## Newsletter of the Harbor Soaring Society

March, 1994 VOL. 31 NO. 3



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Newsletter Ed: Pete Young	(714) 892-3473

## NEWSLETTER SUBMISSIONS

The Harbor Soaring Society newsletter is published monthly. Editorial comments and articles are welcomed. Please provide all material for consideration by the 15th. of the month prior to publication. Wordprocessed material is appreciated (any major IBM compatible disk format and program). Handwritten material must be clear and legible. The editor reserves the right to edit all material. Submissions should be made to Pete Young in person or by mail to: 6592 Belgrave Ave., Garden Grove, CA 92645.

## MEETING LOCATION

Hobby Shack's Corporate Offices are located in Fountain Valley on Mt. Langley St., (one block west of the Hobby Shack store on Bandilier Circle) on the NE corner of Ellis and Mt. Langley.

## HSS FEBRUARY MONTHLY MEETING

The February meeting was called to order by Steve Fink.

The meeting place for March will be at Hobby Shack Corporate Offices, Star Bldg, Mt Langley St, Fountain Valley (near the 405 and Euclid). Thanks to John Lupperger for arranging this.

Coordinator Contest Aguirre opened the meeting with a report on upcoming events. There will be only 9 SC2 contests this Scaring Inland (ISS) will host the first contest on March 27th in Riverside. New for this year is a Senior Class for fliers aged 60 and older with 1 trophy going to the top placing person. Sportsmen fliers cannot use these wins to advance their classification. Also, AMA numbers will be mandatory either on or in aircraft for SC2 fliers.

The Pasadena Soaring Society (PSS) 2 day event will take place April 30 - May 1. The Masters of Soaring will be May 14-15 at Covina, hosted by Silent Wings Soaring Association. Airtronics will be sponsoring a Soaring Clinic with Joe Wurts at El Dorado Silent Fliers in March. A firm date has yet to be set.

RSS' proposed Electric contest has been postponed due to conflicts with North County Clouds' SC2 date, May 29.

(continued, page 2)

February Monthly Minutes, cont.

Previous month's minutes and the Treasurer's reports were accepted as read.

OLD BUSINESS: Steve Fink announced that the proposed amendment to the club bylaws concerning the duties of the Contest Coordinator are still pending. Steve presented the new club winch and turnarounds - thanks for the chute, Steve.

NEW BUSINESS: George Siposs commented on the sluggish nature of club monthlies, especially with the addition of a new class. A suggestion was made to hold the Classic Event on a separate day. The decision was made to see how the next 2 or 3 contests go before making any changes.

The idea of a pre-meeting get-together was discussed with several members volunteering to hunt down likely sites.

of BTA showed a video and provided a demonstration of telemetry systems and autopilots manufactured by his company. Details of BTA's autopilot system were in the Dec 1993 issue of RCM. Although not ideal for sailplane applications due to size and weight, the devices and their functions are well suited for larger engine powered model aircraft.

Erik Marcussen, Secretary

### FY

... Seen at the field: Manny Tau's impressive V-tailed Unlimited featuring aluminum honeycombed wing substructure, Bob Sliff's new prototype 2M

Gnome with new airfoils and structure... the Mako Team is hard at work readying Mako refinements and developments, stay tuned... owners of Eagles, Falcons, Shadows, Makos, or Legends: check out Fred Sage's V-tail mod in the Want Ads (thanks to TPG Newsletter) ... Fred will have stabs available for purchase at the March 27 SC2 in Riverside ... fairly reliable word is that Airtronics has discontinued all built-up kits except for Whispers... entry form for the Visalia North/South contest is enclosed, entries are first come/first served, get those forms in now if you're serious... HSS has received good industry support for the Classics Event, contact Pete Young if interested in discount certificates for Pierce kits (Paragon, Gemini) or Buzz Waltz sailplanes (Conquistador, Soar Birdy, Big Birdy, Preditor) ... better yet, come to the March monthly meating to win a kit donated by Airtronics...

## **FEBRUARY MONTHLY**

CD Steve Fink welcomed a large turnout to a perfect Southern California soaring day: temperature in the low 70s, light breezes, and a beautiful sky marked by high altitude cirrus clouds. The format was a 15 minute add-em-up, 3 rounds, with a 6 minute limit per round. Graduated circle landings were best two out of three.

This was the second Monthly with Classics flying with the Unlimited and Two-Meters, and turnout was excellent for all three classes. Lift was plentiful although never strong, but all in all, this was an exceptionally pleasant day for soaring.

When the final results were (continued, page 3)

February Monthly, continued:

tabulated, Roger Lackey and Sean Monahan finished 1-2 in 2M with Agnew Banshees, and Bob Sliff came in 3rd with his new (and good-looking) Gnome development prototype. In Sportsman, Gerald Briggs won for the second month in a row. Tom Vincent topped Advanced with his Mako, and Jerry Bridgeman took second with a Fako. In Expert, Mike Aguirre and Ben Clerx topped a tough field with Makos, and Bob Sliff took third. Steve Fink won Classic with his SULA-Bird.

- reported by Pete Young

## THE 6th ANNUAL SOUTHWEST WINTER SOARING CONTEST

by Tom Vincent

The 6th Annual Southwest
Soaring Contest was held in
Gilbert, Arizona on Feb 5th and
6th. This sanctioned AMA event
was hosted by CASL - Central
Arizona Soaring League, and they
did an incredible job in getting
all the pilots through the
rounds.

The flying conditions for both Saturday and Sunday were outstanding with temperatures in the upper 70s to low 80s. Winds were mild unlike the 25 - 30 mph gusts last year that produced so much carnage on the ground and in the air. The stage was set for one enjoyable contest.

The flying site this year was similar to last year except for one noticeable difference - grass landing strips. Boy! Were they ever a welcome sight since this flying field consists of nothing but barren sunbaked earth hardened by the harsh Arizona sun. These grass strips

were heaven, covering the concrete landing sites of last year. What a difference a year makes!

Six fliers from HSS made the trek this year: Ben Clerx, Roger Lackey, Sean Monahan, Steve Fink, Mike Aguirre, and myself. Most arrived Friday to scope out the flying area and check out equipment.

The contest format consisted of 8 rounds with 5 on Saturday and 3 on Sunday. The contest was actually broken into two events, a three minute triathlon and a five round precision duration. A three minute round of precision duration was an excellent choice to start the contest and proved to ease the jitters of most pilots.

The main event for Saturday was the triathlon during the second, third, and fourth rounds. Each round was no longer than 10 minutes with heavy penalties for landing on the odd minute. The warm Arizona sun kicked off enormous thermals lifting most of the open class ships out of sight. It seemed to take only 3 or 4 turns to double your altitude in these huge thermals. However, since all was equal in the air, the men and the boys were separated at the landing strip.

The landing target was a 20 foot string worth 100 points. Two points were lost for every inch away from the string. A missed landing by two feet meant giving away almost half the available landing points. In this tight competition you needed all the points you could gather on the ground. The contest was tough and ultimately was decided on the grass.

The first three rounds concluded with Joe (The Great One) wurts winning the triathlon. Our (continued, page 4)

## SOUTHWEST WINTER CONTEST, cont.:

own Mike Aguirre flew possessed, slicing the competition off at the knees and finishing just behind Joe with a strong 993 out of 1000 possible points, good job Mikey!

The fifth round was a 5 minute precision duration to end the first day. This score, along with the first round, would be added to Sunday's totals to finish out the precision duration part of the contest.

On Saturday evening CASL hosted a Western style barbeque with lots of good eats. A beautiful Arizona sunset provided the perfect backdrop during the BBQ. After everyone had gone back for seconds, there was still plenty more food for thirds. This is what I call the true meaning of "all you can eat." An enjoyable evening was had by all under the stars.

Sunday morning was
beautiful for 3 rounds of
precision duration. The lift was
less predictable than Saturday
due to a cool morning. Strong
bubbles of lift were surrounded
by big sink causing many fliers
to miss their times. In just
four hours, 125 pilots finished
three rounds of flying, wrapping
up by 12:30PM. What a great job
by CASL!

The contest concluded with overall finishing honors as follows. 1st - Joe Wurts, 2nd - Steve George, 3rd - George Joy, 4th - Ben Clerx, and 5th - Fred Weaver. Ben flew with his usual cool, consistent style that almost bagged him the win. Good going, Ben!

