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

Contents

Club news

Mark Tuttle

New instructor: Andrew Watson earned his CFI certificate and passed his MITSA flight check in November. Congratulations, Andrew!

Sterling might remain an airport: Steve Glow reports that the Sterling paper, *The Landmark*, contains a short article in its December 9 edition on the proposed purchase of the Sterling airport by the town of Sterling. The upshot of the article is that a vote on the proposal in the next town meeting will be tabled because the town has not been able to work out the terms of the purchase with the airport's owner. The article also reports that the town selectman who initiated the proposal has changed his mind, and is now interested in turning the Sterling airport into a municipal airport, "with operations continuing at least for another 10 years."

Gliders grounded: The 1-26, the L-33, and the L-23 8BB are grounded until further notice. They have been removed from flight insurance for the winter season. The 1-34 and the L-23 7BB will remain available throughout the winter.

Annual party: Carl Johnson is organizing the annual party again this year. He is aiming for a date in early March, and he is looking for a restaurant, speakers, good stories, and award nominations.

Board elections: Please nominate candidates for next year's board of directors using the form at the end of this newsletter. All board members have agreed to run again for their current positions, except that Al Gold and Bruce Easom are retiring from the positions of Director of Operations and Logistics, respectively. Peter Vickery and Mark Koepper have agreed to run in their places. Bruce will continue to serve as our chief tow pilot.

New member: Steve Waitekaitis and Kurt Wigmore joined the club recently. Kurt says, "I am home taught by my mother and father. They insist on a classical education: lots of Latin, English language, reading, reading, reading. I am a member of our local Civil Air Patrol squadron. This is a medium through which I access flight. I want to fly gliders, power planes, jets, anything that flies. My passion is learning about these things and *flying*. I found your club on the Internet and have enjoyed my flights so far. I am working with my mother, a field forester, to earn money to tow myself up and pay my membership. I play the flute and enjoy Celtic music best. I recently took an oil painting class and I am beginning to enjoy this art medium and want to learn much more."

Glider tie-downs: Please take care to tie down the gliders properly. We have recently found an L-23 unsecured because the tie-down rope had pulled loose, the 1-34 unsecured because the tie-down had broken, the 1-34 with cushions left in the cockpit, and the L-33 with the canopy access panel left open allowing water into cockpit. It is everyone's responsibility to take care of the equipment, and it is the DO's responsibilities to check that the equipment has indeed been taken care of. Along with checking the status of the office, the Citabria hangar, and the office trailer, this just one more essential chore for the DO at the end of the day.

Tow fees made easy: You can avoid the hassle of hunting down the DO at the end of the day to pay your tow fees by paying on account. Just (a) send a check to the treasurer from time to time to maintain a positive balance in your MITSA account, and (b) tell the DO at the field that you want to pay on account.

New aircraft: Dick Ruel says, "A few of us were lucky enough to witness Richard Gammon's first flight in his new Merlin. Both the aircraft and the pilot performed flawlessly. Richard did an incredible job building this airplane. The workmanship is impeccable. Congratulations Rich!"

Minutes of the Board of Directors

Walt Hollister

October 7, 1999

Springfield encampment: The board thanked Bruce Easom and John Wren for organizing the Springfield encampment, and thanked those members who donated their time and effort transporting the gliders and tow planes, supporting the operation, maintaining the equipment, and assisting with the cookouts both Saturday and Sunday evenings. It was an outstanding event, and those of us who were there to enjoy it are indebted to all those who worked so hard to make it happen.

Maintenance: N118BB has been trailered to Plymouth for structural repairs to the tail area. When it returns, N117BB will need to go for repairs in the landing gear-well area associated with rubbing of the landing gear wheel on the sheet metal. There is also evidence of wear due to contact between the rudder and the tail which could be caused by over zealous rudder wagging. Instructors are requested to remind pilots not to bang the pedals against the stops.

Operations: It was noted that GBSC now have their operations reports on their web site. Consideration was given to moving the location of the MITSA web site. Carl Johnson will seek additional information regarding that possibility. Three MITSA gliders will be taken off insurance for the months of December through February as was done last year. One Blanik and the 1-34 will be available for operations through the winter. Al Gold suggested looking for winter storage space at Gardner airport. He expressed the opinion that Gardner might be the best alternative for MITSA should we be forced to move from Sterling.

Minutes of the Board of Directors

Walt Hollister

November 11, 1999

Finances: Steve Glow gave a summary of current finances which have been hurt this year due mainly to problems requiring maintenance on the tow plane. In addition to increased maintenance costs, the income from towing was reduced relative to previous years caused mostly by down time on the tow plane. While the current bank balance should carry us until annual dues are collected, it has not been a good year financially.

Maintenance: N118BB and N117BB have been repaired. A fuel leak in the tow plane was repaired. It was caused by a failed O-ring in the fuel shut-off valve which required complete defueling of the aircraft as well as disassembly to get to the valve.

