The Leading Edge
The newsletter of the MIT Soaring Association
October 2000

Contents

Club news

Mark Tuttle

Aviation achievements: John Carlton soloed in the Blanik L-23 on Sunday afternoon, October 22, after passing all sorts of pre-solo flying and written tests with flying colors (so to speak). He writes, "It certainly was a memorable experience, and, once airborne, the visibility and spectacular scenery couldn't have been better." Rob Cutler earned his B badge by soaring for a half hour on September 30, rumored to be a hard day to stay aloft, and Halil Ozbas earned his C badge on October 1.

MITSA photographs: One of Fred Looft's students went for a first instructional ride this fall and took a bunch of photos. Check out

http://www.wpi.edu/ sherwood/soaring/.

Gliders for sale: Ira Blieden is selling his glider: LS-3a "UC" 1979 S/N 3357 1250 hours; second owner; no damage history; wings and rudder refinished by M&H in April 2000 with Prestec; Becker 4201; boom mike; speaker; Cambridge LNAV (V5.8); Cambridge GPS-NAV(V6); Cambridge PocketNav Plus (V4.4) with activation and mount; Winter mechanical; dual batteries; and Airpath compass; nicely outfitted metal Elf (Schreder-type) trailer; $29,500 with basic instruments; $35,000 complete; contact Ira Blieden day/work at 617-873-4670, evenings/home at 781-862-7569, or email at ibliede n@genuity.com.

MITSA operations

Phil Gaisford

Price increases: I am sure that you have all been anticipating this announcement. Due to increased fuel and other costs, the board of directors has decided to raise tow fees by $2 per tow.

Discount for advance payment: The board has also decided to introduce a discount of $2 per tow for every tow paid from an account with a positive balance. Using this option, the net cost of a tow will remain unchanged. To establish a positive balance in your account, mail a check to the treasurer or operations director. Among other things, we hope that this measure will help reduce the work load on the DO at the end of the day.

Requirements for flying MITSA gliders: Please refresh your memory of the pilot requirements for flying MITSA gliders. You can find them via our home page at www.mitsa.org by clicking on the link in the "Operations" panel.

Safety reminder: Gliders landing on runway 34 are required to observe a displaced threshold. This is in order to separate flying traffic from activities in the launch grid. Do not land short of the further of the threshold markers, and do not indulge in low-flying either near or over the launch grid.

Remember that GBSC tow planes frequently switch to land on the grass after completing an approach to the Sterling asphalt runway. Therefore, when in the vicinity of the launch grid and runway, and particularly when retrieving ropes, anticipating the arrival of the tow plane for hook-up, or acting as forward signaler, be aware that a tow plane may attempt to land in your immediate vicinity. When preparing to hook the tow rope to the tow plane, do not move forward from the grid area until the tow plane is in position, and stay clear of the runway as you wait.

Remember that GBSC occasionally begins a launch when the grass runway is obstructed with one or even two landed gliders. For this reason, and for the benefit of those who may need to land behind you, it is essential that you vacate the landing area as expeditiously as possible. If you are unable to steer the glider clear of the landing area during the ground run, then land long.

Minutes of the Board of Directors

Walt Hollister

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

September 7, 2000

Directors present: Ian Clark, Phil Gaisford, Steve Glow, Walt Hollister, Carl Johnson, and Peter Vickery.

Finances: Steve Glow reported on the current balance in the bank. There still has been no billing from the airport manager for fuel since January. The fuel valve in the tow plane had to be replaced; $500 for the valve in addition to labor cost.

Operations: Peter Vickery completed his review of the operational records and presented an impressive five pages of data and color charts giving a complete operational summary of the club's flight records over the past five years. Using the average fuel consumption and flight time as a function of tow height and the cost of fuel, he was able to estimate our outstanding fuel bills and fees due 3B3 for use of the Citabria directly from his operational summaries. Ian Clark offered that although the 3B3 costs were nonlinear the result was reasonable.

Web site: Carl Johnson is planning to launch the new MITSA web site which will provide electronic commerce to handle the sale of demo flights, hats, shirts, and possibly tow fee collection. Because there is a fee charged for each transaction on the web, the treasurer prefers that members keep a positive balance with the treasurer to cover tow fees rather than to pay individually for each tow. After a lengthy discussion it was decided initially to require members paying for tows using the web site to buy blocks of $200 or greater, and observe the usage of this payment option.

Springfield: John Wren and Peter Vickery will be in charge of the barbecue Saturday, September 9. Tentative plans were discussed for the return of the gliders following the removal of the fair from Sterling airport the following week.

EAA fly-in: Ian Clark proposed that MITSA provide a static display with a table, brochures, and a glider at the Mansfield EAA Fly-In on September 23 with some MITSA members available to answer questions and hand out flyers. The purpose of the display would be to explain gliding and club activities to attendees and also offer club membership to interested parties. The club may also be able to do a demonstration flight during the day, weather and traffic permitting. The proposal was approved.

