer.

Determine which gliders are scheduled for flight and clean canopies. When temperature permits, preferred method is to pour moderate amounts of plain water over canopy while swishing away with bare hands: then dry with soft paper towels (BOUNTY BRAND ONLY).

In freezing weather, **DO NOT SCRAPE FROST WITH AUTO WINDSHIELD SCRAPER OR OTHER IMPLEMENT**, but turn canopy as directly into the sun as possible. As frost melts, dry with paper towel. During melting period, arrange glider so that at least one wingtip (southern) is tied down.

If it has snowed, sweep snow off wings of all gliders: a small push broom works best for this effort. **DO NOT PERMIT A GLIDER TO BE FLOWN WITH ICE, FROST OR SNOW ON THE WINGS.**

For scheduled gliders, find the microphones, and plug into cockpit phone jacks. If for any reason the microphone is missing, search the cabinet in the small trailer for a suitable microphone.

Assist pilots in untying and ground handling of gliders.

UNTYING: Before releasing tail attachment, create a little slack on wing ropes (the wheel axis is slightly behind wing tie axis so that a fulcrum is created which jacks against the wing ropes). The outboard ropes for the 2-33 and 1-34 may be completely undone at this stage. When lowering the 2-33 tail, support it by the tail spring and **NOT** by the horizontal stabilizer struts.

GROUND HANDLING

Never drag a tail sideways on the ground. Always push down on nose enough for tail to clear ground while gliders are rotated (including 2-33). **DO NOT PUSH DOWN ON THE NOSE OF THE BLANIK. IF THE GROUND IS HARD AND DRY THE BLANIK MAY BE ROTATED CAREFULLY WITH THE TAIL ON THE GROUND. IF THE GROUND IS WET OR SOFT, USE THE TOOL LOCATED IN THE REAR COCKPIT TO LIFT THE TAIL IN ORDER TO ROTATE. SIDE LOADS ON TAIL ASSEMBLIES WILL CREATE ABNORMAL WEAR AND TEAR WITH RESULTANT PREMATURE FAILURE. THE BLANIK AND 2-33 MAY BE ROTATED WITH THE TAILWHEEL ON THE GROUND ON HARD SURFACED RUNWAYS.**

Do tow rope hookup for pilot. Show weak link to pilot prior to hookup. Check tow release on first flight of the day for any given glider and when the pilot requests it.

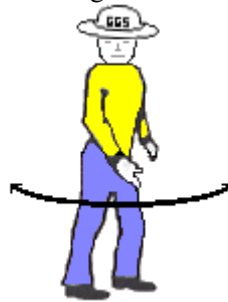
NOTE: Preflight duties **MUST** be completed (including Tow release check) prior to moving the glider to the runway.

LAUNCHING GLIDERS

Raise the wingtip up after a thumbs-up signal from pilot. DO NOT raise wing without this signal.



After thumbs-up and rising of wing, swing your downward-extended free arm through a 30-45 degree arc as signal to tow pilot to take up rope slack. Be careful not to swing your arm above shoulder height, as slack comes out, raise free arm above shoulder height.

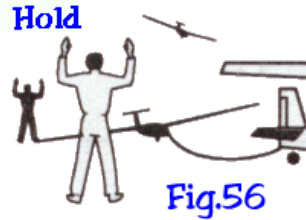


After the tow pilot “waggles” his rudder, look directly at rudder of glider.