Operations: Pilots are reminded that there is meant to be a displaced threshold on the grass runway which was marked with a white line on the grass early in the season and occasionally with a pair of red traffic cones later in the season. The chief flight instructor will check on the correct location and provide guidelines to duty officers so that the threshold can be marked. Andrew Watson has passed both his FAA and MITSA flight checks as CFIG and is now available to instruct.

Sterling Airport: Steve Glow is awaiting the warrant of the Sterling Town Meeting which is expected to vote on the airport issue in December. He has also been attending meetings of the airport association which has been trying to raise money for save-the-airport publicity. The directors present chipped in for a small MITSA donation.

Minutes of the Board of Directors

Walt Hollister

December 2, 1999

Finances: N118BB, the 1-26, and the L-33 were taken off flight insurance from December 1 through March 15. The 1-34 and N117BB will remain on flight status through the winter. Bill Brine, Bob Kaynor, and Peter Vickery have generously donated canopy covers for three of the gliders. There was some discussion of the most efficient method for collecting tow fees. The preferred method is for members to keep a positive balance with the treasurer. The alternate acceptable method is to give a check to the duty officer after the tow. The problem with the alternate method is that members forget their checkbooks. The unacceptable method is to forget to pay and force the treasurer to track down delinquent members. In all cases the duty officer is responsible for providing the treasurer with an accurate record of all aircraft towed, the pilot, and the tow height. The treasurer reminds us that gifts to MITSA are tax-deductible, and some employers will match your tax-deductible contributions.

Juniors: Peter Vickery reported that the Juniors will meet socially once a month during the off season. Plans are being made for a visit to Harris Hill in Elmira in the spring. The Juniors probably will take over the sale of shirts, hats, and so on. There is a potential for recruiting additional Juniors which would be enhanced by publication of Matt Tadry's first-solo experience.

Sterling Airport: Steve Glow offered some insight into the December 13 town meeting vote over purchase of the airport. The parcel for sale consists of the airport proper plus an additional adjoining 100 acres or so that are to be sold as one piece. Initially, the town wanted the airport proper as a potential school site and hoped the MDC would buy the remaining land, but the MDC offer fell short. An alternate plan has surfaced whereby the town would try to get state funds to make Sterling into a municipal airport and make use of the remaining land as the potential school site. The issue is politically charged and may not even make it on to the December 13 town meeting agenda. The bottom line is that a decision on the fate of the airport could be extended beyond December 13.

MITSA Junior first solo

Peter Vickery

At the start of this year's gliding season, MITSA decided to embark on a "junior's scheme," to promote both the sport of soaring and a code of responsibility among a new, younger population within the club and the sport.

Being new to such an activity, the number of juniors was necessarily limited, until the club gained some experience at managing the fledgling organization and analyzing its acceptance and future potential among the first influx of youngsters to participate. It was determined that a minimum age limit of 13 years be set for potential members. The initial intake consisted of six boys from schools local to the airfield, in the towns of Sterling, Princeton, Paxton, Holden, and Rutland, which make up a single school district. The "contract" between the club and juniors simply entailed them attending the field to assist with ground handling, launching, and retrieval of club gliders. In return for a junior completing a four-hour "work session" at the field on weekends, they received a single flight with an instructor on Wednesday evenings. In some cases, the level of time commitment and dedication to the task became a conflict with other school/sports activities, and the number of juniors steadily reduced to three over time. That number is once again increasing with three new members joining recently and others waiting to join. It is felt that more young people will become attracted when they read the story of one junior, Matt Tadry, age 15, who became the first MITSA Junior to solo during November. His own story follows:

"November 13, 1999, was a special day for me, my family, and many other people in MITSA. This was the day on which my hard work and long hours at the airport over the hot summer and twenty-six instructional flights paid off. My first solo flight. As usual, I arrived at the airport at 7:30 a.m. to prepare a Blanik L-23 (N117BB) for the day's flying. I flew three lessons with Roy Bourgeois, my primary instructor since joining the program, and Karl Krueger, another of MITSA's instructors. On preparing for my next lesson flight with Roy, I noticed that he secured the back seat and harness of the Blanik. I displayed my confusion at what he was doing, since he wasn't yet in the aircraft. He then said to a fellow Junior, Rob Cutler, 'Robbie, tell Matt what I am doing right now,' and Rob replied, 'Uhh, Matt? Um... I think you're going solo this time.' I put two and two together and with a lump in my throat told myself, 'Oh no, this is it!' Thoughts raced through my head, such as crashing, but obviously that wouldn't happen because Roy knew and believed that I was ready. I quickly focused on my first solo, with shaking hands I went through the preflight. I then gave a thumbs-up to my wing man and when the tow rope was taut gave a rudder waggle and started the take off roll behind the club's Cessna 182 (N8615T) piloted by Bruce Easom, our chief tow pilot. My nervousness soon faded as I focused on flying the glider and told myself, 'Hey, I can do this, just fly!' I released at 3,000 feet agl and performed some easy maneuvers keeping the airspeed at 50 knots, which resulted in a flight of only ten minutes. Before I knew it, it was time for me to land the glider, which was an area I did not feel totally confident about at that time. I had three consecutive good landings earlier that morning and several more on previous days and Roy was confident that I could do them on my own. Being the first time I had flown the glider with only one person aboard and therefore less weight, I entered the landing pattern high thinking to myself, 'I have dive brakes so I might as well use them,' and flew the whole pattern with dive brakes open. Nevertheless, everyone claimed it to be a perfect landing and I exited the cockpit to many warm congratulations.

