THE LEADING EDGE
The Newsletter of M.I.T. Soaring Association, Inc.
January 1995

Editor: Shaun Keller

Contents

MITSA Annual Meeting

by Mark Tuttle

ANNUAL MEETING IN FEBRUARY

MITSA holds an annual meeting to elect officers, give out awards, review the year, have a nice dinner and listen to an interesting speaker. The 1995 meeting is tentatively scheduled for Saturday, February 18, 1995 at the Dedham Community House from 6PM to 11PM. You will need to reserve a place for you and your guests and prepay for dinner. A final per person charge is not yet known, but is expected to be around $15.

1995 Election Nominations

NOMINATIONS NEEDED ASAP

Nominations for 1995 MITSA elections are needed immediately! There are two rules: 1. The person being nominated must agree to be nominated; 2. You must send nominations in before the end of January. Mail completed forms to Lee Marzke. The elected offices are:

- President
- Secretary/VP
- Treasurer
- Operations
- Membership
- Maintenance
- Logistics

New Wings

Congratulations!

Carole Roberts on her Private license!

Michael Welles on going solo!

New Duty Officer Policy

by MITSA BOD

MITSA is introducing a new Duty Officer policy effective Jan. 1, 1995. In order to create additional incentives for DO's to be more efficient (i.e. launch more gliders) the club will now award "frequent launch certificates" to DO's for each 30 launches under their direction. Each certificate will be worth $16, and can be used to offset any club related costs such as aerotows, memberships etc. In order to tabulate the launches, the log sheet must be postmarked and mailed to the Director of Operations within 7 days.

Late log sheets will not count toward a “frequent launch certificate.” After a DO has logged 30 or more flights, a certificate will be mailed to him/her by the Director of Operations.

Second, MITSA is introducing a new annual award for the “Best DO.” This award will take into account launch efficiency and qualitative feedback and votes from club members. Each newsletter will contain an up-to-date list of DO’s and the number of flights each has logged. Please contact the Director of Operations with any questions.

Thanks to Tow Pilots

by Lee Marzke, MITSA Chief Tow pilot

Please join me in thanking your MITSA tow pilots for another safe year of towing.

C-150 Tom Avery, Ian Clark, Adam Dershowitz, Bruce Easom Guenther Eichhorn, Peter Foley, Stephen Kazan, Lee Marzke, Wren McMains, and Noel Poduje.

Citabria Ian, Peter and Lee and especially 3B3 Inc. for the Citabria

1995 Region 1 Contest

by John Wren

The 1995 Region 1 soaring contest will be held at Springfield, VT. As usual, pilots from up and down the east coast will congregate at this site for some fantastic New England soaring. The contest will run from the 18th to the 24th of June. This year’s contest will be sponsored by individuals from several of the regions soaring clubs. The main sponsors are Nutmeg, MITSA, and Springfield. The contest manager is Jim Wright from Nutmeg and the contest director will be Bob Salvo of the Greater Boston club.

Gliding contests need many volunteers in order to function. In every contest you will have several highly experienced people running operations, but for the most part, the majority of the helpers are first time participants. The only qualifications are that you can give the time and have an interest in the sport.

So why should you volunteer? Well, there are many reasons. On the personal level, this is a chance to see the sport at a much higher level and to observe what is out there waiting for you if you choose to pursue it. On a broader scale it in an opportunity to help support the sport.

I will be in charge of three areas, weather, photo, and scoring. As I said, you do not need to have any experience in these areas, only an interest. Because of the planning that goes into this event it is important that you come forward now. It is important that these slots be filled soon! We do not want to go into the last weeks before the contest wondering if we will have enough people to support the contest.

So, please think this over and if you feel you would like to give it a try, contact me in the next few weeks.

Can anyone can lend a color laptop for scoring, etc?

