



Official Newsletter of the Southern Ontario Glider Group Inc

TASK



A Model Aeronautics Association of Canada Chartered Club

OFFICIAL NEWSLETTER - Jan 1995
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Editorial



Many of you will agree that there simply is not enough time in life to complete all of the aircraft projects on your list. R/C aircraft modeling can be a time-consuming hobby. Add several other interests like N scale model railroads, computers, electronics, and half a dozen musical instruments and you begin to get a picture of my life. On a more casual basis, I enjoy hiking, kiting and pubbing. I was concerned about having the time to do a good job as editor. In his own gentle and persuasive manor, Fred began to talk me up well before the elections this year and I knew deep inside that the time was here whether or not I was ready.

While there is much to learn and do, the job does have it's advantages. First, I have the opportunity to thank you all for the help and advise which made my entry into R/C soaring an exciting and safe one. I can also go on about my new friends who have invited me into their homes to share their hobby space. The editor participates in most articles submitted to the news letter and learns from this experience. He may even get the jump on the buy/sell items! (Nasty thought).

My first year of R/C gliding has been wondrous. There has been so much to take in that 1994 simply FLEW by. R/C aircraft modeling exhibits some unique attributes. For example the world of R/C aircraft modeling is governed by Murphy's Law. This single fact accounts for most of my more memorable incidents on the field. I have also noticed as my hair goes uncut and my weekend beard lasts a few more hours, I begin to take on an Einsteinian appearance as I emerge from the shop with my latest work.

As an air cadet, I built control line models and static displays. I even got to go for a ride in a glider! The method of launch was by winch. Man it was scary! As we rocketed upward at 25,000 miles per hour, the 0-G force made me feel like I would go through the canopy. Upon release, we leveled out for the ride of a lifetime. I will never forget the experience.. the wind whispering by as we floated gracefully across the landscape... the suspense of the landing. I developed an admiration for the skill of the pilot.

R/C modeling just seemed like something out of reach for most of my life until I witnessed my first R/C glider flight. It was like awakening after a long dream. It took no time at all to find a starter kit. The SPECTRA was a good choice and still flies today ! Another important step was finding the S.O.G.G.I.. Without the guidance and encouragement that I have received, I may have ended up like so many other false starters. My advice to anyone interested in silent flight is "JOIN THE CLUB."

I must rely on the more experienced members of the club for construction and flying tips to include in the news letter. Don't be surprised if I chase you around for contributions. We newcomers really do need all of the guidance that experienced members have to give. What better medium than the news letter?

I hope that as editor, I can contribute in some small way to the growth of the club. For this opportunity, I have to say... "Thanks Fred!"

Mike Penney

Announcements...

As you read the minutes from the December meeting, you will notice the new executive line-up. While we enjoy the support of the club and the work that goes with it, we can only be successful with your feed back. Please don't hesitate to have your say. !

Three cheers for the splendid work done by last year's executive. We have all enjoyed the fruits of their labor and for this they deserve our heart felt THANKS!

It was suggested at the last meeting that we refrain from driving onto the flying field in the winter and early spring to avoid ruts. Thank you for your cooperation. (ED)

Get your snazziest ships ready for the Dundas Hobby-Fest on April 22/95 We have booked a table for this enjoyable event and need planes (gliders and electrics). We would also like to use your best video footage. More details at the next meeting..



Minutes



Minutes of S.O.G.G.I. meeting held December 11, 1994:

Meeting called to order at 1-30 P.M. with 17 members present.

President called for a treasurer's report. Bud Wallace reported that we have around \$1600 in the bank but that the field fees for 1995 had not been paid as of this date.

Fred Freeman said that all positions on the executive are open for election. He then called for nominations as follows:

For president nominated:
Bud Wallace, Bill Woodward, Kirk Fritz

All but Bud Wallace declined
->Bud now president.

For Vice President nominated:
Kirk Fritz, Peter Ashton, Stan Shaw,
Al Hilborn, Bill Woodward

All declined except Stan Shaw and Al Hilborn
->Al Hilborn elected.

For Treasurer nominated:
Stan Shaw, Gerald Fritz, Cy Dyr,
Don Guthrie.

->Don Guthrie elected

For Secretary nominated:
Stan Shaw

->Stan elected.

For Editor nominated:
Mike Penny

->Mike elected.

The new executive took over.

A discussion was held with regards to the meeting dates for 1995. They are Jan 8, Feb 12, March 12, and April 9.

