The Leading Edge
The newsletter of the MIT Soaring Association
February 1999

Contents

News briefs

Mark Tuttle

Annual meeting and elections: It is time to elect the next board of directors and — most important — to party at the annual meeting. Please fill out the ballot and the party reservation form at the end of this newsletter and mail it to Carl Johnson before **February 28**. The annual meeting will be held at the Pappa Razzi restaurant in Wellesley on Sunday, March 7, the same restaurant as last year. Drinks will start at 5:00 pm, and dinner will follow. Tickets are $30 per person, with kids 13 and under free, so please bring your whole family. Carl Johnson is organizing the party again this year, and in his usual style, there will be games, fun, and valuable door prizes!

New members: Sergio Quadros joined the club on December 20. Sergio says, “I am an architectural design engineer, and I recently moved from Deerfield Beach, Florida, to Boston, where my wife is from. I became interested in soaring after receiving my private SEL certificate, and began looking for a plane that could be reliable enough to make a trip from New England to La Paz, Bolivia, crossing the Andes. I saw the Ximango and the Stemme at Oshkosh, and I think that a motorglider is the way to go. I’d like to build up my skills to eventually make the trip, sponsored possibly by the manufacturer, and hopefully in company of other members of MITSA who are interested. I am not in a rush to do it, however, but it is something I’d like to accomplish in the near future. I enjoyed the ‘pure’ sailing instruction from Carl Krueger, The Master Gunsmith, and was delighted. Even though the conditions were not ideal, we were able to ride on a bubble, followed by a seagull that was probably thinking we were related, while we were looking for that ‘happy sound.”’

Adam Dershowitz: Our chief tow pilot, Adam Deshowitz, has left the area to work for NASA. Writing email from a hotel room in Houston, Adam says, “I finished up my Ph.D. at MIT about a year ago. Since then I have been doing some post-doctoral work in the Aero/Astro department at MIT, working on a few different space-related projects. I have just moved down to Houston and have started working for United Space Alliance at Johnson Space Center. I am in the Space Station Motion Control Group. Specifically, I will be working on the Intrum Control Module of the International Space Station as a flight controller. At the moment, I am going through a training program to ultimately become certified to work in Mission Control. I have not yet found a glider club, so if anyone has any recommendations, please let me know. I really miss MITSA. I do want to thank everyone in the club for some great times. Please stay in touch. I can be reached at dersh@alum.mit.edu.” Thank you, Adam.

New chief tow pilot: Bruce Easom is our new chief tow pilot, taking over from Adam. This position is a heavy responsibility demanding a great deal of experience and time, so please thank Bruce for taking on the job.

New email and web addresses: The club’s email and web services have moved to new addresses. Each email address of the form listname@crl.dec.com has been changed to

listname@deas.harvard.edu

In addition, MITSA now owns the mitsa.org domain, and the club’s web page can now be accessed at

http://www.mitsa.org/

MITSA hats and shirts: The club is now selling baseball caps, t-shirts, and other promotional material. Contact Joe Kwasnik at kwansi@neesnet.com or (508) 366-0474 for more information.

Minutes of the Board of Directors

Phil Gaisford

These minutes have been edited for publication in the newsletter. —Editor

January 7, 1999

Finances: Steve Glow reported that, having sold the old Cessna 150 tow plane, we are now in position to pay down some of the loan on either the Blaniks or the new Cessna 182 tow plane. Steve expects a bill for $6,000 for recent repairs to the Cessna 182.

Chief tow pilot: Adam Dershowitz, our chief tow pilot, is leaving the area, so the board discussed the experience required for the position of the chief tow pilot (CTP). A CFI rating is required to give the high-performance endorsement required for the Cessna 182, plus the initial type checkout. Significant glider experience is also an important requirement. At this point, the board also discussed the minimum criteria for new tow pilots, and thought that three to ten flights in gliders should do the trick. The relationship between the board of directors, the chief instructor (CI), and chief tow pilot (CTP) was defined as follows: the board delegates the operation organization to the CI, who in turn delegates towing issues to the CTP. The CTP job responsibilities were defined to include the following: establish procedures, including climb out, pattern, and descent; perform check-outs and regular reviews of new and existing tow pilots; and consult with the tow plane captain about tow plane mechanical issues. A few possible candidates for the position were discussed. The board was fortunate to find a willing and capable candidate in the person of Bruce Easom. Bruce was nominated and duly elected to the position.

