
TASK

Official Newsletter of the Southern Ontario Glider Group Inc.

Volume 17 Issue 5

December 2001



Inside This Issue:

- The Effects of Scale in selecting a glider design
- Next years Contests
- Minutes of Meetings
- Membership List
- Events Calendar
- For Sale

Flying into the *red white and blue yonder*

The days are a little cooler, a little shorter, but still we have great flying weather. I write this on the on the 5th day of December, and the temperature outside is about what one might expect in mid October. Hands up all of those who seized the day and went flying!

It seems an eternity since the fresh days of spring, when "where are we going to fly?" was the burning question and not what we going to fly. Thankfully, sterling work by Werner K. provided us with a field that proved to be an excellent venue for the seasons flying.

The Bird of Time single design contest was a challenge for all those who flew. From the first contest, held down at the old flying field, the gauntlet was picked up and Birds refused to land on the field, or soared to great heights into the wild blue yonder - never to be seen again, - or just plain had their noses bent out of joint, or were totally over-stressed on the winch but still the few flew! Ken Lockwood was the Top Gun when all the dust had settled, but it is strange that no one from the club was able to enter the Postal Contest.

Special mention has to be made of the remarkable progress of our youngest member, Kevin Intini, who worked hard under the tutelage of Stan Shaw, took part in competitions, and finally earned his "Wings". Well done Kevin!

The Big Bird Bash attracted the largest number of competitors that we have seen in a few years, flyers from GNATS, flyers from GOGG and even a couple of flyers from the USA. So many planes that there were two classes - Standard RES and Unlimited F3J. The weather was fantastic and max flights seemed to be the norm. Graduated landing tapes were used and the full house F3J ships were able to take full advantage of the situation. Tony Boothman of COGG was the winner in the Standard RES class with Werner Klebert and Stan Shaw close behind. Bob Sherliker of COGG won the Unlimited F3J, with Mike Kucera of GNATS in Second and Mike Thomas in third place.

So after a better than the average flying season it is time to blow away the balsa dust and relocate the workbench. The single design plane of choice this year is the Olympic II. It may be scratch built or kit built (Stan Shaw is looking into the kit availability and price stuff, and Bud Wallace will make prints available at nominal cost). See the minutes of the November meeting for further information.

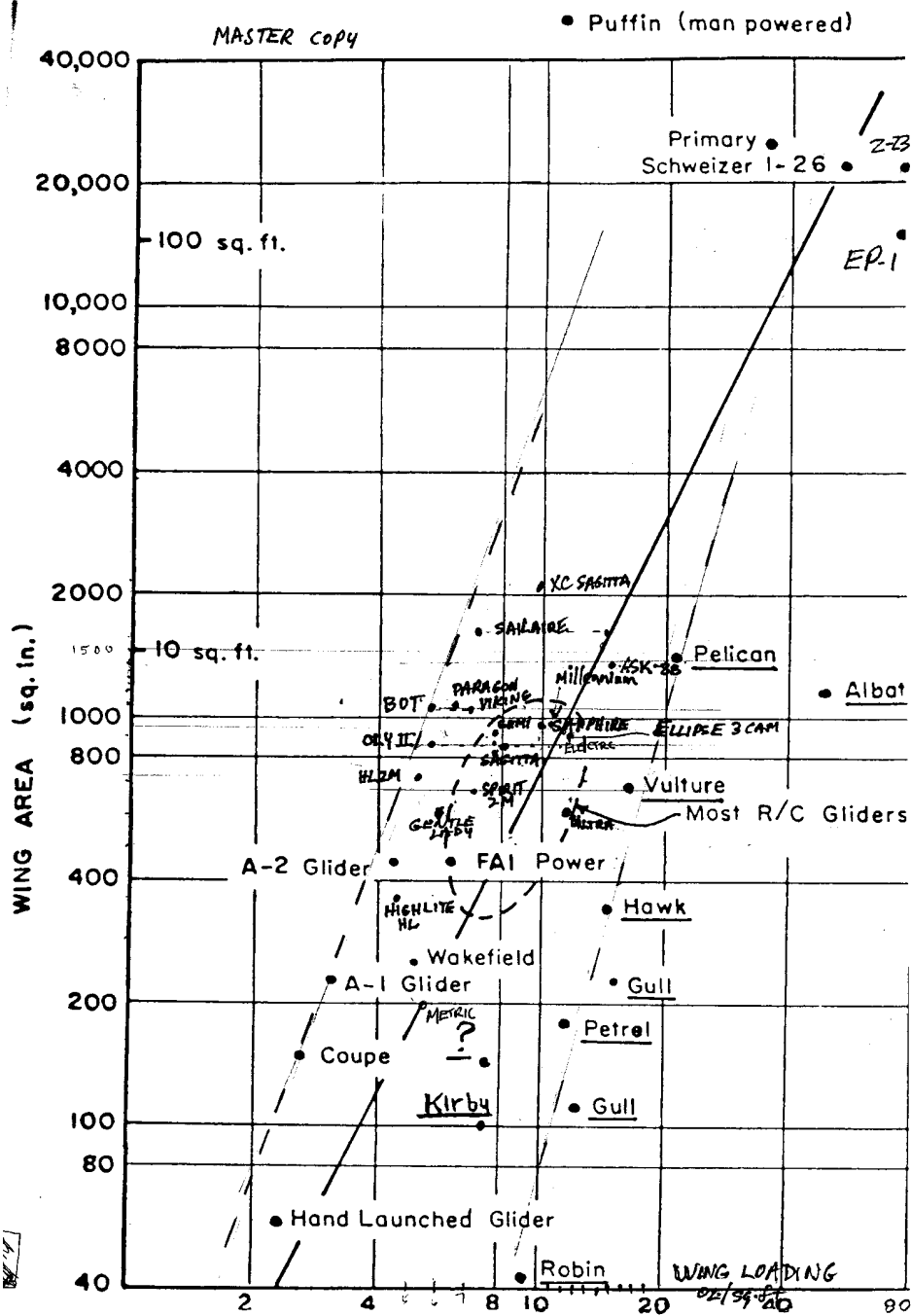
SOGGI may be going Hi-tech! It has been suggested that we should have a Web site. So if there are any Spiders out there who can spin the yarns, please contact the Editor - we need all the help we can get!