The team trophy went to the Pasadena Soaring Society.
Overall the contest was a huge

success for all who attended except Sean. Let's all close our eyes for a moment for Sean's Shadow which decided it wasn't interested in flying anymore, sorry Sean.

As a final note, the CASL staff should be commended for their preparation and control of the contest. They did everything right to make this contest enjoyable and fun. Unfortunately, we will have to wait another year to do it again.

editor's note: ... and thanks to Tom Vincent for a terrific writeup!

## REVIEW OF THE X-CELLENT III by Manny Tau

Hans Muller (Germany) is offering an exciting new F3B glider, the X-Cellent III. What makes this a glider worth looking into is the use of a honeycomb matrix in its molded hollow core wings and fuselage. Here are some general specs:

Wingspan: 107 inches
Airfoil: RG-15
Wing area: 1007.5 sq in
Wing root: 9.8 inches
Wing loading: appr 10.2
oz/sq.ft.
Fuselage: 53 inches OAL with
slip on nose cone
Wing: 3 piece, carbon joiners,
3 degrees at each tip panel
Removable V-tails, preset

Yes, that's right - a F3B strong ship at a flying weight of only 70 ounces! This is accomplished through the use of a Nomex type honeycomb laminated with thick aluminum foil, carbon, and glass in the wings. The (continued, page 5)

Flying weight: 70 ozs.

at 105 degrees

## X-CELLENT III, continued:

laminate is approximately 2mm in thickness, and is very light and strong. The V-tails are made out of a balsa laminate and are a molded hollow core design. 2 steel 2.5mm pins are used to retain each stab, which are inserted into preset tubes criss-crossed in the fuse.

The wing center section has two recessed steel bolts that mount into the saddle on top of the fuse, with the forward bolt going into a threaded brass tube inside the fuse. The supplied towhook (though I had a heavier one machined for me), bolts into this same threaded tube from the bottom of the fuse, about 1/4 inch in front of the pre-marked CG - a good design to spread out the loads. The tip panels slide onto the center panel via a 3 degree rectangular carbon rod that's sheathed into the spar that goes from tip to tip.

The aspect ratio of the wing is lower than most of the more popular ships out here There has been some speculation about parasitic drag and minimum sink disadvantages, but the increased wing area, low wing loading, and large tip area makes me think that advantages can be seen in light lift conditions.

Both the wing sections and V-tails have skin hinges with balsa facing on the open ends to give a knuckle-joint fit. The V-tails over-hang the end of the fuse, so linkages can be made with ball joints and solid wire pushrods coming out the end of the fuse.

The fuse itself is laid up with the honeycomb material laminated in carbon and glass.

It's very strong and light and exhibits very little flex in the boom. The nose cone and front section of the fuse is a heavy glass, and has a tight fit. The diameter of the fuse is considerably smaller than Muller's Comets.

I ordered two X-Cellent III's direct from Muller and had them delivered straight to my domicile. Muller's shipping company and Federal Express were able to deal with customs without my having to hassle with customs at LAX airport.

The gliders are virtually in finished form, only having to install servos and control horns, servo tray, and setup of the V-tail linkages. The wings and V-tails have a light gelcoat of white on top and red on the bottom. Dawson and Steve Lewis showed me a unique and effective method to set up the V- tail linkages, utilized on their Ultra-V's (Polish designs I believe). Ball joints were used, with the steel hells silversoldered onto thick music wire that had the proper angles, and securely mounted on the ends of the V-tails control surfaces. This allowed me to take advantage of the removable stabs, also allowing smooth control inputs without any binding since V-tail surfaces don't have a linear Airtronics 141 servos were path. used throughout, mounted flush into the wings. It was somewhat unnerving to cut into the wings with this new design!

Flying the X-Cellent III was a dream. Light lift conditions showed positive control without noticeable adverse yaw or dutch roll tendencies, common with undersized or incorrectly angled V-tails. I was able to fly above the floaters and cover a lot of airspace. Roll response was sensitive due to the large surface (continued, page 6)

## X-CELLENT III, continued:

area of the ailerons and flaps. 4 point rolls were easy and crisp. Pitch control was high and stable. This is due to a relatively long tail moment and V-tails not needing very much deflection for pitch response. Winching the ship proved to be solid with rotation immediately out of my hand. Zooms off the end were quite high even at a 70 ounce weight. Point the nose down and acceleration was immediate, mostly due to the clean design of the ship and the RG-15 airfoil.

Close to 4 pounds of ballast can be placed into the wing's center section via a 16mm ballast tube attached adjacent to and behind the spar. melted lead into brass tubes 17/32" O.D. x 12" will give you an additional pound. I've set up my X-Cellent III with a maximum ballast of only 3 pounds since I have some anxieties about putting in 4 pounds of lead ballast - something about equalling the weight of the ship with lead - maybe some Kanax or ignorance would help. Wooden dowels are used to center the various ballast increments and reduce inertia effects towards the tips.

Flying with 2 pounds of ballast revealed excellent energy retention and gentle stall characteristics. Stalling the ship showed no tendency to abruptly break in either direction and recoveries were quick. Fast "bank and yank" turns with ballast showed no tendency towards high speed wing stalls, probably due to the wing area and large tips. Speed runs from high altitude exhibited

stable flight characteristics without the "tail wagging" common with undersized tail surfaces.

Generally speaking, this ship is really a blast to fly in any condition. It's the closest thing I've seen to a multi-task glider light enough for thermal duration competition coupled with F3B strength. I've only got about 5 hours of stick time on the ship, and so far have been highly impressed. Talking with highly experienced F3B flyers, there's some concern about its performance in the distance task due to the low This might be an aspect ratio. important point since I do have some reservations about the 10.3 AR and a target of 24 laps for distance.

Our F3B team (KAOS) will be practicing in a couple of weeks and will check this out along with performance in the speed tasks. If anything, this ship is an excellent thermal duration glider that can also burn up the slopes.

Hans Muller is offering the X-Cellent III in two design configurations. Design A is with honeycomb/carbon/aluminum/glass laminate and Design B uses balsa laminate. Design B is a little heavier, though about DM 100 cheaper. Northeast Sailplane products is the U.S. distributor for the X-Cellent III. Last time I talked with Sal, he said he'll have about 4 in stock by February.

I hope this provides some helpful information. Please feel free to forward any info you may have on other F3B gliders in production as information is hard to acquire.

Editor's note: thanks to Manny for submitting this intriguing article. The X-Cellent III truly redefines "high tech"!

## **FOR SALE**

 Harbor Soaring Society hats, shirts, and vinyl patches contact Andy Sanders at (714) 751-9235. Mini-Challenger, cobalt 035, with motor battery, on/off motor control, \$100. Phasoar, cobalt 035, 4 ch Futaba, micro-servos, \$200. Graupner Cirrus, extra tip panels, 4 ch radio, \$200. CG Electra, geared motor, 2 motor batteries, on/off motor control, Airtronics 4 ch FM radio, \$200 or \$100 less radio. Michael Morjoseph, (714) 960-2835. P-51 Penetrator high performance slope ship, NIB, \$65. Kyosho scale Zero, ARF electric with 05 motor, battery, props, etc, still in box, \$130. Pat Stoker, (310) 598-9029. "Tango 3," modified straight wing Falcon 880, SD3021 airfoil, 4 wing servos mounted in Ziegelmeyer servo mounts; flaps and ailerons use aluminum tubing full length Ziegelmeyer gapless hinges. Rudder and elevator servos are Airtronic 102 servos in a glassed-in tray. Rudder is tube hinged, not taped. Fuse recently refinished with automotive lacquer, highly visible at altitude. Includes battery pack and switch harness. Includes custom carrying box and spare stabs, \$675 firm. Steve Fink @ (h) 714 645-0459, (w) 714 261-2825, ext 229 Handlaunch/slope Vertigo, Ttail, complete with all servos, RX, and Airtronics 6 channel Vanguard radio, \$165. Goblin slope kit, NIB, \$50. TEKOA Feather Cut system, complete, plus 50" bow and 6 sheets white foam, \$150. John

Ostrowski @ (714) 847-4871. - LJMP Meteor, NIB, glass fuse, 120" span, \$140. Airtronics Legend, NIB, \$180. Ridge Rat, glass fuse, RTF, \$75. Midwest Silent Squire, foam wing, NIB, \$30. Aquila Grande NIB, \$125. Call Dave Nemecek at (714) 775-7196. 2M Whisper, RTF less radio, \$125. 2M Gnome, 4 channel Airtronics PCM, RTF, \$225. Bill Duncan, (714) 892-8665. Sealy Laser: S-3021 airfoil, glass fuse, balsa/foam wing, 124" span, slip-on nosecone, kit NIB, \$140. Call Mike **Aguirre at (714) 645-6419** - Airtronics Vanguard TX & RX (CH 28), make offer. Curt Nehring @ (909) 592-2105. - Uplifter 2M glider (prototype), R/E, \$60. 2M Gnome-electric for direct drive, \$100. Astro Challenger, \$30 bare, \$100 with Astro 05 geared motor and prop. 2M Gnome with two wings (poly and flat), \$100. Sensoar 2M glider, \$40. Sensoar electric, \$40. Slope Squire (electric or slope), \$40. Das Slupen Thing glider, \$25. 3 Electric Playboy fuselages (no wings included), \$50. Glass bagged V-tail stabs ready for installation for Thermal Eagle, Falcon, Shadow, Mako, or Legend. Shadows, Falcons, and Makos fly with no nose weight required. Thermal Eagles, fly with less than 1 oz, Legends fly with less than Total weight reduction on above planes is 10 to 12 oz! Installation takes about one hour. Handling qualities are equal to or better than stock configuration. Price \$35. Fred Sage, 17232 Cuvee Ct, Poway 92064-1214, (619) 485-6239

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**FEBRUARY 1994** 

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### UPCOMING EVENTS CALENDAR

5 Mar	SULA 2M/Open Monthly, Dominguez Hills
6 Mar	HSS Monthly, Costa Mesa
13 Mar	EDSF Open Monthly, El Dorado
19 Mar	SULA 2M Monthly, Dominguez Hills
26 Mar	EDSF 2M Monthly, El Dorado
27 Mar	SC2/Inland Soaring Society, Riverside
Apr 10	TOSS Two-Meter "Top Gun", Thousand Oaks
	SC2/TOSS, Thousand Oaks
Apr 30-1May	Pasadena Rose Bowl/PSS (Unlimited/2M)
May 21-22	North/South Challenge at Visalia
	World Soaring Jamboree, Washington State
May 29	SC2/North Country Clouds, San Marcos

future SC2 tournaments: June/TPG, July/RSS, Aug/SWSA, Sept/EDSF, Oct/PSS, Nov/SULA

## For more information, call Mike Aguirre at (714) 645-6419



The Inland Soaring Society invites you to the first SC2 contest of 1-9941

Date: March 27, 1994

All rounds are scored man on man! Call-up flight order!

Round 1: 4 minute goal Round 2: 6 minule goal

Round 3: 8 minute goal Landings for each round are carrier style on a 25' runway. Each round has 900 flight points and 100 landing points.

Location:

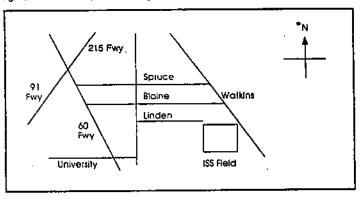
ISS field on the University of California, Riverside campus. (See map below). From the 60 freeway, exit on Blatne St. east to Canyon Crest, south to Unden, north to dead end, right onto flying field.

12 volt winches with retrievers, 600+ feet to turn-around,

large open grass field.

