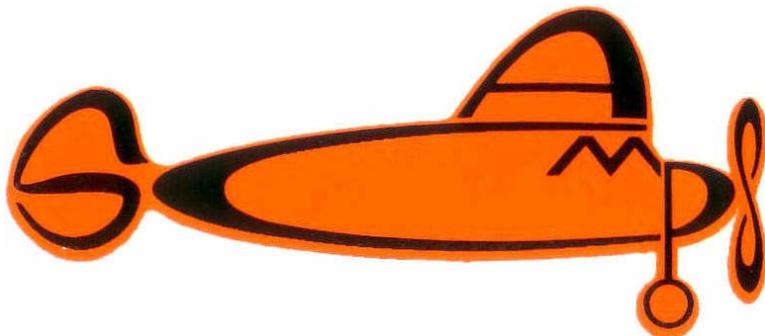
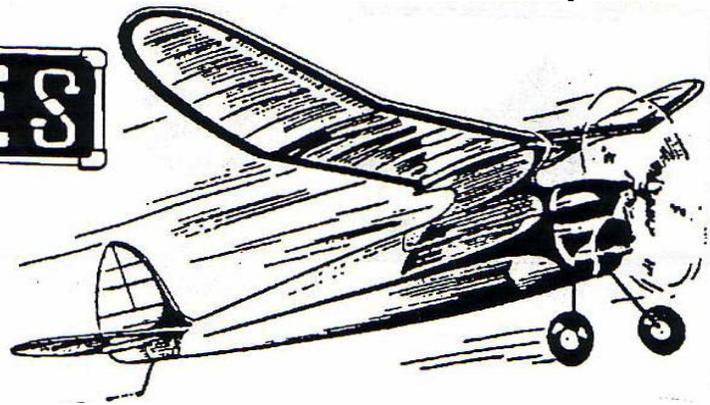


September 2007



Southern California Antique Model Plane Society -- S.A.M. Chapter 13 -- AMA Charter #158
Website address: <http://SCAMPS.homestead.com/>

RETURN ADDRESS:

*Kevin Sherman
1521 South Normandy Terrace
Corona, CA 92882-4036*



GAS



LINES

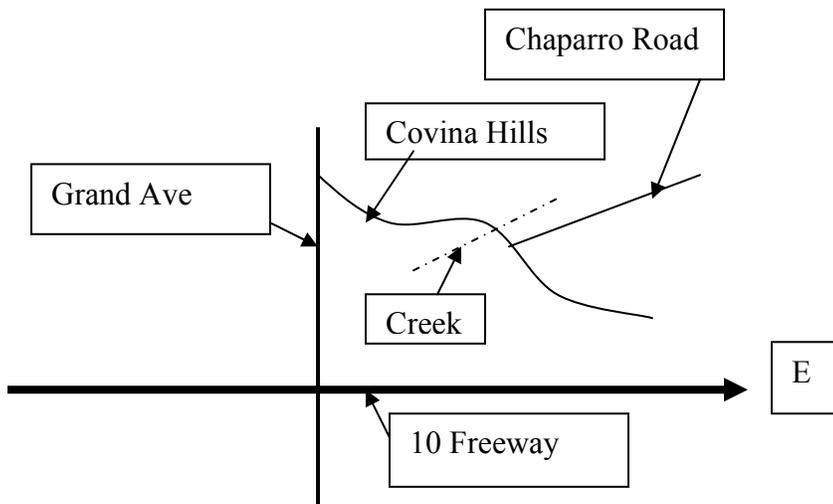
AMA 158 – Southern California Antique Model Plane Society – Sam 13

SCAMPS 2007 Officers

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Meeting Coordinator	Hal Wightman	(714) 528-1850	Hal_Judith@Prodigy.net
Safety Officer	Ted Firster	(951) 776-4971	Civyboy31@aol.com



The SCAMPS September meeting will be held Friday, September 7th at 7:00 PM, at the home of Walt and Betty Huhn, makers of the Super Cyclone engine. Directions to the Huhn's residence - From the 10 Freeway in Covina, exit North on Grand Ave. Go past the Grand Creek Shopping Mall to the first street on the right. That will be Covina Hills Road. Proceed about a half a mile East on Covina Hills Road, and just after crossing over the creek, turn left onto Chapararro Road. Walt's house is the 11th on the left with milk cans as their mailbox. Address is 665 Chapararro Road and his phone number is 626-332-0023. Remember these directions are minimal, so if you are unfamiliar with the Huhn's residence, it is advisable to consult a map. See you all there...



