TOSS-UP

NEWSLETTER

JULY 1993 14705 LOYOLA STREET MOORPARK CA 93021

A.M.A. CHARTERED CLUB #1493

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NEXT CLUB CONTEST;

DATE:	Aug. 14th., 1993
PLACE:	Paramount Ranch
TIME:	9:00 a.m.
C/D:	Mike Leal

NEXT CLUB MEETNG:

DATE:	July 28th., 1993
DAY:	Wednesday
PLACE:	Cameron Center
TIME:	7:30p.m.

TOSS TALK

MEETING NOTES

CALLED TO ORDER:8:05PM

OLD BUSINESS-

Edgar gave a report on the TOSS Cross Country Race. Only one airplane was destroyed the entire weekend. He also explained the who, what, where, when, why, and how much it costs.

NEW BUSINESS

Mike Reagan's 1 Day Longest Flight Contest was discussed.(See last month's issue for more info.)

B.J. Wiseman proposed that TOSS hold a 2 day contest for 2 meter sailplanes and under. He reasoned that everyone has a 2 meter and has no place to fly it (except yours truly). Public opinion and interest is sought for B.J.'s sake.

Money for the SC2 was determined and set aside in the following amounts:

1) $100 for trophies (I heard that they are solid gold wingrod that are stronger than steel and lighter than carbon fiber)
2) $200 for line and misc. equipment
3) Some 6 digit amount for Edgar's wallet (NOT!)

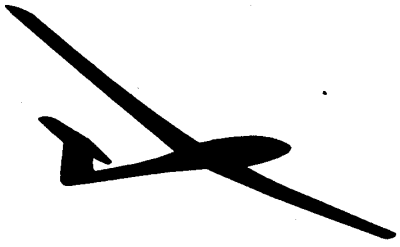
Lex gave a rundown of the meeting with COSCA and as of the meetings end TOSS did not have COSCA's permission for a permanent site, nor do we have the permits required. Several people are examining the possibility of using a site in Wildwood and one in Sunset Hills. A reporter from the LA Times had called Lex and wanted to take some photos and do an interview.(Can you say PUBLICITY)

Mike Reagan also showed those in attendance his new hand launch kit- the "Lil Devil" being produced by he and Paul Trist Jr. The kit features presheeted wings with obiechi, lightweight kevlar(baseball bat) fuselage, CAD drawn plans, prebuilt stab and rudder. The workmanship is priceless and at $150 the kit is a better value than a McDonalds Extra Value Meal.

Larry (the Newsletters Editor) Jimenez had everyone in attendance fill out useless questionaires!!!!

The meeting was finally closed at 9:05.(This took longer to write than the actual meeting.)