It was also decided that the meetings would start at 2 P.M. in place of the present 1.30.

A discussion took place as to contest dates for next season. The dates are tentatively.

May 21 Club Day (Otto Badman)
June 3/4 Electric fun fly
June 11 Vintage and/or Scale
Aug 13 Novathon
Sept 3 Big Bird and others.

The nationals will be held in Barrie this year and the glider/sailplane contests will be held around July 25. We thought our club could be well represented in scale if it is on the agenda.

The meeting was closed at 2:10 P.M.

A draw was held for a model kit. Won by Bud Wallace.



Minutes



Minutes of S.O.G.G.I. meeting held JAN 8 /1995

- Called to order 2:10 pm
14 members and 1 guest present

- Minutes of December 12 / 1994 meeting were read and passed

Presidents Report

Bud Wallace welcomed all members present. He reported that arrangements had been made for payment of field and M.A.A.C. insurance dues. The owner of the field pointed out that members can use the field but no one is allowed to drive on it during the winter and early spring. The master lock may be used to limit access until suitable conditions exist. It was pointed out that retired and "working" retired members were getting their flying fix due to favorable weather.

Bud challenged the club to seek new members. A goal of 50 members would compensate for yearly attrition. Chris McHugh described his experience attracting parents and kids at the local park with his hand toss gliders. He found it more difficult to get names and numbers of interested parties for follow up. Mike Penney suggested that we participate in the Dundas Hobby-Fest on April 22. He offered to pursue the matter and return with details.
(Mike inquired and booked space for the event (Ed.))

Bud moved that a SWAP SHOP be scheduled for the February 12 meeting. (approved in principal). Bud also suggested that the March 12 meeting be used to check frequencies with the MAAC spectrum analyzer. (approved without a motion). Mike Penney asked that we update the frequency listing at that point. Please notify him if you have any changes or additions to your frequencies.

NEW BUSINESS

Kieth Armstrong suggested that the club support a one design model for this year, specifically a hand launch type. Some discussion followed about the success of the

previous ALGEBRA project. Moved by Kieth Armstrong and seconded by Stan Shaw that the club (BUD) obtains 20 TOSSETTE plans for the next meeting. (CARRIED).

Stan Shaw talked about the game of GLIDER GOLF. He described how blankets are used as greens with one or two launches required to reach the greens. The pilot with the fewest launches will win the game. The group showed interest and it was suggested that Thanksgiving would be an appropriate time to organize a game if enough hand launch models were prepared by that time.

Moved by Keith Armstrong that the meeting be adjourned. (Passed).

A draw was held for the Sophisticated Lady.

SHOW AND TELL

Jack Linghorne presented a 30" sport model powered by a speed 40 motor using seven 500 ma cells. The model weighs 19 oz and is covered in LITE SPAN. He suggested that painting the wing rather than covering it would save almost an ounce in weight. It looked like a lively model with rudder and elevator controls. Jack also showed a partial wing designed for this plane which will have ailerons for more aerobatic flying.

ElectroSpeak

by Rob Campbell

Vencon Technologies ULTIMATE BATTERY ANALYZER

You may have noticed advertisements in Model Aviation Canada and, more recently, major US-based publications, for the Vencon Technologies Ultimate Battery Analyzer (UBA). This unit is basically a versatile battery cyclers/tester controlled by software running on an IBM PC or compatible. The UBA is connected by a cable through one of the computer's serial ports.

A major advantage of this approach over standalone cyclers such as the popular ACE DIGIPACE is that the capabilities of the unit are not limited by built-in hardware. The unit receives instructions from the software running on the PC to perform operations that would be expensive to duplicate using a standalone unit. The software supplied with the UBA provides many more options for charging and discharging batteries than the garden-variety cyclers. Further, the capabilities of the unit can be enhanced with future software upgrades. (For example, the next version of software expected in September '94 will add new test routines and allow the UBA to charge gel-cells.)

The UBA used to be available in a single channel version, the UBAI, and a dual channel version, the UBAA. A new UBA dubbed the UBAAIII has been available since June '94. The UBAAIII has more built-in capability than the previous models. Since it is the UBA's versatility that is of primary interest, I will not describe the operation of the unit in detail.