"The road to getting my solo was at times full of obstacles, but it has been the most memorable part of the road of life so far. The Juniors program has been a great one for me. It exposed me to the field of aviation and allowed me to learn to fly gliders in exchange for work service on weekends and during lessons. This cost is small compared to the amount of money some have to pay to learn how to fly, and I am happy to have been offered a part in this program. However, it takes a lot of discipline and courage to learn to fly. When I first saw the ad for the program in the local paper, I envisioned myself going up into the sky and doing a few turns, enjoying the view, and coming in for a perfect landing. We met John Wren and Joe Kwasnik at the first meeting, where they explained the Juniors program and they told us, typically in about thirty flights we would solo. I figured that at three flights per week, I would be finished in ten weeks, no problem. I also thought the work couldn't be too bad and would be easy just towing around gliders all day. Well, I was only half right about the lessons and totally wrong about the work part. I believe, without hesitation or exaggeration, you need dedication and courage. Fortunately, the courage part is tempered by knowing that you have excellent instructors sitting behind you all the way. The dedication is getting yourself up and out to the airport to work while you friends are playing paint ball, swimming, and generally goofing off most of the summer.

"Student pilots will mess up on flights many times during their training, and need to remind themselves to stay with it, and it will all come together at one point or another. I told myself this many times. I started training pretty well, learning quickly and even flew the whole aerotow and air work myself on only my third flight. Roy claims this to be a record for any of his students. I stayed with it through the summer and began to attempt landings but could not do them well. Soon my fellow Juniors, Rob Cutler and Keith McRell, were hitting perfect landings but I just couldn't get them quite right. I realized courage would be a requirement when I began to learn spins, which are the scariest (but coolest) things that can be done in a glider (that I have learned so far.) All too soon, the summer was over and football started. Football, combined with school and work, soon took priority over flying and I endured an enforced five-week leave of absence. Continuing towards the end of September, I was still only flying every two weeks at best. Eventually, I sat myself down and asked myself if it was more important for me to sleep in on weekends or to fly, and after a long, hard battle, I chose to fly. The problem was that after all that time, with flights few and far between, rust developed and I felt like I was starting over again. However, I quickly caught up, nailing the landings and was sent solo before I knew it.

"As I said earlier, I was also wrong about the work. It was fine during April, May, and early June, while school was still in session and rugby only practiced three times a week, and I had no qualms about getting up early to work at the airport or give up a Wednesday night to fly. Once summer rolled around, things changed, with the heat and beating sun weekend work sessions were tough. For six hours every Saturday and Sunday the rest of the guys and I sat out in the sun and towed gliders back and forth, not getting to fly on the perfect summer days full of thermals and great summer-time views. It was also extremely busy on these days since a lot of members took advantage of the great conditions. Nevertheless I stuck with it, even giving up many trips to the beach or to amusement parks to work and get credit for flying. I also gave up Wednesday nights at the weight room with my football buddies in favor of my flying lessons.

"The opportunity to be a MITSA Junior is probably the greatest opportunity that anybody has ever given me, and I look forward to continuing to fly with the club. To date, I have twenty-six dual instructional flights and three solos. After I get the rest of my check rides completed, I hope to start flying the single seat 1-26, vying for use of it with other MITSA Juniors and club members who will be soloing very soon."

As the Juniors program grows, it is expected that they will form their own organization within the club organization, reporting to but emulating the Board of Directors charter, Duty Officer rosters, training schedules, and the myriad volunteer activities required to ensure a successful club.