SCAMPS August Club Contest by Bernie Crowe

Despite the heat, we had a good turnout for the August Club Contest, with five entries in OT Small Rubber, and five entries from three flyers in Electric FF. The day started very pleasantly with little drift and temps around 78, but the ol' mercury was pushing 100 by the time we wrapped it up. Due to a glitch in the donut schedule, Joe Jones gallantly volunteered to make an emergency run for the essential provisions without which no self-respecting SCAMPS member will fly. We enjoyed the company of Fernando Ramos and John Donelson up through donuts and joke-telling, plus some spirited discussion on the merits (or lack thereof) of Cricket, but then those two stalwarts took off for their annual trip to the UK Nationals.

In **Small Rubber**, Hal Wightman took the win flying his new Gollywock to a total of 432 seconds in three flights, two of them solid maxes. Hal has only recently started flying rubber and is coming on gangbusters! Joe Jones had a couple good flights with his Gollywock, but dropped his third flight badly to total 171 (broke a sub rudder and didn't realize it causing model to go out of trim). Skip Robb had consistent flights with his FAC Moth and edged out Joe with a 176. Allan Arnold was putting in some impressive vertical climbs with his Jabberwock. Allan scored a 152 and a 101 but did not make a third flight because he broke the only motor he had with him. I didn't fly my 'Wock until late in the morning due to an almost pathological preoccupation with electric flight, and when I did go I caught a humongous thermal that wouldn't let go of

the plane even after it DTd. When it finally did get loose, the little plane caught the power lines on its way down. Fortunately it wasn't damaged and Kevin retrieved it for me on his bike. Still, even the partial trek across the plowed field in 100 deg heat was a trial. I immediately flew again, thought I'd caught another thermal and almost breathed a sigh of relief when I got down air instead, and only made 104. I decided discretion was the better part of valor and quit.

We had a SCAMPS-first **Electric Free Flight** competition, in the spirit of exploring new and interesting events. The Club is no stranger to electric, being treated to the incredible flights Dick Smith puts up each week with his semi-scale NiCad powered planes. But we wanted to jump start some interest in the newer competitive electric classes, E36 and F1Q. E36 is an AMA event for planes powered by conventional brushed motors and NiCad or NiMH batteries, and restricted to 36 ins wingspan. F1Q is an FAI event which allows the use of hi-tech brushless motors and LiPo (Lithium Polymer) batteries as well as NiCad and NiMH. Both classes limit the weight of batteries that can be used, and require a timer to limit the motor run plus a safety device to ensure the motor cannot be restarted inadvertently after landing. More on the rules for these events next month.

Because the various classes have greatly different performance potential, we flew together as a fun fly, recording flight times but not looking for wins or losses. Allan Arnold has had an F1Q plane for a couple of years, and has recently purchased an E36 "Sparks", and planned to fly both. Unfortunately his F1Q ship, an electrified A2 glider, suffered a technical problem and couldn't be flown. The little E36, however, put up some impressive times, which



Here is Hal Wightman with his winning Gollywock. Hey Hal, the rubber flyers are requesting you go back to flying Gas!



Skip Robb did well in small rubber also

years, and has recently purchased an E36 "Sparks", and planned to fly both. Unfortunately his F1Q ship, an electrified A2 glider, suffered a technical problem and couldn't be flown. The little E36, however, put up some impressive times, which

Allan will undoubtedly improve on as he gets the plane fully sorted. The “Sparks” and all its electrical components are available from BMJR Models at www.bmjmodels.com.

