

# TOSSUP 99



## May's Contest *(Martin Usher)*

May's club contest is rapidly becoming our annual "Mother's Day Contest" as every year we get to the second Sunday in May, realize that it's Mother's Day and that many fliers are caught up in it and so can't come out and fly and vow to move it to a different Sunday "next year". We usually forget. We probably will forget again next year. *(Not that we have much choice - between Pasadena, Visalia and the SC<sup>2</sup> round plus other events May is starting to get crowded with the second Sunday a.k.a. "Mother's Day" being the only open slot - Ed.)*

This contest was a little unusual because it included a high-start for launching Sport planes. This was put in to allow a couple of the Redwood kids to have a go at flying in a contest. These two are part of a group of Redwood pupils who have been turning up at the field with a variety of nondescript trainers over the last month or two to learn how to fly. They've progressed at the usual rate for young people and started asking about "what it was like to fly in a contest". So, Gerren turned up with his 2x4 and his brother, Brent, was issued with a spare TG-3 as his had suffered a "slight accident" the previous day. Mike Stern flew with them with his Gentle Lady since his Mako finally died in another "incident" that day.

Bob Swet, the CD, set the contest up as four rounds of 3,5,7 and 5 minutes with 950 on time and 50 on landings. The weather was good with a mixture of sun and cumulus clouds. Flying conditions were on the whole good with moderate lift and sink giving way to occasional serious thermals and sink patches.

Some notable features of this contest were:-

- Most of the planes were polyhedral (Visalia?)
- Edgar failed to entertain but did show some promise when he was spotted doing tight circles at treetop height over Gainsborough Rd. (next to the tree that was used to judge 'tree top height').
- I made my usual abysmal showing but I am pleased to report that despite that I managed to score slightly higher than the Blair brothers.

Last, but by no means least, this contest was missing a fixture - Charlie. He's laid up recovering from foot surgery so wasn't at the field for the first time since ????

(Oh yes. Another footnote. Due to a 'technical glitch' (flat batteries) I didn't get any pictures this month. Sorry.)

## Results of Monthly Competition - May 1999

Name	Glider	R1			R2			R3			R4			Total	Normal	Year
Don Northern	Gemini 'S'	3:00	80	990.0	5:00	83	991.5	7:02	90	990.5	5:03	81	981.0	3953.0	1000.0	1000.0
Bill Karp	Addiction	2:59	80	984.7	4:59	82	987.8	6:36	0	895.7	4:54	83	972.5	3840.8	971.6	971.6
Bob Swet	Cumic	3:01	84	986.7	5:01	19	956.3	7:02	78	984.4	3:52	96	782.7	3710.2	938.6	938.6
Art McNamee	Misty	2:58	90	984.4	5:01	84	988.8	7:04	91	986.4	3:35	0	680.8	3640.6	921.0	921.0
Edgar Weisman	Red Thing	3:00	69	984.5	4:59	75	984.3	3:42	0	502.1	4:57	39	960.0	3431.0	867.9	867.9
Larry Jimenez	Paragon	2:59	31	960.2	3:26	85	694.8	3:11	0	432.0	2:34	0	487.7	2574.7	651.3	651.3
Martin Usher	Alcyone	3:04	0	928.9	2:14	56	452.3	2:14	46	326.1	3:07	0	592.2	2299.5	581.7	581.7
Mike Stern	Gentle Lady	1:49	79	614.8	4:55	92	980.1	7:00	87	993.5	1:27	0	275.5	2863.9	1000.0	724.5
Gerren Blair	2x4	2:50	90	942.2	2:11	0	414.8	1:25	0	192.3	1:37	0	307.1	1856.5	648.2	469.6
Brent Blair	TG3	1:00	63	348.2	2:07	6	405.2	1:11	0	160.6	2:06	23	410.5	1324.4	462.4	335.0

*(And how is that foot? After surgery it got infected so its going to be out of service for several weeks. C. has to keep off it and keep it elevated at the moment but he hopes to be somewhat mobile in time for the club meeting.)*

## When to Launch (Part 2) - Fred Sage

*(Editor's note..... Every month I collect a lot of newsletters from other local clubs, and, no I don't throw them away but instead file them. Their content varies considerably from the truly measured tone of PSS's "Soar Spots" to the neo-tabloid format of HSS's "Plane Rap". The material in them always makes good reading and occasionally there's an article in them which really deserves reproducing here. This is one of them, from the April 1999 edition of SWSA's "Popoff" (but I suspect that it was originally written for TPG's "Gull Wings"). I'll keep a look out for Parts 1 and 3 and in the meantime it would be interesting to hear any comments from our expert members about this article. Incidentally it would be nice to get some more original material for our journal.)*

For those that follow this column, you will recall that last month we were discussing the importance of launching at the right time. In a Thermal Duration contest launching at the right time will help the intermediate pilot improve his contest performance more than anything else he can do. I also mentioned a three step program to assist in consistently accomplishing this important objective. To quickly review, the three steps were as follows.

- Manage or optimize the use of your launch window
- Be observant
- Be prepared to launch

In the last column, we covered some basic considerations in optimizing the use of your launch window. This column continues with a discussion of being observant among other launch related topics.

To the uninitiated or casual observer at a TD content it probably appears that most of the contestants that aren't flying or timing are doing nothing more than enjoying each others' company while socializing in small groups. This provides the camaraderie that helps to make this sport so enjoyable and relaxing. We may be discussing anything from how our week went to what our plans are for the future. However, let me assure you that the contestants that are focused on winning are constantly vigilant. Even while we're engaged in conversation, we're still using all our faculties to spot Indicators of Lift (IoL).

### Indicators of Lift

The only difference between a competitor who consistently launches into lift and one that steadily falls short is knowing how to spot lift and being observant. So what are typical IoL and how can we become more observant?

A detailed discussion of IoL is beyond the scope of this column so I'll start by simply listing several. For those that want additional information several books have been written by competitors who have spent the better part of their life defining and refining their technique. I imagine that every serious competitor has read Dave Thornburg's *"The River of Air"*. The concepts in the book are timeless and are as relevant today as when the book was written.

Indicators of Lift are:-

- Other competitors
- Other competitors' gliders
- Circling bird aloft

- Changes in the prevailing wind direction of speed
- Changes in temperature
- Changes in humidity or air density
- Changes in sky cover or cloud formations
- Dust or haze in the air
- Flying insects or small birds that are feeding on them
- Other floating things aloft such as balloons, newspaper, small animals, &c.
- Air borne weed or particulate and their direction of travel
- Sequential turbulence as it progresses along the ground and is reflected in trees, grass &c.
- The streamer on your transmitter antenna
- The power and height of the launch you or others are getting
- The way your glider handles and its ability to range

This list is far from inclusive and is meant only to sensitize you to the types of things you should be observing. Being observant entails vigilance and understanding. As a sportsman or intermediate pilot, the easy IoL to observe are other competitors, other competitors' planes and circling birds.

Let's take the first example, other competitors, and expand briefly. As an intermediate pilot it should be obvious if you observe Aaron Valdez, George Joy and Keith Finkenbinder stepping up to launch that good air must be available. These master pilots stake their reputations on routinely making even the most difficult flight tasks and wouldn't dream of launching unless good air were reachable. Most intermediate pilots would gladly look to this trio as an effective IoL, launch immediately after them and attempt to ride their coat-tails. However, as with any expedient crutch, the solution often isn't as simple as it seems.

The decision to launch still has to be reasoned even if every master pilot in the club is attempting to launch. If you intend launching and following Aaron, you'd better be as aggressive as he because it's not unusual to see Aaron track all the way across the horizon to the slope on either the left or right flank at Poway to reach his lift. Likewise, if you intend following George, you'd better have a glider with a similar L/D as his Grand Esteem because if you don't you'll get to the lift with only half of his altitude. You might think that following Keith would be an easy max. However, before you jump in trail you should know that Keith, having experience as a fighter pilot, doesn't like people on his tail. His solution is to stretch his search pattern so far downwind that only the eyes of an eagle can keep him in sight.

In each of the above situations, the typical intermediate pilot will lose his resolve about half way to his destination, turn around and retrace his flight path eventually landing well short of the required time. This is where it is extremely important to know your plane's capabilities as well as your own.

Another potential trap is launching after a skilled competitor in the latter rounds of a pilots' choice or add'm-up contest. Typically, a master glider driver will get the bulk of the required flight time or the most daunting tasks accomplished in the first few rounds of a contest. By the time he queues up to launch in the latter rounds, he probably doesn't care about carefully timing his launch because he only needs two or three minutes. As an example, in a recent contest, an intermediate pilot launched immediately after me, probably assuming that I saw lift. After his flight was completed well short of his required time, he asked me why I launched when I did. I responded that I only needed 1:50 to complete my 30 minute add'em-up and didn't care what air I launched into. In fact, I've known some die hard competitors that will purposely launch into bad air in the hope of luring uninformed pilots into launching.

However, as you gain experience and knowledge, the decision to launch by using other competitors as an IoL will become more studied and correct. With increasing confidence, you should attempt to incorporate all IoL and all your faculties into your scan. Eventually, as you spot lift, instead of just a single IoL, you'll see several that will reinforce each other thereby confirming the location of lift. At this point of development, you'll be able to launch and head for seemingly unmarked lift, perhaps even leading its drift so as to intercept the rising air at its closest point of approach.

Just to demonstrate how attuned your senses can become to IoL, I've been asked why I always wear shorts and short sleeve shirts. Even on cold overcast days, I compete in this unlikely garb. Most people probably assume that I don't care how I look and am unconcerned about making a fashion statement. Although that assumption would be true, the reason for my attire is so my arms and legs are exposed. Believe it or not, the fine hairs on your arms and legs will detect small changes in wind velocity and direction than would otherwise be possible. In fact, taking this example to the extreme, you may have noticed that Joe Wurts always competes in important TD contests barefooted. I haven't confirmed my observation with Joe, but knowing what a consummate competitor he is, I suspect it's because Joe knows his feet can detect smaller changes in temperature and pressure than any other part of his body.

I'm not proposing that we all compete in TD contest in the nude, because there are some obvious health hazards to be considered, not the least of which are skin cancer or mangled feet. However, I do feel it's vital that you have an appreciation for the importance of detecting IoL and the lengths competitors will go to accentuate their ability.

Let's go back to the objective of being observant. At almost every contest I attend, I see numerous competitors launch and head to the opposite horizon when a very obvious and reachable bird is circling nearby. Why do they do this? The answer isn't because they don't know the importance of circling birds, but because they didn't see them. Pay attention! As my instructor in air combat maneuvering used to say, *"Get your head on a swivel; the enemy you don't see is the one that will kill you"*. It's similar in a TD contest; the IoL you don't observe is the one that would have ensured your time. Why venture out to hopefully stumble across some lift when the indicators are available to show you where it is; no risk, no strain.

As you step up to launch, not only should you already have determined that it's a good time to launch by observing probable lift, but you should also scan the visible horizon to ensure you've not missed any IoL.

Also at almost every contest, I see several competitors into an obvious down air cycle. Why did they do that? Didn't they notice that the air had been in an up cycle for 20 minutes, that the temperature had gone cold, that the wind had gone to a steady 10 to 12 knots downwind, that the sun was behind a cloud, that the only gliders staying up were "skied out" downwind and that no other competitors were launching. The answer to that question is that no, they didn't notice. Wake up and get in the game! Know and understand IoL and be observant!

### Timing Benchmarks

In the last paragraph I introduced the concept that lift is cyclic. Here in Southern California, that's certainly true and the cycles can vary from a few minutes to about 30 minutes depending on

the time of year and the meteorological system that predominating.

In the summertime with a deep high pressure system entrenched, the cycles tend towards the long side of the spectrum and in the winter, with a low pressure system established, the opposite is true. As an observant pilot, it behooves you to know the thermal cycle as you compete. In fact, one of my prerequisites to competing effectively is to practice the day before a contest and preferably at the site of the contest. In this manner, I can establish the following important timing benchmarks.

- What flight time can I expect as I launch at 0900 and cruise most efficiently in buoyant air?
- If the first round task is daunting, what's the earliest I can launch and make the required time?
- If the day starts with an overcast, when does it start to burn off and when has it completely burned off?
- If the wind starts off so that launches and landings are downwind, when can I expect it to moderate for better launches and landings?
- When and where do the first light thermals develop so that it's more efficient to thermal than to cruise?
- What's the altitude of any inversion layer and when can I expect it to break through?
- When does the sky open up for the first time such that you can go up and stay up no matter where you fly?
- After thermals develop, what's the typical cycle time between up and down air?
- When does the sea breeze break through (because that will completely change the lift pattern)?
- When does the wind start to pick up, first to the extent that I can loiter at the slope to extend my flight time, then to where it will take more than one thermal to make a particular task and finally when and if it will be necessary to ballast and penetrate?

Although these timing benchmarks will only be relevant if the prevailing weather system doesn't change on the day of the contest, this can be vital information for making decisions about when to launch. In fact, this information can also be important tactically as you decide whether to extend your flight time in pilot's choice contests.

### The fine art of "Sandbagging"

Since we're discussing launch decisions, let me cover a few more thoughts about when to launch that don't necessarily belong in the category of being observant. The first is don't ever let anyone goad you into launching unless you think conditions warrant. Many accomplished pilots in our club or at any contest are extremely adroit at finding and working light lift. They rightfully take great pride in walking up to the winch as soon as a round opens and launching whatever the conditions. Because of their skill, they're usually successful. However, if you closely monitor their results, you'll notice that occasionally they miss a prescribed flight by a significant margin. The resulting loss of points is enough to eliminate them as a serious threat or even to allow them to compete effectively for end of year awards. I don't mean to sound condescending because I respect these pilots for the aggressive spirit that uncanny ability. However, when the next chorus that's heard is that everyone is "sandbagging" and they should step up to the winch and be a man, I don't think it's in the best interest of the uninformed or insecure pilot. This verbal challenge to launch is really nothing more than a testosterone check and should be dismissed by the confident pilot. In fact, I love being accused of

sandbagging. To me, its a validation that I'm using my knowledge and experience and haven't yet found the optimum conditions for launch.

As an interesting adjunct, six years ago when I first flew in the SC<sup>2</sup> circuit, after standing in line for at least 15 minutes to launch, I would invariably launch when I got to the head of the line. I didn't really know what I was doing and didn't have the confidence or ability to question the launch decision. Today, at an SC<sup>2</sup> contest and after waiting through the same 15 line, if conditions don't warrant a launch when I get to the head of the line, I proudly hand the 'chute to the next pilot and walk to the back of the line. Some competitors would probably consider this the walk of shame, but I think of it as my experience, knowledge and judgment being put to their best use.

### **He who hesitates has lost**

To wrap up this column, the intermediate competitor should also not wait until too late in the round to launch. Late in the round, most competitors will already have completed their task and few people remain to launch. With no one launching, two of your primary loL (other competitors and their gliders) will have been eliminated. The TD game is easiest when numerous pilots are launching and there's a dozen gliders in the air. Even if all these gliders aren't highlighting lift, you can still gain valuable information by observing every launch and search pattern. By launching into a target rich environment, you dramatically increase your own chances for success.

As an example to focus this suggestion, three year ago at the HSS SC2 contest, George Joy and I were will up in the standings going into the fourth and last round. With a good final round either of us could have won the contest. The fourth round required a seven minute flight and the launch window was one hour long.

Since it was early afternoon in Costa Mesa, the sea breeze had punched through and the wing was stead at about 15 to 18 knots out of the west. With this much wind, loL were few and far between and several thermals would have been required to make the task. We both waited and watched as others launched, some with success and some without. With the round winding down, neither George nor I saw any air that encouraged us to launch, and suddenly there was only five minutes left in the window. Yes, you guessed it, five minutes remaining and we were only two left to fly. We watched minute by agonizing minute straining to find loL until finally we were forced to launch by the CD as the window closed. I went upwind with little success and George went downwind with no more. We both fell far short of the required time and the contest ended up being a throw away for both of us for end of year awards.

The lesson to be learned from this story is to launch well before the end of the round, particularly in trying conditions if for no other reason than you'll have other competitors' gliders airborne to monitor the lift.

My reaction to this specific situation was to incorporate a sliding scale of certainty of lift dependent on the amount of time left in the launch window. If a round has just opened and I step up to launch, you can be assured that I've sense sufficient loL that I know that lift is reachable. However, with only 15 minutes left in a round, it takes less and less certainty of reaching lift to encourage me to launch. Better to launch into uncertain air with a few minutes left in the round than being forced to launch into down air as the round closes.

This column is going long so let's wrap it up and hopefully conclude our discussion of launching at the right time next month.

**TOSS's SC<sup>2</sup> ROUND IS SUNDAY 27TH. JUNE**

**THAT'S NEXT MONTH.**

**WE WILL REQUIRE WARM NON-FLYING BODIES ON THIS DATE TO HELP RUN THE CONTEST. BODIES WILL BE NEEDED TO PERFORM A NUMBER OF GOPHERING ACTIVITIES.**

**WARM BODIES INCLUDE ANY SENTIENT HUMANIDS - SPOUSES, CHILDREN, RELATIVES, ANYONE WHO CAN WALK, TALK AND HOLD A PENCIL.**