MITSA Senior first solo

Fred Looft

I had some idea I was getting close to solo, but not today. When Mike Baxa started presenting me with emergency situations without any prior expectation on my part, I figured he was thinking solo even if I wasn't. The one that really got to me was when Mike climbed into the back seat and announced that according to the tow pilot, he "thought he had enough fuel for the tow, but that he would have to get gas before the next one." "But I'm ready to go if you are," announced Mike as he closed his canopy after strapping himself in. *What?* I wasn't sure I had heard Mike correctly so I asked him to repeat what he said. In a totally convincing tone he told me the same thing and said, "Your choice, you are the pilot in command." Well, after thinking about it for a few seconds this didn't seem right to me so I pulled the release, let off my straps, and started to climb out of the Blanik muttering something half aloud about, "He can get his gas now—I'm patient," and wondering to myself what sort of fool would go on a tow with a pilot who "thought he had enough gas!" Much to my surprise (honest, I fell for this hook, line, and sinker. . .) Mike grabbed me, pushed me back down into the front seat and said, "You just passed your first exam," while explaining how important it was for the PIC to take responsibility for the flight, regardless of who was in the back seat. Good lesson.

Eventually, three tows, stall and spin recovery practice, and two simulated emergencies later (a 1,200-1,500 foot tow plane emergency release and a 200 foot simulated break) it was time to take the pre-solo written test. Unfortunately, being a faculty member and not being used to tests where there is only *one* correct answer (even if in my opinion others were also correct depending on the situation depicted in the question), this highly educated but not too exam savvy individual managed to pass—but not with a particularly stellar score. In fact, if I remember correctly, I recall that at least one of the pre-solo exam questions was actually wrong and had no correct answer.

Anyway, after reviewing the missed problems and rereading the Blanik operations manual, Mike told me to strap myself in while he fastened the rear seat straps, and got us (us? *me!*) hooked up for the solo. Was I nervous as the slack came out and the tow plane accelerated down the runway? No, but I sure was tense. In fact, about half way through the tow I realized that I was holding on to the control stick so tight I had to force myself to relax—this is suppose to be fun, right? I can't remember if I released at 2,000 feet or 1,500 feet, but the sense of finally being out on my own was exhilarating—as I'm sure it was and will be for all first solo's!

After a short, non-thermal glide, it was time to set up for landing, and with minimal problems a reasonable and safe landing was accomplished. *Wow!*

I don't know if my first post-landing thought was, "Why did I have to stop on the taxiway?" or "How am I going to convince my wife we *need* a sailplane in the family?" I do confess that although I didn't expect to solo that Sunday, I had been carrying a spare shirt in my car for the previous month "just in case!" Mike, of course, did the honors and hacked off the back of my shirt with knife/scissors that had seen better days.

In the weeks since that solo, I have actually managed to ease my grip on the control stick while flying, start reading/studying again for the private, and relax enough on most flights to think seriously about what I should be practicing. I'm not sure when the "this is SOOOooo much fun" feeling wears off, but I hope it never does.

Figure 1: Pictures from the cockpit as Phil Gaisford flies in the standard-class nationals.

Standard class nationals

Phil Gaisford

There can be few soaring sites in the world with a better reputation for strong soaring conditions than Minden, so it was hard to resist the call to action when it was announced that Minden was to be the venue for the 1999 standard class nationals.

Minden lies in the Carson Valley of western Nevada, so there are a lot of miles to be covered by road before any flying gets done. It took us the best part of six days to cover the almost 3,000 miles between Billerica and the foot of the Sierra Nevada, most of it spent driving west on I-80. The trip was not uneventful. My wife Pat who travels as my crew picked up some food poisoning in Laramie, but recovered in time to stand in for me on the following day when I was suffering from a presumed case of dehydration.

The Carson Valley runs south from the state capital in Carson City, and would like the rest of the state be desert but for the blessing of the Carson River. The valley is broad and flat, and extensive irrigation from the river has resulted in an agricultural area devoted mainly to grassland and the herbivores that thrive thereon. This pattern of land use would be observed later from the air in other locations. Envisage a parched brown landscape, with the occasional green ribbon following a watercourse fed by a nearby mountain range.

Minden/Tahoe airport is a large facility that is home to all sorts of aircraft and related businesses. In addition to the soaring operations, there are several flight schools, aircraft maintenance outfits, and even a C-130 employed as a fire bomber. Unlike some other soaring venues, we were pleased to discover that the nearby towns offer a wealth of facilities for the discerning tourist.

By now you are probably wondering what the flying was like. The terrain is rugged, and the climate dry and hot, so not surprisingly there is plenty of soaring to be had. Nevada has many mountain ranges that almost always run in a north-south direction, separated by ten miles or so, with the occasional larger basin or sink. This is quite different from the Alps of Europe with which I am familiar, where mountains and ridges run in all directions, and are cut by deep valleys. There are large areas where it is inadvisable to attempt a landing, either because the surface is unsuitable, or inaccessible. On good days these are not a problem since they are many thousands of feet below you, but contests wouldn't be contests if all the days were good.