Dick Smith gallantly flew both his “Snorty” and Watzke “Mini Special” He recorded five 100-sec+ flights, and the last one was 196 secs in a knee-wobbling thermal and a half-hour chase. Dick wisely decided to call it quits there. With the addition of a timer module and fitted to 36” spans his planes pretty much fit the E36 rules as-is.

I had built an F1Q plane, and used the Club Contest as a chance to try it out prior to the Orbiters/Fresno Gas Dual Clubs Meet at Lost Hills Sept 1 and 2. I selected the components of the electric system myself, and fitted them (shoe-horned ‘em, actually) into a standard 1/2A airframe. The model is the “1/2A Time Machine” published in the last issue of Model Aviation, and is a pretty standard 300 square inch gas model. The electrical system weighs more than a gas engine for the same power, but the model has good performance nonetheless. F1Q rules limit the engine run to 25 seconds and set the flight max at three minutes, or less at the discretion of the CD. My new plane maxed out the first three flights easily, and I then followed the rules of reducing the engine run in 5-second increments for subsequent fly-off rounds. The plane continued to max down to the 10-second engine run, though it only just squeaked out the three minutes on that one.

These electric planes are a lot of fun to fly, and are probably the wave of the future in modern free flight duration. There seems to be a fair bit of interest on the part of the Club membership, so we will have an article on both E36 and F1Q in the next issue of “Gas Lines”. Good contest again, and plenty of fun. Next month we have 1/2A Texaco and Moffett. Come on out and join the fun. Results below:

SMALL RUBBER

1) Hal Wightman	180/72/180	432
2) Bernie Crowe	180/104/dnf	284
3) Allan Arnold	152/101/dnf	253
4) Skip Robb	53/53/70	176
5) Joe Jones	76/80/15	171

ELECTRIC FUN-FLY

Allan Arnold E-36	83/67/71	221
Dick Smith “Snorty”	110/125/129	364
Dick Smith “Watzke”	102/196/dnf	298
Bernie Crowe F1Q	180/180/180	540
Allan Arnold F1Q	dnf	

SCAMPS Membership



Bernie preps and launches his Gollywock

In 2007, we introduced the E-mail membership to the SCAMPS. The idea came from Carl Bakay, of SAM Chapter 59, the Cloud Climbers in Louisiana. When Carl took over the *Hot Air*, his club’s newsletter, he proposed the idea of offering the newsletter to their club via E-mail. I was intrigued and went to school on the process. In short order, I contacted Carl to discuss how it was working out and received glowing reviews. Carl was so kind in fact that he sent me the software needed to convert the Word files to PDF files. By converting to PDF from Word, the file size is cut dramatically, and all those pictures don’t take nearly as long to open. The SCAMPS’ club officers discussed the idea of offering an E-mail membership because it seemed like such a viable idea. SCAMPS’ officers liked the idea and the response has been wonderful. Since the main expense for the club is printing and mailing the newsletter, we are able to offer E-mail memberships at a significant discount (\$10 per year) over our regular snail mail membership price of \$25

Not only have we seen many of our existing members take advantage of the E-mail deal, but we have signed up many new members because it is too good of a deal to pass up. Secretary/Treasurer George Walter sent me the latest breakdown on our membership. We currently have 119 members, 64 of them E-mail and 55 snail mail. To give an idea on the growth of the club, we have gone from roughly 80 members 6 years ago, to the current 119. The SCAMPS have enjoyed slow steady growth, but we have had a recent influx of new members. We want to welcome Bob Beecroft, Jeff Carman, Mark Eddingfield, Tim Firster, Chuck Herington, Robert Hodes, Eric Jorgensen, Lud Kading (of K&B), Alber Moskalski (who has been having more fun with a Sniffer and a foamy with an 020 mounted on it than anyone should have), Bob Hoffmaster, Ralph Ray, Tom Smith, Eugene Turner, Dan Hodges, and Tony Widgery. George also reports that a few members joined the club after finding our web site and printing a membership form.