Till next time
Thomas



1993 THOUSAND OAKS SOARING SOCIETY ROSTER

LAST	FIRST	PHONE NO	STREET	CITY	ST	ZIP	AMA #
AKERS	THOMAS	(805) 496-6655	1583 WAKEFIELD AVE	THOUSAND OAKS	CA	91360	385783
BUSBY	H.DUANE	(805) 497-1014	1212 ENCINO VISTA CT.	THOUSAND OAKS	CA	91362	305216
BUTKOVICH	DAVID		4848 TOCA LOMA LN.	LA CANADA	CA	91011	
BUZOLICH	NICK	(714) 854-3689	19366 SIERRA BELLO ROAD	IRVINE	CA	92715	147697
CONNETT	DICK	(805) 523-0083	12415 CRYSTAL RANCH RD.	MOORPARK	CA	93021	466748
COSGROVE	ROBERT	(818) 341-8459	10709 OKLAHOMA AVE.	CHATSWORTH	CA	91311	169026
COUNCIL	BILL		3837 CORONADO CIRCLE	NEWBURY PARK	CA	91320	466415
ELLIAS	JOHN	(805) 388-5674	1961 VIA MONTECITO	CAMARILLO	CA	93012	304647
GEOHAGAN	JIM	(805) 388-1130	5643 E. WILLOW VIEW DRIVE	CAMARILLO	CA	93012	143567
HARLAND	JAY	(805) 527-5685	662 WELLER COURT	SIMI VALLEY	CA	93065	
HARTMAN	RICHARD	(805) 488-6136	1852 SANFORD ST	OXNARD	CA	93033	111039
HINMAN	BILL	(805) -	1195 N. MODESTO AVENUE	CAMARILLO	CA	93010	15233
HOPPLE	TIM	(805) 498-9448	163 NORTH CASTILIAN AVENUE	THOUSAND OAKS	CA	91320	333336
HSIEH	ROBERT	(805) 987-6586	694 LANTANA #10	CAMARILLO	CA	93010	474171
JIMENEZ	LARRY	(805) 652-1937	1943 CHANNEL DR.	VENTURA	CA	93001	378742
KARP	BILL	(818) 876-0602	4532 PARK MONACO	CALABASAS	CA	91302	122971
KEGLER	KEN	(805) 492-0757	2991 TEAL CT.	THOUSAND OAKS	CA	91360	482474
KEGLER	HANS	(805) 492-0757	2991 TEAL CT.	THOUSAND OAKS	CA	91360	482475
KEIGHTY	W.	(805) 987-6443	542 SAN CLEMENTE WY.	CAMARILLO	CA	93010	
KIM	SONNY	(805) 523-346	15266 #A CAMPUS PARK DRIVE	MOORPARK	CA	93021	6
KLUSS	BILL	(805) 497-2120	1368 MORROW CIRCLE	THOUSAND OAKS	CA	91362	15036
LANKARD	KEN	(805) 485-7217	P.O.BOX 24606	VENTURA	CA	93002	
LEAL	MICHAEL	(805) 529-7535	844 CHARLES STREET	MOORPARK	CA	93021	334482
MARX	BILL		174 KNOLLWOOD	NEWBURY PARK	CA	91320	
MICHITSCH	ROBERT	(818) 991-0666	6012 COLODNY DR.	AGOURA HILLS	CA	91301	222852
MIEROP	LEX	(805) 499-2256	1351 ALESSANDRO	NEWBURY PARK	CA	91320	
MORAN	MYLES	(818) 882-4687	10428 OSO AVE.	CHATSWORTH	CA	91311	18426
MORGAN	RALPH	(805) 484-7728	2120 GORMAN STREET	CAMARILLO	CA	93010	11074
McNAMEE	ART	(805) 526-6292	2645 PLACERVILLE CT.	SIMI VALLEY	CA	93063	7417
McNAMEE	DON	(805) 526-3145	2291 NORTH HIETTER	SIMI VALLEY	CA	93063	48996
NORTHERN	DON	(805) 523-1018	3977 WILLOW CREEK LANE	MOORPARK	CA	93021	28279
OLDENBURG	ED	(805) 497-7463	261 EL GALLARDO	NEWBURY PARK	CA	91320	106776
ONSTAD	BOB	(501) 389-6203	P.O. BOX 287	HATFIELD	AR	71947	na
RAKE	GARY	(805) 498-2613	947 DRIFTWOOD CIRCLE	NEWBURY PARK	CA	91320	437635
REAGAN	MIKE	(805) 529-5513	14705 LOYOLA ST.	MOORPARK	CA	93021	93756
ROUSHAR	NORM	(818) 982-1771	6747 AGNES AVE.#8	NORTH HOLLYWOOD	CA	91606	431725
ST. LAWRENCE	DON	(805) 497-9681	207 SOMERSET CIRCLE	THOUSAND OAKS	CA	91360	409441
STERN	MICHAEL	(805) 492-8452	745 LYNNMERE DR.	THOUSAND OAKS	CA	91360	131478
SUTTON	ROBERT	(805) 498-4342	3415 CRESTWOOD CT.	NEWBURY PARK	CA	91320	81773
SWET	BOB	(805) 388-9619	2600 PONDEROSA DR. APT.15	CAMARILLO	CA	93010	83283
TRIST	PAUL JR.	(818) 545-7551	1101 MELROSE #1	GLENDALE	CA	91202	28643
VANNETT	DANE	(805) 494-4520	689 MC CLOUD AVENUE APT #202	THOUSAND OAKS	CA	91360	433610
WALDEN	SCOTT	(818) 889-1394	5850 E. SUNNY VISTA	AGOURA	CA	91301	481783
WEISMAN	EDGAR and B.J.	(805) 496-0611	752 CAMINO VALLES	THOUSAND OAKS	CA	91360	67651