Contest Director: Todd Billman (909) 683-8571 Club President: Joe Rodriguez (909) 924-9537

Signup starts at 8:00, pilots meeting at 9:00, flist launch at 9:30



### HSS MARCH MONTHLY

DATE: March 6 CD: Roger Lackey FORMAT: 3 rounds precision duration, 4/6/8 minutes, pilot's choice (one round must be scored as an 8"), 25' graduated circle landings. THIRTEENTH ANNUAL ROSE BOWL SOARING FESTIVAL AND TRADE SHOW APRIL 30111, MAY 151, 1994 SPONSORED BY THE PASADENA SOARING SOCIETY

THIS IS AN AMA SANCTIONED EVENT: ALL AMA RULES APPLY

LOCATION: PASADENA'S BROCKSIDE PARK, ROSE BOWL SOARING FIELD: SEVENTEEN ACRES OF GRASS

UNUMITED AND TWO METER CLASSES:

TASKS: BATURDAY APRIL 30TH

POUND 1 - 1 MINUTE PRECISION DURATION ROUND 2 - 18T FLIGHT OF ADDEMLIP POUND 3 - 2ND FLIGHT OF ADDEMLIP ROUND 4 - SED FLIGHT OF ADDEMLIP

BUNDAY MAY 18T ROUND 8 - 8 MENUTE PRECISION DURATION ROUND 8 - 4TH FLIGHT OF ADD-EAUP ROUND 7 - 8 MENUTE PRECISION DURATION

The add-em-up rounds will consist of four flights to make 24 minutes, with no round over 8 minutes. On Bunday, pilots will have the option to fly round 6 before round 5. The landing area will be near the center of the field and available for inspection prior to the centest. Scoring emphasis will be on therms duration, penelty for flight times over will be 10 points per second.

TROPHIES: Unimited - 1st titru 10th Place Two First Place Team - Top 4 Dues paying members of a sanctoned club.

TIME: PROSE meeting 6:45 e.m. each day First fight \$100 s.m each dev

RAFFLE:

TRADE SHOW: SELECTED MANUFACTURERS WILL DISPLAY WHAT'S NEW IN THE HOBBY ON SUNDAY MAY 1 ST

TRADE SHOW COORDINATOR INFORMATION: RICHARD BURNS

(618) 812-0491

AL ZIMMERMAN (818) 781-8891 (818) 500-9019

ENTRY FEE; \$22.00 FOR 18T ENTRY. \$11.00 EXTRA TO FLY BOTH CLASSES

NOTE: AS IN ANY MAJOR CONTEST, ENTRY FEES ARE NON REFUNDABLE

RV PARKING: OVERNIGHT PARKING FREE - FRIDAY APRIL 201H, SATURDAY, APRIL 301H. No hook-upp

Entry Form: Please make checks psystile to 'Pseudom Sonring Society' Phone ( ) RV Parking? T-Shiets @ \$13.00 e Two Meter 1st 2md NOTICE: CHANNEL 12 13 NOT USABLE AT THIS FIELD Entry Fea MAIL ENTRY TO: Pasademi Souring Society, c/o. Al Zimmerm 1328 Branta Dr., Glendale, Ca. 91208 Total Enclosed

EVENTS: 2M, Open, Classic Classics to fly first, 2M and Open to fly concurrently. PILOTS' MEETING: 8:45AM

## NORTH/SOUTH

## CHALLENGE AND SHOOTOUT

Date:	May 21822 1994
Time:	Saturday & Sunday 8:00am Pilots Meeting.
1110.	Wirst flight 8:30 both days.
<b>= -</b>	CVRC flying field Rd. 80 and Ferguson Visalia.
Place:	\$30.00 Non-refundable, non-transferable.
Entry:	All entries met be postmarked prior to April 30 1994.
	All entries set De postsetted plots to special and the affred
	Entry limited to the first 234 no more than 9/freq.
	(Please give more than one freq. choice)
Dividing line:	Northern entrance to Grape Vine by residence.
Task:	6 rounds Saturday no round starting arter spa.
	A rounds Sunday no round starting after IPE.
Landing:	75 weber radius, 1.5 meter radius, 3 meter radius.
Trophies:	Perpetual for winning team, individuals for top 12 on
Hophies.	winning team.
	Chicken or beef at the field at 6:00pm Saturday \$9.00.
BBQ:	Sold at the field price depending on style.
T-Shirt:	Sold at the field price depending on any
Food:	Lunch truck at the field both days.
CD:	Ed Hipp 209-625-2352, 1925 Ferguson, Visalia, Ca 93291
Asst. CD:	Jerry Fox 209-733-8091.
Confirmation	:To be mailed May 10 1994