This edition of TASK includes a colour supplement. Pictures that were available in digital format were used and presented in a splodge format. Next year we need Group Photo's for our events so that everyone can be included.

The Effects of Scale in selecting a glider design

By Stan Shaw

While going over some old magazines, I came across an interesting chart by Ted Off, in the Jan. issue of MAN, 1977. under Soar Subjects. It shows wing area (sq.in.) against wing loading in oz/ft² (ounces per sq. ft.) on the horizontal scale.



As you can see from Ted's chart full-size sailplanes occupy the space at the top, with over 100-sq.ft area and 80 oz/ft² loading. The soaring birds like the Vulture, Hawk, Gull and Petrel are distributed substantially linearly to the right of the solid line that represents the average slope of feasible designs. Notice that model aircraft are distributed along the left side of the average slope. The dotted line oval represents the area within which most of the R/C gliders fall. Generally between four hundred and twelve hundred square inches and wing loadings between six and fourteen oz/ft².

After plotting a number of model designs on the chart, several observations can be made as to the key characteristics. Beginning with the Two-Meter designs we find them clustered between six and seven hundred square inch areas and wing loadings between five and ten oz/ft². The Standard Class or 100-inch span gliders like the Windfree, Olympic II, Sagitta 900 range between five and half to nine oz/ft². The Open Class glider like the Bird of Time and high-tech models like the Sapphire, Ellipse, Hera and

Millenium, all around three meters in span, range from six to twelve oz. per square inch wing loadings. For the unlimited model designs of one hundred and fifty-inch wingspans, like the Sailaire, Sagitta XC and scale ASK-8, the wing loadings range from seven to sixteen oz/ft².

What conclusions can one reach from studying this chart? That the birds show us up every time when it comes to thermal flying! So what else is new? Really the chart gives us some useful information. Firstly, that the larger the wing area (for moderate aspect ratio wings) the better the gliding performance. If we select the designs having the lightest wing loading, then the ability to work thermals in relatively calm conditions is enhanced. The rubber powered Coupe, Wakefield, A-1 Glider and A-2 Glider are all located on the left side of the chart, the lowest wing loading of all the models. Since their main purpose is to achieve a three maximum flight time or better in free flight mode, then it is reasonable to assume that lightly loaded R/G gliders can achieve such levels of performance or better them with piloting skill.