T.O.S.S. R/C CHANNEL USAGE

CH.	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
QTY	1	4		1		3	1	4	3	3		3		3	2	2		4	1	1	1	4	1	4	1

CH.	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
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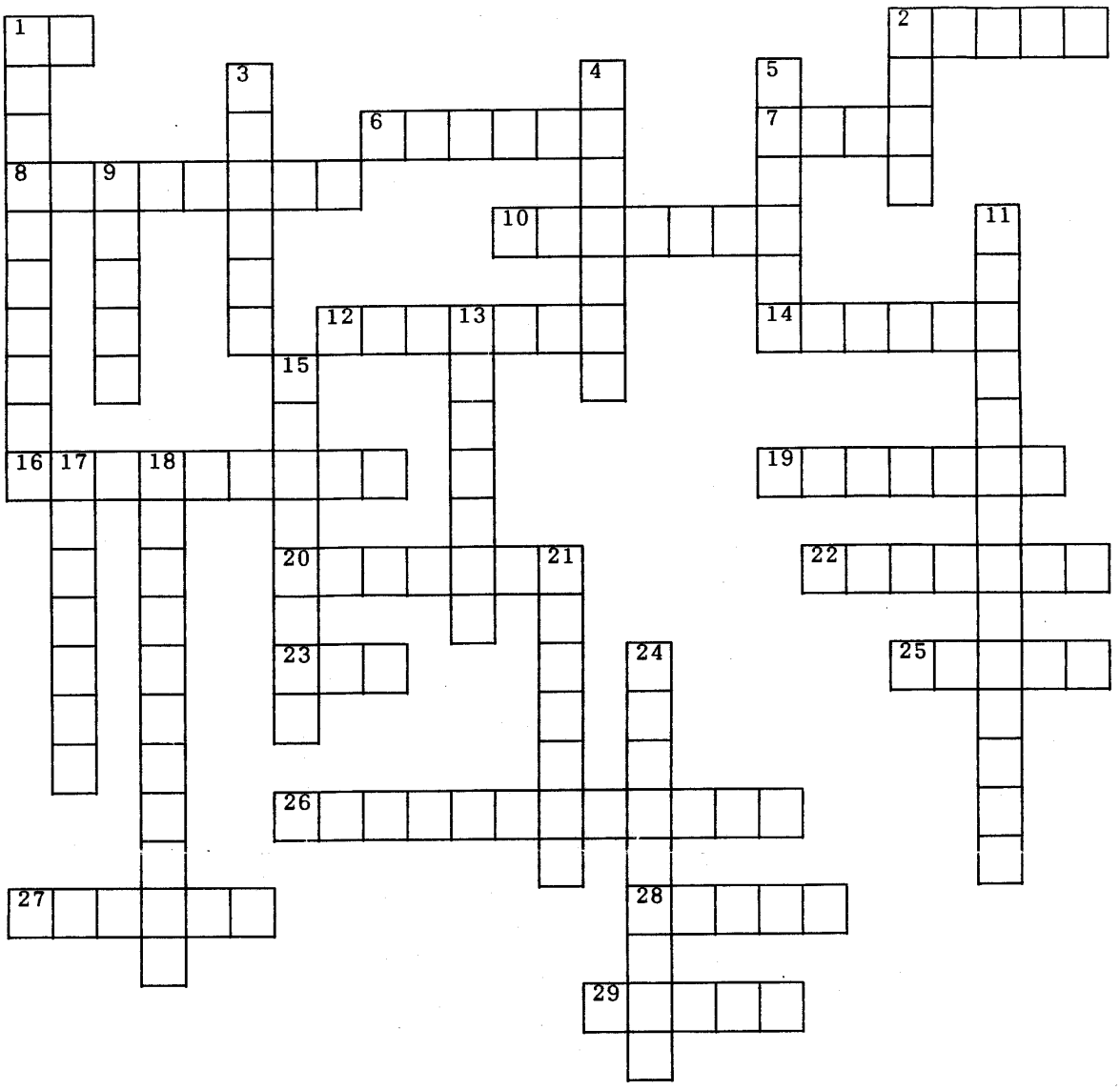
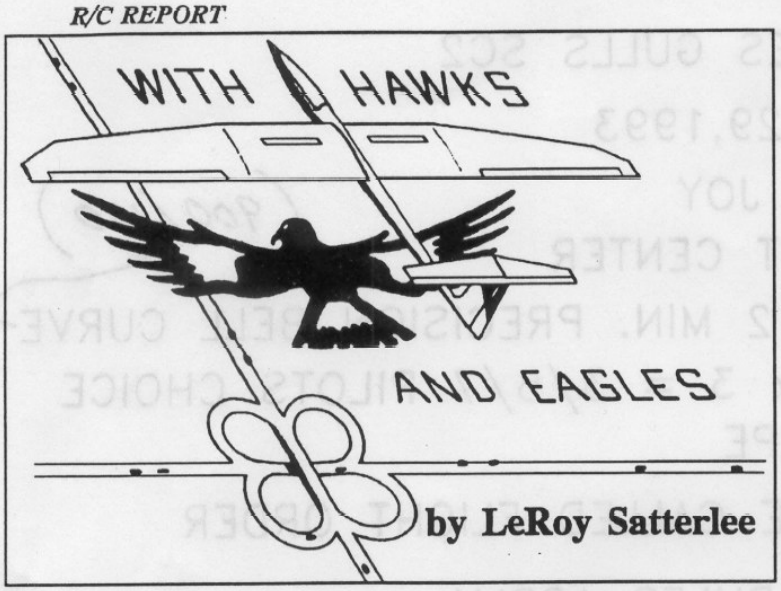


