TOSSUP 99

July's Contest

The first week or so of July saw unusually early monsoonal flow caused by an anticyclone over southern Utah pushing the weather usually destined for Arizona into Southern California.

What did that mean for us? It was hot and uncomfortably humid. It didn't rain, but a significant thunderstorm tracked just to the north of us through Simi Valley during the first part of the contest. It didn't affect the flying - the sky was cloudy at times, particularrily to the north, but there wasn't any significant air movement because of them. In fact the air was just flat during the first part of the contest with nothing but very small thermals in unusual places. The sea breeze eventually kicked in, making the field a bit more pleasant to stand on and making the air more flyable.

The contest was four rounds. It started with a 3 minute precision task scoring 900/100. This was followed by a three round add-em-up for a total task time of 20 minutes, with no individual flight over 8 minutes in duration. These three rounds were scored as 2 pts/sec up to 8 minutes and then -10 pts/sec over, with landings 100 points per round.

Name	Glider	R1			R2			R3			R4		Penalty		Total	Normal	Year
Don Northern	Gemini 'S'	3:01	66	961	7:35	86	996	7:50	99	1039	4:40	86	-10	636	3632	1000.0	996.4
Bob Swet	Cumic	3:00	80	980	7:48	47	983	7:49	79	1017	4:23	93	0	619	3599	990.9	987.4
Gary Filice	Mako	2:58	0	890	7:09	28	886	4:06	50	542	6:16	79	0	831	3149	867.0	863.9
Art McNamee	Addiction II	2:59	77	972	5:03	95	701	7:55	94	1044	3:33	0	0	426	3143	865.4	862.3
Martin Usher	Alcyone	3:03	0	885	5:33	0	666	7:48	0	936	5:00	44	0	644	3131	862.1	859.0
Mike Stern	Spirit 100	3:00	0	900	7:28	0	896	7:37	64	978	2:18	80	0	356	3130	861.8	858.7
Larry Jimenez	Paragon	3:10	72	922	5:16	0	632	6:14	75	823	3:50	81	0	541	2918	803.4	800.5
Greg Boswell	Mako	2:57	84	969	3:16	56	448	3:07	46	420	4:19	56	0	574	2411	663.8	661.5
Bill Karp	Addiction	2:56	81	961	6:45	46	856	3:36	0	432	0:00	0	0	0	2249	619.2	617.0
Don Northern	Gemini 'S'	3:00	74	974	7:01	87	929	7:51	88	1030	5:08	96	0	712	3645	1000.0	1000.0
Larry Jimenez	Paragon	3:00	44	944	7:42	73	997	7:03	98	944	4:55	55	0	645	3530	968.4	968.4
Bob Swet	Cumic	2:57	73	958	4:57	0	594	7:51	86	1028	7:12	85	0	949	3529	968.2	968.2
Mike Stern	Spirit 100	2:56	73	953	8:00	63	1023	7:44	93	1021	3:41	0	0	442	3439	943.5	943.5

Clouds - Right is the sky early in the day when rain threatend, left and below is the view to the north later in the morning.

TOSS's SC^2 Round

This was held on June 27th. The weather was perfect - cloudless skies, warm temperatures, cooling breezes, a sterotypical day in SoCal. Flying conditions were typical - flat at first with lift building towards mid-morning culminating in periods of lift and sink. Wind direction was variable at first but settled down to a sea breeze.

Edgar, the CD, used the June club contest as our practise run so this contest followed the same format - four rounds, six minutes per round, scoring 900/100. This is quite a challenging format at Redwood given the variablility in lift over the duration of a contest so it was no surprise that scores became highly variable during the third round 'slump' that seems to occur with monotonous regularity in mid-morning.

Many of the contestants were new to Redwood and it was interesting to see how they got caught by trying to fly in areas that might have appeared to be promising but are actually pretty useless to fly in. For example, at one point a whole group of fliers were trying to get significant lift off an area above the courts to the west of the school buildings. One flier tried circling there and attracted a second, which attracted a third and so on until there were a number circling (and sinking). (Followed by a mass landing.....)