John Wren
508-251-2878
Compuserve: 76467,3163
76467.3163@compuserve.com

A Saturday In November
A Flight of N531G on Nov. 26, 1994

by Mark Koepper

Not much happening at the field. A very small group of students milling around one Blanik which is going up and down. No private owners in sight. Everyone is bundled up and difficult to recognize. After preparing the trailer for rigging, I look around for a likely hand. This turns out to be a problem but I finally spot Guenther heading for the tie down area to get one of the club single seaters. He agrees to help me get the wings on my Dart.

On the way to the trailer some very strong wind gusts come up and give me doubt about the impending flight. Along with the mention of “fair weather cumulus” the TIBS recording had the forecast wind speed at 35 knots at 3000 ft and over 40 knots at 6000 ft. I was having thoughts of the altimeter unwinding while I try to penetrate to the next cloud.

As I complete my assembly and pre-flight inspection I see the Blanik upwind under a very nice looking street. My pulse quickens as the trainer is getting smaller very quickly. I’m ready to go to the line but apparently Guenther has given up on flying a glider. Either that or someone else is taxiing his Pitts toward the 34 threshold. It takes some time and quite a bit of walking to find the second golf cart which is missing. Ken MacDowell volunteers to drive it while I walk the wing down to the line.

Things go very quickly after arriving at the line. The tow is very rough and I’m glad for the five point harness newly installed this spring. I can really tighten down the shoulder straps without the lap belt being pulled up. Approaching 2000 ft AGL I hit quite a bump and the vario surges. Immediately after pulling the release I regret it. I am right between two cloud streets and all I can find are tiny scraps of broken lift which I’m unable to center and climb in. Between the occasional tremendous bursts on the vario is steady vicious sink. After wasting 300 ft trying to work unworkable lift and drifting downwind, I head Northwest for the clouds. I’m falling out of the sky like a rock

I’m 90% sure I could have made the clouds and 90% sure that if I had got there I could have climbed away. The alternative was landing off field and I quickly decided I’d rather land and take a relight. I tried to take a different route back into the pattern because I had been in sink almost the entire time since release. On the way back the sink got worse. I arrived over the nursery very quickly and very low. Just short of committing to a downwind landing—no fun in 15 kt + wind—I hit some more turbulent bursts of up. I now had it made for a right hand pattern using the last third of runway. Then some more broken lift and I was in position to cross the runway and fly a "normal" circuit.

On the ground I consider my decisions. Poor choice of release locations. Did not act promptly enough after release to find lift. Left decision to land until too late in these conditions. However, foolishness has its degrees. I could be in a field right now with no crew, or worse. All I've lost is a little time and 16 bucks. I remind myself to make sure I've gained some wisdom.

As luck would have it and usually does, I'm sitting back at the line while the tow plane refuels. This seems to take hours and I'm getting some friendly questions like "what no lift?" I just smile and look skyward. The Blanik is again climbing like a rocket.

Having learned from the first tow I direct the tow pilot well upwind under a great looking street. For good measure I hang on until 2500 ft AGL. Lift is broken after release and I head upwind along the street. Sink, fly faster—more sink, fly faster—unbelievable sink—fly rough air redline. Boom! I get the big kick in the pants I've been waiting for. The vario pegs up and stays there. As I pull up and wrap into a tight turn all of the frustrations of the day disappear.

Cloud base is about 5500 ft MSL. Lift is very strong right up to base. A few miles upwind the snow starts. First a few flakes then ahead great murky clouds of snow which is suspended in the air, not reaching the ground.

Another parallel street looks good a few miles to my left and no snow under that one. I hop over with no problem and continue to run upwind. A calculation would indicate I'm well within final glide of Sterling. However my earlier experience tells me that getting low and losing contact with these streets may put me on the ground very quickly. Knowing that I could get a tow out of Tanner-Hiller gives me confidence to push ahead through bits of sink and fly the speeds necessary to make headway. I only circle if I can keep the vario pegged and even then I drift back a lot while circling. I pass Tanner-Hiller on my left and the street is really looking good ahead.

Just as I come to the edge of the Quabbin the clouds peter out. Diving out from under the last one I see more clouds way ahead across the reservoir. OK, time to go home. I turn around and start covering ground at an astonishing rate. The gaps in the street hardly cost me any altitude now. I have not circled at all since turning around and now I'm slowing down in the sink to stay below cloud base.

About 2/3 of the way back I hit more snow. First a few streaks as I get close to cloud base then more murky indefinite curtains under the cloud. Already at rough air redline I open the spoilers. A few seconds later and things brighten up a bit and I bring in the boards and slow up. Back at cloud base in no time and screaming over the ground. Another snow encounter or two and I'm over Route 190.

At this point I was well over 5000 ft and about half way between Worcester and Sterling. It would normally cost about 1000 ft to get from there into the circuit at Sterling. Leaving the street the vario went directly down and stayed there. I arrived at the North end of runway 34 with a little over 2000 ft on the altimeter (1500 AGL).

Crossing the runway I run through my landing checks planning to turn around and enter a cross wind pattern leg. Undercarriage down and locked, speed on this rough trip will be 60–65 mph, trim set, airbrakes. . . I try to crack open the airbrakes as my usual check. The handle does not budge!

I'm just abut over my usual IP at about 1300 ft AGL. Some of the bumps I've hit may be workable and I hope to climb and have more time to sort this out. Trying to thermal in this turbulence and not drift away while tugging on the airbrake handle gives me a stressful few minutes. I climb and sink, drift and regain ground while just on the verge of committing to a no airbrake landing.

With a sudden lurch the spoilers open all the way. This gives an exciting moment as I'm already fighting to maintain airspeed in a downward gust at that second. On the ground there is really no ice to be seen on the spoiler caps although they feel a little rough. It may have been wing flexing in the turbulence which allowed my tugging to finally pop them loose.

Marc Evans provides a welcome sight as he pulls up in a car. I climb in and warm up for a few minutes before putting the Dart in the trailer. It has been quite a Saturday in November.

Solo, Another Beginning

by Michael Welles

On 11/27/94 I soloed with a year and a quarter of MITSA's help. It was great and it's not over yet—there is so much more to learn and accomplish.

When I took my first few flights last fall, I knew there was a lot to learn. Each flight I picked up something new and the positive feedback from my instructors helped to fuel my enthusiasm. The winter layover (a long one last year) served to rust that initial learning. In the spring I soon enough loosened up the mental joints and continued to learn, but the back seat became increasingly vocal. During that time I had a really invigorating flight with Bruce Easom in the Memorial Day competition; we managed a 2.5 hour flight. The lesson that day was—make sure you're comfortable in the seat, because if you are blessed with lift, your butt may suffer.

By mid to late summer I vividly recall feeling I was unlearning skills and in fact regressing. I knew I was regressing because the volume of criticism from the back seat had increased beyond that just a few months before. You know, things like—"come on, get coordinated," or "watch your air speed," or "gee, almost forgot to flare, huh." At the same time, we started trying more things and I was vaguely aware that Kerry, Peter, and others were starting to make me take on more responsibility for deciding what I was doing in a given flight. Then there was planning my pattern—"am I to high, am I too low, too far down wind, trying to crowd my down wind and base legs, does it Look About Right (I don't know), etc. etc. etc." (yes to all).

Then this fall John Wren turned to me one Sunday afternoon and said, "I think it is time we get serious about getting you solo"—(to which I thought) "oh s_t". So John and I started flying together and the conversation from the back seat changed yet again. Now it became—"so have you done many spins? Show me! Have you done spiral dives? Well here we go, etc." Only at this point did I start getting the inkling that I might actually someday know enough to feel like I could solo one of these rigs; but I wasn't ready yet.