ACROSS

1. TERM USED FOR AILERON & ELEVATOR
2. SMITH HILL IS USED FOR THIS TYPE OF SOARING
6. MAKER OF RADIO EQUIPMENT
7. PART OF A HIGH START
8. THIS GOES ON THE BOTTOM OF THE FUSE. _____-_____
10. TYPE OF TREE
12. TOSS VICE-PRESIDENT
14. PART OF A HIGH START
16. ANOTHER NAME FOR A GLIDER
19. THIS CONNECTS THE SERVO ARM TO THE CONTROL HORN
20. WE HAVE ONE EACH MONTH
22. NOISY & OILY
23. THIS IS PART OF A BUILT-UP WING
25. THESE HELP FIND THERMALS
26. RUDDER & ELEVATOR MAKE UP THESE
27. TOSS PRESIDENT
28. PARAMOUNT RANCH HAS LOTS OF_____
29. SOMETHING YOU DON'T WANT TO DO

DOWN

1. CO. THAT MAKES THE VISION RADIO
2. NEXT YEAR'S EDITOR BOB_____
3. THESE GET IN THE WAY
4. LANDING_____ARE IMPORTANT
5. ANOTHER WORD FOR SAILPLANE
9. A LAUNCHING DEVICE
11. TOSS FLYS AT THIS WESTERN SET
13. THIS SPOILS THE AIRFLOW
15. MOST HIGH TECH GLIDERS HAVE THIS TYPE OF WING
17. SHAPE OF WING
18. FRONT EDGE OF WING
21. THIS MAKE A SAILPLANE RISE
24. NON-POWERED LAUNCHING DEVICE



Good grief! How the time flies when you're having fun, and man, am I having fun. As you read this we should just be settling into a new home, after moving from our old place of some 30+ years. Just the thought of moving a 30+ year accumulation of "Stuff" is a frightening prospect. Jan and I are a typical "empty nest" couple. We have raised our five kids and all are now either married, or living away from home. We find ourselves rattling around in this big house like a couple of marbles in an empty can. We also find our acre of property to be more than either of us wants to take care of any longer, so we have purchased a newer and smaller home. One decided advantage to our new house, however, is that the potential workshop space is much larger than what I currently have. Oh joy! Oh rapture! *(Editor's Note: Oh Boy! More Product Test Reports!)*

I've been asked a couple of times to write an article on the subject of escaping killer thermals. It seems that many people have written extensively on the subject of locating and getting *into* thermals, but few have discussed the subject of how to *get out* of a really big and strong one.