Tow pilots: Walt Hollister observed that tow pilots currently draw tow duty every third operating day and end up spending considerably more time towing than soaring. It was also observed that tow pilots who do not soar do not pay dues. In the interest of attracting more tow pilots it was suggested that we use the "free flying" aspect of towing to attract more power only pilots into the club to tow. Ian Clark offered to check with Bruce Easom and prepare an advertisement to post at local airports.

Minutes of the Board of Directors

Walt Hollister

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

October 5, 2000

Directors present: Bruce Easom, Phil Gaisford, Steve Glow, Walt Hollister, Carl Johnson, Mark Koepper, Joe Kwasnik, and Peter Vickery. Ray Tadry was also present.

Finances: Steve Glow reported on the current balance in the bank. There still has been no billing from the airport manager for fuel since January. Steve will pay the outstanding balance due 3B3 based on Peter Vickery's cost data, and plans in the future to pay by tow altitude or retrieve distance so that the operational record can be used directly for billing.

Operations: Peter Vickery presented a three-page proposal to change the present structure of the duty officer responsibility. There was a lengthy discussion of several possible modifications to distribute the workload. Some of these included elimination of the duty officer, half-day instead of all day, and compensation for standing the duty. It was decided to poll the membership before taking any action.

Web site: Carl Johnson has launched the new MITSA web site which will eventually provide electronic commerce to handle the sale of demo flights, hats, shirts, and tow fee collection. It was agreed to go with the proposal contained in Phil Gaisford's email to the board:

1. raise tow fees sufficiently to protect us from the channel costs, and
2. give a discount for tows paid for in advance.

We expect that $2 per tow would be about right in each instance. As agreed previously, advance payments using credit via the web site should be permitted, but only in large chunks. An example: today a tow to 3,000 feet costs $30. If the above plan is implemented, it will still cost $30 if you prepaid, otherwise the cost will be $32. In the latter case payment may be made using cash, a check, or via the web site. The method of payment does not influence the price, which surely conforms to people's expectations for a retail business transaction.

As I see it, the advantage of this plan for the club managers is that opening the ClubTools channel would be revenue neutral. The bias toward prepayment should be also beneficial. The members will have an expanded range of payment options: pre- or post-payment, cash, check, or web.

Juniors: Ray Tadry gave a summary of the Juniors summer activity. Two juniors have soloed and two others are close to solo. There are eight active juniors with two on the waiting list.

See and avoid

Mike Baxa

This article is a revision of the article printed in the newsletter mailed out to club members. I made a mistake in that newsletter and published an early draft instead of the final draft that Mike submitted a few days later. — Editor

Safety: First…middle…and last
The not always friendly skies

About 20 years ago I was serving as the Chief Operating Officer of a fairly large hospital on the west coast. I had been in a meeting with the architects when my secretary stuck her head in the door with a strange look on her face. She advised she had a call I best take "right now." I got on the phone and it was the Chief Pathologist, who had a reputation as playing hard-ball practical jokes. His voice was panicky as he relayed that he had a 9:00 a.m. autopsy scheduled in the hospital morgue but the body was missing. Back then autopsies were performed with much greater frequency than today. The body had been there the night before. He assured me this was "No Joke." He had checked all the other refrigerators and everyone else was accounted for. I told him to stay there and wait. The early 80's were a strange period of time, so one always had to assume the worst case scenario. I called the chief of security and had him quietly post people at the numerous hospital entrances. My secretary began calling a list of mortuaries to determine if an error in a pick up had been made. I talked with the lab manager and asked him to assemble a team of trusted lab techs who could quietly begin searching the hospital. It was unlikely the gentleman decided to skip the procedure on his own, although who could blame him. By 10:30 a.m. the search was still continuing and I called in our public relations officer to start drafting a press release in the event the story ended up being leaked out to the press. Regardless, I planned to notify the family and law enforcement authorities, if we had not located the body by noon. This was not shaping up to be a good day.

Billy Singleton, Chairman of the Soaring Safety Foundation, has researched midair collisions involving gliders and believes that "collision avoidance will be one of the most compelling safety issues for the future of our sport." Between the years of 1981 and 1999 there were about thirty midair collisions involving gliders. Midairs are seldom survivable. Billy notes "as the national airspace system becomes more complex and the amount of airspace available for recreational aviation continues to decline, more and more aircraft will be squeezed into an increasingly limited area, further increasing the potential for midair collisions to occur." An AOPA Air Safety Foundation study showed that midairs take place on good VFR days when more pilots are out flying. A more sobering statistic is that "one-half of all midair collisions occur within the traffic pattern or on approach or departure from a non-tower airport." For those midairs occurring within the pattern, 80% happen on final. Aircraft in a pattern are squeezed into a small parcel of airspace at a time when the pilots' visual attention is diverted to the landing area or glider instruments. There is simply less time to scan for traffic, which increases the threat of a collision. This article will examine the "see and avoid" issue and stress the need for every pilot to improve or replace poor scanning habits.