Finally the talk from the back seat turned more conversational (e.g., let's see if Welles can listen, think and fly at the same time). I managed to but not without the yaw string wandering all over hell's half acre in the process. The fun continued with John putting me and the glider in odd attitudes and locations and then saying—"you have control." Finally came the simulated rope breaks—what a way to rack up tow bills. I found this incredibly valuable training since it proved to me the real latitude and choices you have in getting yourself out of certain sticky situations if you stay alert and use your wits.

On November 26th, I arrived at the field to fly and found Derek thrusting a paper exam at me. "Good thing I've been reading Knauff's book lately", I thought. I apparently passed Derek's written exam and learned an important point about the stall speed chart in the Blanik manual. We then proceeded to fly. On the first flight, Derek asked me to tell him what my emergency options were every few seconds. Funny thing, as soon as I said "return to field" we magically released. Fortunately the 250' release wasn't as scary as I had feared and Derek was even mildly complimentary—hmm, that's different, I thought.

We hooked up for a second flight and Derek proceeded to ask me to do several stalls, tried to trick me by raising the undercarriage (good design that the front cockpit handle bashes you in the leg), and I followed up with a straight forward approach and landing. At that point, I was thinking to myself—"I do know how to do this stuff, but I'm not sure I'm ready yet." So we retrieved 118BB to runway 17 and I proceeded to strap myself in for the flight (#3, I presumed, since the first flight was rather short). Of course, I immediately began wondering why Derek was spending so much time in the rear cockpit with his feet on the ground—new technique maybe? Needless to say, this was it, he said!

Carole Roberts and Steve Moysey gave me winks and smiles while my own face was frozen in—concentration—I think? CB-SIT-CB. OK. Then there I was rolling down the runway. My first thought was—yes—mild panic. But then I realized that—hey—I knew how to do this. And wow, without an instructor in the rear, you are airborne all that much faster. OK, 200 feet—say it out loud. Before I knew it I was at 2000 AGL and I released. Now I was the boss—no back seat driving. But my instructors were all there. "Look for the end of the rope, come on—do a nice clearing turn, OK—sniff out some lift." But what a great feeling to have the sky to yourself. A few minutes later I decided it was time to set up for my landing. Again, my instructors were there reminding me to "keep my eye out for traffic, U-STALL, give yourself room, come on—lets see some nice 90 deg turns." As I flared, I finally achieved that feeling of just the right stick back pressure while the airspeed bled off 118BB and the wings decided to yield their lift back to the earth.

"WOW—that was GREAT." All I could think was, "WOW." In fact, all I could think for the next week was "WOW." I took a second flight later that day and managed a 27 minute flight after a 2000 AGL release. You know, with a little less weight in the rear seat, you *can* fly slower. Again, the euphoria of working my small thermal for 600 feet on this calm and quiet day was unbeatable. I will never forget these flights—ever. Thank you Carole, Steve, Derek, John, Kerry, Peter, Mark, and the rest of MITSA for November 27, 1994.

Increasing Participation

by Shaun Keller

Despite a large supply of every resource needed for soaring (including instructors and tow pilots), there have been quite a few days when very few people showed up to fly. An active club is a better club! I don't claim to have the secret to filling every available flight, but I'd like to get everyone thinking about it.

When I was club president, I did a simple calculation to see what effect adding just 5 people to the membership would have on finances and total flights. I concluded that getting new members should be a top priority. New student pilots take lots of flights! My wife and I took 1/9th of all MITSA flights during our first full year as students! Suggested action: increase recruiting and promotion.

Many of us don't fly as often as we should to remain well practiced. Sure, work and family demands often take precedence, but I'm also sure there are pilots, like myself, who occasionally pass up a good day when they could be having a great flight. A skipped day doesn't seem like much at the time, but the log book tells a different story at the end of the year. Suggested action: set a goal for hours flown and try to reach the goal as early in the year as possible.

Having a child (now two children) makes it nearly impossible to spend the entire day without placing a huge responsibility on my wife (who would also like to fly). This conflicts with MITSA's preference that members spend an entire day at the airport to help with the operation. Question: Is the club's policy in tune with each member's ability to participate?