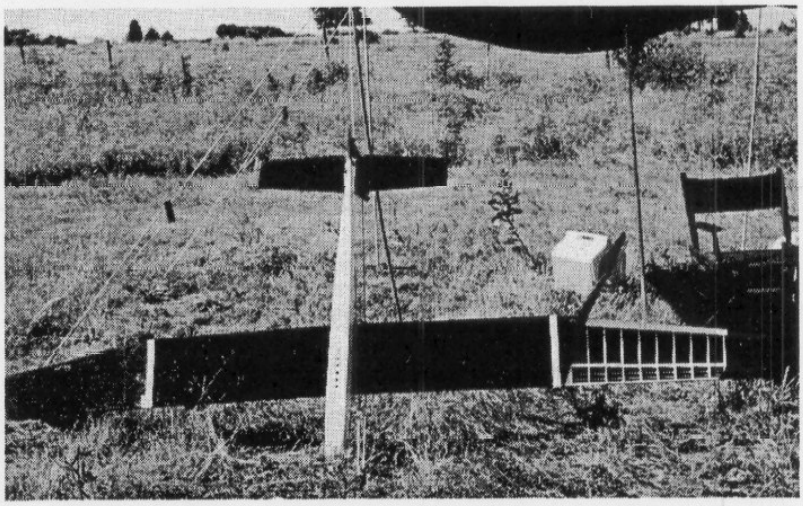
I have detailed accounts from two fliers who have encountered such killers, and who could have benefitted from more knowledge of what to do. One of these people was lucky enough to save his sailplane, albeit in need of extensive repair. The photo below shows Bill Baker's Paragon sailplane (no, that's not where it came down!).

The covering is torn from the bottom of the right panel and Bill explained that there were numerous failed glue joints also, especially in the shear webs and spar areas. It's easy to see that destruction of the entire right hand panel, and possibly the whole plane, was mere moments away. He was lucky. Bill, by the way, is a contributing editor for *"Free Flight Old-Timers"* in *"MODEL AVIATION"* Magazine. Thanks for the interesting story and photo, Bill.

The other, another Paragon, but from a completely different part of the country, was not so lucky. The plane literally exploded and was totally destroyed. In the hope that in some small way I could help prevent this from happening to you, I shall attempt to shed some light on the subject of escaping thermals.

For many of us who have flown sailplanes for years, this might seem like a silly waste of time. But if you'll honestly think back to when you were less proficient at soaring, you'll probably recall a time when you too were terrified by the strength of your first "Killer Thermal".

Real killers sort of sneak up on you while you're day-dreaming, or exchanging idle chatter with your flying buddy. One minute you are flying comfortably around looking for lift. A few moments pass, and the next thing you see is your impossibly small sailplane gaining altitude like a missile! The first time this happens is very scary, and



TOSS YEAR TO DATE 1993

07/11/93 OPEN CLASS STANDINGS HIGH SCORE = 2500

P	NAME	CLUB	TOTAL	JAN	FEB	MAR	APR	MAY	JUN	JUL
1	MIKE REAGAN	TOSS	5830	941	1000	994	981	914	0	1000
2	DON McNAMEE	TOSS	5458	655	880	1000	944	1000	0	979
3	EDGAR WEISMAN	TOSS	5379	888	979	633	938	982	0	959
4	B.J. WEISMAN	TOSS	4963	1000	986	997	1000	0	0	980
5	BOB SWET	TOSS	3990	624	816	645	947	0	0	958
6	DON NORTHERN	TOSS	3576	799	876	0	0	943	0	958
7	ART McNAMEE	TOSS	2920	0	959	514	935	512	0	0
8	JOHN ELLIAS	TOSS	2112	722	951	439	0	0	0	0
9	LARRY JIMENEZ	TOSS	1995	0	742	371	0	0	0	882
10	PAUL TRIST	TOSS	1844	0	0	0	942	902	0	0
11	MYLES MORAN	TOSS	1338	448	890	0	0	0	0	0
12	BILL KARP	TOSS	1217	532	0	0	0	0	0	685
13	MIKE LEAL	TOSS	957	0	0	0	0	0	0	957
14	MIKE RATNER	PSS	947	0	0	0	0	947	0	0
15	RICHARD BURNS	PSS	897	0	0	0	0	897	0	0
16	BEN M	PSS	833	0	0	0	0	833	0	0