Within the operating ranges of the UBA, you can set the UBA to perform discharging at preset or user-defined currents and at preset or user-defined cutoff voltages. You can also select the type of charge cycle (charge with trickle, charge without trickle, no charge at all), set charging time and set standard and trickle charging current. This means you are not limited to testing of just a few battery capacities and voltages. Any commonly available NiCds can be tested at will. For example, on multi-channel UBAs you are not limited to testing a transmitter and receiver pack - you can simultaneously cycle two 4-cell batteries if you wish.

Another major advantage of the UBAAIII is its ability to record and chart the charge and discharge curves for battery packs. This can yield useful information about the health of your battery packs - a bad cell, for example. Files are created on your computer that you can refer to any time. You always know where your battery test results are!

Not only does the software graph the test results, but the results can be displayed as a graph on the computer screen and printed on any standard printer. The raw test data can also be exported to any standard spreadsheet program for manipulation and charting as you see fit.

Though primarily intended for the common R/C systems market (Transmitter/Receiver batteries) the UBAs versatility makes it suitable for other applications. The more I learned about the UBAAIII, the more it appeared it could be a very useful tool for electric modelers - especially if the range of voltages and currents could somehow be expanded. To find out if this was possible, I made a call to Marc Venis, Vice President of Engineering at Vencon Technologies. Marc sounded very knowledgeable about NiCd batteries. In fact, he has written two articles that appeared in the April and August issues of Model Aviation Canada. Part 1 introduced readers to NiCd battery care. Part 2 concentrated on various charging methods.

Marc was more than willing to answer all my questions and to try to meet my requirements. In these days of take-it-or-leave-it standardization, I must say that this was a pleasant surprise!

By going to a 10-bit A/D converter from the standard 8-bit, removing the reverse-polarity protection diode on channel one, greatly increasing the voltage range on channel two, and providing a modified calibration file, a very versatile battery analyzer capable of testing just about any NiCd battery I could imagine was devised. Marc also identified external circuitry I could add to the UBAAIII to increase the current at which batteries with many cells (up to 40) could be discharged. The cost of the customising seemed quite reasonable, so shortly thereafter Vencon Technologies received an order for this specially-configured UBAAIII!

I have now spent many hours with the UBAAIII, and I can say that a lot of thought has gone into the design of the unit. The features built-into the hardware and software is indicative of a real desire to incorporate as much useability into the UBA as possible. It only takes a little experimentation to get comfortable with the software. The unit even tries to guess how many cells there are in each battery pack!

Another slick feature is the Voltmeter mode. This gives you a readout of the battery voltage on each channel and allows you to independently load each battery with 100mA. This is much like the function of the expanded-scale voltmeters available for testing receiver and transmitter packs at the field.

When not connected to a computer, buttons on the rear of the UBA allow the user to perform some battery charging functions. Since the unit utilizes a separate AC to DC power supply, it can also be connected to a 12V battery for field charging with some reduction in the number of cells (from about 10 to 8) that can be charged. Mechanically, the UBAlII is robust, being fabricated from sheet aluminum which doubles as a heat sink for heat-generating components within.

Inside, no shortcuts have been taken. All circuitry is neatly mounted on a proper double-sided printed wiring board.

A serial cable, external "plug-in" power supply and two connectors for battery cables ship with the unit. The Owner's Manual gets you up and running quickly.

A fan kit is available that increases the power the unit can dissipate during discharge to 15W from the standard 10W (power is voltage times current so this increases the number of cells that can be discharged at the higher current settings). Special voltage ranges are available for a nominal fee.

With all this capability, the Canadian price for the UBA III is comparable to that of the DIGIPACE II, making it very strong competition indeed! Admittedly, you also need a computer to run it, but most households today probably already have a personal computer - why not use it to help

maintain your radio equipment and motor batteries and to help preserve your R/C models?

Some of the Standard operating characteristics for the UBAlII include:

Battery Voltage:	up to 15V (1 - 10 NiCd cells in series)
Battery Capacity:	10mA to 40Ah
Current Load per Channel:	1A - limited to 10W Power Dissipation
Charging Rate:	10mA to 250mA

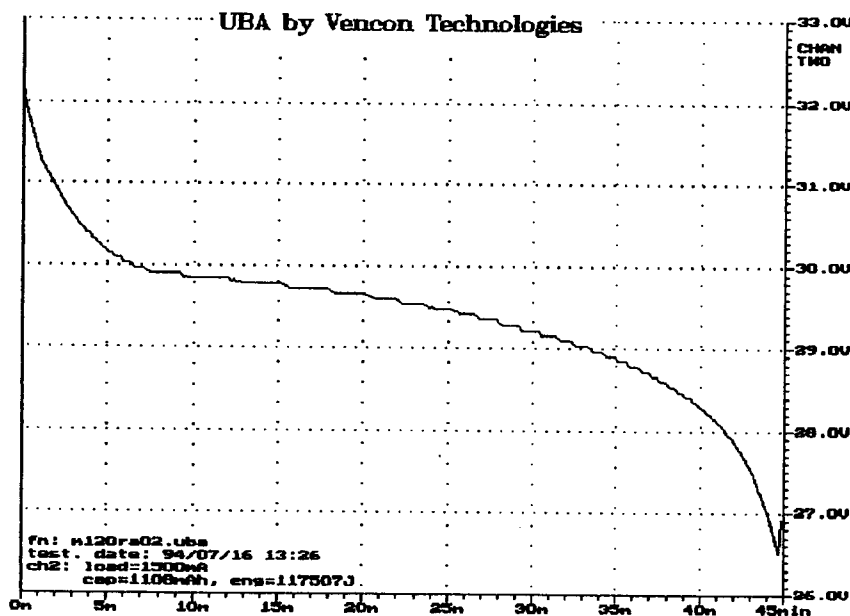
Making the UBAlII into A Motor Battery Tester:

Out of the box, a standard UBAlII can be used to test motor batteries of any capacity and number of cells from 1 to 10.

The UBAlII will automatically reduce the current so that the power the unit has to dissipate is limited to 10W for the standard unit and to W with the fan cooled option. For example, the voltage of a peak-charged 8-cell motor battery might be 12V or more at the beginning of the discharge cycle. If you try to discharge this pack at 1A, the unit will be forced to dissipate 12W or more and will automatically reduce the load current to perhaps 800mA.

The UBAlII can be modified with custom voltage ranges that allow for higher cell counts (up to 30V is

advertised). It is important to note here that although you can discharge more cells at a time, you cannot charge them because of the voltage limitation of the power supply and charge circuitry in the UBAlII. This is not really a problem because you can (and would probably prefer to) charge motor batteries with your standard charging gear.



UBAlII Discharge Curve for a Delta-Peak Charged 24-Cell 1200SCR Motor Battery Pack - Discharge Current =1.5A

The standard 8-bit Analog-to-Digital (A/D) converter can be replaced with a 10-bit A/D to improve voltage resolution at these higher voltages.

For higher current discharging of larger capacity cells, it is possible to use an external resistive load rather than the built-in constant-current load. If you know how to select the resistive load value and its power dissipation requirements, this is certainly one alternative for testing motor batteries. The UBA will correctly calculate the load current during the discharge cycle allowing it to make a good approximation of battery capacity. Be aware that manual intervention will be required to avoid over discharging.

The UBAlIIII will provide better defined discharge curves function automatically at up to 1.5A discharge current with the aforementioned fan kit. This configuration is more suitable for electric modellers. Marc says hardware changes are required for discharge rates in excess of 1.5A. Discharge rates greater than 1.5A would require hardware modification.

If you want to test batteries for larger electric's automatically, say motor batteries with over 20 cells with a constant-current load, modifications are required to the UBAlIIII. If you are technically inclined and wish to make the modifications yourself, Vencon Technologies can provide the necessary information and software - contact Vencon regarding warranty. If you go it on your own, you need to determine how to effectively dissipate the heat that will be generated when discharging large batteries at higher currents. In my case, a 60V limit on channel 2 with a 1.5A discharge rate means it is possible to generate 90W of heat in the external circuitry!

Once the modifications are made the unit functions as it does in the standard configuration. When testing batteries with many cells on my modified UBAlIIII, the external constant-current load transistors generate enough heat to keep you warm on cool days!

The UBAlIIII can be modified to test only one cell at a time at the full discharge current. This is particularly useful for electric modellers who may wish to test cells individually to find bad ones or to try matching them. Normally this is not possible because a reverse polarity protection diode is standard in the UBAlIIII. Vencon can remove this diode but you assume the risk.

When customized for constant-current discharge testing of batteries with higher cell counts as I have described, the UBAlIIII is only missing two things that electric modellers

may want. One is the capability to discharge with currents higher than 1.5A. The second is the capability to charge more than 10 cells in series. Building in such capabilities would increase the cost of the unit considerably. My experience has been that the 1.5A discharge current is high enough to reliably predict motor battery performance at much higher currents - the battery voltage during discharge is particularly telling and appears to be a good predictor of the power that will be obtained from the battery in use. Perhaps this is a topic for another article!

I have discovered one glitch with the UBAlIIII. The unit does not function properly with some old PC compatible's. Marc at Vencon Technologies told me that he had experienced this problem once before. Vencon stated the UBA is designed to work with any PC, but that the old BIOS in my 4.77MHz 8088 computer might be causing the problem. The unit has operated without a hitch on a other computers.

Future Enhancements:

Marc recently sent me a list of new features that will be contained in the next software update. The list is impressive. Some of the most useful enhancements are listed below:

Battery Profiles:

Battery Profiles can be stored for each battery. Parameters such as charge rate, discharge rate, cut-off voltage and charge time can be automatically or manually set.

Constant Voltage Charging:

This will allow the UBAlIIII to properly charge cells that require constant voltage, such as lead-acid and gel cells.

More Versatile Charge Current Settings:

Charge currents can be set from 1 to 250mA in 1 mA increments rather than just a few pre-defined settings. The update will also allow two charge rates during a charge cycle - ie. a quick charge current setting followed by a standard charge current.

Multiple Charge/Discharge Cycles:

The unit will perform multiple charge/discharge cycles and store the results. (This sounds great for revitalizing batteries in the Spring!!)

I am looking forward to trying out these new features and passing on my experiences in the future.

It is certainly nice to be able to measure the discharge performance of motor batteries. There is no guesswork with

this type of cyclor - if you think a motor battery is not providing the run time it should you can perform an accurate test to find out if the battery is at fault. When the good flying weather is over I also hope to share my experiences with battery testing in general and pass on any information that may be of use to other electric fliers.

So. If you have money tied up in R/C gear and are considering a simple cyclor to provide peace of mind, you should definitely consider the UBA. If you are an electric flier like me, the UBA can be modified to meet most of your needs and give you new insight into the health of your motor batteries. If you have access to a PC, I doubt if you can find any commercially-available equipment that can provide this functionality close to the cost of the UBAlII.

Last summer ended all too soon. The high starts and winches slowly disappeared from the field and the activity was primarily electric flying. I enjoy electrics as well as gliding but I have not yet gathered enough equipment to make a good day of it. It looked as though the flying season was drawing to a close until one breezy and cool fall day Paul Schmidt called to ask if I would like to try slope soaring.

Would I????!!

It was great!. The cool breeze does not bother me a bit and the lift was excellent! I enjoyed one of my longest flights that day and came away with a passion for the slope. I checked the roster to see if other members of the club indulged and while I found some (like Doug Wilkins) who spend a great deal of time on the slope, I also found that others had not yet tried it. If you don't think that you have the skill or the glider for the slope than think twice. If I can do it - you can. I simply used the SPECTRA from which I had removed the motor for my wings test. It flew nicely and while a few of my landings were bumpy, I soon got the hang of it.

Slope soaring can be challenging. It can also be very relaxing and satisfying. The flights tend to be much longer than thermal flights and the view of the glider is much better. I would encourage all of you to look into slope soaring.

For the benefit of those who are not familiar with the technique, I have included this article courtesy of Northeast Sailplane Products. At times they make it sound a bit difficult but in reality, I found it easier than thermal soaring in many ways.

ENJOY!

* Slope Soaring at Inland Sites with the NSP Gang

Ocean ridges have great soaring conditions. Steady gale force ocean winds, 250 foot sheer drops that span miles and consistently beautiful weather are just some of the attributes of these coastal sites. Fortunately these things are not a necessity because the vast majority of us live somewhere between the oceans.

We, and probably you, have to look a little more closely at our surrounding area for sites that can give us slope soaring enjoyment. In northern Vermont we have to improvise if we want to slope soar and wherever you are you probably will have to as well.

Once you learn what type of site to look for and how to use it you will open up a whole new world of possibilities and your flying skills will rapidly advance as a result. Because of the diversity of conditions that you will encounter there are a few things you can do to better prepare yourself for experimenting with small and sometimes marginal slopes.