The turn point list for the contest described the largest task area I have ever experienced—perhaps 300x500 km. Tasks on most days were flown in the eastern and southern sectors of the task area. Soaring most days was in partly in blue conditions, with a sprinkling of cumulus over the higher mountains. Operations during the contest period were limited to 17,500 feet and below, and you needed to watch out on several days lest this restriction be infringed. In addition to ensuring an adequate intake of water, it was also necessary to manage oxygen consumption over the course of the flight, not a task that eastern pilots get a lot of practice at. The operating altitudes were such that oxygen was required for at least 80% of the flying, which necessitated three refills of the oxygen tank through the course of the contest. Thermals ranged from the mediocre to the absolutely spectacular—reputable accounts of climb rates of 15 knots were given, though regrettably I can't attest to this myself.

I flew on ten of the twelve days we were in the area—two days were lost in the contest period when dense cirrus prevented things from warming up adequately. Minden is one of those sites where using a remote start procedure would simplify things a lot. On most days the thermals around the airport are fairly nondescript—much better stuff is to be found in the Pine Nut Mountains some 10 or so miles to the east. The pre-start gaggles try to hang out as high as possible over the mountains, glide in to the airport to make a start, then, since tasks are invariably set to the east, glide back out again. The success of the flight would depend in a large part on how successful this first glide out was. If you find good lift you were soon over the Pine Nuts and out on course—if you don't then you have at the least a detour. A remote start nearer the mountains would simplify this procedure greatly.

The shortest task (for me) ended in my only out landing of the event at Air Sailing, a small but friendly gliderport to the north of Reno. I may say that I was very well-treated before enjoying a leisurely retrieve by air that afforded me fine views of Reno and its large and busy airport. The longest task took us for a total of 580 km along the White and Inyo ranges familiar from accounts of soaring epics recounted in the pages of *Soaring*, into the Owens Valley of California. Gliding into the turn point at Independence gave one a fine opportunity to view the eastern precipice of the Sierras—a more impressive wall of rock I have yet to see.

Despite the mountainous terrain, waves were not a factor with the exception of the last day. If I recall correctly, the wind was forecast at 35 knots, which made for difficult conditions even while on the ground. The presence of rotors above the airport results in frequent and dramatic changes in wind strength and direction. Under these conditions, the grid forms in the middle of the airport, and you don't really know which runway you will launch on until the last minute. One pilot found the waves just where he expected them and won by a large margin while many others didn't complete the course.

Minden is a great place to fly, though sadly is inconveniently far away. If you should chance by there on your travels and get a chance to fly, you will likely be rewarded with good soaring and fine views of rugged western scenery and the snow-capped Sierras. I can only recommend it.

Reluctant cross-country soaring pilot

Joe Kwasnik

On Sunday, November 28, 1999, I became a reluctant cross-country soaring pilot. Having said this, I realize that to most competition soaring pilots, the story I am about to tell may seem trivial, may seem uneventful, may even be seen as an easy walk in the park, but to me, a very reluctant cross-country soaring pilot who has always felt an obligation (hey, no one else was willing to do it!) to guard the close-in approaches to every major glider port in New England, this story signifies a major turning point and emancipation in my brief soaring career.

Following the passage of a wet cold front, Sunday dawned bright and cold with a chilly wind gusting from the northwest. Without even checking the weather forecast or soaring index, I knew that the day would be a good flying day and probably the last good one of the season. After counting up my good husband credits and realizing that I had enough to redeem for a day of flying, I cashed in the credits with my wife and quickly stole away to the airport with visions of cloud streets stretching to the horizon, ten-knot lift dancing in my head, and the potential for a delightful day with my MITSA buddies at Sterling Airport.

Arriving at the airport, I was greeted by Errol Drew who was just beginning to pull out his LS-7. As we began to rig his glider and my Russia, the first wisps of high cumulus began to form along with increasing wind gusts from the northwest. When Bill Brine, the perennial lift sniffer, showed up to rig his LS-4, I knew that I had picked the right day. It was amazing that only three private MITSA owners showed up for what was to prove to be one of the best soaring days of the year. . . where was everybody else!

As I pushed the Russia down towards the 34 end of the airport, I could see that the L-23 was already on the flight line with a number of MITSA students and Juniors milling about and shivering. By this time, it was becoming gleefully obvious that cloud streets would be the meteorological order of the day. From my vantage point, at least two cloud streets could be seen within an easy aerotow of the airfield. With the courteous assent of Errol, I pulled the Russia out to the flight line and prepared for takeoff. Unfortunately, as I buckled up, the wind began to gust at what seemed to be over thirty knots, and being the timid and fearful soul that I know in my heart that I am, I calmly unbuckled my belts, stepped out of the glider, nobly pushed the Russia back to the side of the taxi way and proclaimed to Andrew Watson, our ski-suit clad instructor du jour that discretion would be the better part of valor and I would wait for the winds to abate a bit before attempting a takeoff. I guess I had visions of the Russia and me getting blown downwind and landing somewhere on the Elizabeth Islands or somewhere further east!