Tow plane: The Cessna 182 is back at Sterling after further repairs. The fuel bladder in left wing is now also replaced. Richard Gammon gave a review of recent repairs concerning flaps and fuel leaks. The Cessna 182 annual will be moved forward to February, to avoid down time in the busy summer months, and is to be completed by time club fleet back in service in mid-March. The board discussed whether to replace flap parts in the left wing, and decided to seek advice from the mechanic first. The following measures will be considered to reduce tow plane weight for more efficient operation: Richard will look into removing excess avionics, and Bruce into a fuel management plan to prevent excess fuel being carried. Potential fuel cost savings are possible by using mogas. Richard will broach the subject with Sterling Air.

Winter storage: Steve Glow has a lead for a place in Sterling. Bill Brine directed the board's attention to portable hangars, available for about $3,000 for 20 by 30 feet.

Electronic media: Email distribution lists are now in operation at Harvard, thanks to Al Gold. The club has registered the domain name mitsa.org, and Steve Glow has arranged for the club's web site to be accessible as www.mitsa.org.

Promotional materials: The baseball caps are ready. The board set a price of $12 each, and sales to meeting attendees were brisk. Caps and other items of apparel will be available for sale at the annual meeting. The sale will be handled by Joe Kwasnik. Bill Brine has signs ready for the airport, office, trailer, and road. Stickers for planes are also ready.

Reciprocal membership: This will be a topic of a meeting of regional state governors and the Region 1 director on January 23. John Wren has been appointed Massachusetts state soaring governor.

Airport issues: John Wren will contact airport management concerning operations and soft runways to ensure that airport users agree to consistent procedures.

Minutes of the Board of Directors

Walt Hollister

These minutes have been edited for publication in the newsletter. —Editor

February 4, 1999

Directors present: All members of the board except Bruce Easom and Al Gold were present. John Wren was also present.

Finances: The proceeds of the Cessna 150 sale have been used to pay down one of the outstanding bank loans. Recent repairs to the Cessna 182 including the leaking fuel bladder and cracked flap spar amounted to about $5,000. A reasonable cash balance remains in the bank.

Tow plane: The Cessna 182 is operational now. In February or early March, it will go in for an annual and should be operational again by mid-March.

MITSA Junior program: Joe Kwasnik and John Wren introduced a proposal for sponsoring a youth program patterned after the one currently implemented at Harris Hill to attract kids between 14 and 20 years of age into soaring. Joe will publish details of the plan in the next newsletter. The board felt that it was a splendid idea and encouraged members to step forward and volunteer to help carry out the plan.

Region 1 activities: John Wren reported on actions taken by Region 1 and John Good toward reciprocal membership. There is consideration of a fly-in around Labor Day weekend for a clinic on winch launching. There is also an effort to create a soaring history of the region. John Wren is seeking MITSA stories of first silver C or memorable flights over 500K.

Glider maintenance: Replacements are needed for some of the seat belts in the two L-23 Blaniks prior to completing their annuals. The board approved the purchase of four sets of new belts. Any serviceable belts replaced will be offered for sale over the Internet.

Annual meeting: Carl Johnson announced that the date for the annual meeting is now March 7, 1999.

Landings and patterns

Mike Baxa

Safety: First…middle…and last

What goes up, may come down the wrong way.

Years ago at another site I watched one the most unusual landings I have ever seen. A very experienced pilot was flying a 1-26 on a somewhat windy day. His pattern was the classic stall/spin killer: low and slow. All field activity came to a halt with eyes turned to the 1-26. The pilot slowly cleared the trees on final and ever so slowly approached the threshold of the launch point. Here he literally hovered at 30 feet agl until the glider began a slow descent with almost zero ground speed. I swear it looked just like a helicopter landing. The glider very gently touched down with no forward roll. The pilot nonchalantly climbed out of the glider, as everyone stood frozen in disbelief. I remember making a wise crack to a buddy next to me, saying "I guess you call that a low energy landing." To which he replied, "Maybe he was practicing a tree-top landing." True, 1-26's are not known for their upwind penetration capabilities, but this was a little too much. The pilot was extremely fortunate. An instructor came over and pulled the pilot aside where they had a long discussion and the pilot was eventually placed on flying probation, as there had been other incidents. The FAA views flying as a privilege, not a right.

On my way home I was thinking about my friend's remark and agreed that if it had been a tree-top landing, it would have been perfect. That got me thinking about various emergency landing scenarios and what I would or should do. I am no expert on this subject, or for that matter on any subject. There is not a lot of written material stating specific procedures for unusual landing situations. Every emergency landing is unique with multiple variables and it would be unproductive and perhaps foolhardy to state any hard and fast rules. Having said this, and having been called far worse things than "foolhardy," we'll give it a shot. The following is intended to give you a few insights or a different perspective, and to get you thinking about what you would do. A lot of this is common sense mixed with "sounds reasonable." I believe it is better to have a plan that goes bad, than no plan at all.