There were a couple of off field landings south of Gainsbourgh Rd. as contestants refused to admit that there was no lift, circled that one turn too many, lost sight of their planes (they started pitching wildly) and landed in a yard and on a roof (both without damage). One plane was destroyed when a launch accident threw it into the fence at high speed.

TOSS enjoyed the "home field advantage" (i.e. "we knew where the lift was") so we did well in the standings. Mike Regan got second Masters, Edgar took third Expert and Don first ThreeFunction.

(Results of the SC^2 Contest on the next page.....)

When to Launch *by Fred Sage.*

(Editor's note - this is part 3 of the series that was published in SWSA's "Popoff" but probably started life in TPG's "Gull Wings". This is a fairly long, but still interesting article. It has been mentioned to me that a very reliable "Indicator of Lift" is Fred going ballistic because he wants to launch and the winches are down.)

As you recall, for the last two months we've been discussing the importance of launching at the right time and several techniques to accomplish this objective. Managing or optimizing the use of your launch window, indicators of lift (IoL) and been observant have already been discussed as part of a three part program. The last step - being prepared to launch - is discussed in this section.

Why is it important to be prepared to launch? To state the obvious, lift is an extremely perishable commodity. The lift you've identified because of your increased understanding of IoL and your powers of observation is transient at best. Several factors can combine to conspire against lift continuing to be useful. Some of the more obvious are:-

1 The lift can dissipate as the air goes into a down cycle.
2 The lift can become diffused and the core becomes hard to follow as it drifts erratically.
3 The lift can become weakened as it approaches the inversion layer and all that remains is neutral air.
4 You make a mistake as you attempt to follow the lift and are no longer able to stay with the thermal.
5 The bottom of a "mature" bubble can drop out so that only the higher gliders are rising.
6 The lift can drift so far downwind that it becomes impossible to remain in the thermal as you approach your personal limit of visibility.
7 The lift can be separated by so much sink that its impractical to get to the lift.
8 The meteorological conditions change and limit the thermals life.

In each of these situations timing is a critical factor in the usefulness of lift. As a thermal goes through its life cycle mere seconds often make the difference.

How many times have you stood in the winch line and said to yourself *"If I could only launch now I could chase that thernal downwind and make it work for me"* ? That's a moment by moment decision. If you could launch immediately, you could catch the thermal and work it for a few minutes before you reach your limit of visibility. In this manner you could generate sufficient altitude to be able to return and catch the next thermal. However, if you delay for launch even 15 or 20 seconds, the thermal will be sufficiently far downwind that even if you catch it, you can't stay with it long enough to generate the requisite altitude. Those 15 seconds are the difference between the thermal being useful and not!

How many times have you been in a thermal only a few feet lower than the gliders above and you see the other gliders climb out while the best you're able to do is slowly lose contact? This specific situation is also a timing shortfall with is often only a matter of seconds. If you have been able to catch the thermal earlier in its life cycle , you would have been able to work the thermal while it was still strong and could be climbing out with the other gliders.

The last statement introduces the concept that thermals ebb and flow in their strengths. However, once past its peak, a typical thermal will weaken over time until eventually its no longer useful. Also the higher in the thermal column you're flying the stronger the thermal becomes until eventually the thermal bounces against an inversion layer or just runs out of gas.