Errol and Bill, looking brave and fearless, pulled out their great white fleet and, with a bit of a bounce and struggle with the curlover at the end of 34, rose into the sky and proceeded to disappear from sight. With their safe departure and Bill's radio urgings to "come on up," I launched and proceeded to the cloud street that was streaming down from the northwest over Mount Wachusett. After bouncing my skull into the canopy twice, twisting with the Cessna 182 as we gained altitude, and confirming that the wings of the Russia would indeed remain in place, I released in four-knot lift or better and headed upwind into the street. Bill was already ahead of me on his way to Orange Airport and Errol was nursing the last few feet of his 8,000 foot climb in wave just to the southeast of Mount Wachusett. It was truly an awesome sight with multiple cloud streets stretching as far as the eye could see to the northwest and southeast. As I dolphined to the northwest, the lift (and sink) within the streets pegged my variometer at plus (and minus) ten knots and tossed my light ship left and right. As I passed Mount Wachusett at 5,500 feet msl, I began to reflect on my first few years of soaring at Sterling when "getting to Wachusett" in my old 1-26 was a major accomplishment. Of course, trips to Mount Wachusett in a 1-26 were frequently spent with the nose of the 1-26 seemingly pointed at the ground as I tried to escape from the sink invariably found on the way to and from the mountain.

Before I knew it, I was passing Gardner Airport and off in the distance I could just begin to make out the crossed runways of Orange Airport. As I passed over the Gardner VOR, I did notice that there seemed to be a fairly high volume of power traffic coming and going... I hoped that the power traffic would see my red stars and, with Cold War fear in their hearts, stay a respectful distance from me... they did not! Oh, well.

Off in the distance, I could see Bill turning in lift as he made his way back from Orange. In what seemed only seconds, he turned toward me and passed by heading to the southeast. With my 30 knot ground speed and Bill's 90+ knot ground speed, we quickly closed and brushed past each other at over 120 knots closing speed! When I finally arrived over Orange Airport, I looked back to the southeast to see if Sterling Airport was still in view. Unfortunately, it was nowhere to be seen... all I could see was a small bump on the horizon that I took to be Mount Wachusett. It was at that moment that the truth finally dawned on me. I had abandoned my comfortable home airfield and was now orbiting over a strange and alien airport and worse, I was now more than one thermal climb away from Sterling. My thoughts raced from fear of whether I could find my way home to where would I find the next thermal to ensure that I could make Sterling to intense euphoria at having finally escaped the comfortable and familiar bondage of Sterling Airport.

As I headed downwind for home at what must have been a ground speed of 90 knots, I was amazed at how fast the terrain passed beneath me, especially after having slogged my way upwind to Orange with about 30 knots of ground speed. On the way home, I passed Andrew Watson and Phil Rossoni in the L-23 also heading for the general direction of Orange. It looked like Phil had his hands full in controlling that big glider in the turbulence of the cloud street.

After two and a half hours of air time and with the passionate urgings of my bladder, I opened my airbrakes and scrubbed altitude off in preparation for landing at Sterling. After calling out my approach and turning to final, the landing was long with the last of my inertia gently depositing me in front of my trailer. As I stepped out of the glider, Errol came over and could see my silly grin stretching from ear to ear. He must have seen this grin on other pilots faces in the past and said, "Made it to Orange, huh?" I tried to be very sophisticated in my response and replied, "Yup."

I will probably always be a reluctant cross-country soaring pilot but, who knows, I may just reach for farther horizons in the future... maybe Turners Falls or even Mount Monadnock! What is most sad about my new stature in the sport of soaring is that I must now reluctantly turn over my self-imposed obligation to guard the close-in approaches to Sterling Airport to less experienced pilots from MITSA. Applications for this task are now being accepted.

Some thoughts on type conversion

Andrew Watson

Transitioning to a new type is always an interesting challenge. If it's a two-seater, the best approach is obvious—take along someone who knows the machine for instant in-flight help. However, a first flight in a new single-seater can be a bit more intimidating, especially if it's your *first* single-seater. This article has a few thoughts that may help.

Read the manual: First off, find the flight manual and read it from cover to cover. This won't take long; many glider manuals are depressingly thin and combine breathless hyperbole from the marketing department (the 1-34 manual proclaims that "Pilot fatigue... has been virtually eliminated because of the semi-reclining adjustable seat...") with blinding glimpses of the obvious (we learn that the Pegasus "tail is a T type"). Machines from non-English-speaking countries have novel features described in equally novel English (when flying the L-23 you should "reckon with the mild sailplane emerging in the case of the higher approaching speed"). Persevere—buried in amongst all these distractions will be nuggets of hard data that you actually need to know. For instance, have you ever wondered why the yellow "minimum approach speed" bug on the Blanik L-23 air speed indicator is at an infeasibly low 41 knot indicated air speed? Page 4.14 of the flight manual reveals all—this is apparently the minimum approach speed with the air brakes closed. If you're one of those demanding pilots who actually uses air brakes, stay with that 50 knot indicated air speed still-air minimum approach speed your instructor told you about.