The second conclusion may be that to achieve better flight times under average windy conditions the higher the wing loading and larger the wing area the better the overall speed range. This analysis requires comparing the polar curve for further proof. What you get as you make a small change of trim in glide is either stalling if flown too slowly or going into a dive if too much down trim is given. The model tends to be 'peaky'. The heavier model is less critical. Although in weak thermals the "floater" ought to climb better, in practice this is not easy for the pilot, requiring accurate control and judgement. By increasing the weight it flattens the peak, making it easier to fly consistently near the minimum sink point. The heavier model glides faster without too much loss of height, the quality known as 'penetration'. But this is at the expense of increasing the stall speed and the minimum rate of sink. This is why and how the birds achieve their better performance

The chart shows the Hawk and Vulture coming in between three and nine hundred square inches in area and fifteen to seventeen-oz/ft² loading. It appears that the choice between a 'floater' and a 'penetrator' is not really pilot skill, but what is the main purpose of the model design? Hopefully to help develop the pilot's skill and level of enjoyment. What other factors should we consider is selecting a glider design? While pilot preference weighs heavily in selecting a specific design based on his or hers flying skills and what weather conditions prevail, there are two other important factors to be considered. The first is how inherently stable is the design. A basic poly-dihedral design offers a relatively stable model suitable for sports and contest flying. On the other hand an aileron controlled straight wing generally requires more pilot input. The F3J type models require the use of computer radios to program in flaps and crow on ailerons as well as pre-sets for launch or speed tasks. The Mystery Ship is such a model. An excellent advanced design for the intermediate pilot who wishes to develop his piloting skills.

The second factor is cost. What design will be the most cost-effective? Referring to the chart shows the Gentle Lady (Two-meter), the Olympic Two, the Bird of Time, Viking, and the Paragon. Each of these models uses a built-up wing and a relatively simple box fuselage with the exception of the BOT and Viking. As you move towards higher wing loadings, these designs use hi-tech materials, wing-bagging techniques, including moulded wing thus adding to the higher cost. Thus, we see the trend to ready built models for these high performance models that have to sustain brutal launching techniques and a variety of flying conditions. So how much is it worth to you in building time and convenience to go this route? The benefits do not always out-weigh the costs in this specialized area, as greater pilot skill is required to get the most from these models. However, the intended purpose of the glider is still the critical factor to consider when selecting a specific design.

In conclusion, the chart does reveal the feasibility region for selected models and gliders and in particular RIC Soaring gliders. The models selected represent original designs from the seventies that have demonstrated very good performance as Rudder, Elevator, and Spoiler performance as well as current composite types. It gives a very simple comparison of the different choices one has in selecting a design. Needless to say, it requires a lot more analysis of airfoils, design parameters, materials, cost and the required performance envelope, before the pilot is satisfied

that the optimum glider design has been achieved. Hopefully the flyer will find this analysis helpful in selecting an R/C glider design for his flying enjoyment.

MINUTES OF SOGGI MEETING October 5th 2001

The meeting was called to order by Bud Wallace at 2.00 P.M. There were 16 members present. The Minutes of the April 15 meeting were read by Cliff English. The minutes were accepted as read.

New Business:

Werner Klebert asked about a member of the Year. The criteria for this award will be set by a committee. This will be open for discussion at the November meeting.

The new zone director is Mike Tarziar

1132 Third Side Road

RR2 Campbellville

LOP-1B0

Stan Shaw talked about a club web site. This could be listed with MACC and S E Modeler magazines. Dick Colley will be approached about setting up a web site.

Kevin Intini was given his official wings certificate by Stan Shaw. Kevin is the youngest member of SOGGI to earn his wings. Thanks to Stan for making an extra effort in helping Kevin.

Stephen Threlkeld has rejoined the club after a five-year absence.

Derek Hartwell said he would pick up the club winch from Ben Schouten's barn and store it for the winter.

Stan Shaw said the club needs more certified Contest Directors for next year. The subject of nominations for next year's executive will be discussed at November meeting.

Flying Fields:

The club will register three fields, Ben Schouten on Greens Road. Hamilton Sod on Fletcher Road and the field on Hendershot Road.

It was suggested that the Fletcher road owners are given a gift certificate and the staff of Hamilton Sod are sent a gift basket from the club. Ben Schouten will also receive a gift certificate.

Derek Hartwell said he would look after the purchasing the certificates and fruit basket.

One Design Contest:

Two gliders were offered for the One Design Contest, the Olympic II and the Paragon.

A decision will be made at the November meeting as to which plane will be used. Bud Wallace will bring in plans for the Paragon.

Plaques for winners of the last three One-Design Contests were given out.