AMA Nats Report

I heard from Carl Redlin and Larry Davidson regarding their trip to the Nats at the AMA Headquarters, Muncie, Indiana. Carl usually takes a road trip with Bill Vanderbeek and Bud Romak in the motor-home, but this year, they were one short. Carl said Bud had a heart attack the week before they were going to leave. *Editor's Note: Bud is doing much better now, but told me the doctors have put him on a restrictive diet so they will probably not drive 600 mile out of the way to eat the world's greatest seafood (inside joke). They also told him to call 911 if he ever has another heart attack, and not to take the time to shower and shave before getting to a hospital! Also, it was suggested that driving himself to the hospital was probably not the best of ideas! Just kidding Bud, I had to pick on you a little. Glad you are doing much better and we wish you a continued speedy recovery.*

One Buddy short, Carl and Bill went to the NATS. Carl said the weather was hot and drift was strong enough to put models off the field, especially the rubber models which fly longer max times. The winds changed daily and the contest site was moved each day to get as far up wind on the field as possible. All that moving around, in 90-100 degree weather, took its toll. Carl said he was worn out and didn't fly near the number of events as he planned. He also had three rubber models in trees and spent a lot of time trying to retrieve them. Right now, he said he doesn't think he will be going next year, but he said that last year and the year before the and so on and hasn't missed so far. Carl did win Dawn Mulvihill, but said overall, it was a tiring trip.

Larry Davidson agreed the weather was warm, and he also had a sub-par competition. Larry usually wins or places high in the Nostalgia Championship with his fleet of T-Birds. He wrote: **For me, the Nat's were a bust. Usually I win 2 or 3 of the Nostalgia Gas events and place in the top three in the remaining events. This year I didn't even look at the scores! I only maxed out in two of the five events and dropped one of the first three flights in the other three events. Some of the problems were me giving a bad launch and a couple of planes that went out of trim. My .020 Tee Dee in the 80% T-Bird would not keep a needle valve setting even though I dropped from the normal 40% to 25%. The heat and humidity was probably the cause.**

Carl was right that it averaged around 93 degrees for the whole fives days but other than the heat, each day was pretty good flying conditions. It was one of the best weather Nat's in years.

Covering Comparison

I have heard various reports on the experiences people have had with using the new lightweight Polyspan. Like anything new, it takes a



Shrinking out the extra covering formed when going around a compound curve tip. This is a 1/2 Texaco Powerhouse tip covered with regular Polyspan (note next wrinkle to shrink on right side of picture)

while to develop techniques for using new products. Unlike some others, I have had very good luck with it using the same technique I use while covering with regular Polyspan. I even got more daring with it and found I was able to cover the bottom of my twin pusher wings with one piece, and they have a healthy under camber and a lot of polyhedral.



My Twin Pusher wings and stabs - lightweight Polyspan covering

We brush one coat of lacquer sanding sealer on the structure, and sand it with 320. We then apply one to two coats of thinned Fab Tac, or Aerodyne fabric cement to the structure. When that dries, we cut our covering slightly over size and lay it on the structure. We smooth it out and start sticking it down using acetone and a brush to re-activate the fabric cement. If we start to develop a wrinkle, we don't stick it down in that area. We will come back