About 12 years ago I was punching holes in the sky in a 1-26 over in Great Barrington, MA. It was one of those fun 1-26 days where you could climb straight up to 4,000 feet agl, push up wind away from the field as far as you dared, and then race back downwind to the airport. After a couple of hours of this I headed for the pattern. I flew a normal pattern until I turned on base leg. There out to my right less than 50 feet off my wing tip was another 1-26 turning on base leg. He was just a few feet lower than I was. I distinctly recall staring into his eyes in disbelief as he stared back with equal surprise. Time seemed to freeze as we both looked at each other trying to make sense of what we were seeing. The landing was uneventful as he took the grass and I took the hard surface. On the ground we talked with one another. Neither one of us knew of the other until we both turned onto base leg.

This is a somewhat mild, though potentially deadly, story to demonstrate a point. If two pilots couldn't see one another upon entering the pattern at such a close proximity, what about all those gliders and powered aircraft closing on a collision course a half a mile or less away? Talking with any pilot who has flown more than a couple hundred hours and you will hear stories that will make you swallow hard. Those involving powered aircraft are some of the scarier. As pilots we tend to downplay or dismiss the likelihood of midair collisions. It is a bit like cancer or close call car crashes. The results are too scary to dwell upon so we tend to dismiss or "compartmentalize" our fear as "this is something that will most likely happen to the other guy, and what can I really do about it." Besides, our big canopies give us great forward visibility and we all think we do a more than adequate job in scanning for traffic. After all, we haven't collided yet.

The reality within general aviation is that only 5% of midair collisions are head on. Statistically, if you are involved in midair, it is an 82% likelihood that one of the aircraft had overtaken the other aircraft at a converging angle. Of this 82% figure, you have a 35% likelihood your midair occurred because one of the aircraft was struck from directly behind. As glider pilots, we tend to be concerned about entering that crowded gaggle up ahead, or all those gliders hanging around the IP. Yes, these are times to be alert, but given the statistics, we need to spend much time looking sideways, above, below, and behind searching for a fast closing aircraft.

According to the AOPA study, midair collisions are equal opportunity killers. You can be 19 years old and on your first solo or a 15,000 hour airline pilot out for a spin in your Cessna 150. You can be a flight instructor on a training flight, a competition pilot out practicing, or you could be a "new guy" yet to stray more than a few miles from the field. In the AOPA "Profile of a Midair Collision" it succinctly states, "there is no way to say whether the inexperienced pilot or the older, more experienced pilot is most likely to be involved in an in-flight collision." The FAA has performed exhaustive studies. Over a five-year period in which there were 152 general aviation midair collisions with 377 deaths, the only correlation that could be drawn is that collisions occur in good weather during daylight hours.

The FAA advises that it takes a minimum of ten (10) seconds for a pilot to spot traffic, identify it, realize it is a collision threat, react, and the aircraft to respond to the control inputs. Ten seconds may be enough time for two gliders converging at 65 knots each and a half a mile away. If the other aircraft is a high horse power single engine racing through the skies down towards you and spotted 500 feet away, you will probably run out of time. Part of the problem is brain processing. Although about 80% of the information we absorb come from our eyes, our brain doesn't always assimilate the information. The NTSB has determined that if an object is identified by only one eye, the brain is more than likely not to process the information because the brain image is blurry. Our eyes receive light from a 200 degree arc, but to actually focus and identify an object, the arc is only 10-15 degrees. A 10-15 degree arc is a very narrow band. Though we can detect motion in our peripheral vision, we cannot identify the object with peripheral vision alone. If our brain cannot identify it, we may not process it. We need that 10-15 degree arc focused near the target. Another physical limitation is that it takes one or two seconds for our eyes to adjust from looking inside at the panel to looking outside at an object.

The solution is to develop a good and consistent scanning technique called the "block" method. It is based on aircraft detection through a series of slight head movements with the eyes becoming focused and fixated at different points in space. Divide the canopy laterally into 10 or more visual blocks. Start at the far left side, pause one to two seconds for your eyes to focus, and move to the next block or 15 degree arc. Once you have moved all the way to the right, scan your panel, then move back to the left block. Just moving your head is not enough. When the head is in motion, vision is blurred and the brain will not register targets. Again, you must fixate one to two seconds to detect an aircraft. Also consider cranking your neck far to the right looking down and then up, and doing the same for the left side as part of your scan technique.

That is really all there is to a good scanning technique. It makes little difference if you prefer to start from the right, middle, at the panel or behind. Establish a scan format that is comfortable for you and begin training your eyes to spot targets (other aircraft). The difficult part is getting rid of old scan habits and consistently utilizing the proper technique. If flying a two-place, don't forget to ask your passenger to help you spot traffic. Always clear for traffic before turning, and in straight flight take an S-turn every now and then to look in back of you and to show your wings to any surrounding traffic in your area. If flying near an airport, forget the glider chatter and tune your radio into the airport frequency. You will pick up very valuable clues to other aircraft in your vicinity that you may have missed during one of your scans.

We found him before 11 a.m. He was resting peacefully on a stretcher on the fourth floor. I won't go into all the details (that's another story). Regardless, there must have been easily 100 or so people that walked right by him, and never questioned or noticed his presence. That is the way it is with traffic. We fly blissfully through the skies often not paying attention or not seeing the cold reality of a potential deadly encounter. Who of us will admit that "see and avoid" is one of our highest priorities on each and every flight? Hopefully, next time when you are in your car and at a red light or stuck in traffic you will practice your scan technique. It does take practice and initially seems awkward. Changing habits is never a slam-dunk. If you do practice and adopt this as a part of your flying routine, I think you will be "unpleasantly" surprised at how many more aircraft you spot!

MITSA Duty Roster
October-December, 2000

Date	D.O.	Instructor	AM Tow	PM Tow
10/21	E.Frere	Krueger	Gammon	Easom
10/22	Gold	Watson	Hollister	Fletcher
10/28	Kwasnik	Wren	Pugh	Clark
10/29	Kaynor	Rosenberg	Poduje	Hollister
11/4	Looft	Baxa	Clark	Friedman
11/5	Loraditch	Bourgeois	Easom	Fletcher
11/11	MacMillan	Gaisford	Fletcher	Easom
11/12	Martineau	Rosenberg	Poduje	Pugh
11/18	Moysey	Krueger	Gammon	Hollister
11/19	Nelson	Johnson	Hollister	Pugh
11/25	Ruel	Watson	Pugh	Clark
11/26	Ozbas	Wren	Poduje	Friedman
12/2	Rossoni	Baxa	Clark	Fletcher
12/3	Nordmann	Bourgeois	Easom	Pugh
12/9	Timpson	Gaisford	Fletcher	Hollister
12/10	Tsillas	Johnson	Clark	Friedman
12/16	Vickery	Watson	Gammon	Clark
12/17	Watekaitis	Rosenberg	Hollister	Easom
12/23	Wong	Krueger	Pugh	Fletcher
12/24	Brine	Wren	Easom	Friedman
12/30	Bleiden	Baxa	Clark	Hollister
12/31		Bourgeois	Poduje	Pugh

Touching the clouds

Marissa Blieden

Marissa is the fifteen-year-old daughter of Ira Blieden, and she joined the club this summer. —Editor

Ever since I was two years old, I wanted to touch the clouds. For most, this would be an insanely impossible dream, but not for me. I'd like to continue this by saying I have magical powers. However, my story is about adventures almost as cool as magic. My story is about flying, and not turning into birds or something. I fly gliders.

Most gliders are small fiberglass airplanes, without engines but with long wings. They are pulled into the air by a regular small plane, and then, when the glider has become high enough, the pilot of the glider pulls the release to drop the rope. You fly around; it's like a race, trying to find the thermals, which hurl you up to the high altitudes, where the clouds are. Once you find a thermal you have to try to stay with it, turning and turning. On top of it all, you have to know the area. It's not enough to know how to fly. You have to know where to fly, so you don't get lost and you can return to your airport. You can't get too close to major cities or airports, because you will interfere with air traffic control. It is best to fly in rural areas, where you can land in the enormous fields if there is ever a problem.

Even though there are obstacles, glider-flying is the thrill of a lifetime. When you look down on the world, it looks like a topographic model or a very detailed picture. You can see each miniature car on the highway, the houses with the pools in the backyard, the school with the baseball diamond, the bright blue lakes, and the colorful forests in the autumn. When you look anywhere, except for down, you see the big, white, puffy clouds. Cumulus clouds are flat on the bottom and round and lumpy on the top. The cirrus clouds are thin, streaky, and almost nonexistent. You can see every little and big aspect of life in western Massachusetts. It is beautiful.

I've been going up in the gliders since before I can remember. I had to wait out the entire first two years of my life on the ground, before my dad would take me up. My dad belongs to a glider club, MITSA (MIT Soaring Association), and he owns his own glider, which is named UC (Uncle Charlie).

I've lived my whole life at the airport. In fourth grade, my cousins attacked me with branches, and made me drop my ice cream from the little "mom and pop" restaurant at the small airport in Sterling, Massachusetts. In sixth grade, I was riding on the back of a golf cart, which was used to pull the gliders around the fields, and as I was changing my position, the driver sped up. I flew off the golf cart, broke my arm, and earned myself an impressive cast, which for the next three weeks convinced everybody that I was crazy. Several times, I'd sit in the car reading a magazine, doing homework, snacking, and listening to my Discman while watching the small planes and gliders soar into the air. I've grown to know the other members of the club, wear the t-shirts, and join the members for dinner at Barber's Crossing. I grew to love life on the airport and in the air. Every time my dad woke me up and asked me if I'd like to go to the airport with him, I immediately would respond with, "Can I touch the clouds today?" and his response would always be, "We'll see." When I'd get to the airport, sometimes, I'd lie down and watch the clouds slowly creep over to the horizon, with more clouds to follow them. I'd watch the birds and the planes swim through the air, always trying to reach a destination that nobody knows. Up in the air they had all the freedom anybody could ever dream of. One could look in every direction possible, and see for miles and miles on end. One could fly anywhere, in any direction, and able to do anything, having total control and never any barriers to stop you.

On Columbus Day, I had plans to go to the airport with my dad and a family friend, Matt De Saro. That morning, around nine o'clock, my dad woke me up to tell me that it was too windy to go flying that day. He worked his way through my messy room, and I fell back asleep, tears welling up in my eyes, and an attitude much too sad for that sunny day. A little over an hour later I awoke again to my dad's voice. "Do you still want to go flying today? The wind died down. Hurry up, if we are fast we'll get there in time for both you and Matt to fly!" Immediately I jumped out of bed, and before I knew it, the fifty-minute car ride was over and I was at the airport again, home sweet home.

I watched as my dad and another club member inspected one of the two-seaters and got ready to bring it to the runway. I helped walk it over, and I patiently waited as they adjusted the seat pads. I leaped into the back seat of the cockpit, and attempted to fasten the complicated seat belt. It had taken me years to master the stiff and complex clasp, and as I grabbed the straps, I was vexed to notice that they had gotten new seat belts. I could have killed them for that. I stretched my feet out and realized that where, at one time, there had been plenty of room for my tiny feet, they now firmly pressed against the pedals on either side. I immediately got excited and told my dad that I was tall enough to really fly now. My dad got in the front seat of the cockpit, the canopies were closed, and the motor of the tow plane started to grumble. The glider started to roll forward and before I knew it we had floated up, a foot, three feet, three hundred feet, up and up. Suddenly, my dad told me "We're high enough to pull the release." I grabbed at the small yellow handle and the yellow rope dropped. We were free, no longer attached to the world. I peered down at the highways, lakes, schools, towns, neighborhoods, farms, and the rock quarry, which I now recognized from the air so well. My dad taught me one more thing important when flying: keep the horizon at the same level. We practiced some turns. I alone moved the stick to the right, and simultaneously pressed the right pedal. The stick controls the ailerons and the elevator, the pedals control the rudder. Then I slightly and slowly pulled the stick to the back and to the left to hold the plane in the turn. All at the same time I had to make sure I was keeping in line with the horizon. I kept on doing more turns. We were turning and turning, getting higher and higher. Most people would have gotten nauseous from this experience, but I was used to it.

It was beginning to get stuffy in the cockpit, so I stuck my hand out the little window to direct some air into the plane. After a few seconds of holding my cupped hand slightly out the window, it suddenly became cool and moist. I realized that the wetness in the air was a wisp of a cloud, which had gotten lost from the big ones. Suddenly, I felt I was up in the clouds myself, living with the "Carebears," or maybe some Greek gods. The world was mine. I had experienced the ultimate high, or should I say the ultimate height. I had touched the clouds.

Later that night, I announced to my parents, that in the spring I would begin flying lessons. I am fifteen now, and ready to start, since fourteen is the legal age to solo. I could escape from the world myself. Soon, I would be up in the clouds alone, the world would be mine, and mine alone. Now that I've touched the clouds, I have gone from being a child to an adult. I passed the first stage in my life, I reached my first goal, and as each new stage of my life approached me I know there will always be another cloud to touch.

ABOUT THE AUTHOR: My name is Marissa Blieden. I live in Lexington, Massachusetts and I am fifteen years old. In addition to flying gliders I like to sing, write lyrics, doodle, make candles, and make messenger bags, and handbags, out of duct tape. I would like to thank my parents for helping me with this essay, my English teacher, Mrs. Sutter, for helping me edit my essay, Matt De Saro a friend who also enjoys gliding, and all my friends for being cool. You can reach me through my dad at iblieden@aol.com.

Wing drop incidents

Andrew Watson

Recently we've had a small spate of wing-drop incidents in the single-seat Blanik L-33. In each case, the starboard (right) wing dropped quite late in the ground roll, as the glider was getting close to flying speed. When this happens, the dragging wingtip yaws the glider badly, and could slew it into (say) an inattentive forward signaler standing in the wrong place.

In the light this, it's worth reinforcing a few safety rules:

- If you are a forward signaler, act as though every launch could produce a ground loop by the glider. As soon as you know that the tow pilot has seen your "all out" signal (for example, when he throttles up), move quickly and directly away from the line of the launch. This may involve crossing either the asphalt or grass runways; however, since you did not (of course) allow a launch to start while any aircraft or gliders were about to land, this shouldn't be a problem, always provided you keep a good lookout.

- If you are the pilot of a glider being aerotowed, you should always be prepared for a wing drop during the ground roll. If a wing starts to go down then large, rapid correcting aileron inputs will be needed, because the control surfaces won't be very effective at low air speeds. If a wing hits the ground you should immediately release. If possible, have your left hand close to the cable release during the ground roll, just in case.

- If you are an L-33 pilot, be especially alert. This machine definitely likes to drop the starboard wing late in the ground roll, possibly when the rotating prop wash hits that wing and pushes it down. Light winds with little cross component seem to exacerbate the problem. Before flying the L-33, be sure that you meet the minimum requirements.

The club requirements for flying the single-seat gliders are:

- SGS 1-26: Complete the SSA "A" badge; at least 10 solo flights in MITSA trainers; and a 1-26 sign off from a MITSA instructor.

- SGS 1-34: Complete SSA "B & C" badges; 10 solo hours in gliders; at least 10 flights in the 1-26; and a 1-34 sign off from a MITSA instructor.

- SGS L-33: Complete SSA Bronze "C" badge; at least 10 flights in the 1-34; and an L-33 sign off from a MITSA instructor.

Remember: if a wing drops during the ground roll, release immediately.

New members

Mark Tuttle

Daud Sharif joined the club way back in May.

"Billowing clouds, against blue skies, coming up the side of the mountains; cars and lorries as small as Matchbox toys; these are my earliest memories of growing up in Murree, Pakistan. This hill station is at 6,000 feet and we lived high up on the side of a mountain. Looking out of the sun room gave one a bird's-eye view of the valley. Perhaps the idea of flying was germinated there.

"Later, aeromodeling became my hobby, and I found myself building balsa free-flight planes for months on end. I wanted to study aeronautical engineering but couldn't join the Pakistan Air Force to attend their college. I did hang around the Rawalpindi Flying Club. The club had one glider that used to be towed behind an ancient pickup.

"I studied electrical and electronics engineering instead, both in Pakistan and the United States. I worked in basic research and biomedical engineering for many years. I switched to software some years ago, and now I specialize in setting up software quality assurance groups in small companies in the electronic commerce and Internet domain.

"I started taking flying lessons about three years ago and have accumulated about 50 hours in Diamond Katanas. Once or twice I flew to Sterling and saw gliders on the ground and in the air and it put an instant smile on my face. Later, when a friend mentioned something about a gliding club, I looked it up on the web, and joined as soon as I could.

"There is a special joy in gliding, wings outstretched, sniffing for thermals. No traffic, no noise, just the sunshine and the wind. And not to forget, really friendly pilots. I am planning on doing a lot of gliding."

Ettore Pedretti joined on September 17.

"I am a graduate student and a pre-doctoral fellow at the Harvard-Smithsonian Center for Astrophysics. I mostly work in astronomical instrumentation, and I am doing part of my thesis work on the IOTA interferometer. Interferometry is a technique that permits us to obtain the same angular resolution (allowing us to see fine details in an astronomical image) with separate telescopes as we can get with a single, big telescope. This allow us to see details on the surface of stars other than the sun and, one day, even planets in other stellar systems.

"I'm a member of a gliding club (AVCASA) at Saint Auban, France. It is a very small club and people are very nice (as in MITSA). We have two gliders: a two-seat Marianne and single-seat Pegasus (some of you know this last glider very well).

"I've mostly glided on the Alps de Haute Provence, which is a spectacular site, a real paradise for the glider. I've mostly done long flights (that's why I'm so bad in take off, tow, and landing). It is normal over there to do four-hours flights (I think my shortest flight was one hour).

"Apart from being a student and a student pilot, I enjoy swimming, cycling, and Aikido."

Dave Nadler joined on September 30.

"I guess I'm kind of an old member! I started my training with MITSA back in 1974, a contemporary of Guppy Youngren, Todd Pattist, Mike Newman, Judah Milgram, John Cochrane, Ira Blieden, and many others whose names you might know or recognize. I'm seriously afflicted with flying, mostly gliders, but sometimes old powered crates, hang gliders, home-builts, and so on.

"I've got a share in the Duo Discus based at Sterling, and I still have my old whale, RHJ-8, but I haven't flown it since the Sports Nationals at Mifflin. I sold my LS-6B, and I've got a new Ventus IIcm 15/18 arriving in Baltimore tomorrow.

"Many know me from sailplane instrumentation. I'm the principal designer of the ILEC SN10 flight computer (used by the majority of the USA team at the last world championships; check out the SN10 in the Duo). I'm also a regular speaker at the annual SSA convention.

"I fly a lot of contests, and while I'm only occasionally near the top of the score sheet, I love going cross-country with the gang, and seeing not just who can go fastest but how much we can all learn. I'm a former winner of the Shapiro trophy (fastest pilot in New England), and the Giltner trophy (fastest daily speed at the USA 15-meter nationals). I've flown a handful of nationals in Australia, the BavariaGlide pre-world contest, and many, many USA nationals.

"Mostly, I really love to fly. I have pretty much only flown at contests for the past five to ten years, but I hope to start coming out on weekends or the odd soarable weekday when I can escape from my software consulting firm."

Mike Newman rejoined MITSA on September 30. Mike is an instructor and experienced competitor, and was immediately checked out by Phil Gaisford to serve as a club instructor. Help him assemble the Duo Discus, and he might offer you a ride!

"I've been flying sailplanes since I was a student at MIT in 1972. I learned to fly with MITSA and was soloed by a benefactor of the club, Joe Blucher. Over the years, my soaring has become focused on cross-country and competition as YG. In the early 1980s, I moved my flying to Sugarbush and still have a strong participation at that site. Folks can see more about me and my family at www.dragonnorth.com and will find a useful weather resource for their soaring at www.dragonnorth.com/weather."

Dave Robertson joined on October 14. David was checked out by Phil Gaisford, and immediately jumped into the L-33.

"I am a career naval officer undergoing training at Surface Warfare Officer's School in Newport, Rhode Island, until April 2001. I am married with two kids. My wife, Chris, daughter, Kristan, and son, David, remain in Chesapeake, Virginia. I am a member of the Tidewater Soaring Society near Hampton Roads, Virginia, and a a coowner of a Standard Jantar. My home town is Shelby, North Carolina. I enlisted in the Navy in 1983 and worked up through the ranks to Lieutenant, serving in a variety of locations, such as Guam, Philippines, Japan, California, Maryland, Virginia, and Florida. My most recent assignment was to the USS Briscoe, which drew national attention when it performed the burial-at-sea of John F. Kennedy, Jr. My next assignment will be to the USS Whidbey Island, which is a amphibious assault ship.

"My hobbies are soaring, golf, sailing, family, and reading nautical fiction. I graduated in 1994 from Virginia Tech (go Hokies!) with a bachelor's degree in mechanical engineering, with a major emphasis on both marine architecture and aerodynamics. My only other flight time is as naval air crew (in my enlisted days) with several thousand hours of boring holes in the sky around our cold war enemies as an electronic warfare operator.

"I heard about MITSA from the SSA site during a search for soaring sites near Newport, and determined it was the closest with a good fleet of aircraft. See you at the field!"

Oona Aldrich joined on September 30, and was Mike Newman's first student. Oona is a chicken-raising, motorbike-racing, fire fighter from Harvard, Massachusetts.

Pat Foley (no relation to former MITSA instructor Peter Foley) also joined the club on September 30. Pat holds a private single-engine airplane rating, flies gyrocopters, and is on the dive team for the Boston Fire Department.

Mansfield fly-in

Ian Clark

MITSA had a small display at the EAA fly-in at Mansfield on Saturday, September 23. The object of this display was to promote MITSA and to add some different aircraft to those on display. Unfortunately, MITSA aircraft did not win any prizes in the *concours d'elegance*, but they did create a lot of interest among the flying and non-flying attendees. Some of the attendees have had no previous exposure to airplanes without motors.

Late in the day, we put the PW-5 back in the trailer, only to realize we had quite an audience as we pulled the wings off an airplane, something we see at Sterling every weekend. A small round of applause as the impossible occurred: an airplane 13 meters wide fit into a box 1.5 meters wide. We then also had quite an audience to watch one aircraft take off (117BB) "tied" to another (the Citabria) and, after a short climb over the airport, disappear in the direction of Sterling.

While I cannot claim that new pilots will appear in droves, I think some of the misconceptions held by those people not involved in the sport were cleared up, and ice cream sales should go up at Plane Delights.

Thanks to John Wren and Peter Vickery for letting their glider collect more than a comfortable amount of sticky fingerprints. Thanks also to John, Peter, Joe Kwasnik, and Phil Gaisford for their support with logistics and other matters.