First you will need an aircraft suited to testing conditions. It should be hand launch size, very maneuverable, have a good sink rate, and be quite durable. Of course NSP recommends the aileron version of the Culpepper Chuperosa, but whatever ship you choose should be carried with you wherever you go. It is a good idea to spend time in an open field working on high hand launches, tight turns near the ground and landing precision before venturing forth in search of a slope. Landing precision can be practiced by

landing as close to your feet as possible. These skills should be practiced in varying degrees of wind and turbulence.

After you are comfortable with your glider's handling characteristics you are ready to take your new



skills out to the slope. You now have a reliable ship and a good handle on flying it, so it is time to start looking for places to fly. Many combinations of inland terrain and meteorology can provide adequate slope lift. Each one will have its own personality relating to local weather and landform. First we will discuss what sort of geography you need to look for.

A slope should be at least fifty feet high and it should be as free from natural obstructions as possible. It should be wide enough at the crest to fly straight for a while before getting in a moderately banked turn in at each end. You will have to gauge this by the size and maneuverability of your glider. The terrain directly upwind of the hill should be quite flat and free from obstructions as well. Small slopes can be very consistent if there are clear fields for a mile upwind. Also, a valley that gets narrower as it approaches a hill can create a funnelling effect that concentrates the wind on the face. This can make wind speeds of five miles per hour provide considerable lift and smooth out variations in wind directions.

Of course these are only the minimum requirements for a site. Steeper, higher, wider and lesser obstructed slopes and ridges yield stronger and more consistent lift. The next thing that you need to learn is how to look for the right type of weather to suit the slopes that you find.

If you are unfamiliar with the mechanics behind weather patterns my advice is to simply be a little more aware. Start by looking for changes in your local weather. Try to get a feel for any natural cycles that may be present and notice any consistencies during cycles. Sometimes weather patterns are very concentrated and change drastically from one side of your location to another. Other times a large cell will blanket the whole area for days.

In other words you should begin monitoring your area. That doesn't mean collecting complicated data in a notebook, although that works. It does mean carrying a compass in your car and using it frequently. Just stop on the side of the road near a potential slope and check the wind direction and speed when it looks flyable. This will give you a feel for the type of conditions present at the time. It helps if you plan your normal travels around your area so that you go by flags or smoke stacks so that you don't have to get out of your car. Get a feel for which site might work when the wind blows in a certain direction and at a particular speed. Also try to get an idea how the wind direction and strength cycles at these sites (i.e. weekly, monthly, after a rain storm, etc...).

Over time you will be able to relate wind directions at your home to what they will be at other locations. This will make you better able to predict a good slope day and know which slope you should go to. Remember, you don't have to be accurate; you just have to build your awareness over time. As you start becoming more aware you should also become more curious. At this point I would recommend getting a good meteorology text and start looking up what you are finding in your area.

Now all that is left is to seek out one of your potential slopes. Pick a day when the conditions look favorable and take along your trusty Chuperosa. Your first times out should be in relatively light winds (the 5-10 mph range). Make sure that the wind is blowing as perpendicular to the face as possible (within say 15-20 degrees). Be prepared for turbulence because there is almost always thermal activity. Hand launch as high as possible and turn left or right when you are just clear of the crest of the hill. Closely monitor the rate at which your glider is sinking as soon as you are flying straight and level along the crest of the hill. If you are dropping like a rock turn short and land or you may be in for a long walk. If you are holding your own or climbing keep going until you reach the end of the hill or you start dropping. Then turn and make the reverse pass. If you are still holding your own on the way back go right past your location and repeat the process towards the other end of the hill. Remember to make only shallow, upwind turns until you have lots of altitude. Also remember to follow the contour of the hill. This process is teaching you the slope's personality. If you are able to stay up you will soon start noticing that the lift is not consistent along the hill. You should be aware of turbulence just like in thermal flying. In other words, if your upwind wing keeps

The logo features a stylized silhouette of a sailplane in flight, angled upwards and to the right. The text "NorthEast Sailplane Products" is positioned to the right of the sailplane, with "NorthEast" on the top line and "Sailplane Products" on the line below. A thick horizontal line runs across the page just below the title.

NorthEast Sailplane Products

getting kicked up it means that the lift is farther out in the valley (and vice versa). If the wind changes direction in cycles it probably means that thermals are passing and you should scout around for the cores.

Sometimes in marginal conditions (light, variable winds on hot days) subtle changes in temperature and wind direction can indicate lift. Jay has developed a way of sensing these thermals that we all use to our advantage. We will notice him standing there into the wind on a light day. With some practice he has been able to teach himself to sense even tiny temperature and wind changes. Sometimes you have to wait quite a while between thermal cycles but it really works.