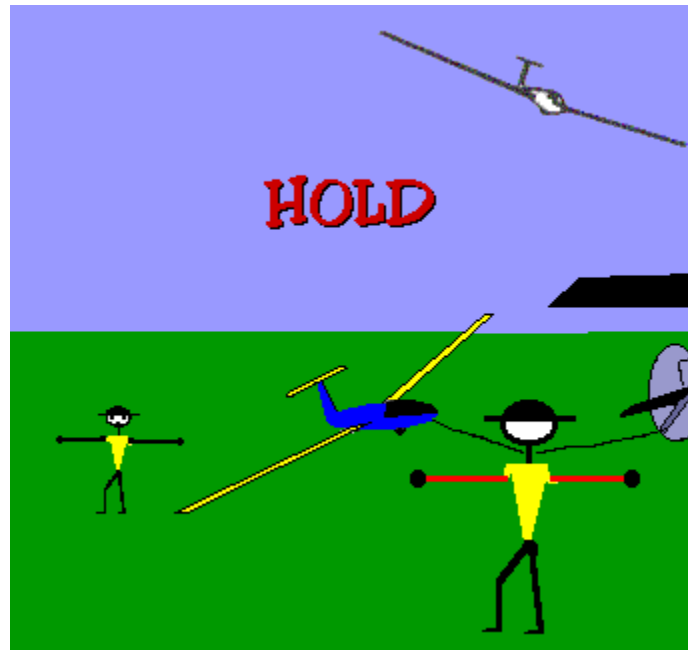


When glider pilot signals he is ready for takeoff by “waggling” his rudder, relay this signal to tow pilot by swinging your extended free arm through full circular rotations in the vertical plane.

Safety Note: In the event of an incident or emergency on the ground, the Pilot should immediately pull the tow rope release. At that time the ground crew should lower the wing as a signal to the tow plane to hold.



In the event the crewmember needs to stop operations after the wing has been raised, the crewmember lowers the wing to the ground and signals the tow plane to hold.



Log all takeoff times and landing times on the worksheet. Obtain release altitudes for tow pilot either by radio or when picking up tow rope for next launch. Record these on the worksheet. Compute a bill according to instructions on the log sheet form. Collected funds should be placed in the zippered pouch in the "Book".

When tow plane lands, check rope for possible break by pulling glider end to launch area.

Assist glider pilot to return to launch or tie down area. A vehicle with tow rope is recommended for long retrieves.

IT IS ALRIGHT TO DRIVE ON THE HARD SURFACED RUNWAY WHEN Retrieving A PLANE, BUT DO NOT DRIVE ON AND OFF THE SIDE OF THE RUNWAY WHEN THE GROUND IS WET OR DURING THE SUMMER MONTHS WHEN THE RUNWAY IS HOT SINCE IT CAUSES THE EDGES OF THE RUNWAY TO BE BROKEN DOWN.

When glider is taxied in strong; winds, solicit extra help. A knowledgeable person should man the controls in the cockpit to counteract wind effects. If a headwind or tailwind exists, a person should walk each wingtip. If a crosswind exists, one person should walk the windward wing holding it low into the wind while a second person walks the lee side of the fuselage just forward of the tail to prevent the glider

from weathervaning into the wind. If only one wing walker is available, he must guard the DOWNWIND WING to prevent weathervaning.

Secure ALL gliders at the end of the day. Check all gliders for rope security and installation of rudder and aileron locks, even those that haven't been flown. Remember to install rudder locks before tail is raised and locked on tail stand. Turn off oxygen valves at cylinder. Remove oxygen masks and store in small trailer. Remove microphones and store under seats.

Check all switches in OFF position. In planes with voltage meters, check voltage. If low, remove battery and place on charge in Operations Building.

Reel in tow rope and store in small trailer. Secure and lock small trailer.

Record beginning and ending tach time from tow pilot in log sheet and compute all bills for those that request it. Place books in cabinet over refrigerator, close all windows and lock Operations Building.

OTHER GUIDANCE

If weather is adverse and forecast to remain so, the Line Chief, in consultation with the tow pilot, may conclude operations for the day. The Line Chief is solely responsible for the safety of ground operations and may so direct all club members, their guests and visitors to that effect. If weather is flyable, and no one is scheduled in the afternoon or shows up to fly, the line crew and tow pilot are expected to remain on the field until at least 3 PM to provide duty for any latecomers. After that time, on an empty field, it is the Line Chief's call to terminate flying for the day.

HFSC TOW PLANE PILOTS AND PASSENGERS

HFSC has a new insurer and the provisions of the Tow Plane policy have some minor changes. Following is the HFSC Board's interpretation of what our insurance means when applied to some of the most commonly asked questions.

GENERAL POLICY

The front seat of our Super Cub must always be occupied by the PIC who must be an HFSC member who is current and qualified in the plane.

Exception

An HFSC member may seek re-currency and/or re-qualification when there is a Super Cub rear seat qualified HFSC CURRENT CFIA acting as PIC in the rear seat. Note that in special situations we may wish to use an ASSOCIATE member CFIA for certain tasks.