First, personal survival dictates we never give up in a difficult situation. We also need to keep the safety and welfare of others in the forefront of our decision making. Doing an emergency landing on a busy golf course may initially sound logical. However, you are increasing the risks that an innocent by stander may get seriously injured or killed. The condition of the glider comes last in decision making but should be kept in our minds, when it is a reasonable consideration. The greatest challenge to emergency landings is the altitude/time factor. Whether due to poor judgment, poor conditions, or out right bad luck, we will more than likely not have enough altitude or enough time to consider all options, variables, and consequences. Time always seems to speed up in emergent situations. We must force ourselves to think clearly and logically. In the following situations we will assume that you have no other options, you have radioed a distress call (if appropriate), and you have secured loose items in the cockpit and have your straps tight.

Uphill landings: On this there is documented agreement. Regardless of wind direction, we should always land uphill. The problem is that it can be very difficult to determine field slope at altitude. If it is obvious at 1,000 feet that the field is sloping, it is probably too steep to land on. Our depth perception is only really good at less than 500 feet. When landing uphill always carry extra speed (energy). You will need the speed to allow you to increase the angle of attack as you try to fly parallel to the upward field slope. You don't want to fly or bury the nose of the glider into the hillside. In landing uphill, don't worry about being too fast. The extra speed/energy will dissipate quickly on the up-slope roll.

Tree-top landings: Crash survival rates are much higher in gliders than in powered aircraft due to our slower speeds and the fact that we do not carry combustible fuel. Our first consideration in a tree-top landing is not to go so slow as to inadvertently stall the aircraft at a higher altitude and end up going nose down through the trees. You would want to be flying into the wind to lower your ground speed or impact speed. You would then slowly begin lowering your flying speed watching the airspeed indicator so as not to stall. Keeping the glider just above stall speed, one could do one of two things. You could let the glider slowly descend until you are a few feet over the tree tops and then intentionally stall or pancake onto the trees. Another option might be if you could hold off until a few feet over a tree thick area of your choice, bring the ship down to stall speed, and then open the dive brakes. Opening the dive brakes will increase the stalling speed, which means that you will stall and pancake. It may also be preferable and possible for your tail to snag first in the tree limbs, which would also bring you down "pancake" style. Trees serve as a great cushion with our long wing spans, and the more the tree foliage, the better. As I have relayed in a prior article, an FAA Inspector stated that of all the accident sites he has observed, power pilots are more likely to walk away from tree landings.

Landed but headed for trees: If you have landed in a short field and are headed for trees with no way of stopping, you have two options. First, you could do an intentional ground loop by putting one wing down on the ground. The higher your speed, the more violent the ground loop. You will be thrown around a bit but your straps will secure you. It is quite possible you may do significant damage to the glider, but it may be repairable. If there is insufficient space or time for a ground loop, you will be forced to take her into the trees. Obviously, aim the fuselage between the trees and let the wings take the brunt of the impact. In this case you will not be talking repair costs but rather salvage value.

Landed but headed for a wire fence: In this situation you do not want to plow the fuselage into the fence wires. The result could be what often happens to snowmobile riders who encounter wires. Not to get too graphic, but let's just say the body part that does the thinking cannot be sown back on. Run the fuselage directly into and hopefully up the fence post.

Landed but headed for a stone fence or building: If your braking efforts will not stop a head-on impact, you have no choice. You must do a forced ground loop (putting a wing down while on roll). Once a ground loop begins, whether intentional or unintentional, the pilot has limited control over the aircraft. You need to give the ground loop some forethought with respect to best direction for avoiding obstacles and your ability to slow or brake the aircraft as much as possible before initiating.

Landing on water: Over the years, there has been an on-going debate on whether it is better to land gear up or gear down on water. Current thought from Tom Knauff is to always land gear down. The rationale is that a water landing with gear up will result in the tail touching down first with the tail being sucked into the water. This in turn results in the nose pitching up and a higher angle of attack for the wings. Given the higher angle of attack, the glider then shoots back into the air until it stalls. Upon stalling, the nose drops down and dives steeply into the water. Put the gear down in a water landing and try to keep the tail from dropping. Dropping the gear also results in increasing water resistance, which further slows down the ship. Another water landing aspect Tom relayed is that one always wants to land close to and parallel to the shoreline, but not so close as to hit the bottom in the event something goes wrong during the landing. You will want to maintain good aileron control for as long as possible. You do not want one of the wing tips hitting the water first at a high speed as the glider may flip. Once the glider has settled to a stop, it may float for awhile. I once saw a PIK that had been taken off the bottom of a lake and restored. This one flew better than it floated.

Landing on a snow-covered field: Landing on snow is not in and of itself dangerous. To tell the truth, I think it is fun, when done at an airport where you have previously walked the field to check for hazards and conditions. You cannot rely on the wheel brake so you need to plan your final for a low-energy landing and be prepared to slow the ship with air brakes only. The scenario becomes much more complicated and risky when there are snow banks. If your wingtip touches a snow bank, you are going to do an out-of-control, sliding ground loop and there is no telling where or how far you will slide. Always check your club policies or with the FBO at a commercial operation for special rules. An off-field landing on snow is very risky because you cannot see snow banks from the air so you have no idea how flat the field is going to be. You also do not know what boulders or hazards are hiding a few inches below the snow. It is not wise to go cross-country over snow-covered terrain.

Landing in tall corn: They say that if you land in corn taller than three feet, you are going to do a lot damage to the leading edge of the wings. Regardless, as soon as one of the wing tips hits a corn stalk, the glider will want to ground loop in that direction and you will have little control. Sometime back I talked to a pilot who landed in tall corn. He relayed it sounded like machine guns going off as stalks flew in every direction. He relayed the noise and flying corn scared the hell out of him. He also said he was nothing more than a passenger waiting for the ship to stop. As a side note, if landing in a cut cornfield, land going with the rows, not against them. Hopefully, you will be going somewhat into the wind. Landing against the rows and you may get pitched airborne again, not to mention doing significant damage to the undercarriage of the ship.

Landing on a street: Don't do it. Streets have telephone and electric wires running parallel and across. Hitting a wire may point your nose down into the ground with your cockpit taking the full impact. Small powered planes sometimes get away with street landing because of their shorter wing span. I believe that almost any alternative is better than a street if you are flying a glider.

Patterns

We all know the key to a good landing is a good pattern. Except for students, every pilot is able to safely fly a pattern. One of the biggest surprises to me as an instructor has been the variation in which experienced individual pilots fly their patterns. Some of these variations can be attributed to different training techniques going back to the pilot's pre- and post-solo days. I suspect that each instructor varies in what they stress or do not stress. There are also different teaching approaches or theories for patterns used depending upon a number of instructor variables, such as how they were taught, the prevailing theory of their time, individual instructor preferences, and so on. Instructors trained today tend to stress the use of angles in determining best glider position. However, all pattern instruction regardless of the instructor has a number of commonalities that make pattern training fairly consistent.

It is also evident that we, as pilots, pick up or quickly adapt habits that may or may not be appropriate. It seems to me that once pilots are "turned lose," they may abandon certain pattern techniques/principles and improvise variations that seem to work for them. These modifications quickly become ingrained. Instructors then see these "variations" in the Biannual Flight Review (BFR) where they counsel the pilot, insist the pilot conform for the other BFR flights, sign the pilot off, and the following weekend the pilot returns back to the way he had been flying patterns before. The instructor walked away thinking, "Good, I made a positive difference in that pilot's safe flying." The pilot walked away thinking, "Good, I don't have to go through that crap for another two years. Now I can go back to the way I always fly patterns."

The following are pattern habits, traits, and thinking that may indicate you are doing something incorrect or have the potential for creating problems for you or others. Some are obvious and some may not be. First is the use of the landing checklists. I have mine printed on that plastic letter tape and stuck to my panel. The pattern initial point can be a busy place with a lot of distractions. This combined with fatigue and unexpected weather conditions at pattern altitude can easily result in the pilot forgetting something on the list or becoming totally preoccupied and not doing any pre-landing check list. Even experienced pilots flying BFR's forget the meaning of the USTALL mnemonic. Commit today to do something about always assuring the use of a landing checklist; for example, tape a list on your panel, or put a reminder on your dive brake handle. Pre-landing checklists are a must.

There are pilots who have had close undershoot situations and have gotten into the habit of flying high and close patterns. Then on final you see dive brakes out and full slips down. Occasionally misjudging on downwind is to be expected. Continual need for full air brakes combined with full slips on each final indicate the pilot has established a bad habit. A variation on this is the pilot who enters his downwind on oxygen and in the adjacent county. This is the pilot who is not going to take any chances and thinks he can better adjust for variables by flying extended pattern legs in his sub-orbital descent. Another variation includes pilots who just can't buy into the confines or routine of flying pattern legs. These are the auto drivers who think nothing of tailgating, cutting you off, and believe yellow traffic lights indicate "proceed at full speed." These pilots come into the downwind from out of the blue a few hundred feet below you. They then do a rounded base leg onto a short final. It has never occurred to these self-absorbed pilots that patterns are designed so that others can safely keep track of the traffic. They don't stop to think that the other guy may be a solo student with a limited capacity for additional variables and is already panicking with his cockpit workload.

Generally, on the downwind leg you should be no higher than 45 degrees to the landing strip or lower than 30 degrees. This gives you a rather wide range to operate in and adjust for changing conditions. If your downwind legs are consistently outside of these 45-30 degree ranges, you have a bad habit that will someday catch up with you. Other bad habits include failing to do continual scanning for other traffic in the pattern. Remember that the majority of mid-air collisions in general aviation occur within five miles of the airport. Even more frightening is the statistic that more than 75% of mid-airs involve closure rates slower than either aircraft. This tells us we need to be looking behind, up, down, and to our sides.

A few other pattern comments would include a statement that airport landings do not adequately prepare a pilot for an off-field landing. I don't care if you have landed at your airport a thousand times. It doesn't mean you are prepared for the variables and pressures of an off-field landing. The pilot who flies his pattern worried that others may be watching on the field is not a safe pilot. I have seen pilots trying to "stretch" their glide in the hope of making a normal pattern. I suspect in many cases the pilot knows he should be doing an abbreviated pattern, but is concerned his buddies may be watching. Forget about what others may say. If you need to fly a short downwind leg with a mid-field landing point because you misjudged, do it. In patterns, do steep banks, keep the nose below the horizon with the right airspeed, keep the yaw string straight, and you won't need to worry about inadvertent stalls/spins. If you screw up in a pattern (guess what, we all do occasionally) don't focus on what you did, but what you need to do to get back on track and ahead of the curve. Finally, don't forget to check the windsock for surface wind changes, and regardless of conditions, keep your composure to think clearly.

Three brothers from the backwoods showed up one day at their local gliderport. Larry, Daryl, and his other brother Daryl took lessons for ten years until their instructor had no choice but to recommend them for their private ticket and schedule them with an examiner. At the last minute, one of the Daryls dropped out to pursue a congressional campaign. The examiner sat down first with Larry to do the oral and was suspect at the beginning. He finally put down his clipboard and asked Larry, "Tell me son, what would you do if you and your brother were flying along a steep mountain ridge and you found yourself heading straight into a rock face at 80 knots?" Larry knew the answer to this one and shot back, "I wouldst turn around and yell at Daryl to wake his carcass up, cus I know he ain't never seen a glider impact up close and he wouldn't want-a miss it."

Postscript

Special thanks to Tom Knauff for reviewing this article. Tom is considered by many to be this country's leading expert on soaring (world record holder, author, educator, FAA consultant and Designated Examiner, lecturer and SSA Hall of Fame recipient). For another perspective on patterns and emergency landings, refer to Tom's book "After Solo" from Knauff and Grove Soaring Supplies (814 355 2483). This wraps up the safety articles for MITSA. Remember a private certificate or any ticket is nothing more than a "license to learn."

Editor's postscript

This article is the last in a series of eleven columns written by Mike Baxa for the club newsletter. Mike has stepped up to the plate and delivered more material for the newsletter than I thought possible when he volunteered to write a bit in 1997. I hope that other instructors in the club will continue Mike's tradition of writing for the newsletter on topics of interest or concern to them. In the meantime: Thanks, Mike.

MITSA Junior program

Joe Kwasnik

Youth can be a great asset to any soaring club. Adolescents and young adults have all those traits that many of us at MITSA only have in increasingly short supply or remember only faintly, such as enthusiasm, health, muscle power, and free time. All of these traits are essential to a successful soaring club. Youths learn quickly, they work hard, and will carry the legacy of MITSA forward for many years. Best of all, they are the largest and steadiest source of new members that we will ever be able to find. A youth group would provide the energy and resources to conduct well-run and staffed operations at the airport. As is so often the case at MITSA, few members are available to assist in the "grunt work" of conducting the daily operations.

As the SSA Growbook explains, the following facts about youth and soaring should be kept in mind: Youth *do* have to be led by the hand. You have to find them... You have to bring them. You have to set things up for them... Soaring is *not* for everyone. Expect to routinely sift through a variety of kids... Soaring is tailor-made for turning kids into pilots. It fits their budget and personality best... Soaring is a hidden group activity. What lone kid could find it? ... Adolescents are very sensitive to joining groups their age... Adolescents generally have very little money.

We recommend that the basis for a MITSA youth program follow the youth program currently implemented at Harris Hill. The "Juniors" have their own leadership, responsibilities, events, and awards, all centered on making the club operate more efficiently and better. I know that the Harris Hill program "trades" club work (line work, glider maintenance, and so on) for flight instruction and also integrates the youth program into the usual club activities. This type of program is independent of any other national youth program. We would call this group the *MITSA Juniors*.

The important question is whether MITSA can generate sufficient interest among its membership to organize a core group of members who will volunteer to organize, publicize, and supervise a vital and safe youth program. We would expect that about five members would be needed to develop, implement, and coordinate instruction and oversight, and provide much needed adult mentoring for such a program. (We would also hope that parents and/or non-MITSA adults would get involved.) Some of the initial tasks that would face the organizers would be development of a training program for the youth members. This would include how to safely operate on an airfield, how to safely maneuver gliders on the ground, glider maintenance, how to prepare and execute a glider takeoff as wing runner or tow plane relay person, and most important... begin flight and ground school training. Clearly, we need adult volunteers to keep activities running during Junior meetings, trips, and possibly on the field. Meetings do not need to be "formal" training, but rather informal discussions, work groups, or shops. Building radio-controlled gliders and rockets, watching movies, and other projects would fill most meetings. Non-instructors could still get direction from club instructors about leading discussions on lift, drag, aviation history, map reading, and so on. The flight training would be provided free in exchange for work on the field. For instance, a youth could be granted one instructional flight for each half-day of work at the airfield with the work documented by the DO. The DO would also be responsible for managing the use of the MITSA Juniors at the field.

We would seek participation from youths in the Sterling/Worcester area initially, although MITSA Juniors membership would be open to all area youths from ages 14 to 20 years. MITSA Juniors would be a separate organization under the direction of MITSA for youths joining and actively participating in the activities of the youth program. The youth program could begin within a few months of approval by the Board. Initial startup costs for the program would involve production of a variation of our new MITSA membership poster, use of the new MITSA brochures, and, possibly, purchase of an identifying clothing article such as a hat or t-shirt which would identify the youth as a member of the youth group. At Harris Hill, the Juniors run the entire t-shirt/hat operation for the club and derive their funds through that function. These posters and brochures would be distributed to area high schools. According to Roy Bourgeois, there may be some funding available to MITSA to help in the startup costs of this program

The MITSA Juniors will have an adult representative on the MITSA Board of Directors. The MITSA Board has accepted this recommendation and has authorized us to seek the participation of MITSA members in starting up the program. Members interested in helping in the startup of the program should contact John Wren or Joe Kwasnik.

Cross-country class

John Wren

This year's cross-country ground school will be held on March 25-27. The course is for all members who plan to finish off their SSA ABC badges or plan to make their first attempt at the FAA Silver C badge. Some of the areas covered will be preparing for cross-country, maps and navigation, and field selection and field landings. There will be a fee for the class to cover printing and other expenses. The fee charged will be $45 for those signed by before March 15, and $60 after that. I will post more information about the course on the web at http://people.ne.mediaone.net/glider/MITSA/mitsa.htm. If you have any questions please contact me via email at glider@mediaone.net or via phone at 978 244-0647.

Another trip to Minden

Walt Hollister

Two years ago I reported on a soaring trip to Minden, Nevada. Recently I found myself with some frequent flier miles that would be lost if not used, and so booked a first class flight to Reno in order to repeat the experience. Unlike my previous itinerary, this time I made all my flight connections in the face of winter weather, although American had to deliver my suitcase to Soar Minden 12 hours late.

The soaring at Minden was great. On the first and last days, there was good wave that took me to 18,000 feet on each flight. The cold, a few clouds, and Air Traffic Control kept me from going higher. At that altitude the view of Lake Tahoe and the Sierras is spectacular. By staying just in front of the lenticular clouds, I was able to cruise back and forth over a 100 nm path. My longest flight was four hours. On another day, I rode the ridge over the Heavenly Valley ski area skimming the peaks on the eastern slope. The scenery and the closeness to the rugged terrain take your breath away. I was lucky because it requires an unusual westerly flow to get the ridge working. Each of my ridge flights averaged over two hours. The soaring there at Minden is the closest thing I have found in civil flying that reminds me of flying military jets.

Two of the days with poor soaring conditions (no lift) I went skiing at Heavenly Valley. It is a skier's dream with beautiful views of Lake Tahoe to the west and the Tahoe Valley high desert to the east. Using skiing as a backup against lack of lift seemed like a good strategy. The reality is that even with an excellent soaring weather forecast, there may be wave when it isn't forecast and weak or no wave when it is forecast. They were kidding me for a while by saying that you could count on wave when Walt went skiing. They have a great story about a guy going up the ski lift when he spotted the lenticulars stacked up over Highway 395. He got off the lift and onto the phone to Soar Minden saying, "Get ready to launch, I'll be there in 30 minutes." I saw the lenticulars from the ski lift, but it was too late in the day for me to make it.

It appears that Andrew McFall will take over management of Soar Minden from Tony Sabino in the near future. They are also moving their office about 100 yards north into a new, larger facility which should be ready for occupancy in the next few weeks. After two week-long excursions to Soar Minden, I can't give it a rating any lower than superb. If you would like more information, give me a call.

Soar Moriarty

Al Gold

A business trip to Albuquerque in mid-January is not the worst thing that can happen to a man, especially if it's scheduled just before the Martin Luther King long weekend. When that happened to me, it sent me scampering to the SSA web site to check out available soaring sites for the weekend. Moriarty is about 40 miles east of Albuquerque, not too far beyond the Sandia range. The Albuquerque Soaring Club flies there. So does Sundance Aviation, a commercial glider operation. With little time to spare between business that ran into the weekend and visiting with old friends, the commercial operation made the most sense for me. After checking out their web site (http://www.thuntek.net/ sundance/), I was soon on the phone (505 832-2222) to Rick Kohler, the owner, instructor, and most everything else. After asking me about my glider experience, he made appointments to check me out in their Grob Twin II Acro and fly their Astir CS.

Typically the daily high temperature in Albuquerque in mid-January is about 50F and the overnight low around 20. Sometimes the west winds blow, and then there's the chance of wave coming off the Sandias. Rick said that the probability of wave was about 20% on any given day. He said they'd been having four-knot thermals early in the week. Moriarty lies on a very large, very flat mesa at 6,200 feet msl. There's a 7,200 foot long paved runway that runs 08-26. The area is high desert with large circles marking the irrigated field. The Sangre de Cristo mountains stretch off to the northwest beginning about 20 miles away in that direction. My flight to Albuquerque crossed almost directly over the field on its approach. It was striking to see no snow anywhere in the mountains. This year has been the ski operators' worst dream come true.

Since the posted speed limit is 75 mph most of the way, the drive from Albuquerque to Moriarty on I-40 Saturday didn't take very long. I arrived at the Sundance hangar at the southeast corner of the very large airport late morning, as arranged. Rick was at the back of the glider-filled hangar working at stripping his SGS 2-33 down to the bare tubing. He left me with the POH's for the Twin and the Astir to read while he gave a lesson. It also gave me an opportunity to look around a bit. The club was launching 2-33's and various privately-owned ships with its Pawnee. There were something like 30 glider trailers parked about the field.

Rick and I walked the Twin to the take-off point, about 2,000 feet. west of the start of the runway 26 where it intersects the paved cross-taxi way that goes into the hanger area. Gliders and tow planes all stage there. We hooked up behind Sundance's 390 horsepower Call Air. At that altitude it provides a climb of just four knots for the Grob with two on board. Full back stick to get the nose wheel unstuck for directional control in the cross wind and off we go to do area familiarization and search for wave. At 4,000 feet agl we get off, still waveless, despite Rick's protestations that there was wave earlier in the day. We go hunting toward clouds that look like wisps of rotor beneath a thickening overcast. Just some burbling and some fairly smooth zero sink. We're about ten miles out at this point and head back toward the very small town which is easier to see than the airport in the desert. Half way back there's some two-knot thermals. We climb slowly looking at the scenery as we drift downwind past the field. The nearby mountains are becoming obscured. Virga is emerging from the clouds. We're beginning to get snow flurries. Time to land. The gliders use the first 2,000 feet of the runway for that and taxi back up to the launch area. There's a parallel taxiway to the right of 26 and some grass left of it that can be used for landing, if the runway is blocked. An interesting hour. I'd forgotten what a nice flying airplane the Grob is. By the way, the Acro version does break if you stall it sharply, unlike the usual 103, which just mushes along. Rick says he'll give me a cockpit check in the Astir when I come back tomorrow.

Sunday is crystal clear with a record-setting high in the sixties predicted. The winds are howling both on the ground and aloft, according to the local FSS. When I arrive, Rick asks if I'd like to have another go in the Twin to get a sense of these high-wind conditions. I take the hint. The tow is rough as a cob and I pop off in a six-knotter. Desert thermals, a strong and narrow 60 degree bank, and up we go. We drift at 25 or 30 knots. The visibility is at least 100 miles. I think I can see Taos. The desert has a beautiful purple cast. The next thermal is eight knots.

Rick has to go back to do a lesson. He'll preflight the Astir and cockpit check me as soon as he gets back. I drive into the metropolis of Moriarty for a sandwich meanwhile. You can stay at a motel in Moriarty for about $20 a night. I stayed with friends so didn't get to test those accommodations.

We go through the preflight of the Astir, and I sit in it long enough to figure out where things are. There's a lip mike for the radio and a cannula for the oxygen system. The thermals are going to at least 12,000 feet msl. I put on the chute that's available, a bulky, venerable 28-foot military model that pushes me so far forward that the full rear position of the gear lever is even with my right hip. With that and my heavy jacket, it's become a very snug cockpit. The tow is head hit the canopy, feet fly off the rudders bumpy. I release the first time the vario pins up.

I crank in and after a number of turns think, "This thing is climbing worse than the Twin and making a hell of a racket to boot." Then I remember to pull the gear up, something of a feat of strength, given my position with respect to the handle. It flies a lot better that way!

My tentative plan is to head northwest into the Sangre de Cristo toward Santa Fe and Taos. There are lots of cu popping in that direction, but there's about a 20 mile blue hole that starts just north of Moriarty between me and those cu. The thermals are eight to ten knots now, but they top out just above 12,000 feet. Flying into the wind, it takes only five miles or so of blue hole sink to convince me that I'm not going to get to those cu. I turn back to see if the next round of convection will go higher or if the headwinds will abate. No go. The rest of the fight is local, enjoying the gorgeous scenery so much that I forget to take the camera out of my pocket to photograph it.

Everyone seems to know Minden and Estrella as winter soaring sites. Moriarty should be added to the list. Rick tells me that there are some 310 days a year that are flyable there and 250 that are soarable. It's obviously a great site in the summer, if you like the desert. It was a pleasure to fly with the FBO when I had very limited time available. Prices are reasonable and the equipment is decent. Next time you think about heading west, look it up.

Region 1 history

John Wren

I have been asked by John Good (SSA Region 1 Director) to put together a "history" of gliding in Massachusetts. This will include a written history of soaring in Massachusetts, a history of all clubs (present and past), and a list of known soaring sites (present and past). I am looking for help in two areas: a few volunteers to help write the document, and the rest of you to send in any story or information you may have on soaring in New England, Massachusetts, or your club.

To help recognize pilots of Region 1, we will be creating a regional list of all FAI Silver C holders. Also, we would like everyone who has completed a FAI Gold Distance in Region 1 to write a short description of your first 300k, and if you have been over 500k in Region 1 we would really like to hear from you. So please, if you have or know anyone who has completed these tasks, send names and information to John Wren, 150 Boston Rd, Chelmsford, MA 01824; 978-244-0647; glider@mediaone.net.

Duty roster

Al Gold

February through March

Date	DO	Instructor	AM Tow	PM Tow
2/6	Watson	Wren	Clark	Easom
2/7	Rossoni	Baxa	Fletcher	Gammon
2/13	Timpson	Johnson	Hollister	Kazan
2/14	Vickery	Krueger	Poduje	Pugh
2/20	Tsillas	Bourgeois	Clark	Hollister
2/21	Wong	Rosenberg	Easom	Friedman
2/27	Nordman	Baxa	Gammon	Fletcher
2/28	Blieden	Johnson	Kazan	Pugh
3/6	Brine	Wren	Clark	Hollister
3/7	Sovis	Gaisford	Fletcher	Easom
3/13	Cary	Krueger	Friedman	Gammon
3/14	Drew	Gaisford	Hollister	Fletcher
3/20	Emken	Bourgeois	Pugh	Clark
3/21	Evans	Rosenberg	Podjue	Friedman
3/27	Koepper	Johnson	Easom	Friedman
3/28	Gold	Krueger	Poduje	Kazan
4/3	Kucan	Baxa	Hollister	Pugh
4/4	Gold	Wren	Gammon	Friedman

Ballot for the board of directors

Vote for one person for each position:

- President:
  ____ Phil Gaisford
- Vice President:
  ____ Carl Johnson
- Treasurer:
  ____ Steve Glow
- Secretary:
  ____ Walter Hollister
- Membership:
  ____ Joe Kwasnik
- Operations:
  ____ Al Gold
- Maintenance:
  ____ Jim Emken
- Logistics:
  ____ Bruce Easom

Sign your name:

- ____

Print your name:

- ____

Mail this ballot to Carl Johnson, 150 Islington Rd, Newton, MA 02166. Carl must receive this ballot on or before February 28, 1999.

Reservations for the annual meeting

Reservations requested:

____ Number of adults and teenagers ($30 each)

____ Number of children 13 and under (free)

Total amount: $ ______________

Your name: ______________________________

Mail this form and a check made out to MITSA for the total amount to Carl Johnson, 150 Islington Rd, Newton, MA 02166. Carl must receive this form on or before February 28, 1999.

The MITSA Board of Directors

President:	Phil Gaisford (978) 670-1596 phillip.gaisford@digital.com
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Club email address: mitsa@deas.harvard.edu

Club web page: http://www.mitsa.org

For more information about MITSA, you can contact the club by email, visit our web page, or contact Joe Kwasnik, our director of membership listed above.

The Leading Edge is the newsletter of the MIT Soaring Association, Inc. The newsletter is edited by Mark Tuttle, and published every other month (more frequently during the soaring season). The submission deadline is the first of each month. Please send any inquiries or material for publication to Mark Tuttle, 8 Melanie Lane, Arlington, MA 02474; tuttle@crl.dec.com.

Remember: the annual meeting will be held on Sunday evening, March 7, starting at 5:00 pm at

Papa Razzi
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