Juri Vosu for the Windfree 1999

Keith Armstrong for the Bird of Time 2000

Ken Lockwood for the Bird of time 2001

Contests:

Werner Klebert said he would track contests from all the area clubs. To try and keep the contest dates from clashing. Werner has designed a new contest score card for the coming year.

Contest Dates (Tentative)

One Design Contest: Wednesday May 8 2002

Wednesday June 12 2002

Wednesday July 10 2002

Wednesday August 21 2002

Wednesday September 11 2002

CD Bud Wallace / Cliff English

The rain date will be the following Wednesday for all contests.

Golden Oldies

June 23 2002

CD Bud Wallace	Open contest \$7.00 entry fee	Sanction required.
Club Day O.B. Memorial	July 14 2002	
CD Stan Shaw	Closed contest.	
2 Meter Contest	August 11 2002.	
CD Werner Klebert	Open contest \$7.00 entry fee.	Sanction required

Note no electric contest this year.

Big Bird Bash	September 1 2002	
CD Werner Klebert	Open contest \$7.00 entry fee	Sanction required.

Motion to adjourn Derek Hartwell seconded by Bud Wallace
Meeting closed at 3.00 P.M.

MINUTES OF SOGGI MEETING NOVEMBER 11th 2001

The meeting was called to order by Bud Wallace at 2.00 P.M. There were 16 members present.
Minutes of the October 5 meeting were read by Bud Wallace. Motion to accept the minutes as read Keith Armstrong seconded by Doug Wilkins. The minutes were accepted as read.

New Business:

Joe Banial was introduced as a new member of SOGGI. Joe is an experienced eclectic and glider pilot.

The club out house has taken another unscheduled flight. This time out of the farmers field. Derek said he will send out a search party to try and locate the flying &*@ house.

Bill Woodward asked if SOGGI members would be interested in donating to a gift for Fred Freeman. This would be for Black Five N scale locomotive. Bill said CMAS was making a donation. It was decided to give \$100.00 towards the gift.

Election of Officers:

Werner Klebert stepped down as vice-president
Motion by Bud Wallace to nominate Stan Shaw seconded by Juri Vosu. Stan accepted.

As there was no other nominations the rest of the executive were returned by acclimation. All agreed to continue for another year.

ONE DESIGN CONTEST:

The Olympic II was chosen as the glider for the One Design Contest in 2002.
Motion to use the Olympic II Bud Wallace seconded by Juri Vosu. All were in favor.

Two other gliders were discussed the Paragon and the Viking. The Olympic was a smaller plane and could be bought as a kit or scratch built The cost of a kit was about \$125.00. To scratch build the Olympic II the cost is about \$80.00 to \$90.00. Ken Lockwood asked if the Olympic could be launched from a winch or a high start.

For those members opting to scratch build balsa wood can be purchased at
Dons Bass and Balsa Woods.

Don Wilson
116 Main St. East.
Grimsby, Ont.
LAM. 1N8
Phone (905) 945-5647

(Suggest you phone ahead for his operating hours.)
Mention SOGGI and get a discount on your purchase.

If enough people scratch build the wing ribs could be purchased from Neil Tinker who would laser cut them. A cost of \$4.00 per sheet of balsa was discussed. Neil is owner of Spirit of Yesteryear a company that deals in old-timers.

Juri Vosu offered a program for copying and designing airfoils. Profili is an Italian program he downloaded from the Webb.

The Olympic II has two airfoils for the wings Aquilla and Clark Y. It was decided to use the Clark Y air foil which is the one on the plans. By a show of hands 5 people said they would scratch build and 3 said they would kit build. Stan Shaw said he would try to get a firm price for the kits. Bud Wallace said he would have sets of plans for the Olympic II at the next meeting. The cost will be \$8.00 for a set of plans.

Building Tips:

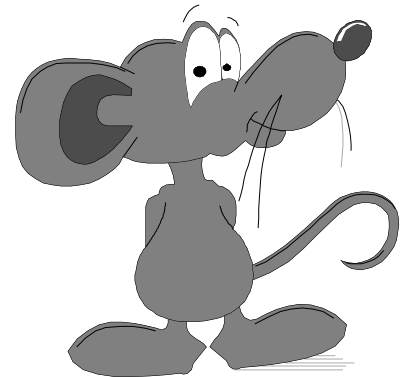
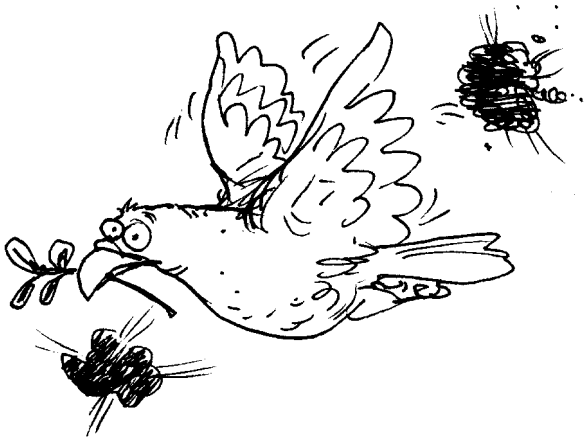
- 1: Sheet the leading edge out to the tips.
- 2: Sheet the whole top of the wing.
- 3: Eliminate the first bay of ribs off the wing panels.
- 4: If converting to an electric keep the servos and receiver at the back of the wing.

Show And Tell:

Ken Lockwood distributed an article on converting the Bird of Time to electric. The article suggested a 650 motor with a 2:1 gearbox.

Bud Wallace built a park flyer called the Prowler. The kit can be purchased from Herne Engineering. Juri Vosu downloaded the plans from the Webb. Bud then had them copied to one large sheet.

Motion to adjourn Bill Woodward seconded by Bud Wallace.
Meeting closed at 3.25 P.M.



Kabul Karrier Pidgeon

**Is there anybody out there? – Who has an article inside just bursting to get out
- We publish for free!**

For Sale: Want Ads: Personals



For SALE!

1 – Viking (Old Timer) for 05 Geared _____ \$50.00 (sold already)
1 – Zip Glider 56" AE, EL, R _____ \$45.00

Contact: Doug Wilkins (905)-679-4973

For SALE!

1 – Sagitta 900 c/w radio – test flown successfully _____ \$Contact Vendor

Contact: Vic Walpole (905)-683-5973

This could be your add here!

Lowest Rates in Town

**Country
Hobby**
SUPPLIES

home of the venomous
Rattensake
SPEEDWAY

R. BANDMANN
R.R.1 DUNDAS, ONTARIO, CANADA L9H 5E1 (519) 623-2560



The Southern Ontario Glider Group is a chartered club of MAAC

2002 SOGGI Executive

President:	Bud Wallace 1060, Eastmount Avenue Mississauga, Ont. L5E 1Z3	905-274-3177
Vice President:	Stan Shaw 39-383, Edinburgh Road, Guelph, Ont. N1G 2K7	519-763-7111
Treasurer:	Derek Hartwell 39, Isaac Brock Drive Stoney Creek, Ont. L8J 2P1	905-578-7991
Secretary:	Cliff English 24, Blackwood Crescent Hamilton, Ont. L8S 3H5	905-522-4561
Editor:	Dick Colley 101, Braeheid Avenue Waterdown, Ont. L0R 2H5	905-689-7761

Deadline for February Issue of Task: Jan 22nd 2002

2001/2 Calendar of Events

- Dec 9 Membership Meeting Rockton Library, 2.00pm
- 2002
- Jan 13 Membership Meeting Rockton Library, 2.00pm
- Feb 10 Membership Meeting Rockton Library, 2.00pm
- Mar 10 Membership Meeting Rockton Library, 2.00pm
- Apr 14 Membership Meeting Rockton Library, 2.00pm
- **Tentative Contest Dates:**
- May 8 Oly II Contest CD Bud Wallace/Cliff English
- Jun 12 Oly II Contest CD Bud Wallace/Cliff English
- Jun23 Golden Oldies CD Bud Wallace
- Jul 10 Oly II Contest CD Bud Wallace/Cliff English
- Jul 14 Club Day OB Memorial CD Stan Shaw
- Aug 11 2-Metre Contest CD Werner Klebert
- Aug 21 Oly II Contest CD Bud Wallace/Cliff English
- Sep 1 Big Bird Bash CD Werner Klebert
- Sep 11 Oly II Contest CD Bud Wallace/Cliff English