SPECIFICS--Who may fly in the front seat?

- a. HFSC members who are qualified and designated HFSC TOW PILOTS.

b. HFSC members who are current and qualified to fly our 180 Super Cub as PIC, who meet the FAA and insurance policy criteria to become an HFSC tow pilot and who are undergoing a towing checkout. Towing checkouts require ground and flight instruction in a glider by a CFIG plus flight instruction in the tow plane by a qualified tow pilot. Check FAR 61.69 for full complex details!!

c. HFSC members who are rated power pilots (Private or higher), who have 500 hrs total power PIC time, 100 hrs PIC tail dragger time, (or are named on the insurance policy as an exception), and who are seeking qualification or re-currency in the 180 Super Cub. They must be accompanied by a Super Cub CFIA who is also an HFSC member and who is current and qualified to give that instruction. In specific cases the HFSC Board may approve Associate Membership for a qualified CFIA to provide this service. This category of training may NOT tow a glider unless the CFIA is glider tow qualified and current

SPECIFICS--Who may fly (ride) in the REAR seat?

I. WHEN TOWING A GLIDER

a. The passenger must be a "properly licensed pilot" and be receiving dual flight instruction in sailplane towing from the HFSC PIC who is acting as towing instructor pilot. It must not be "for Hire or reward"

HFSC interpretation: We interpret that to include any HFSC member who holds a Private or higher rating and are interested in receiving towing instruction. The applicable FAR's this instruction can be given by any glider rated (Aero Tow) HFSC tow pilot.

II. WHEN NOT TOWING A GLIDER.

a. Any person who would be eligible to ride in any normal flying club operation may ride in the rear seat. This includes all HFSC CLUB MEMBERS, their FAMILY and FRIENDS. No charge may be made "—other than charges made by the club to members for provided services

HFSC interpretation: We interpret that to mean that a pleasure ride can and will be billed to the sponsoring HFSC member at the published member per/hour rate. (Currently \$52/hr).

OTHER

a. It is not uncommon to conduct glider operations at locations that are not officially designated airports. Our insurance policy does not prohibit such operations.

HFSC interpretation: We interpret that to permit, at the discretion of the tow pilot, aero retrieval of gliders that have "landed out". As in all flying, the tow pilot PIC has the ultimate responsibility to decide whether any flight, including an aero retrieval from a non-airport location, is appropriate and safe.

PILOT STANDARDS FOR TOW PILOT CHECKOUT

To be designated as an HFSC Tow Pilot a pilot must meet the following minimum standards or be named on the policy as an exception. (In addition to fulfilling the requirements of the governing FAR's).

- a. Be an HFSC club member
- b. Hold an FAA Private or higher pilots certificate with a Single Engine Land rating.
- c. Have logged as PIC at least 500 hrs in powered aircraft.
- d. Have logged at least 100 hrs as PIC in a single engine tail dragger.
- e. Have logged at least 10 take-offs and landings in a 180 Super Cub.

f. Have logged at least 10 glider tows.

SUBJECT: STRONG WIND OPERATIONS

A few years ago at the Hobbs NM Soaring Club they were hurrying to get their 2-33 into a hanger ahead of a rapidly approaching wall of dust (dry gust front). The gust struck, picked the glider up and dropped it on my friend Jack Gomez. It was fatal.

There is almost universal agreement among the soaring authorities that ground handling sailplanes during high wind conditions is difficult and requires PEOPLE, KNOWLEDGE, and TEAMWORK. Without all three, gliders are often destroyed and ground crews are sometimes injured. Because of its high angle of attack when setting tail down, the 2-33 is particularly vulnerable but the 1-26, 1-34 and Blanik are also in high lift configurations when their tails are on the ground.

Elsewhere in the HFSC Pilots Information File the Board stresses the safety aspects of ground handling in windy conditions. However it is so critical an issue that we are taking this opportunity to re-emphasize the HFSC high wind procedures. Please recognize that no written guidance can ever substitute for the application of COMMON SENSE and we are all enjoined to use it all the time.

To move a glider safely in windy conditions you must keep the wind from getting under the upwind wing, reduce lift by keeping the spoilers open, and KEEP THE NOSE DOWN when it is pointing into the wind. This means that it takes an absolute minimum of two--one person to keep the nose down and one on the wing. The stronger the wind the more ADDITIONAL people it takes. It is everyone's responsibility to help.