With this foundation I think we can all agree that catching a thermal early can be critical. To put this another way, he who gets to the thermal first will be able to climb out higher than those that join later. This is why astute competitors will put their glider into reflex to close on a known thermal. They will gladly sacrifice the several feet that reflex costs in trade for arriving at the thermal many seconds earlier. However, these precious seconds are also available

(Continued on page 5)

Southern California Soaring Clubs
Contest Results

Contest Number: 4 **Club: THOUSAND OAKS SOARING SOCIETY**
Contest Director: EDGAR WEISMAN **Date: 6/27/99**

Place	Name	Club	Class	Raw Score	Normalized	Trophy
1.	KINDRICK, KEITH	PSS	MASTER	3,961.50	1,000.00	MASTER-1
2.	FAULKENHAM, RON	ISS	EXPERT	3,953.50	997.98	EXPERT-1
3.	REAGAN, MIKE	TOSS	MASTER	3,951.00	997.35	MASTER-2
4.	LUGO, BRENDAN	TPG	MASTER	3,950.50	997.22	MASTER-3
5.	SAGE, FRED	TPG	MASTER	3,949.00	996.84	
6.	ROE, JOHN	TPG	EXPERT	3,924.50	990.66	EXPERT-2
7.	GARLAND, STEVEN	ISS	SPORTSMAN	3,899.00	984.22	SPORTSMAN-1
8.	WEISMAN, EDGAR	TOSS	EXPERT	3,872.00	977.41	EXPERT-3
9.	SCHAT, DAVE	SULA	EXPERT	3,868.50	976.52	
10.	CHASTELER FRANK	AVTS	SPORTSMAN	3,862.00	974.88	SPORTSMAN-2
11.	BOSS, GEORGE	SULA	EXPERT	3,858.50	974.00	
12.	MCNAMEE, ART	TOSS	EXPERT	3,827.50	966.17	
13.	TOWNSEND, CRAIG	SULA	EXPERT	3,810.50	961.88	
14.	MORJOSEPH, MIKE	HSS	SPORTSMAN	3,803.50	960.12	SPORTSMAN-3
15.	SWET, BOB	TOSS	EXPERT	3,790.00	956.71	
16.	ANDERSEN, KEVIN	SULA	SPORTSMAN	3,780.00	954.18	
17.	LEE, MIKE	ISS	EXPERT	3,778.50	953.81	
18.	KHANI, ALI	SULA	EXPERT	3,728.50	941.18	
19.	ERICKSON, JOHN	none	SPORTSMAN	3,628.50	915.94	
20.	BIKLE, JOHN	EDSF	EXPERT	3,622.00	914.30	
21.	TRIST, PAUL Jr.	TOSS	EXPERT	3,616.00	912.79	
22.	THROOP, TERRY	SULA	EXPERT	3,521.00	888.80	
23.	KARP, BILL	TOSS	SPORTSMAN	3,500.50	883.63	
24.	FINKENBINER, KEITH	TPG	EXPERT	3,467.00	875.17	
25.	JUDSON, DAVID	ISS	SPORTSMAN	3,464.00	874.42	
26.	FILICE, GARY	TOSS	SPORTSMAN	3,427.00	865.08	
27.	KENYON, CHRIS	HSS	SPORTSMAN	3,363.00	848.92	
28.	SOUTHALL, SCOTT	none	SPORTSMAN	3,357.00	847.41	
29.	SCHULTE, PAUL	TPG	SPORTSMAN	3,331.00	840.84	
30.	HOWELL, RONALD	EDSF	EXPERT	3,322.50	838.70	
31.	NAVARRE, MARK	SULA	EXPERT	3,297.00	832.26	
32.	MCLELLAN, KEITH	HSS	SPORTSMAN	3,272.00	825.95	
33.	STAIRS, PETER	none	SPORTSMAN	3,152.00	795.66	
34.	NORTHERN, DON	TOSS	3-F	3,069.50	774.83	3-F-1
35.	GLASS, ROBERT	ISS	SPORTSMAN	3,011.50	760.19	
36.	HAWLEY, KARL	HSS	3-F	2,962.00	747.70	
37.	POPE, BOB	SULA	EXPERT	2,926.50	738.74	
38.	BROWN, ROBERT	ISS	SPORTSMAN	2,747.00	693.42	
39.	STERN, MICHAEL	TOSS	SPORTSMAN	2,684.50	677.65	
40.	GOODWIN, BROWNE	SULA	3-F	2,559.00	645.97	
41.	THOMAS, ROSS	HSS	3-F	2,345.00	591.95	

Place	ClubName	Fliers	Score1	Score2	Score3	Score4	Total
1.	TORREY PINE GULLS	5	997.22	996.84	990.66	0.00	2,984.73
2.	THOUSAND OAKS SOARING SOCIET	9	997.35	977.41	966.17	0.00	2,940.93
3.	INLAND SOARING SOCIETY	6	997.98	984.22	953.81	0.00	2,936.01
4.	SOARING UNION of LOS ANGELES	9	976.52	974.00	961.88	0.00	2,912.41
5.	HARBOR SOARING SOCIETY	5	960.12	848.92	825.95	0.00	2,634.99
6.	EL DORADO SILENT FLYERS	2	914.30	838.70	0.00	0.00	1,753.00
7.	PASADENA SOARING SOCIETY	1	1,000.00	0.00	0.00	0.00	1,000.00
8.	ALISO VIEJO THERMAL SOARERS	1	974.88	0.00	0.00	0.00	974.88

BUILT UP BENT WING CONTEST
August 8, 1999

LOCATION:
TOSS field at the
REDWOOD SCHOOL,
Thousand Oaks, CA
(Thomas Guide 526;E6)

SIGN UP: 8:00 am
PILOTS BRIEFING: 8:45 am
CONTEST STARTS: 9:00 am

Contest Director: Art McNamee

Built Up / Bent Wings ONLY! No Foam Allowed! Maximum 3 channels (Rudder, Elevator and Spoilers ONLY). No moving trailing edge! NO EXCEPTIONS! Fiberglass fuselages permitted. Landing Devices permitted (subject to Contest Director discretion).

ENTRY FEE: $15.00 Open Class
$ 5.00 Junior Class
Entree Fees are Non-Refundable
Entry Limited to the first 100 pilots.
No more than 6 pilots per frequency.

AWARDS:
OPEN 1st through 5th
JUNIOR 1st through 3rd
TEAM First place - top four pilots from each charter club, count for team points.

TASKS: Sunday August 8, 1999

Round 1 --- 4 Minute Precision Duration*, Landing = 25 Foot Circle, In/Out for 10% of PD score
Round 2 --- 5 Minute Precision Duration*, Landing = 25 Foot Circle, In/Out for 10% of PD score
Round 3 --- 8 Minute Precision Duration*, Landing = 25 Foot Circle, In/Out for 10% of PD score
Round 4 --- 4 Minute Precision Duration*, Landing = 25 Foot Circle, In/Out for 10% of PD score
Called Flight Order
Additional rounds may be added depending on time.

*FLIGHT TIME SCORING: One point per second, over or under.

RULES:
Pilots must show currrent AMA cards.
10 seconds to accept relaunch or to fly it out.
Transmitters and receivers must meet 1991 AMA rules

TEAMS: You must declare your AMA chartered affiliation On your entry form. No changes will be allowed after your entry is received.

Field: Mowed grass
Equipment: 12 Volt winches with retrievers.
Approximately 700' to turnarounds.

LOCATION:
Redwood Intermediate School,
Thousand Oaks, CA
On the North East corner of
Gainsborough and Camino Manazanas.

CALL FOR RESERVATIONS:
Art McNamee: (805) 526-6292
Don Northern: (805) 523-1018

to you through proper pre-launch preparations.

Lets have a look at a typical open flight order TD contest. All the competitors are sitting in the pits looking for IoL until someone becomes confident enough to launch. After launching the pilot conducts his search pattern until does indeed find lift. At that moment, his glider becomes a beacon that screams to everyone that's watching that they should also launch. Unfortunately, given the logistics and dynamics of a typical TD contest the decision to launch and the actual launch may be separated by several minutes.

The tasks that are routine prior to launching include: finding your timer, getting your score card, frequency pin, glider and transmitter and then patiently waiting in a winch line until its your turn to launch. Normally only two or three of the winches are operating and the launch lines immediately become quite long. Since everyone is trying to launch or time, finding a retriever operator can be frustrating and time consuming.

Make good use of that waiting time by taking the following precautions: ensure that your timer has the correct time set, that your transmitter and flight pack are on and working and that launch settings are engaged and that you've got an alternate thermal search pattern in mind in case the lift doesn't develop as expected. Additionally, the astute competitor checks to make sure that not too many people are launching at once, thereby creating a crowded landing zone.

As the elapsed time mounts during this process, the thermal that prompted your launch decision may no longer be useful. If you could limit the elapsed time for launch, you would have more assurance of reaching the lift you've spotted. This is where being prepared to launch can pay huge dividends.

The following are techniques that I use to prepare for launch. The list is in no particular order and effect of these suggestions is cumulative.

Location, Location, Location.....

Position your glider and transmitter close to an operating winch but far enough away to prevent it from being in harm's way. I sit close to my glider and winch lines and I insist that my timer sit close to me or I remain aware of his location. When I commit to launch it takes about 20 seconds to get from my chair to the winch line.

Postflight your Preflight

Do all your preflight checks as you position your glider and before you make a commitment to launch. In fact, during a contest, I do my preflight checks for the next round as I exit the landing are from the preceding round.

Communicate With your Timer

I find it very important that my timer and I are on the same wavelength. We discuss the upcoming round and my intentions. By doing so there's no miscommunication and we both have a clear understanding of the task. I ask my timer to set the watch for the task to avoid confusion or last minute mistakes. As I spot IoL and make my decision to launch all I have to do is turn on the transmitter and flight pack and go through a control check. Not a single second is wasted in preparation to launch.

Because I am on an exclusive frequency I retain my frequency pin throughout the contest.

If I don't have my score card I don't let this slow my progress towards a rapid launch. After all, you don't need a score card to complete your flight task for the round.

Be Aware and Fully Prepared

Study the launch tendencies of your fellow competitors and try not to get into a winch line with competitors that procrastinate.

Stay appraised of the condition of the launch equipment. If a winch has had several line breaks, avoid it.

If a winch is known to be weak be prepared to take a substandard winch in order to launch rapidly into good air.

Be prepared to act not only as a timer but also as a retriever operator.

If a competitor in front of me is unwilling to launch I'll tactfully mention that I will be able to launch and the retriever return the tow hook before the commit to launch.

Delaying at the winch can be used as a defensive or blocking tactic. This happens more by chance than on purpose, but be aware and be prepared.

Be prepared to push the launch sequence if a competitor at an adjacent winch seems to be wavering in his resolve to launch.

Be prepared for an inconsiderate pilot thermalling the launch corridor. My policy is to give him one courtesy warning to clear the area and then I will be prepared to launch in spite of his presence.

Always chose to launch on the upwind winch if it is available. This is most important - if the line breaks it will foul some, if not all, of the other winches. I don't want to take that chance.

And last, but by no means least, I'm not opposed to running to get to the head of the line.If you can beat a competitor to the line by one second it translates to being airborne one minute earlier.

The Thirty Second Drill

A typical scenario when I see IoL and I want to launch is to be at the front of a winch line in 15-20 seconds with the plane ready to launch and the timer ready to go. I visually clear the launch corridor, check the lines are clear and a retriever is in ready and I launch. This takes about another 15 seconds. At this point, if I'm right about the lift I've maximized my potential for using that lift.

Seconds count in a TD contest, particularly those seconds that are wasted while trying to launch into reachable good air. If you're able to launch expeditiously you maximize your opportunity to make your time.

Epilogue

While reading this series you may have reacted the same way as my wife did when she asked me *"Is it your intent to tell people just how obnoxious you really are?"* It may appear so, but the intent is to share my techniques, techniques that will probably improve your contest scores.

Every pilot has his own reason for competing. Mine is to win. No matter what the endeavor, if you are going to succeed you must have a plan and you must work the plan. By sharing parts of my plan with you I sincerely hope that you will become a better contest pilot.