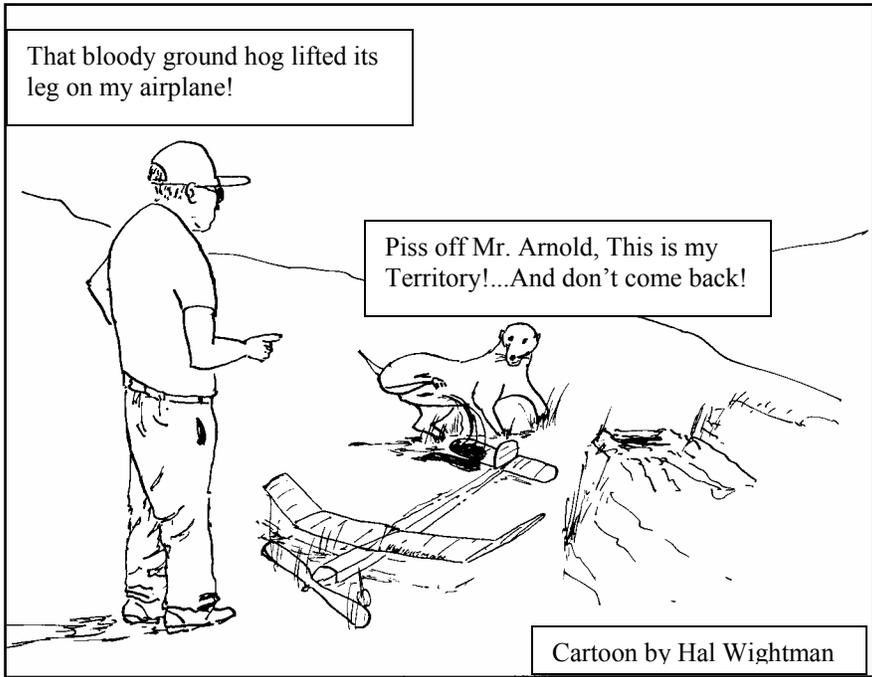
with a monokote heat gun and shrink out the wrinkles (see illustration), then attach it with acetone and a brush. The same idea is used to go around a compound curve like a wing tip. We tack down several places around the tip, and leave the extra fabric (pucker) between where we attach it. These can later be shrunk down and attached, producing a great looking wrinkle free tip.

We like some of the advantages Polyspan has over silk or tissue. First, Polyspan holds up so much better to age. My dad's Sailplane lasted about three years with the silk we put on it. After that, you just looked at it and it had a new hole in it. I have had similar problems with tissue covering, going bad after just a handful of years. On the other hand, my Clipper was the first model I covered with Polyspan, and the covering is like new. The model is 14 years old. A second benefit we like about Polyspan; it is not affected by moisture like the others. Ever had your covering sagging on a damp day and wonder if that wash-in you have in the wing is still there? With Polyspan, we have found once the trim is heated in, it will stay forever. That is great when the object is to have consistent flying models. A third benefit is its durability and ruggedness. Flying on a field with thorns, weeds, etc, it is much more puncture resistant than silk or tissue.



Same tip on 1/2 A Texaco Powerhouse after all the wrinkles were shrunk out and stuck down. Works great and no need for a splice to get around the tip!

Now that I have mentioned its virtues, what about the drawbacks? Well, other than a little different technique in application, the only drawback would be it is heavier than tissue. I calculated out the weight of Esaki Japanese tissue, lightweight Polyspan and regular Polyspan per square yard, and here is what I found. One square yard of Esaki Tissue weighs 5.19 grams, one square yard of lightweight Polyspan weighs 6.48 grams per square yard, and regular Polyspan is 10.14 grams per square yard. When I covered my three twin pusher with the lightweight Polyspan, I found what many others have; it looks awful and porous when it is first applied. Surprisingly, the pours filled with two coats of 50/50 dope using a foam brush. That is what I would also put on a tissue covered model. I sprayed a light third coat mixed with Candy Tangerine for color, and got a very similar look to orange tissue. So, the weight of lightweight Polyspan is not much more than Esaki tissue.



I like the lightweight Polyspan so much; I plan to cover all future rubber models with it. The minimal gain in weight is off set by durability, longevity, and moisture resistance. Lightweight Polyspan is available here in the USA through Larry Davidson who can be reached at samchamp@suddenlink.net

What's a Moffett? By Bernie Crowe

Because you check out the Club Contest Calendar well in advance (you DO don't you?) you will have noticed that on September 12 the events are 1/2A Texaco, and "Moffett." Most of us know what 1/2A Texaco is, but what the Sam Hill is a Moffett?

Not to be confused with a Muppett, a Moffett is an AMA class rubber-powered event that is an absolute blast to fly. The event is named after Admiral William Moffett who died in the crash of the Akron dirigible off the coast of California in 1933. The trophy offered in his name is beautiful, and was the subject of fierce competition for many pre-War years. The Moffett Trophy now resides in the Smithsonian in Washington, but the Moffett event was resurrected in 1992, and is now one of the highlights of the AMA Nats each year.