Most specifically, if you have just landed in a strong wind, which we all will do one time or another, try to stop pointed into the wind. STAY STRAPPED IN THE COCKPIT to keep the nose down. (In the Blanik lower the nose with forward stick if possible). Keep the spoilers full open. Keep the wings level or the upwind wing down if not pointed directly into the wind. Wait for the retrieve vehicle and extra help. In many cases it will be necessary to remain in the cockpit all the way to the tie down spot and not get out until the plane is secured.

LINE CHIEF

When retrieving a plane in windy conditions take extra ground crew help with you--do NOT try to retrieve a glider without sufficient help. It is better to leave it on the landing area with the pilot strapped in (until the heavy wind has passed) than to try to move it back to the tie down area with insufficient help only to have the glider damaged or someone hurt!

Remember, you have the authority and responsibility to ensure safe ground operations, even though the ultimate responsibility for an aircraft operation always resides with the PIC.

INSTRUCTORS

It is important that you emphasize safe ground handling to everyone you fly with, whether student, upgrade, or BFR.

TOW Pilots

Obviously the Cub is also vulnerable to wind damage as we discovered in the past. Don't hesitate to get wing walkers or whatever other extra help you need to safely move or secure the tow plane when that inevitable high wind comes up. When you are flying and you see wind (a dust cloud) approaching that appears to be too close to get safely tied down, don't hesitate to stay airborne--even go to Springs East or Calhan or elsewhere to wait it out if necessary.

EVERYONE :

ONLY WE THE MEMBERS CAN PREVENT THE NEXT ACCIDENT--BY BEING CONTINUALLY VIGILANT.

DUST DEVILS

There is an additional hazard not addressed in the above warning--DUST DEVILS!!! Dust devils occur during the summer months when we do most of our flying. They can appear without warning, and while they can usually be spotted by the presence of dust and other material which they pick up, it is possible for them to occur with no visual indication.

PLANES UNTIED AND READY TO BE MOVED FROM THE FLIGHT LINE TO THE LAUNCH AREA MUST NOT BE LEFT UNATTENDED, EVEN MOMENTARILY. IT IS IMPERATIVE THAT ANY PLANES UNATTENDED IN THE LAUNCH AREA BE TIED DOWN SECURELY. CANOPIES MUST BE CLOSED AND LATCHED. DUST DEVILS CAN AND DO DAMAGE AND DESTROY SAILPLANES.

TOW PILOTS INFORMATION FILE

SUBJECT: Use of Auto Gas in HFSC Cub N7808Z

A copy of the STC authorizing the use of auto gas in our Cub is based on due research the HFSC Board has decided that club be as follows:

To insure adequate lead for valve lubrication we desire that the first refueling after each oil change be with 100LL aviation fuel (Oil changes are at the 100 tach hour reading and each 25 hours thereafter).

To avoid vapor lock problems (as described in the paperwork) we desire that the Cub be fueled with 100LL during the spring transition period of mid April to mid May.

Attached STC: aviation fuel

In view of the POSSIBLE vapor lock problems arising from our "short shut-down" type of operations, tow pilots are requested to:

- 1) Exercise extra caution.
- 2) Report any problems to Gil Gildersleeve or Darrold Gray
- 3) Refuel with 100LL if you deem it necessary.
- 4) Write up any suspected problems in the "spiral bound notebook" (in the Cub cockpit side pocket) for the info of the next tow pilot.

All pilots operating our Cub are asked to READ information included with this STC prior to operating with AND HEED the auto gas.

USE OF AUTO GAS AWAY FROM MEADOW LAKE

- A. 91 Octane is the MINIMUM
- b. M]~E is OK. [Editor's note: this is garbled. Anyone know what this referred to?]
- c. Alcohol is a NO NO. We have an alcohol tester. Be sure to test for alcohol before using any auto gas other than that we buy at Meadow Lake from the EAA tank!!