07/11/93 2 METER CLASS STANDINGS HIGH SCORE = 2498

P	NAME	CLUB	TOTAL	JAN	FEB	MAR	APR	MAY	JUN	JUL
1	MIKE REAGAN	TOSS	5903	1000	1000	952	957	994	0	1000
2	DON McNAMEE	TOS873	930	989	955	980	0	978		
3	EDGAR WEISMAN	TOSS	2783	848	0	0	0	1000	0	935
4	ART McNAMEE	TOSS	2764	0	880	0	968	916	0	0
5	MIKE LEAL	TOSS	1998	0	0	1000	0	129	0	869
6	B.J. WEISMAN	TOSS	1512	0	0	0	0	534	0	978
7	PAUL TRIST	TOSS	1374	0	0	0	1000	374	0	0
8	BEN M	PSS	991	0	0	0	0	991	0	0
9	THOMAS AKERS	TOSS	930	0	0	0	930	0	0	0
10	MYLES MORAN	TOSS	917	0	917	0	0	0	0	0
11	RICHARD BURNS	PSS	907	0	0	0	0	907	0	0
12	LARRY JIMENEZ	TOSS	617	0	617	0	0	0	0	0

07/11/93 SPORTSMAN CLASS STANDINGS HIGH SCORE = none

P	NAME	CLUB	TOTAL	JAN	FEB	MAR	APR	MAY	JUN	JUL
1	DANE VANNETT	TOSS	1721	0	983	738	0	0	0	0
2	JIM GEOHAGAN	TOSS	1447	0	881	566	0	0	0	0
3	DON St. LAWRENCE	TOSS	543	0	0	543	0	0	0	s

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rightfully so. In your mind's eye, you see your sailplane, and at least half of your R/C equipment, disappearing at a frightening rate, possibly to never be seen again! Panic sets in immediately! Your first reaction is to put the nose down and dive. This is a DEFINITE NO-NO, especially if you have no spoilers or flaps to slow the aircraft. AND, there ARE thermals strong enough to keep your ship going up, even with the flaps or spoilers fully deployed!

Even the most mundane, entry level sailplanes, are quite aerodynamically clean, and can accelerate very quickly if the nose is pointed down and held there. Most will self destruct in a matter of seconds if the speed is not kept in check. The modern, multi-channel "Glass Slipper" ships can attain awesome speeds in a dive. Even though these ships are reinforced with fiberglass, carbon fiber, and other exotic materials, they are not totally immune from wing tip flutter or total wing failure from excess speed. That's why most have large flaps... to keep the speed under control.

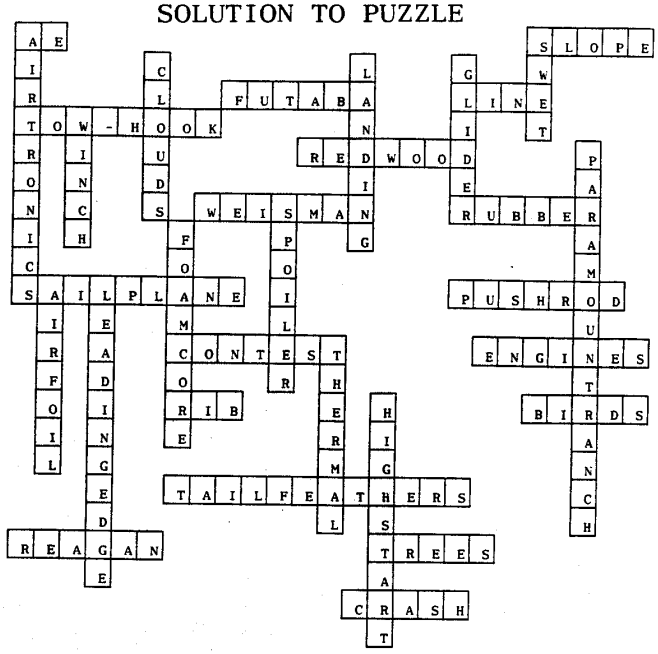
When you realize that you are way over your head (tricky play on words, eh?), the first thing to do is take a couple of deep breaths. Try to calm down (Ha Ha!) and relax a little. Get your flying buddy over next to you to help you spot the plane, just in case it's going up so fast that you lose sight of it. This is one place where four eyes are good.