Cross-country in the L-23

Phil Rossoni

Instructor Andrew Watson also contributed to this article. Phil and Andrew won the Charles Stark Draper trophy last year for the "best flight in a MITSA glider" for this street-running flight last November 28 in 117BB. —Editor

It was late November, and several days of Indian summer had just been broken by a cold front. Add in bright sun and a strong 20-25 knot north-northwest wind at altitude, and some truly spectacular cloud streets had formed: four or five solid ribbons of cloud running from horizon to horizon against the background of a clear-blue sky. I was due for a check ride with Andrew Watson. I asked for some pointers on how best to use the weather situation that day. We got into the closest street and proceeded northwest under the line of clouds. Around five miles from Sterling, we met a gaggle of GBSC gliders which appeared to be thermaling. However, we continued northwest under the street, never circling, yet always in at least zero sink, and often climbing at two to four knots in straight flight. We pressed on upwind, making slow progress over the ground as our 45-knot airspeed was countered by 25-knot winds, but never having to stop and circle. As we passed Mount Wachusett, we reached the FAA-mandated 500-foot separation below the 5,000 foot cloud base, so to prevent gaining any more altitude, I began to fly at whatever speed was necessary to maintain zero sink, always bearing in mind the need for care if flying above maximum rough-air speed. At seventy knots, our increased sink exactly matched the continuous four-knot lift, and we began to make better progress over the ground, holding a constant 4,500 foot altitude as we pressed on upwind toward Gardner.

There were at least a dozen gliders running that street that day, so it was essential to watch for other traffic, especially as gliders coming downwind were hard to see as they approached head-on. We encountered Joe Kwasnik in the Russia sailplane around Gardner, Bill Brine in his LS-4, and a couple of other pilots who were probably surprised to see the Blanik so far from home. However, with the very strong winds, even if all the lift had disappeared we could still have run downwind to Sterling and arrived with a healthy safety margin, and we also had Gardner airport close by as a backup destination.

After 30 minutes, plugging into the headwind, we reached the Gardner VOR and decided to turn back. While it would have been fun to go even further, we'd proved our point, and others on the ground would want to fly the Blanik as well. What's more, we didn't have a sectional chart with us, and although Andrew was familiar with the terrain and airspace out as far as Gardner, he felt it would be foolhardy to venture any further from the field without a map.

We turned tail and ran swiftly back downwind under the street to Sterling, taking about seven minutes at a ground speed that must have approached 100 knots, and always mindful of upwind traffic. We reached Sterling still at 500 feet below cloud base and had to circle in the blue, sinking air between the streets with the air brakes open to work off height and land.

Although we'd set out to do a local check-flight, we'd ended up doing a 50K out-and-return cross-country in a Blanik. Gliding is always full of surprises.

After this spectacular cross-country to Gardner, I took wing in the 1-34, determined to put my new experience into practice. But the day was getting older, the lift was getting weaker, and the second flight was to turn out rather different from the first, only an hour before. The cloud street Andrew and I had found two miles south of the airfield had decayed, so I got a tow to 4,000 feet and headed for the next street five miles south of Sterling.

The only lift I found was some zero sink.

I was getting distracted looking for lift under the cloud street and wasn't paying attention to my distance from the airport, and the corresponding altitude I would need to get back. What's more, whereas before we had been mostly upwind of the field, with the wind to help us back, now I was five miles away crosswind, and would, in fact, pay a penalty in glide angle over the ground when fighting the crosswind to glide back.

The shock came when I turned back toward Sterling to find it had disappeared behind some terrain! I increased speed to best L/D and headed between Mount Wachusett and Wachusett Reservoir, noting fields to land in. I encountered occasional lift, but it was too weak to use. I was on my first final glide. I was unaccustomed to gliding towards an airport I could not see, and resisting the urge to pull back on the stick took concentration. In time, the airport appeared from under the trees, first the hangars, then the runway. I had arrived with 200 feet to spare (700 feet agl abeam the numbers) and I abbreviated the landing pattern accordingly.

I learned some valuable lessons that day. First, conditions can change quickly. The street I had tried to work in the 1-34 was almost dead, and was much further away from the field than the original one we had flown in the Blanik. It is important to evaluate the conditions continuously as you fly, and change your goals accordingly. Second, even when searching for lift, one should continuously monitor the distance to the nearest landing place, to make sure there is enough height in hand to reach it, taking into account the effects of headwinds or crosswinds. To help me do this, I've now marked up a sectional chart with circles centered on Sterling indicating distances to the field and corresponding safe altitudes. Of course, the safe altitude varies with the glider's best glide angle and the wind direction. If you don't know the best glide angle, a conservative assumption is that almost any glider can cover four nautical miles per thousand feet of altitude lost which this corresponds to a glide angle of about 25:1.