Why would you want to fly one? These little gems are space rockets! They regularly do six and seven minutes, yet they are not much bigger than a Small Stick model. You've still got time to build one for the Club contest - it takes about the same effort as a Gollywock – so get going!

The Moffett rules are pretty straightforward. Total wing and tail area (projected) mustn't exceed 202 square inches. The length of the fuse from nose bearing to tail must be no more than the wing span. The cross-section of the fuselage must not be less than $(L \times L) / 150$. The prop can be anything you want and you can use as much (or as little) rubber as you want. Construction can be anything you want, but the airframe must weigh at least 50 grams (1.75 oz) per 100 square inches of projected wing area. The plane must ROG from a three-point stance.

It's a formula just asking for an innovative design! But you don't have to, because there are several good designs out there already, by Bob Benenstein, Joe Williams, Ed Konefes, Carl Perkins and others. Jim O'Reilly (www.jimoreillymodelplans.com) has plans for at least three Moffetts, and if you get the magazine Free Flight Quarterly you will have seen the excellent article by Sergio Montes on this topic, and the many designs that were featured. Carl Redlin, Bob Goldie and I (Bernie Crowe) all fly Moffett and will be happy to answer any questions.

This is what the Club Contest is all about, new horizons. So go throw one together, sort it out, and come have a blast on September 12!!

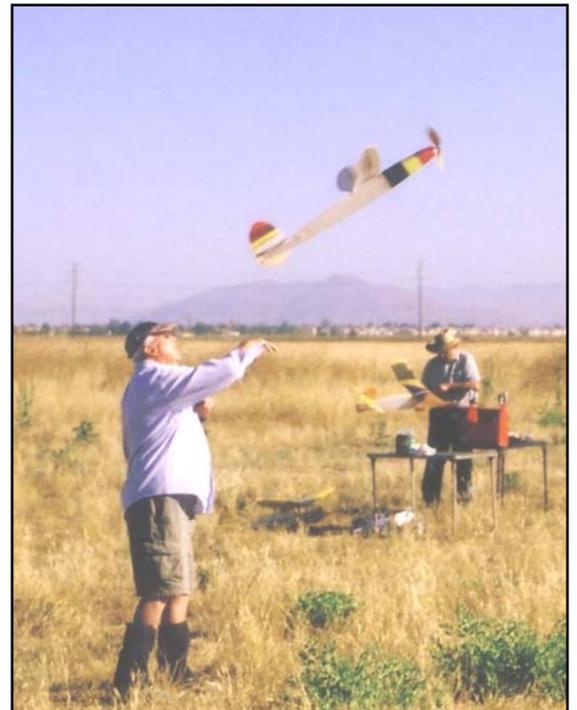
We Say Good Bye To Bill Burt

Bill Burt passed away recently at his home. Bill was a regular fixture at contests and was a friend to many and an occasional flyer at Perris. Fuz Patstone wrote, **So sorry to hear that Bill Burt passed away. I remember many good times when we flew at Brown field with the Orbiteers back in the late 1980's and early 1990's. He gave me some old .020 replica built ff's: So Long, Buzzard Bombshell and Playboy pylon. I completely refurbished them and still have them. The So Long flies pretty nice, and I've flown it several times at Perris in the past years. He'll be missed by those who knew him. I sure enjoyed seeing him at our flying field.**

About a year and a half ago, at our Perris flying field, Bill and I were talking when he saw my SCAMPS t-shirt and he asked where he could get one. I had just bought three SCAMPS t-shirts and they were the right size for him also. So, knowing none were available through our club at that time, I told him to give me his address and I'd mail him one. I got his address and mailed him a new one. He was so excited about that and the next few times I saw him at the field he was wearing the SCAMPS t-shirt. He seemed very proud of that t-shirt and was very blessed to be a part of the SCAMPS. It is



Bob Goldie launching his Moffett



Bill Burt launching his Smith Stick

just one of a thousand great stories that can be told about the SCAMPS and its members. Several other club members wrote nice sentiments about Bill as well. He was well liked and we will miss him.

Events Calendar

SCAMPS Meeting, Walt and Betty Huhn's home, September 7, 7:00 PM

SCAMPS Club contest (Moffett/1/2 A Texaco 5cc), Perris California, September 12

SCAMPS Club contest (Jimmy Allen/ABC Fuselage), Perris California, October 3

SCAMPS Meeting, John Donelson's home (**WEDNESDAY EVENING to avoid conflict with the SAM Champs**)
October 3, 7:00 PM

SAM Champs, Henderson, Nevada (El Dorado Dry Lake, October 7-12

SCAMPS/SCIF/SanValeers Fall Annual, Lost Hills, California, November 3-4

SCAMPS Meeting, Sal Taibi and Betty Moke's home, (**Second Friday to avoid conflict with our SCAMPS/SCIFS Fall Annual**) November 9, 7:00 PM

SCAMPS Club contest (4 ounce Wakefield/ABC Pylon), Perris California, November 14

Collecto – Covina at usual place, November 17, Covina, CA

SCAMPS Meeting, Christmas Part, Home Town Cafeteria, December 6, 7:00 PM

SCAMPS Club contest {Gollywock Mass Launch/1/2 A Gas (Modern)}, Perris California, December 12

The SAM Champs are approaching. Are you ready?



Al Bowman tunes engine in



Gary Sherman has Sailplane re-covered



Joe Jones displays his Korda Wake



Dick Drake with .010 power



Clint Brooks with daughter launches



Fernando Ramos gives the heave-ho on his rubber cabin job

DUAL CLUBS FREE FLIGHT BONANZA

A National Cup Event

**SAN DIEGO ORBITEERS 49th ANNUAL - CLASS AA, CATEGORY 2
SPONSOR OF AMA & FAI EVENTS**

*

**FRESNO GAS MODEL CLUB 68th ANNUAL – CLASS AA, CATEGORY 2
SPONSOR OF NOSTALGIA, TEXACO & OLD TIME EVENTS**

*** SEPTEMBER 1st & 2nd 2007 ***

* LOST HILLS, CA *

<u>SATURDAY ONLY</u> 7 AM – NOON, 1 - 5 PM <u>LUNCH BREAK W/ICE CREAM</u> <u>SOCIAL</u>	<u>EITHER DAY</u> <i>MUST FINISH EVENT THE SAME DAY</i>	<u>SUNDAY ONLY</u> 7 AM – 3 PM
½ A GAS (1) C/D GAS P-30 (1) F1A F1B F1C F1Q (ELECTRIC) CATAPULT GLIDER (1) ½ A TEXACO DAWN P-30 (2)	SMALL OT RUBBER STICK SMALL OT RUBBER CABIN LARGE OT RUBBER STICK LARGE OT RUBBER CABIN ¼ A NOSTALGIA ½ A NOSTALGIA A NOSTALGIA B NOSTALGIA C NOSTALGIA	EARLY ½ A NOS. .020 REPLICA A PYLON B-C PYLON A FUSELAGE B-C FUSELAGE RUB/WAKEFIELD NOS CLASSIC TOWLINE ½ A CLASSIC POWER
FIJ (POWER) FIG (COUPE) F1H (TOWLINE) A/B GAS E-36 FULL SIZE TEXACO HAND LAUNCH GLIDER MULVIHILL DAWN MULVIHILL (2)		

(1) Junior & Senior/Open Event

(2) Special Event – Award for winner only

**** AN ORBITEER TRADITION LIVES ON ****

JOIN US FOR SATURDAY ICE CREAM SUNDAE SOCIAL ON US (NOON – 1 PM)

AWARDS FOR FIRST 3 PLACES (except as noted)

Ceremonies at: 5:15 PM Saturday
3:15 PM Sunday

\$15 REGISTRATION Sr. & Open / \$1 Jr

**\$5 per Event Sr. & Open / \$1 Junior - \$3 Spec Event
Optional: \$35 for Registration & Unlimited Events**

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(E) dbartick@4-warddesign.com

Harry Steinmetz, Assist.CD-Orbiteers (FAI)
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Bill Booth, Sr., CD-Fresno GMC
2937 E. San Gabriel
Fresno, CA, 93726
(H) 559-227-7217
(E) wpbsam@comcast.net

LOST HILLS MODEL AIRFIELD ASSOCIATION CARD REQUIRED (\$20 AT FIELD TO JOIN)

Also on the field . . .