Get a briefing: OK, so you've distilled all the useful information out of the flight manual. Your next step is to find an experienced pilot who's familiar with the aircraft and whose judgment you trust, so he can brief you on the tricky details the manufacturer left out of the book. For instance, the trimmer in the 1-26 is basically useless, but the handbook merely hints obliquely that it is "... used only for nose heaviness." Ask how effective the air brakes are. What are the stalling characteristics like? If you're buying the glider, your insurance company will usually demand that you get this briefing from an instructor. Similarly, if you're a solo student, the FAA insists that an instructor sign your student license before you fly solo in a new type.

Assess conditions: So, the appointed day for your type conversion flight has arrived. Don't let any plans you've previously made get in the way of a safe flight—don't rush things, and especially, don't think that you have to do the conversion that day because that's what everyone's expecting. A disproportionate number of accidents take place on type conversion flights. Yes, you could cope with that crosswind in an aircraft you know, but would it really be wise to do a first-on-type? Take your time, and get it right. It may be worth going round the circuit once in a glider you know, just to get the feel for the conditions.

Take a closer look at the machine: Next, take a walk round the glider looking for design features that may cause you problems, which could include almost anything unfamiliar. For instance, the Glassflugel Hornet has a trigger-operated trimmer on the control stick, operated by pulling the trigger to set the trim while flying at the desired air speed—or at least, that's the theory.

Where's the tow hook? Many glassfibre gliders don't have a nose hooks, so have to be aerotowed from the rear (CG) hook. This means they have less tendency to follow the tow plane, so you'll need to be more positive with the rudder to stay straight during the ground roll, and it may be advisable to hold the tail on the ground with a little back elevator, to prevent weathercocking in any crosswind. When aerotowing from a CG hook it's also easier to get out of position, both laterally and (critically) vertically—don't forget that getting above the tow plane can pull its tail up uncontrollably, which is extremely dangerous for the tow-pilot.

Get comfortable in the cockpit: Next, and still before you get anywhere near the launch queue, put on your parachute (if you're using one), strap yourself in, close the canopy, and get comfortable. Can you easily reach all the controls without stretching? Try moving everything—except the undercarriage lever (if any). There are machines where the undercarriage will happily retract on the ground. Very embarrassing. On the other hand, you want to be sure you know which lever is which—flying the approach cycling the undercarriage and wondering why you're not coming down is also no fun. How much grunt does it take to open the brakes? A friend of mine discovered during her first pre-flight checklist that she couldn't open the air brakes on her new Ventus 2 because the over-center lock was too "positive" (sic).

Modern high-performance gliders seat you in a slumped position that would definitely irritate your mother ("Sit up straight!"), and the view on landing is very different from most training machines. With the canopy closed, have a couple of helpers hold the glider in the correct landing attitude (wings level, appropriate pitch attitude) and spend 30 seconds getting familiar with the view. This is what the world will look like as you complete the round out and the glider is about to touch down. Exactly what counts as the "correct landing attitude" can be the topic for vigorous debate. Fabric and aluminum machines tend to be forgiving, and can be plonked down in a variety of ways without significant loss of face. Some are said to have tails that are too fragile to allow them to be landed two-point (that is, main and tail wheel touching down together), but this is often an exaggeration. On the other hand, there certainly are machines that cannot be landed main-wheel-first (the so-called "wheel landing"). One such is the Astir CS 77, where executing anything other than a perfect two-point touchdown results in the tail pitching down and the aircraft taking off again, followed by an increasingly frequent series of mini-landings and much good-natured ribbing in the bar afterwards. I suggest aiming for a fully-held-off two-point landing unless the flight manual explicitly forbids it.

While we're on the subject of glassfibre, if you've trained on fabric or metal gliders (including our Blanik L-23s), converting to high-performance glass is a big step. If you can, it's worth getting some time on a representative glassfibre two-seater like the Grob 103. Glass machines are relatively heavy and slippery, so that speed control for the approach is a lot more demanding—small changes in pitch attitude quickly lead to large changes in speed, and washing off any surplus speed after rounding out consumes prodigious quantities of runway. It's also a lot easier to find yourself with slack rope during the tow in a high-performance glass machine.

The launch: Once you've spent a few minutes sitting in the cockpit and have achieved spiritual union with the machine (sort of), it's finally time to go out to the launch queue. By this point you've probably been deluged with information (not least by this article?), so try to hold on to just the two or three most important points as you get ready to go. If this is your conversion flight to your first single-seater, here's one thought to keep uppermost in your mind: almost all single-seat machines are more sensitive in pitch than the two-seaters you've trained on, so avoid making flamboyant elevator inputs during the first few seconds after take-off.