We also use the habits of the local sparrows throughout the warmer months. They feed on small insects born aloft by thermals that release from the fields upwind of the slope. They swarm all over the core of the lift while they feed on the bugs. This can be of use on a new slope when you are wondering where the best lift is. There are many more of these little tricks that you can use to your advantage and they will always help you later at those winch-type contests. Little tidbits like these are just common sense normally and knowing and using them is what makes a good pilot a great one.

To this point I have described a fail-safe method for determining the conditions at even the most marginal slopes. The great news is that some of the slopes that you find will have so much lift that your light little hand launch glider will want to disappear above your head. It might not be the biggest and steepest hill that you find. You will know it when you find it because the lift will be tremendous. That's where the fun begins.

Now on those high wind days you know to check the direction in the morning. When the direction is right for a high lift hill you can leave the Chuperosa at home and get out that West Coast style slope ship and have a ball. When a good slope is working you can bring out that new aileron/elevator slope ship and pretend like you're at Top Gun.

The advantage of slope flying is that you get a whole lot more stick time per individual flight. The only thing holding you back is your battery capacity. With these extended flights come increased pilot skills and they translate directly to your thermalling ability.

Doesn't it make sense that extended flights with an aileron-equipped, aerobatic slope glider would be great practice to help you transition to these new multi-function thermal duration ships that are becoming so prevalent.

The NSP gang enthusiastically encourages all flat field thermal pilots to seek out slopes. This doesn't mean you should throw away your winch or high start. It just means expanding your experience base. Most inland slopes are at the edge of thermal generating fields and this makes for a combination of slope and thermal lift. Your thermal experience will help you to transition and best make use of the slope.

You will find that this is the most hassle-free type of flying there is. Just go to your favorite hill take your ship out and fly. Stay up as long as you want. Fly fast down on the deck inverted or catch a thermal and speck out. Chase seagulls (or landgulls) or hawks that happen by. You have to make up your own missions.

We at NSP have been flying small slopes all over the east for years and we have gotten quite proficient at finding them, sometimes in the least likely places. We love aerobatics and use small ships like the Douglas Silhouette frequently, even in light conditions. We fly close to each other in tight thermals and we fly very aggressive combat whenever the mood strikes (and that's pretty

1995 Contest Calendar

DAY	DATE	CLUB	EVENT	TIME	C-D
SUN	FEB 12	SOGGI	SWAP - SHOP AT THE ROCTON LIBRARY	2:00 PM	MIKE PENNEY 905 648-5843
SAT	FEB 18	COGG	SNOW FLY	*****	JOHN McMILLAN
SUN	MAY 21	SOGGI	CLUB DAY - OTTO BANDMANN MEMORIAL	9:30AM	BUD WALLACE 416 274-3177
SUN	MAY 21	COGG	F3J DURATION	*****	ROBERT SHELIKER
SAT > MON	MAY 27,28 29	COGG	DASH FOR CASH CROSS COUNTRY	*****	*****
SAT > SUN	JUNE 3 > 4	SOGGI	HOST TO ELECTRIC FLYERS OF SOUTHERN ONTARIO - FUN FLY	9:30AM	STAN SHAW
SUN	JUNE 11	SOGGI	STAND OFF SCALE GLIDER CONTEST	9:30AM	BILL WOODWARD 519 653-4251
SUN	JUNE 18	COGG	2 METER AND OPEN ELECTRIC CONTEST	*****	BILL WOODWARD 519 653-4251
SUN	JUNE 25	COGG	OPEN CLASS MAN ON MAN CONTEST	*****	*****
SUN	JULY 9	SOGGI	VINTAGE GLIDER CONTEST * PRE 1980 DESIGNS	9:30AM	BUD WALLACE
THURS > SUN	JULY 13 > 16	*****	CANADIAN NATIONALS SAILPLANE EVENT PATTERSON FIELD - BARRIE, ONT.	9:30AM	*****
SUN	AUGUST 13	SOGGI	NOVATHON CONTEST OPEN CLASS	9:30AM	BILL MOAR 905 659-1053
SUN	AUGUST 27	COGG	OPEN CONTEST	*****	*****
SUN	SEPT 3	SOGGI	BIG BIRD BASH OPEN GLIDER CONTEST	9:30AM	STAN SHAW 519 766-9966