◆ JAY SLOAN'S FINE DINING HALL ALL WEEKEND ◆

SPECIAL INSTRUCTIONS

SATURDAY NOON to 1 PM LUNCH BREAK & SUNDAE SOCIAL

The contest will be suspended for 1 hour for lunch and the San Diego Orbiters famous ice cream social. This is a great time to relax, cool off, have lunch and enjoy the ice cream sundaes. We will provide ice cream, & sundae fixings, napkins, plates and plastic ware.

PRIZE DRAWING - The Fresno GMC once again has collected an enormous amount of model stuff for their drawing. For each event entered that is sponsored by them, the contestant will receive a drawing ticket. The more events entered, the better your chances. Drawing to be held right after Sunday's award ceremony.

HAND LAUNCH GLIDER & CATAPULT GLIDER

Hand Launch Glider & Catapult Glider will to be launched from an established glider pen on the field. Max's are 120 seconds and all flights count.

FAI EVENTS

EVENTS WILL BE SET UP AND RUN IN TRUE FAI FORMAT

F1A, F1B & F1C – Seven Rounds. Round 1 starts at 8:00 AM. Round 1: F1A-210sec, F1B-240sec, F1C-240sec. Rounds 2 to 7 - 180sec. One-hour suspension after round 4 for the ice cream social and lunch. Round 5 will start at 1:00 PM. Fly-off starts at 4:00 PM for F1A, F1B and 4:15 PM for F1C. 15min rounds in sequence. 15min between end of round and beginning of next one. Fly-off round max: 1st 300sec, 2nd 420sec, 3rd 540sec, 4th 660sec. Fly off rounds may be compressed by consensus of the participants and the CD.

F1Q – Five rounds. Round 1 starts at 8:00 AM. 25sec motor run, 150sec max. Fly-off in ½ hour rounds starting at 1:00 PM. 15min rounds in sequence. 15min between end of round and beginning of next one. 150sec max for all fly-off rounds. Motor run reduces by 5sec each fly-off round starting with fly-off round 1 with a 20sec motor run. Fly-off rounds may be compressed by consensus of the participants and the CD.

MINI FAI EVENTS

F1G, F1H & F1J: First five (5) flights must be flown between 7:00 – 12:00 AM. 120sec max. Fly-off in ½ hour rounds starting at 1:00 PM. 15min rounds in sequence. 15min between end of round and beginning of next one. Fly-off round max: 1st 150sec, 2nd 180sec, 3rd 210sec, 4th 240sec, 5th 300sec, 6th 360sec and so on. Fly off rounds may be compressed by consensus of the participants and the CD.

DAWN P-30

Saturday morning 7:15 AM exactly, mass launch from glider pen, one flight, no max, winner's plane may be processed.

E-36 AMA ELECTRIC

AMA provisional rules apply. 25-second motor run, 2 minute max. Fly-off Rounds 1-3, 20 second motor run. Rounds 4-6, 15 second motor run; and so on till a winner is declared. Flight max remains 2 minutes. Fly-off rounds may be compressed by consensus of the participants and the CD

DAWN MULVIHILL (Timer can ride with flyer)

Sunday morning 7:00 – 7:20 AM launch window, one flight, no max.

TEXACO (Timer can ride with flyer)

1/2A Texaco: Saturday 7:00-10:00 AM launch window, 15cc fuel; Full Size Texaco: Sunday 6:00-10:00 AM launch window, 1/4oz per pound – max 1.75oz fuel.

NOSTALGIA EVENTS NFFS Rulebook 2007-2008 apply.

CATEGORY 2	1 st 3 Flights	Flyoffs	Max. Duration
Hand Launch	12 seconds	8 seconds	180 seconds
VTO	15 seconds	11 seconds	180 seconds
CATEGORY 3			
Hand Launch	9 seconds	6 seconds	120 seconds