Explore the envelope: Make your first tow a high one, at least 3,000 feet, so that even if there's no lift you'll have a chance to find out how the machine flies. Apart from generally flying around getting the feel of the controls, it's also worth doing a few upper-air exercises to explore some of the out-of-the-way corners of the flight envelope. Find the unaccelerated stalling speed, which of the various stall warning signs the aircraft exhibits, and whether it tends to drop a wing. Trim for approach speed, then open the brakes while flying hands-off, to find out whether there's any speed change you'll need to be aware of during the approach—for instance, the 1-34 immediately pitches up and slows down, while the Grob 103 insidiously pitches down, eventually adding 10 knots or more.

Still with the brakes open, try to gauge their effectiveness—how quickly are you coming down? You'll be happy to discover that many gliders have much better airbrakes than the L-23, so that the idea of a "half airbrake approach" suddenly starts to have meaning. It's also worth doing a stall with the brakes open—some aircraft stall at a considerably higher speed in this configuration. Now close the brakes and see how the machine behaves in slow flight, which is basically anything below minimum sink speed. Lastly, try flying close to maneuvering speed then carefully opening the airbrakes again—in some machines (such as Astir and Grob 103) they can suck open quite powerfully at high speed.

If conditions are good, by all means go soaring, but don't stretch it out all day—doing your first landing on type when exhausted after some heroic exploit could lead to silly mistakes.

Lastly, don't get complacent after a few flights on the new type. You may believe you've mastered your new craft, but this may not be the case, and you may still be discovering things about the glider after 20 flights. I was on my tenth flight on the Cambridge club Discus before I encountered its tendency for the rudder to lock hard over in side slips—not serious, since it only takes a little pressure on the other pedal to correct, but a bit of a shock nonetheless. So don't get over-confident after a few successful circuits—your new conquest may still have the ability to bite back!

Good luck with your type conversion.

Volunteers: Please thank the following volunteers:

- Bill Brine, Bob Kaynor, and Peter Vickery each volunteered to obtain a canopy cover for one of the clubs single-seat gliders. Ian Clark has volunteered to stitch the covers using material donated by Bill.
- John Flynn spent a weekend fixing leaks and treating the roof of the office trailer.
- Phil Gaisford, assisted by members of both MITSA and GBSC, waxed both L-23s.

Let us also not forget the other volunteers who donate their time to keep the club working: instructors, DO's, tow pilots, tow plane captain, chief instructor, newsletter editor, web site administrators, and, of course, your board of directors. If you would like to follow the example set by those above, feel free to pick up a task that needs doing, or contact a board member.

Former members: Al Gold says, "I ran into Jakov Kucan, along with his approximately two-year-old daughter, at the supermarket yesterday evening. He's back in the area working for a Burlington based software start-up. Has another baby on the way. He said that family and work have kept him away from flying in the year and a half since his return. (Where have we heard that before?) He hopes to visit Sterling sometime soon."

MITSA Duty Roster
October-December, 1999

Date	DO	Instructor	AM Tow	PM Tow
12/4	Emken	Baxa	Fletcher	Friedman
12/5	Gold	Rosenberg	Hollister	Fletcher
12/11	Koepper	Gaisford	Poduje	Clark
12/12	Kwasnik	Johnson	Gammon	Easom
12/18	Looft	Krueger	Fletcher	Friedman
12/19	MacMillan	Rosenberg	Poduje	Hollister
12/25	Evans	Rosenberg	Gammon	Pugh
12/26	Loraditch	Bourgeois	Clark	Eason
1/1/00	Rossoni	Johnson	Hollister	Friedman
1/2/00	Sovis	Krueger	Clark	Pugh

Nomination Form
2000 MITSA Board of Directors

- President (Phil Gaisford):
  - Nominee: ______________________
  - Nominee's signature: ______________________
- Vice president (Carl Johnson):
  - Nominee: ______________________
  - Nominee's signature: ______________________
- Secretary (Walter Hollister):
  - Nominee: ______________________
  - Nominee's signature: ______________________
- Treasurer (Steve Glow):
  - Nominee: ______________________
  - Nominee's signature: ______________________
- Maintenance (Jim Emken):
  - Nominee: ______________________
  - Nominee's signature: ______________________
- Operations (Peter Vickery):
  - Nominee: ______________________
  - Nominee's signature: ______________________
- Logistics (Mark Koepper):
  - Nominee: ______________________
  - Nominee's signature: ______________________
- Membership (Joe Kwasnik):
  - Nominee: ______________________
  - Nominee's signature: ______________________

Your name: ______________________
Your signature: ______________________

The members explicitly named above have already agreed to run for the indicated positions. Feel free to nominate yourself or any number of other club members for board positions. Each person you nominate for a position must sign your nomination form to indicate that they agree to run for the position. You must also sign your form.

Your nomination form must be returned to
Phil Gaisford, 1A Corcoran Rd, Billerica, MA 01821
on or before January 16, 2000.