Over the years that I've been in MITSA, I've heard lots of schemes for increasing participation. No simple solutions have been discovered. Clearly, increasing participation is something that benefits from lots of individual contributions and different actions.

Dick Johnson Tests Let L-33

by Dick Johnson

The following was posted to a USENET discussion group by Bob Gibbons (Bob.Gibbons@dseg.ti.com) on behalf of Dick Johnson and forwarded to me by Al Gold—Editor

During the month of November 1994, Dick Johnson tested the Let L-33 "SOLO" single place aircraft.

Summary:

Manufacturer: Let
Model: L-33 Solo N494SW
Test Weight: 665 lbs
Wing Loading: 5.64 lb/ft2

Max L/D: 31 @ 46 kts
Min Sink: 135 fpm @ 38 kts

Polar

Speed (kts)	Sink (fpm)
40	138
50	163
60	245
70	325
80	450
90	630

Note that Dick did sand down the rather large paint ridges (~1mm) on the factory delivered "sunburst" paint pattern applied to this ship.

All airspeeds are calibrated. The L-33 exhibited a large airspeed error, apparently due to protuberances around the aft fuselage static ports. The static ports were located at the tip of 1.5mm high "pips." The result is static errors that generate indicated airspeeds showing too fast at all airspeeds. The amount is shown in the table below, but, for example, at 60 knots indicated the ship is actually doing only just under 56 kts. When Dick used a cardboard faring to smooth in the "pip," the airspeed errors were largely eliminated (<1kt), confirming that this "pip" is the source of the airspeed errors.

Indicate Airspeed (kts)	Correction (kts)
40	-1.7
50	-2.9
60	-3.8
70	-4.5
80	-5.1
90	-5.6

Comments on the handling of the ship were very positive, with the exception of the note of minimal stall warning.

MITSA People

submitted by various club members

Bob DeSaro

Ira Blieden reports that his family got together with the DeSaro clan (Bob being a former MITSA President and Instructor). All is well but even though Bob is only 20 minutes from a soaring club, he has yet to join. He wants to get the MITSA newsletter and says hello to all his friends.

Dick Gould

During Thanksgiving weekend, the Blieden family spent a day at the Museum of Natural History in NY City. While looking at a display of "Pacific Island Cultures," I (Ira) noticed a photo and the credits were from Dick Gould, a former MITSA member. Going back over the exhibit, I found about 6 photos of Dick Gould nestled among works from others like Margaret Mead.

Oliver Summa

I am leaving the country (for good as it seems at the moment).

I would like to thank you for the good times I had at Sterling, for all the rides and the company!

I enjoyed the weekends and the flying very much... unfortunately, I was very busy finishing my work, so I couldn't afford to stay whole days out there. But at least I got started with flying. As soon I found a job and got settled a bit I will try to continue soaring in Germany.

Eventually, I am sure, that I will show up again in Sterling! I hope, mail to the MITSA e-mail list will work, because I don't have the addresses of everybody I wanted to mail.

PS: Congratulations, Carole!

Contact Mark Tuttle for Oliver's new address.—Editor

News Briefs

1-26 and L-33 on Non-Flight Status

Mark Tuttle reports that the 1-26 and L-33 are off flight insurance and placed on ground storage-only insurance as of 19 December 1994 and lasting for 90 days.

> FWIW, this decision was made at the last board meeting. Speaking for myself, my reasons for thinking this is a good idea are that it will save us about $300 of insurance premium during a period when the club is traditionally low on cash, the good soaring season is over, and there is a reasonable chance weather will keep us from flying much in the next 90 days (that is, assuming the last two disastrous winters have any predictive value for this winter).—Mark Tuttle

Check Tie Downs

Please double check every time you tie down a glider that it is tied down securely. Ropes have been found not properly tied causing the glider to rock with the wind.

Missing Log Sheets

Terry Wong reported the following DO log sheets missing as of 21 December 1994:

Sept. all except 9/11
Oct 2 (Urbahn)
Oct. 8 (Evans)
Oct. 10 (Welles)
Oct 22 (Penny)

If you haven't sent in your DO log sheet for these days, please do it ASAP.

Spring Schedule

Spring Schedule (Jan.–Mar. 1995)

Date	DO	Instructor	Tow Pilot
Jan. 7	Harmen	Foley	Eichhorn
Jan. 8	Dore	Sherlock	Avery
Jan. 14	Evans	Wren	Poduje
Jan. 15	Gold	MacJarrett	Kazan
Jan. 21	Roberts	Foley	Dershowitz
Jan. 22	Kurz	Sherlock	Clark
Jan. 28	Hossfield	Richards	Marzke
Jan. 29	Kucan	Rosenberg	Foley
Feb. 4	Wong	Markze	Easom
Feb. 5	Loraditch	Bourgeois	McMains
Feb. 11	Rudomin	Richards	Dershowitz
Feb. 12	Urbahn	Sherlock	Clark
Feb. 18	Harmen	Bourgeois	Easom
Feb. 19	Dore	Rosenberg	Kazan
Feb. 25	Evans	Markze	McMains
Feb. 26	Wong	Sherlock	Poduje
Mar. 4	Hossfield	Richards	Eichhorn
Mar. 5	Welles	Rosenberg	Dershowitz
Mar. 11	Roberts	Bourgeois	Clark
Mar. 12	Gold	Sherlock	Easom
Mar. 18	Loraditch	Richards	Kazan
Mar. 19	Welles	Rosenberg	McMains
Mar. 25	Rudomin	Markze	Poduje
Mar. 26	Urbahn	Bourgeois	Eichhorn

Bermuda High Soaring Wave Camp

MITSA received a brochure from Bermuda High Soaring in Burke County, North Carolina about a wave camp they will be running from March 21 through March 28.

Internet Aircraft Shopping

Aircraft Shopper Online is a WWW classified section for the selling of aircraft. http://www.sonic.net/aso

PW-5 Update

The new world class glider called the PW-5 is taking longer than hoped to go into volume production. The glider has received favorable performance and handling reports, but only bad news has arrived from the Polish factory that designed the plane and is responsible for first production. Other potential producers of the sailplane are still trying to arrange production licenses and technology transfers.

Anyone wishing to obtain the latest information on the PW-5 should contact David Habercom (PA117518@UTKVM1.UTK.EDU) (phone 615-974-5045) who is running the World Class Soaring Association and will be publishing a newsletter.

Wanted

Citabria Partners

Happy New Year!

To try to stay co-ordinated as winter slows club activity, I've been getting instruction in Cubs in Hampton, NH. After looking at the economics, a 3–5 person partnership in a fun, limited aerobatic, plane looks attractive. It would cost about $36–48/hour total operating cost (assuming 100 hrs of use per partner per year) with a $3–5,000 up front capital investment depending on the number of partners.

Anyone interested in a share of a Citabria 7KCAB (150HP, injected with inverted systems)? I'd love to base it at Beverly, but Minuteman, Hampton or Sterling look fine too. A written partnership agreement covering all key issues is necessary. Any comments or advise on this scheme? I am open to discussing alternative ships and locations. Thanks!

Regards - Steve Sovis

Enclosed Trailers Wanted

Mark Tuttle was contacted by a man looking to buy two enclosed trailers for 15 meter gliders for his glider club in Florida.

Karl Hjertberg
B and R
1121 Louis Ave
Sarasota, FL 34237

B and R is a company founded by two Swedes that used to build boats and is now building "a glider and high-tech airplanes," and the employees of the company have formed a glider club in Arcadia, FL.

A Word from the Editor

Thanks to the many club members who contributed articles over the past year. You made it easy to produce interesting newsletters!

Photo Credits

All photos by John Flynn. This is just to tease you. The next newsletter will discuss his sailplane project!