SUBJECT: OIL and OIL CHANGES

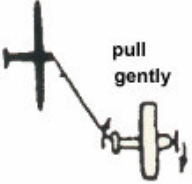
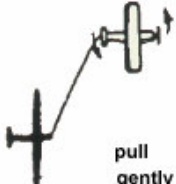
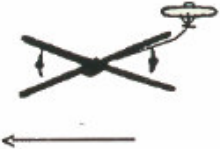



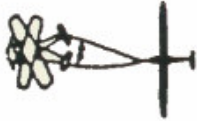
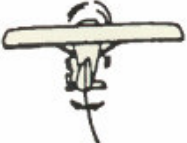
Considering the hard work-out we give our Cub, and based on the recommendations of several aircraft operators, the Board has decided to adopt the following:

- a. We will change the oil every 25 hours. (NOTE--first refueling after oil change is to be with 100LL aviation gas).
- b. We will use Multi-viscosity during the cold weather and single viscosity during the warm season. The proper kind of oil will be the only one readily available in the big trailer. If our stock of oil seems to be running low please notify Gil.
- c. For the present the schedule will be: change to single viscosity at the first oil change in MAY--change back to multi viscosity at the first oil change in NOVEMBER.







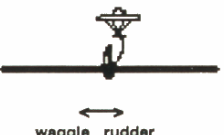



How do we get it done?

To make it easy to keep track, we wish to change oil during the flying
When the tach hour-meter passes thru each of the 25 hour increments, i.e.: 25, 50 and 75.

- b. We ask that the tow pilot on duty when the oil change comes due make the change with the help of the duty line chief or other available member. If you have never done this task please see a knowledgeable Board member or tow pilot for help.
- c. We have a used oil container and a drain hose in the little trailer. Darrold Gray has agreed to empty it.
- d. Have the oil changed during the mid-flying part of the day. ---**PLEASE DON'T Do it AFTER A HARD DAY OF FLYING!---** If it doesn't come due until the end of the day leave it for the next duty crew. Remember, this is all supposed to be for FUN and its NO FUN doing extra work after a full day of towing.
- e. Record the oil change on the line chief's Daily Activity Log.

<p>1. TURN RIGHT</p>  <p>pull gently</p>	<p>2. TURN LEFT</p>  <p>pull gently</p>	<p>3. SAILPLANE CANNOT RELEASE</p>  <p>move out, then rock wings</p>	<p>4. INCREASE SPEED</p>  <p>rock wings</p>
<p>5. DECREASE SPEED</p>  <p>fishtail</p>	<p>6. RELEASE <u>NOW!</u></p>  <p>rock wings</p>	<p>7. TOWPLANE CANNOT RELEASE</p>  <p>towplane fishtail</p>	<p>8. WARNING – SPOILERS OUT</p>  <p>waggle rudder</p>

IN AIR

<p>1. CHECK CONTROLS</p> 	<p>2. OPEN/CLOSE</p>  <p>TOW RELEASE</p>	<p>3. TAKE UP SLACK</p> 	<p>4. HOLD</p> 	<p>5. PILOT READY, LEVEL WINGS</p> 
<p>6. BEGIN TAKE-OFF</p>  <p>GROUND CREW</p>	<p>7. BEGIN TAKE-OFF</p>  <p>waggle rudder GLIDER PILOT</p>	<p>8. STOP ENGINE/ RELEASE TOWLINE</p> 	<p>9. STOP OPERATION</p>  <p>EMERGENCY!</p>	<p>10. TOWPLANE READY</p>  <p>waggle rudder</p>

ON GROUND

HIGH FLIGHTS SOARING CLUB

PILOTS INFORMATION FILE

DATE : 12 OCTOBER 2007

SUBJECT: UPSET RECOVERY TRAINING (v2.0)

WHY IT IS IMPORTANT:

Unlike power pilots, we regularly soar on the edge of a stall. Maintaining Minimum Sink Speed to maximize our rate of climb in a thermal will normally find us momentarily stalling from time to time. If we are comfortable with this condition we reflexively “break the stall” and continue climbing.

Flying in ROTOR while searching for the wave is another case where inadvertent momentary stalls are not uncommon.

These situations are NOT A THREAT if we are comfortable (don't panic) when we suddenly find ourselves in what is characterized as an “unusual attitude”. You might find it interesting to know that as part of a USAF pilot's annual instrument and proficiency review they are required to recover from “unusual attitudes”, including inverted and straight at the ground flight while under the blind flying hood.

In our own normal flying it is easy to transition without warning from normal to abnormal flight if we are “upset” and find ourselves entering a spin or are pointed straight at the ground. NEITHER IS DANGEROUS IF YOU KNOW WHAT TO DO AND HOW TO DO IT! Either one can kill you if you don't.

It is quite probable that if one's first experience of being in a spin or pointed straight down comes while solo and without training it will result in an accident.

One of our valued and highly trained ex-members is alive today because when he was upset and entered an insipient spin at pattern altitude, his training and experience took over and reflexively he made a safe recovery (below tree top level).

On the other hand there have been far too many unsuccessful recoveries in recent years that I have heard about. These seem to have the common thread of either over speeding in a vertical dive then “over G-ing” during the recovery or of failing to recover from a spin. Here are just a few cases:

A Black Forest pilot broke the wing off a Schweizer 1-34 (fatal).

Within the same two week period an Alabama soaring club member also broke the wing off a 1-34 (fatal).

Later a USAFA cadet in a 1-26 got into a spin, recovered then entered a secondary spin and rode it into the ground. (non-fatal).

A USAFA cadet in his Libelle stalled and spun into the ground on turn from base leg to final at Salida. (fatal).

A pilot flying in the 1-26 Championships stalled and spun into the ground after completing the day's speed task. (non-fatal).

A pilot from the Old Black Forest, flying the Pikes Peak Wave in a 1-36 got into a vertical dive, then over G'd it on recovery and bent the wings so badly the aircraft was totaled.

A USAFA glider instructor in one of their glass gliders, with a non-flying passenger, got into a spin, didn't recover in time and rode it into the ground, (fatal for the passenger).

These are just a few of the many accidents that have happened in recent years. The common thread is that the pilots did not do whatever was required to avoid the VERY PREVENTABLE accidents, either because they did not know what to do or in the "crunch" they panicked or forgot or froze. Whichever was the case, it traces directly back to inadequate training.

In recent months I note within the aviation community an increasing awareness of this general shortcoming in pilot training. The term UPSET RECOVERY TRAINING is being seen/heard ever more widely. It speaks well for our (HFSC) continuing emphasis on safety that our board has been searching for a way to help us all get this sort of training. Here are some of the things the board has concluded.

"Basic Upset Recovery Training" can be taught/learned in the 2-33 or the Blanik. However advanced exercises are not possible in those aircraft since we prohibit maneuvers which result in either "pointing straight down" or inverted flight. Those types of maneuvers require a higher performance glider that is rated for them.

The goal of both BASIC and ADVANCED training is to make the pilot comfortable in any unusual attitude and to know how to recover to normal flight without "over-speeding" or over G'ing the aircraft.

SO WHAT COURSE OF ACTION IS AVAILABLE AND APPROPRIATE?

All of our instructors are qualified to give “BASIC” Upset Recovery Training and some are qualified to give “ADVANCED ” training. However our 2 place gliders (2-33 and Blanik) are not authorized for “Advanced” maneuvers.

Our new member, Joe Personette’s glider is rated for such maneuvers and he is willing to provide a limited number of our members Advanced Training in his glider on a NON-COMMERCIAL, cost sharing basis (as defined by the governing FAR’s and the HFSC insurance policy).

Other than that, Advanced Training in Upset Recovery (advertised as acrobatic training) is available from the commercial glider operators at Turf and Estrella soaring, both in the Phoenix AZ area. Other commercial glider operators also give such training on an ”as requested” basis. The SSA web site may have information on this.

CONCLUSION:

It is our opinion that pilots who become skilled in BASIC Upset Recovery techniques will have the skills necessary to cope with any upset situation they are likely to encounter when flying the low and medium performance gliders we have in our club. For those individuals who plan to fly higher performance gliders we urge them to take ADVANCED Upset Recovery Training.

FOR THE HFSC BOARD

Lew Neyland
Chief Instructor

v2.1

ONLY WE THE MEMBERS CAN PREVENT THE NEXT ACCIDENT--BY BEING CONTINUALLY VIGILANT.

AUDIT TRAIL

13 October 2007 - Neyland and Densmore - added Personnett as tow pilot.
Added Upset Recovery addendum.