STOP CIRCLING! Fly a straight line away from the lift and at 90° to your line of sight. This helps you to be able to see the pitch angle of the plane. Drop the nose a very small amount (like a couple of clicks of down trim). If the plane continues to gain altitude, go back to your neutral trim setting and slowly pull full up and full left turn. This should result in a tight spiral with some loss of altitude. Maintain the spiral long enough to verify that you are indeed coming down. If you are not coming down, slowly relax the up elevator while maintaining the full left turn. Only relax the up elevator enough to get the plane coming down.

If all of the above fails to reduce your altitude, try stalling. Neutralize the rudder and hold full up elevator. This should produce a rapid, up and down, "porpoise" like motion. You should be familiar with this because you did it all the time when you were first learning to fly a sailplane.

If even that fails to reduce your altitude, try flying upside-down. Do a half loop and apply down elevator when the ship reaches the inverted position. Polyhedral ships are real touchy to keep in an inverted position, so if your ship slips back to upright, simply start over.

SOLUTION TO PUZZLE



IF NONE OF THE SUGGESTIONS ABOVE HAVE PRODUCED A LOSS OF ALTITUDE, I SUGGEST THAT YOU DROP TO YOUR KNEES AND PRAY FOR DIVINE GUIDANCE, FOR I HAVE DONE ALL I CAN FOR YOU AND YOU NOW NEED HELP FROM A FAR GREATER POWER THAN I.

(Editor's Note: Perhaps you have a sharp-eyed friend nearby with a particularly high powered rifle. If so, have him shoot you in the foot. You will then forget all about the loss of your sailplane!)

But seriously, if all else fails, slowly drop the nose of the ship and do a shallow dive. If the speed becomes excessive, you will probably hear a buzzing sound that signals you that flutter has set in. By the time that you hear this sound, it may already be too late, but if the ship is still flying, slowly pull up into a couple of large "roundhouse" loops to scrub off some speed. When the speed has dropped, do it over and over again until you get the plane, or the pieces, down to earth.

With spoilers, you can deploy them to help kill the wing's efficiency, and the climb should at least slow you down. Be prepared, though, for I have been in lift strong enough to keep you going up even with the spoilers deployed. Even with spoilers, you may have to resort to some of the tricks described earlier.

Flaps provide your greatest chance of escaping killer lift. Flaps are large and effective air brakes. Drop the flaps (90° is best) *before* you begin your descent. Why? Dropping the flaps before the descent allows the servo to move the flap surface to the down position during a time of relatively low aerodynamic loading. This is much easier on the servo than allowing the speed to build up before the flaps are lowered.

If you allow the speed to build up before you drop the flaps, you may "GUT" the servo when the flaps try to come down. Notice I said "try to come down", because if the servo fails, they may NOT come down, and what's even worse is that a failed flap servo (or servos) can lead directly to surface flutter since a failed servo is in essence, disconnected from the flap. If this happens, Oh Oh! Now you're in deeper than ever. THINK BEFORE YOU ACT!

Usually, though, with the flaps deployed, you can safely drop the nose enough to get down out of almost any lift and still keep your speed under control. Partial deployment of the flaps can, however, defeat your purpose and actually add to your troubles. Partially lowered flaps can produce tremendous amounts of lift... just what you do NOT need if you're caught in killer lift. Remember, speed is a destroyer of sailplanes. Learn to control your sailplane's speed and you *can* escape killer thermals.