## North/South Challenge May 21&22 1994

C1ty:	State:		
Phone:			
Treq.: 1st2nd	3rd	_cvrc m	(y/z)
intry Fee: \$30.00			\$30.00
BQ: Qty x \$9.00			\$
		Total	\$
<b>Nake checks Payable to: C</b>	VRC	Total	\$
Send to: ED Hipp 1925 W. Fergus Visalia, Ca. S			

## OPEN CLASS

NAME	CLASS	SCORE	NORMALIZED	PLACE
MIKE AGUIRRE	EXPERT	1992	1000.00	1ST.EXP
BEN CLERX	EXPERT	1980	993.98	2ND.EXP
BOB SLIFF	EXPERT	1971		3RD.EXP
MIKE CARRICO	EXPERT	1970	988.96	
STEVE FINK	EXPERT	1968		
TOM VINCENT	ADV.	1966	986.95	1ST.ADV.
ROGER LACKEY	EXPERT	1964		
PAT STOKER	EXPERT	1963	985.44	
NORM KUTCH	EXPERT	1955		
JERRY BRIDGEMAN	'ADV	1952	979.92	2ND.ADV.
GORDON RITSCHKE	EXPERT	1948	977.91	
MANNY TAU	EXPERT	1942	974.90	
LARRY ENGER	EXPERT	1923		
FRED BIDDLE	EXPERT	1916		
ROSS THOMAS	EXPERT	1876		
PETE YOUNG	ADV.	1866	936.75	
NICK BUZOLICH	ADV.	1834		
DAVID NEMECEK	EXPERT	1823	915.16	
PETE RICHARDSON	EXPERT	1774	890.56	
DICK PANTZAR	EXPERT	1634	820.28	1
GERALD BRIGGS	SPORTS.	1537	771.59	1ST. SPTS.
MAC KIELTYKA	SPORTS.	1376	690.76	
AL CRON	EXPERT	134		
BILL DUNCAN	EXPERT	1120		
DAN WILSON	GUEST	102	9 516.57	1

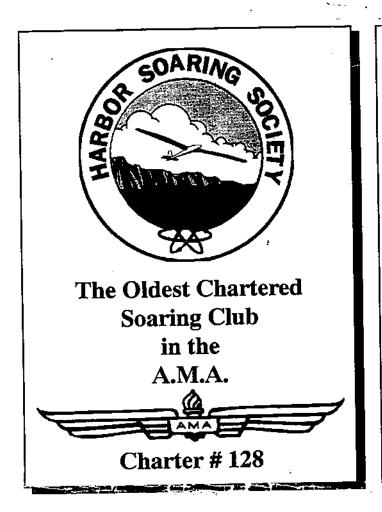
TOM VINCENT MOVES TO EXPERT

## 2 METER

CLASSIC

VAME	SCORE	NORMALIZED	PLACE
ROGER LACKEY	1992	1000.00	1st.
SEAN MONAHAN	1988	997.99	2nd.
30B SLIFF	1977	992.47	3rd.
STEVE FINK	1970	988.96	
PETE RICHARDSON	1962	984.94	
MIKE AGUIRRE	1956	981.93	
ROSS THOMAS	1491	748.49	
NICK BUZOLICH	1480	742.97	
ERIC MARCUSSEN	1429	717.37	
NORM KUTCH	1304	654.62	
MAC KIELTYKA	1038	521.08	

SCORE	NORMALIZED
1979	1000.00
1973	996.97
1962	991.41
1945	982.82
1932	976.25
1916	968.17
1859	939.36
1851	935.32
1838	928.75
1717	867.61
1674	845.88
1606	811.52
1395	704.90
1030	520.46
	1979 1973 1962 1945 1932 1916 1859 1851 1838 1717 1674 1606 1395



### MARCH HSS MEETING

DATE; Wednesday, March 2, 7:30 PM

MEETING LOCATION HAS BEEN CHANGED!!

- Hobby Shack Corporate Offices, Star Bldg, Mt Langley St., Fountain Valley

SHOW & TELL: Bring in your latest projects!



P.O. Box 1673 Costa Mesa, CA 92628





## FIRST CLASS MAIL

WILL CONRAD 9359 SHRIKE AVE FOUNTAIN VALLEY, CA 92708