TASK**MEMBERSHIP LIST**

Keith	Armstrong	219, Governors Road	DUNDAS	Ont	L9H 3J7	905-627-4011
Peter	Ashton	200, Edwin Street	Kitchener	Ont	N2H 4P2	519-576-6750
Roy	Auwaerter	9, Jamieson Drive	DUNDAS	Ont	L9H 5A1	905-628-8496
Joseph	Baltaza	19, Gaitwin Street	Brantford	Ont	N3P 1A9	519-751-3698
Josef	Banial	5248, Alicante Street	MISSISSAUGA	Ont	L5V 1S9	905-567-3925
Robert	Batt	612, Blue Forrest Hill	Burlington	Ont	L7L 4H3	905-632-8790
Jim	Bracegirdle	89-295 Water St.	Guelph	Ont	N1G 2X5	519-821-8506
Dick	Colley	101, Braeheid Avenue	WATERDOWN	Ont	L0R 2H5	905-689-7761
Cliff	English	24, Blackwood Crescent	HAMILTON	Ont	L8S 3H5	905-522-4561
Richard	Fahey	827, Shadeland Ave.,	BURLINGTON	Ont	L7T 2M2	905-637-5469
Fred	Freeman	511-120 Strathcona Ave N	HAMILTON	Ont	L8R 3J5	905-525-6509
Albert	Fund	73, Beech Street	CAMBRIDGE	Ont	N3C 1X6	519-658-9495
Arnold	Gardner	202, San Pedro Drive	HAMILTON	Ont	L9C 2E1	905-383-4418
Don	Guthrie	RR4	Belwood	Ont	N0B 1J0	519-843-4537
Bob	Hammett	183, Uplands Drive	KITCHENER	Ont	N2M 4X3	519-576-7636
Derek	Hartwell	39, Isaac Brock Drive	Stoney Creek	Ont	L8J 2P1	905-578-7991
Werner	Hildesheim	4, Foster Crescent	CAMBRIDGE	Ont	N1R 4R1	519-623-2663
Kevin	Intini	16, Blackwood Cres.,	HAMILTON	Ont	L8S 3H5	905-546-5307
Herb	Jenkins	238, Lloyminn Ave.,	ANCASTER	Ont	L9G 1J1	905-648-6123
Werner	Klebert	59, Byron Avenue	STONEY CREEK	Ont	L8J 2T1	905-578-9431
Otakar	Koprnicky	75, Hazelwood Crescent	CAMBRIDGE	Ont	N1R 8A4	519-740-9504
Herb	Lentfer	23, Walsh Court	BRANTFORD	Ont	N3T 5Y1	519-753-2856
Jack	Linghorne	55, Angelsey Boulevard	ISLINGTON	Ont	M9A 3B8	416-233-0230
Ken	Lockwood	29, Cross Creek Blvd.,	Guelph	Ont	N1H 6J2	519-821-9947
Tom	McCann	2206, Towne Blvd.,	OAKVILLE	Ont	L6H 5H4	905-257-2101
Mike	Penney	388, Massey Drive	ANCASTER	Ont	L9G 3J9	905-648-5843
Paul	Penney	388. Massey Drive	ANCASTER	Ont	L9G 3J9	905-648-5843
Bryn	Rennie	22/1255 Upper Gage Avenue	HAMILTON	Ont	L8W 3C7	905-385-3365
Zivko	Rizoniko	479, Fendalton Street	MISSISSAUGA	Ont	L5B 2L8	905-275-0597
Ann	Tekatch	19, Pheasant Place	Hamilton	Ont	L9A 4Y4	905-575-5433
Bob	Thayer	4108, Millcroft Park	BURLINGTON	Ont	L7M 3V9	905-336-3290
Mike	Thomas	61, Alhart Drive	ETOBICOKE	Ont	M9V 2N1	416-748-2833
Stephen	Threlkeld	89, South Oval	HAMILTON	Ont	L8S 1P9	905-526-9031
Walter	Tremmel	56-600 Silvercreek Blvd	MISSISSAUGA	Ont	L5A 2B4	905-270-5959
Stan	Shaw	39-383, Edinburgh Rd. S	GUELPH	Ont	N1G 2K7	519-763-7111
Juri	Vosu	3291, Candela Drive	MISSISSAUGA	Ont	L5A 2V1	905-279-9549
Bud	Wallace	1060, Eastmount Avenue	MISSISSAUGA	Ont	L5E 1Z3	905-274-3177
Stewart	Watson	26, Juanita Drive	HAMILTON	Ont	L9C 2G3	905-385-8214
Doug	Wilkins	8448, Twenty Road	HAMILTON	Ont	L9B 1H7	905-679-4973
Bill	Woodward	520, Pine Street	Cambridge	Ont	N3H 2S6	519-653-4251

Correction Notice:

NAME:
ADDRESS:
CITY/TOWN:
POSTAL CODE:
PHONE:
e-mail:

