

EL TORBELLINO

NEWSLETTER OF SAN DIEGO ORBITEERS FREE FLIGHT CLUB

FEBRUARY 2015



The Prez's Corner – Don Bartick

This was a busy month getting ready for the Isaacson Winter Classic and planning the Dual-clubs Free Flight Bonanza with the Fresno Gas Model Club.

This year at the Issacson we celebrated the 40th year of the P-30 class created by the Orbiteers and spearheaded by John Oldenkamp and Harry Steinmetz. They also had a tribute to John Oldenkamp by having a special event for his Hot Box design sponsored by the Orbiteers. Contestants could fly 2 planes in the P-30 event. There was a \$100 prize for overall High Time in P-30 and \$100 prize for high time flying a Hot Box regardless of your overall place in P-30. The flyer was published in the ET last month. There were 10 entries in P-30 overall. Only Mark Chomyn and I entered the Hot Box competition. The weather at the Issacson was very iffy. The weather forecast most likely scared off many contestants. The International contestants don't seem to have an issue with weather. They were at Lost Hills for a week of competition. Their planes are designed for all kinds of weather.

As it worked out in competition, I had overall high time in P-30 flying the Hot Box. Therefore, I won both prizes. Unfortunately, I lost the Hot Box maxing the 4th flight. The plane had a Walston transmitter with fresh batteries, but during the retrieval the signal was lost. Either the transmitter failed (unlikely) or the plane came down somewhere blocking the signal. Don't know. We looked for quite awhile. The prize money went towards purchasing a new transmitter that I may or may not receive from Walston. Mike Jester has had one on order for a long time. Apparently, Jim Walston has dementia and has trouble taking orders and filling orders. I found out for myself last week. Called Jim and spent at least a ½ hour on the phone to give him an order for 1 transmitter. It was a grueling task having to repeat items over and over before he could repeat the information correctly. He claims it will take a couple weeks to

fill the order. We'll see. On a good note, Mike Pykelny suggested that I get a transmitter from L.L. Electronics. They handle Luksander Falconry Transmitters. Apparently these bird transmitters can be purchased to match the frequencies associated with your Walston Receiver. Good information for those of us with Walston Systems.

Preparations are well underway for the Orbiteers/Fresno GMC Dual-clubs annual at Lost Hills. The flyer is finalized and has been posted to the Lost Hill FF Model Airfield Association website and posted on the NFFS calendar and website. Copy of the flyer is in this ET. A special John Oldenkamp Memorial event for Hot Box P-30 was added this year in place of the Tom Carman Memorial that lost its sponsorship. We have advertised cash awards through 3rd place. With that said, I'm now asking for donations to fund the cash awards. Anyone out there in Orbiteer land that would like to make a donation for the John Oldenkamp Memorial event please send to our Treasurer Howard Haupt, 3860 Ecochee Ave, San Diego 92117-4622. Make sure you note the money is for the JO Memorial Event. Thank you for your donation. All monies will be distributed based on 50/30/20%.

That's a wrap for now.

Remember: "Discipline is the bridge between goals and accomplishment" - Jim Rohm





ORBITEERS MEMBERSHIP DUES

Annual Membership - \$15
Lifetime Membership - \$250
Non-Member Newsletter Subscription - \$15
Junior Members 16 years old or younger - Free

Submit Dues to Club Treasurer:

Howard Haupt
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San Diego, CA 92117-4622

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THE FINE PRINT THE FINE PRINT

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2014 NATIONAL CUP STANDINGS

Look for the 2014 National Cup Standings Attached to the same email that brought you the newsletter you are now reading.

San Diego Orbiters and Scale Staffel annual banquet – M.Merrill

Our annual banquet was held Saturday, January 24, 2015 in Kearny Mesa. It was well attended, with 20 guests. There was a lot of food, with salad, several types of pizza to choose from, fettuccini Alfredo, lasagna, rolls, and drinks. There was also a terrific raffle, with a lot of kits, as well as other goodies to choose from. There were two planes brought in for show-and-tell, both built by Mark Chomyn. A Hot Box P-30, designed by John Oldenkamp, and a Piper J-4, this year's one-design plane for Scale Staffel and FAC. Both planes were beautifully done.

After most folks were done eating, President Don Bartick, as well as Mark Chomyn and John Hutchison got up to dish out the 2014 awards. Before beginning the awards ceremony started Don reminded us that we have recently lost some great modelers, both of which will be sorely missed. Our own John Oldenkamp, a true innovator in our sport, as well as the more recent passing of Clarence Mather. Both were fine gentlemen, forever proponents of our hobby, and will be not soon forgotten. Another that was not mentioned was the recent passing of a member of Scale Staffel several years ago, Bob Wright. He, too, was a fine modeler, and had many modeling interests. He loved aircraft, but also was one of the founders of the San Diego Ship Modelers Guild back in the early 1970's. (Personal note: Bob got me started working on the Star of India and the Maritime Museum back in 1977. Still not sure whether I should thank him or curse him, depends on the day.) As for the awards, they were then passed out as follows by Don and Mark:

P-30: 3rd place John Hutchison, 2nd place Mike Jester, and 1st place Greg Hutchison.

Nostalgia Rubber: 3rd place Mark Chomyn, 2nd Mike Jester, and 1st Greg Hutchison.

Coupe: 3rd place Mike Jester, 2nd Mike Pykelny, and 1st to Greg Hutchison.

Power: 3rd John Oldenkamp, 2nd Don Bartick, 1st Mike Pykelny.

Glider: 3rd Mark Chomyn, 2nd Greg Hutchison, 1st Mike Jester.

Indoor: 3rd John Hutchison, 2nd Mike Jester, 1st Greg Hutchison.

Orbiter of the Year Award: 3rd John Hutchison, 2nd Mike Jester, and 1st Greg Hutchison.

John Hutchison got up to pass out the Scale Staffel awards, but first had a few people he wanted to thank. William Scott for continuing to put out the Scale Staffel newsletter, Arline Bartick for her terrific photography, and Dorothy Jester for her photographic skills as well. All three got a nicely done certificate. John also told us that in the world of scale, most models are judged, with a maximum score of 62.5, and nobody has ever gotten that, because no model is 100% perfect. He went on to say that Don Bartick finally finished a scale model, and he picked one of the hardest planes to do – a P-38 Lightning. He not only did that model, but did it so well, it got the 1st ever perfect 62.5 score! That is truly and amazing accomplishment.

John then presented the trophy for outstanding Aero-modeler of the Year to Mike Jester. The trophy for most improved modeler went to Nick Panousis, who was not in attendance. The perpetual trophy for overall winner of Scale Staffel's three contests was already awarded (at the last contest) to Bob Hodes of Las Vegas. Starting next year, there will be a perpetual trophy for the indoor contests as well.

The raffle ensued next, and was a great success. I did not hear how much was raised for the club, but it should have been considered a success.

Congratulations to all of the winners, from both clubs. Best of luck to all in the 2015 contest season. Adjourned to "hangar flying" shortly after 3:00 p.m.

FEB. 2015 MONTHLY - M.Chomyn

NOSTAIGIA RUBBER

- | | |
|-------------------|-----|
| 1. Mike Jester | 360 |
| 2. Mark Chomyn | 350 |
| 3. Mike Pykelny | 272 |
| 4. Greg Hutchison | 257 |
| 5. John Alling | 218 |
| 6. John Hutchison | 201 |
| 7. John Merrill | 131 |

GLIDER

- | | |
|-------------------|-----|
| 1. Greg Hutchison | 196 |
| 2. Mark Chomyn | 192 |
| 3. Mike Jester | 162 |
| 4. Don Bartick | 89 |
| 5. John Alling | 82 |
| 6. John Merrill | 65 |

POWER

- | | |
|-----------------|-----|
| 1. Mike Pykelny | 360 |
| 2. Don Bartick | 302 |

**FEB. 2015 MONTHLY PICTURES
By Arline Bartick**



2014 Southwest FAI Challenge

This contest continues to be expertly run by Bill Booth. Proceeds from this event are donated to the FAI team programs and to a lesser extent the club treasury.

You will find the full contest report following this picture page.

The following photos were taken at the contest for your enjoyment by A. Bartick and M. Jester.



Don Bartick

A. Bartick photo



Mike Jester P-30

M. Jester photo



Mike Pykelny (L)

A. Bartick photo



Don Bartick Mulvihill

M. Jester photo



Mike Pykelny

A. Bartick photo



Don Bartick

A. Bartick photo



2014 Southwest FAI Challenge
October 19 & 20, 2014
Boulder City, Nevada

Bill Booth Jr.
Contest Director

The 2014 edition of the Southwest FAI Challenge had a different buzz. The US Team Selection Finals for the 2015 World Championships was scheduled to begin on this same field later in the week. To accommodate those competitors who had never been to the El Dorado Lakebed, we shifted our schedule to a Sunday/Monday format. The mini events were held on Sunday per tradition, but F1A, B, C & Q were flown on Monday to give the new visitors a day to travel and a day to acclimate. While there was no significant increase in entries in most events, we were very pleased to have (5) entries in F1C. Some used this meet as a tune-up, others chose to preserve their models for the Finals and sat on the sidelines.

The format was not the only unusual factor this year. Negative weather is almost never an issue at this wonderful venue, but the hurricanes off the coast of Mexico and California created some challenges. Fifteen years of experience have given us the confidence to make the claim that at Boulder City, even if the wind blows, it always blows the long direction of the lakebed which makes continuing a contest possible albeit difficult, all the way up to the FAI limit. What we had never encountered was strong wind across the SHORT dimension of the field. I vaguely remember this condition on a practice day about 12 or 13 years ago, but never on a contest day. The unusual wind directions and velocities proved a much bigger challenge later in the week for Finals CD Norm Furatani but for us, the only impact was it delayed our F1B flyoff until Wednesday morning. Otherwise Boulder City for the most part was what we have come to expect, calm and beautiful. Fortunately, all F1B flyoff participants were also Finals participants and were on the field for the entire week.

Sunday is the day that the local modelers come out and join us for P-30 and this year was no exception. Regulars Gerald Antonucci & Robert Hodes had to settle for second & third with newcomer Larry Schwarz taking top honors although a flyoff was required to break an unusual non-max out tie with Gerald. Mike Kellar filled out the local P-30 contingent. It was great to meet Drake Hooke of Newfoundland, PA who was a first time SW FAI competitor and the winner in E-36 over Jack Murphy & Mike Richardson. Faust Parker put up a card of full of maxes as our first F1J contestant in a few years. Mike McKeever posted a 196 in the 5-minute F1H flyoff to best Jim Parker who was unable to get in a flight. Kyle Jones was third with 190 in the 4-minute round. Tiffany O'Dell & Ryan Jones flew flawlessly through the 5-minute flyoff round in F1G. Tiffany prevailed on the strength of her Espresso Flyoff tie-breaker flight of a whopping 291. Boulder City resident Tom Ioerger nearly squeaked out a max in the 4-minute round, but fell 6 seconds short and claimed third place. Jim Parker at 235 and Faust Parker at 300 were the other Espresso Flyoff winners in F1H & F1J respectively.

Monday saw (12) F1A, (17) F1B, (5) F1C and (5) F1Q flyers line up for a shot at the glassware and the Mikasa vases that are the perpetual trophies. Don Chesson was the only F1C flyer to max out, with Ron McBurnett 6 seconds back and Faust Parker claiming third. The F1B flyoff that was postponed until Wednesday ended with Alex Andriukov at the top of the list of (9) flyoff participants followed by Tom Vacarro and yours truly in third. In F1A, Kyle Jones topped Jim Parker by 2 seconds and Andrew Barron by several more in the first flyoff that included just those three. Mike Pykelny missed a perfect score by just 2 seconds but still took home top honors in F1Q. Matt Gewain & Jack Murphy followed.

We are grateful to those "regulars" that come to this meet every year. It is always nice to see new faces as well. With the Finals coming up later in the week, there were many. Pete McQuade, Bob Sifleet, Steve Spence and Peter Allnutt were new names on the F1A list. Add Tom Vacarro, Carrol Allen, Walt Ghio & Paul Crowley in F1B, Don Chesson, Ron McBurnett, Faust Parker & Charlie Stiles in F1C and Drake Hooke & Julie Parker in F1Q. Thanks to the Clapps, the Barrons, Blake Jensen & Tiffany O'Dell and the Jones family who all travel farther than normal to come to this meet. Nice to see Vasyl Bezchasny again and Chuck Etherington & Jace Pivonka just back from the Junior World Champs.

Finally, a very special thank you to Henning Nyhegn for standing in and providing "table duty" as my usual sidekick and contest manager Bob Beecroft was unable to attend this year. Without Henning's help, I would not have been able to compete.

In keeping with tradition, when all the receipts are totaled up, the lion's share of the profit from the 2014 Southwest FAI Challenge will be contributed to the Junior & Senior Team Funds.

F1A (12)

Kyle Jones	210	180	180	180	180	180	180	282		1572
Jim Parker	210	180	180	180	180	180	180	280		1570
Andrew Barron		210	180	180	180	180	180	180	195	1485
Pete McQuade	191	180	180	176	180	180	180			1267
Bob Sifleet	210	156	180	180	180	180	180			1266
Brian Van Nest		210	180	180	180	180	180	140		1250
Peter Brocks	200	180	130	180	180	180	180			1230
Mike McKeever		210	180	167	180	180	131	180		1228
Steve Spence	210	180	180	155	096	177	180			1178
Don Zink	202	180	180	180	180	000	000			0922
Peter Allnutt	202	180	180	098	180	000	000			0840
Vasyl Bezchasny	210	180	127	097	000	000	000			0614

F1B (17)

Alex Andriukov		240	180	180	180	180	180	180	446	1766
Tom Vaccaro	240	180	180	180	180	180	180	384		1704
Bill Booth	240	180	180	180	180	180	180	355		1675
Charlie Jones	240	180	180	180	180	180	180	340		1660
Blake Jensen	240	180	180	180	180	180	180	313		1633
Carrol Allen	240	180	180	180	180	180	180	306		1626
Walt Ghio	240	180	180	180	180	180	180	306		1626
Ryan Jones	240	180	180	180	180	180	180	252		1572
John Clapp	240	180	180	180	180	180	180	000		1320
Jace Pivonka (JR)	210	180	180	180	180	180	157			1297
Roger Morrell	240	180	180	180	123	180	180			1263
Bill Gannon	210	180	180	180	180	180	118			1258
Mike Richardson	177	180	180	180	180	180	180			1257
Paul Crowley	181	180	180	168	180	180	180			1249
Rich Rohrke	210	180	180	180	180	180	000			1140
Al Ulm		185	174	179	180	180	180	000		1078
Tom Ioerger	240	180	180	180	180	118	000			1078

F1C (5)

Don Chesson	240	180	180	180	180	180	180			1320
Ron McBurnett		240	174	180	180	180	180	180		1314
Faust Parker	240	180	180	180	107	180	180			1247
Charlie Stiles	206	180	180	180	180	180	032			1138
Mike Roberts	240	180	180	000	000	000	000			0600

F1Q (5)

Mike Pykelny	178	180	180	180	180	180	180			1258
Matt Gewain	180	180	180	148	180	180	160			1208
Jack Murphy	103	180	180	142	180	149	180			1114
Drake Hooke	173	175	180	142	180	135	000			0985
Julie Parker	101	115	122	000	000	000	000			0338

FIG (12)

Tiffany O'Dell		120	120	120	120	120	240	300	291		1431
Ryan Jones	120	120	120	120	120	240	300	261		1401	
Tom Ioerger	120	120	120	120	120	234				0834	
Geralyn Jones	120	120	120	120	120	122				0722	
Peter Brocks	120	120	120	120	120	120				0720	
Mike Pykelny	120	120	120	114	120					0594	
John Clapp	120	120	120	097	120					0577	
Bill Booth	120	120	120	120	094					0574	
Mike Richardson	120	109	102	120	108					0559	
Jon Zeisloft	000	120	042	022	000					0184	
Charlie Jones	DNF									0000	
Carroll Allen	DNF									0000	

F1H (5)

Mike McKeever		120	120	120	120	120	240	196			1036
Jim Parker	120	120	120	120	120	240	000			0840	
Kyle Jones	120	120	120	120	120	190				0790	
Brian Van Nest		120	120	120	116	120					0596
Vasyl Bezchasnyy	120	120	120	120	108					0588	

F1J (1)

Faust Parker	120	120	120	120	120					0600	
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E-36 (3)

Drake Hooke	120	120	120	120	017					0497	
Jack Murphy	120	120	120	116						0476	
Mike Richardson	015	000	000							0015	

P-30 (4)

Larry Schwarz	120	120	112	022 (Flyoff for Tie)						0352	
Gerald Antonucci	120	117	115	000						0352	
Robert Hodes	120	120	100							0340	
Mike Kellar	095	120	120							0335	

Espresso Fly -Off

F1G	Tiffany O'Dell		291
F1H	Jim Parker	235	
F1J	Faust Parker	300	



HOT BOX AND THE ISAACSON 2015

As discussed in the Presidents column, ten competitors flew P-30 at the 2015 Isaacson Winter Classic. Two of those competitors chose to enter the P-30 40TH Anniversary Event. Pictures follow provided by Arline Bartick, showing the J.Oldenkamp P-30 “Hot Box” design flown in the event.



Don Bartick retrieval



Mark Chomyn with Hot Box design



Mark Chomyn launch



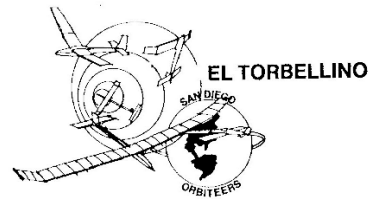
Don Bartick overall P-30 winner and Oldenkamp Hot Box event winner.



The tail reads “Tribute to John Oldenkamp”

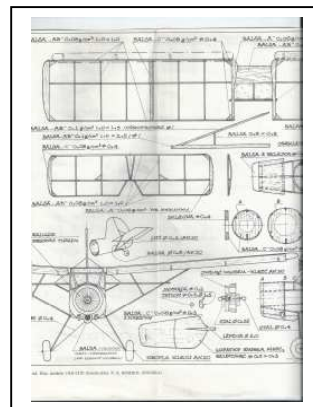


Don Bartick built, Oldenkamp design P-30 “Hot Box”



JAK 12R SCALE PLAN - A.Schandel

The scale plan that follows was provided by Andre Schandel for sharing with the club.



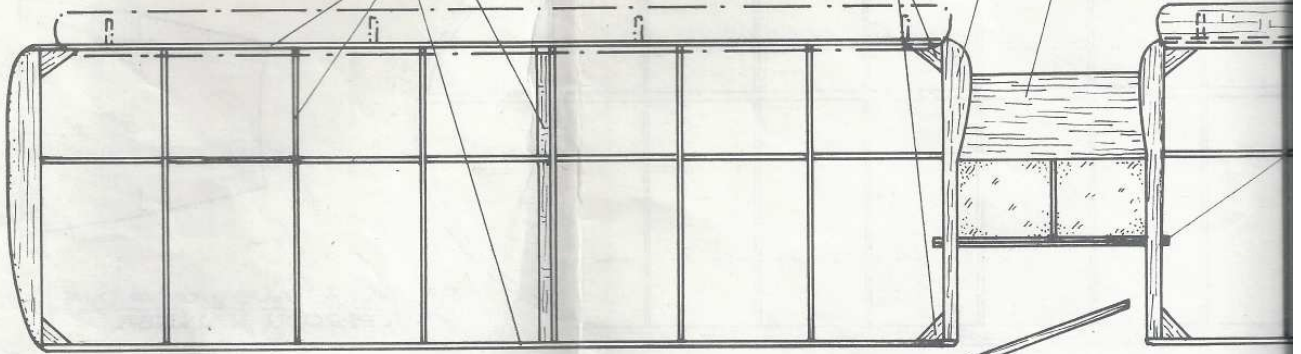
See the following Three pages for a Copy size you can Read more easily.

BALSA ..AB" 0.08g/cm³ 1.0x1.0

BALSA ..C" 0.08g/cm³ ≠ 0.4

BALSA ..A" 0.06g/cm³

BALSA ..AB" 0.



BALSA ..AB" 0.1 g/cm³ 1.0x1.5 /OPROF:LOWAC φ/

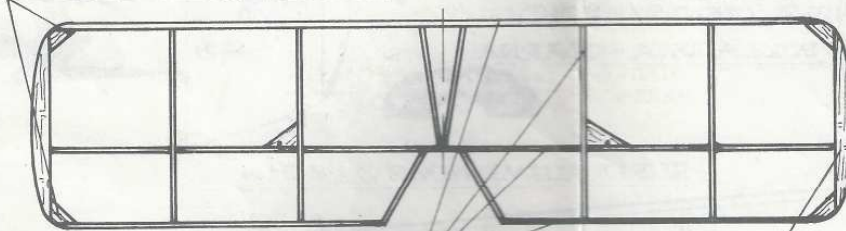
BALSA ..AB" 0.1g/cm³ 1.0 x 2.5 /φ/

BALSA ..C" 0.08g/cm³ ≠ 0.4

BALSA 0.8 x 0.8

BALSA

OSZKLEN

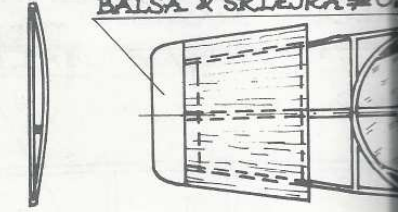


BALSA ..AB" 0.08g/cm³ 1.0x1.0

BALSA ..A" 0.06g/cm³ WG RYSUNKU

SKLEJKA ≠ 0.4

BALSA & SKLEJKA ≠ 0.



A

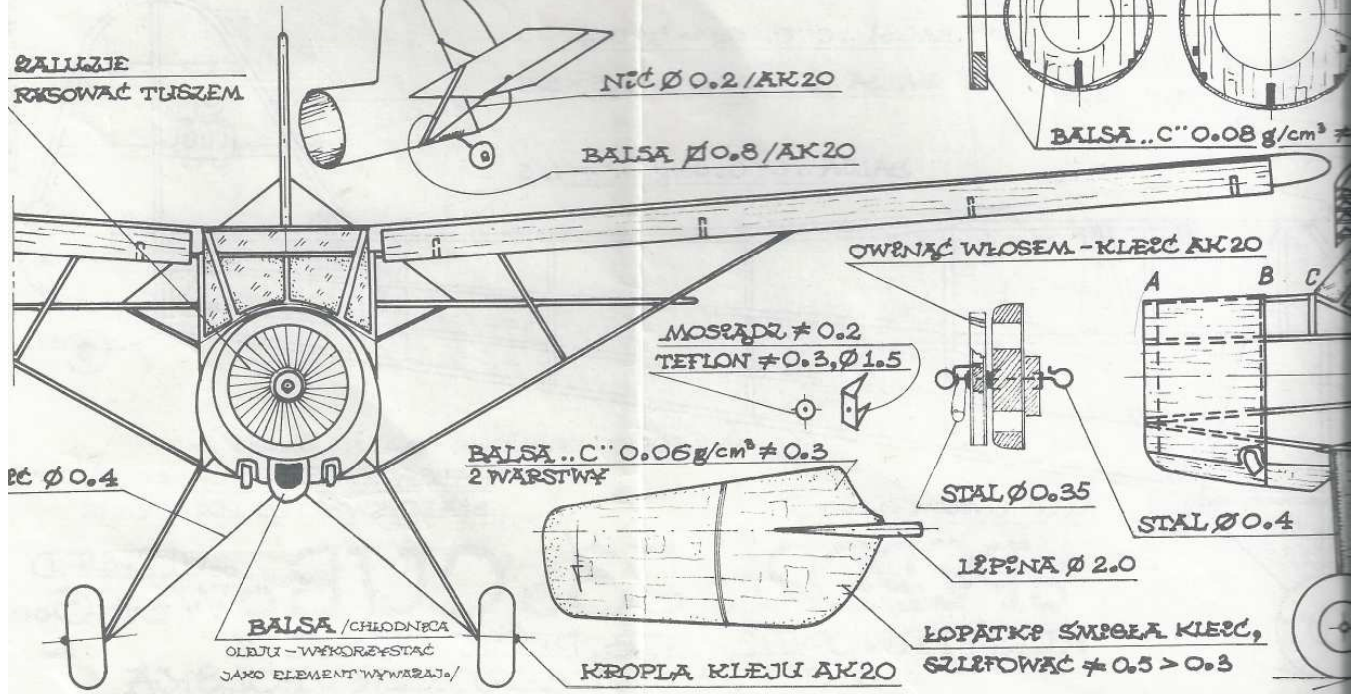
B

ŻALUZYJE
RYSOWAĆ TUSZEM

NIĆ Ø 0.2 /AK20

BALSA Ø 0.8 /AK20

BALSA ..C" 0.08g/cm³ ≠



OWENAC WLOSEM - KLEJC AK20

MOSIADZ ≠ 0.2
TEFLON ≠ 0.3, Ø 1.5

BALSA ..C" 0.06g/cm³ ≠ 0.3
2 WARSZY

STAL Ø 0.35

STAL Ø 0.4

LEPENA Ø 2.0

LOPATKI ŚMIGŁA KLEJC,
SZLIFOWAC ≠ 0.5 > 0.3

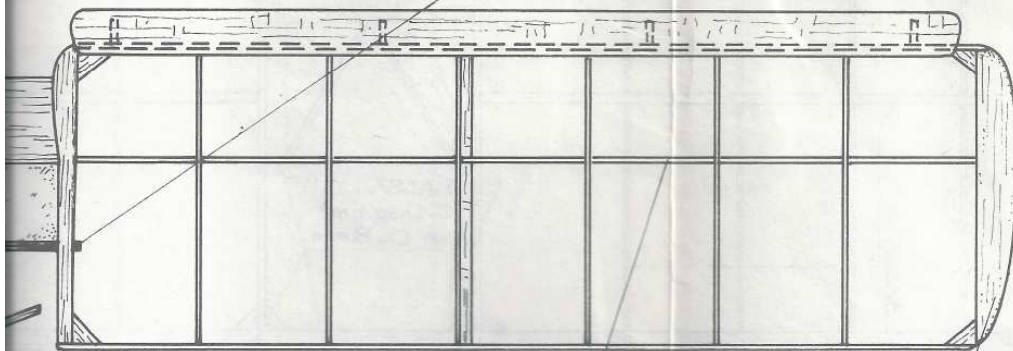
PC Ø 0.4

BALSA /CHŁODNICA
OLEJU - WYKORZYSTAĆ
JAKO ELEMENT WYWARAJA/

KROPLA KLEJU AK20

BALSA ..A" 0.06g/cm³ WG RYSUNKU
BALSA ..AB" 0.07g/cm³ ≠ 0.4

BALSA ..C" 0.08 g/cm³ 1.0 × 8.0 × 140
BAMBUS 0.8 × 0.8 & BALSA 0.8 × 0.8



FORMOWAĆ PO SKLEJENIU
OWIŃAĆ PAPIEREM
SUSZEĆ W TEM. +50°C

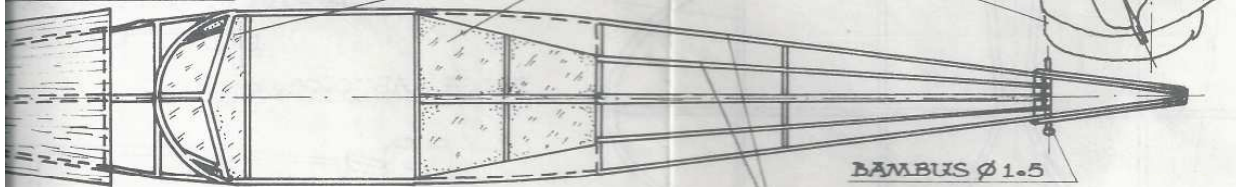
BALSA ..AB" 0.08g/cm³ 1.0 × 2.0

BALSA ..A" 0.06g/cm³ WG RYSUNKU

0.8

OSZKLENIE - FOLIA POLIESTROWA ≠ 0.1

SKLEJKA ≠ 0.4

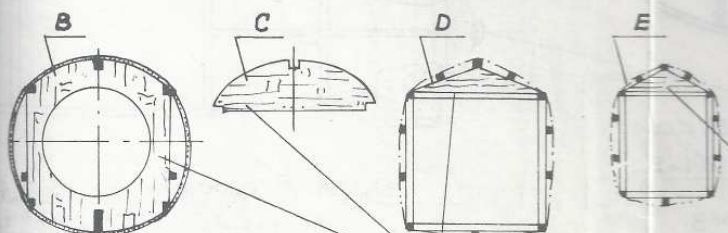


Ø 55

BAMBUS Ø 1.5

BALSA ..AB" 0.08g/cm³ 1.0 × 1.0

BALSA ..B" 0.08g/cm³ 1.0 × 2.5



C" 0.08g/cm³ ≠ 2.0

BALSA ..C" 0.08g/cm³ ≠ 1.0

AK 20

BALSA ..C" 0.1g/cm³ ≠ 0.4

AL Ø 0.4

BALSA ..C" 0.08g/cm³ ≠ 0.4

BALSA ..A" 0.06g/cm³
WG RYSUNKU

STAL Ø 0.35
KLEJ AK 20

BALSA ..A" 0.06g

KLEJ, 0.3

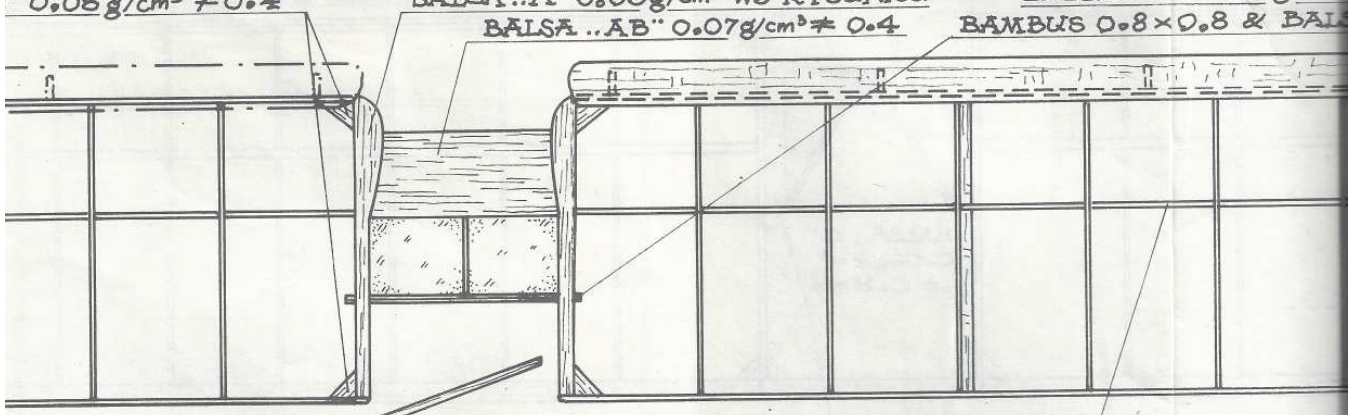
SPOWA : AK 20, KLEJ DO TAPET, BUTYRM. LAKER : NITROCELLON.

o JAK. 12. R
KONSTRUOWAŁ:
PiOTR STEFAN BOMBOL
POLA

0.08 g/cm³ ≠ 0.4

BALSA ..A" 0.06 g/cm³ WE RYSUNKU
BALSA ..AB" 0.07 g/cm³ ≠ 0.4

BALSA ..C" 0.08 g/cm³
BAMBUS 0.8 x 0.8 & BAL



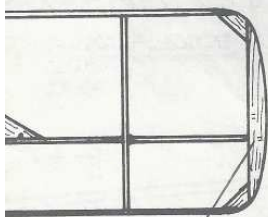
Ø 1

BALSA 0.8 x 0.8

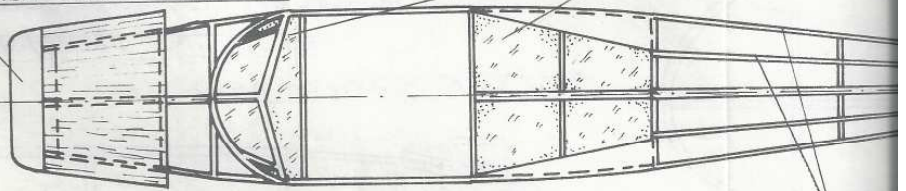
BALSA ..AB" 0.08 g/cm³ 1.0 x 2.0

BALSA ..A" 0.06 g/cm³ WE RYS

OSZKLENIE - FOLIA POLIESTROWA ≠ 0.1



BALSA & SKLEJKA ≠ 0.4

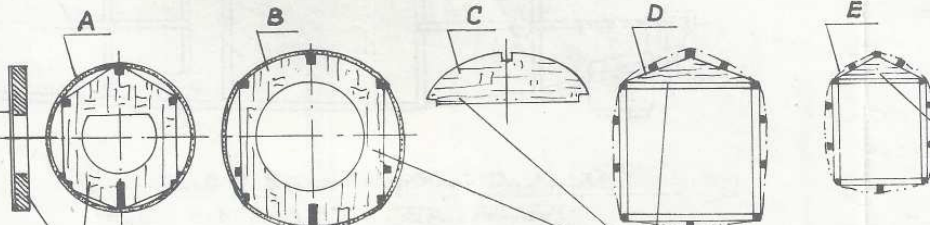


RYSUNKU

SKLEJKA ≠ 0.4

Ø 0.2 / AK20

Ø 0.8 / AK20



BALSA ..C" 0.08 g/cm³ ≠ 2.0

BALSA ..C" 0.08 g/cm³ ≠ 1.



OWENAC WLOSEM - KLEC AK20

BALSA ..C" 0.1 g/cm³

MOSIADZ ≠ 0.2
TEFLON ≠ 0.3, Ø 1.5

0.06 g/cm³ ≠ 0.3

STAL Ø 0.35

STAL Ø 0.4

BALSA ..C" 0.08 g/cm³ ≠ 0.4

BALSA ..A" 0.06 g/cm³

WG RYSUNKU

LOPATKI SMIGLA KLEC,
SZLIFOWAC ≠ 0.5 > 0.3

PLA KLEJU AK20

PIOTR

Brace Position

Testing keeps truss-braced wing configuration in running for energy-efficient airliner designs

Graham Warwick Orlando, Florida

After wind-tunnel tests showed that the flutter weight penalty of a long-span, low-drag truss-braced wing (TBW) is small enough to make the configuration feasible for energy-saving airliners, NASA and Boeing are planning additional tests to assess the design's aerodynamic performance.

Aeroelastic analysis of the TBW design was conducted under Phase 2

showed that using a strut to brace the long-span wing provides a significant benefit by reducing the weight of the wing inboard of the strut attachment point. Phase 2 showed the weight penalty for keeping the slender wing flutter-free is hundreds not thousands of pounds, says Chris Droney, BR&T deputy principal investigator for Sugar Phase 2.

The study examined two truss de-

small penalty from flutter." Wind-tunnel data were used to update Boeing's FEM, reducing estimated wing weight. "The conclusion is the TBW configuration remains viable," says Robert Scott, a research engineer in NASA Langley's aeroelasticity branch.

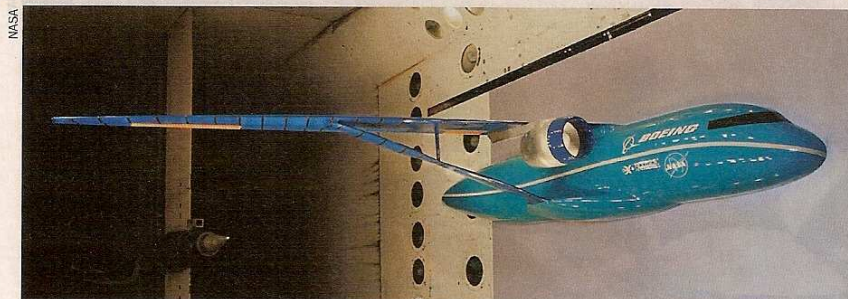
"Most of the uncertainty was in the wing structural weight as opposed to other parts of the aircraft structure. They had an initial wing weight estimate with uncertainty that might be a little lower or a lot higher. In the end it was toward the low end," Scott says. "Post-test design used the lessons learned from the scale-model predictions and experimental data and applied them to the full-scale design. The pre-test aeroelastic penalty was around 346 lb., and was updated to 809 lb. after the test."

The revised wing weight estimate was still at the low end of the uncertainty range and allowed the Sugar High TBW to achieve a lower fuel burn than the Refined Sugar conventional configuration developed by Boeing using the same 2030-timeframe technologies.

Now with more confidence in its weight, NASA and Boeing plan to obtain a better definition of the truss-braced wing's drag under a "Phase 3" of the Sugar study. "This is a smart task order to build and test a transonic wind-tunnel model of the TBW to assess the interference effect of the strut," says Droney.

Testing of the 4.5%-scale model is scheduled for the end of this year. Sugar High was designed to cruise at Mach 0.7, slower than the reference 737-800, to save fuel. "We would like to push the TBW to higher speed, but we are after [Mach] 0.7 for this test," Droney says. The model will be tested with and without the strut to measure the aerodynamic penalty from interference drag.

"The TBW configuration remains a viable concept for reducing transport aircraft energy consumption. The validated detailed FEM enables credible weight and fuel-burn estimates that justify further investigations of the TBW concept," concludes NASA. "Based on these results, an aerodynamic performance test and evaluation is going forward that will show that high-order aerodynamic design and analysis tools can be used to predict the performance of a low-interference truss-braced wing." ☐



Built by NextGen Aeronautics, Boeing's Sugar High truss-braced wing model has a 12.75-ft. half-span.

of Boeing Research & Technologies' (BR&T) NASA-funded Subsonic Ultra Green Aircraft Research (Sugar) program to identify and investigate configurations and technologies for 2030-timeframe fuel-efficient airliners.

Phase 1, completed in 2010, showed that a high-aspect-ratio truss-braced wing could reduce fuel consumption by 5-10% over a conventional cantilevered wing. But the study highlighted the large uncertainty in the weight penalty incurred to ensure the slender wing is free of flutter.

Under Phase 2, Boeing received funds to develop a finite element model (FEM) of the wing, working with Virginia Tech and Georgia Tech, and to wind-tunnel-test a dynamically scaled model of the Sugar High TBW configuration to validate the structural model and obtain a more accurate weight estimate. Wingspan for the 180-seat Sugar High is 170 ft., compared with less than 120 ft. for the baseline Boeing 737-800.

Increasing wingspan reduces lift-induced drag, and the Sugar study

signs. One comprises a single strut and jury member, both of which attach to the front wingspar. The other is a V-shaped strut that splits along its length to attach to both front and rear spars. "The V-strut showed better than the single in weight, but was not addressed from an aerodynamic standpoint. Our focus is primarily on the single strut," says Droney, speaking at the American Institute of Aeronautics and Astronautics' SciTech 2015 conference in Orlando on Jan. 5.

A 15%-scale half-span model of the single-strut Sugar High TBW configuration was tested in NASA Langley Research Center's Transonic Dynamics Tunnel. In addition to validating that the flutter weight penalty predicted by the FEM model was accurate, wind-tunnel tests also looked at active flutter suppression using inboard and outboard ailerons, says Tim Allen, BR&T principal engineer.

"Inboard wing stiffness for TBW is a lot lower than for a conventional wing," Allen notes, adding, "We see a benefit in weight from truss bracing and a

FIELD REPORT 2/16/15 – M.Jester

Yesterday, I flew my Gollywock in the OT/Nostalgia Rubber event at Otay. The TOMY timer on my airplane malfunctioned on my third official flight and the DT never triggered.

Mike Pykelny and I followed my airplane through binoculars, finally losing sight of it after 6 minutes. I feared it had drifted into Mexico. Mike eagerly offered to help me try to locate my airplane. I had a Walston RF transmitter installed in my Gollywock. I told Mike that I first wanted to get in my catapult glider flights.

One of my glider flights went quite a distance, and during retrieval of my glider on the top of a hill, I tried to pick up a signal from my Gollywock. No luck.

Mike said I was probably too far away to get a signal. I completed my glider flights and then Mike and I set out in my car to try to locate my Gollywock. At the first stop - no signal. At the second stop, I got a faint audible signal. We got out of my car and began to walk the terrain. It was very rugged. There were ravines. I decided that Mike had more experience with the Walston Retrieval System, so I let him hold the antenna and receiver. The signal got stronger and stronger, so I was pretty sure that my airplane was still in the U.S. Mike sent me back to get my car, when I returned, he had my airplane. See attached picture.

So I want to thank Mike once again for spending nearly an hour walking rough roads, fields and gullies near the U.S. - Mexico board and finding my Gollywock.



2015 ORBITEER FLYING SCHEDULE

- Mar 22 - **Coupe**
Power, & Glider
(No rain date)
- Apr 18/19 Scale Staffel FAC Scale Contest*
(1 of 3)
- Apr 26 - **P-30 Oldenkamp Hot Box Contest**
Power & Glider
(No rain date)
- May 16/17 **Dual Club FF Bonanza**, Lost Hills CA
- May Rotation Skipped: (Old Time Nostalgia Rubber)
- June 14 - **Coupe**
Power & Glider
(June 28TH rain date)
- July 4 - Walt Mooney Annual Scale Contest*
- July 19 - **P-30**
Power & Glider
(July 26TH rain date)
- Aug 16 - **Old Time Nostalgia Rubber**
Power & Glider
(Aug. 30TH rain date)
- Aug 22/23 Scale Staffel FAC Scale Contest*
(2 of 3)

Otay Field Weather (619) 661-8297

2015 INDOOR FLYING SCHEDULE

- Mar 1 - Catapult Glider, Embryo*
- Apr 5 - A-6, Phantom Flash*
- May 3 - Penny Plane, No-Cal*
- June 7 - Catapult Glider, Embryo*
- July 5 - A-6, Phantom Flash*
- Aug 2 - Penny Plane, No-Cal*
- Sept 6 - Catapult Glider, Embryo*
- Oct 4 - A-6, Phantom Flash*

DUAL-CLUBS FREE FLIGHT BONANZA

A National Cup Event

**SAN DIEGO ORBITEERS 57th ANNUAL - CLASS AA, CATEGORY 2
SPONSOR OF AMA, CLASSIC & MINI-FAI EVENTS**

*

**FRESNO GAS MODEL CLUB 76th ANNUAL - CLASS AA, CATEGORY 2
SPONSOR OF NOSTALGIA, TEXACO & OLD TIME EVENTS**

*** MAY 16th & 17th, 2015 ***
*** LOST HILLS, CA ***

SATURDAY ONLY
7 AM - NOON, 1 - 5 PM
LUNCH BREAK W/ ICE CREAM
SOCIAL

EITHER DAY
MUST FINISH EVENT THE SAME DAY

SUNDAY ONLY
7 AM - 3 PM

C/D GAS
P-30 (1)
VINTAGE FAI POWER
CATAPULT GLIDER (1)
½ A TEXACO
DAWN P-30 MASS LAUNCH
NIGHT GAS (COMBINED)
TWIN PUSHER MASS
LAUNCH

SMALL OT RUBBER CABIN
LARGE OT RUBBER STICK
LARGE OT RUBBER CABIN
¼ A NOSTALGIA
½ A NOSTALGIA
A NOSTALGIA
B NOSTALGIA
C NOSTALGIA
E-36
F1Q/A/B ELECTRIC (COMBINED)
JOHN OLDENKAMP
MEMORIAL P-30 (2)

.020 REPLICA
A PYLON
B-C PYLON
A FUSELAGE
B-C FUSELAGE
RUB/WAKEFIELD NOS
CLASSIC TOWLINE
½ A CLASSIC POWER
BILL BOOTH, SR
MEMORIAL

FIG (COUPE)
F1H (TOWLINE)
A GAS
B GAS
HAND LAUNCH GLIDER (1)
FULL SIZE TEXACO
MULVIHILL
DAWN MULVIHILL
GOLLYWOCK MASS LAUNCH

(1) Junior & Senior/Open Event

(2) Cash Awards

See Special Instructions on backside

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

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

also

SATURDAY NIGHT FOOD FEST POTLUCK ORGANIZED BY DAN HEINRICH (6:00 -7:00 PM) *(Main course provided)(Bring a side dish or dessert)(Let Dan know what you're bringing at aronutd@cs.com)*

AWARDS FOR FIRST 3 PLACES (except as noted)

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

\$20 REGISTRATION Sr. & Open / \$2 Jr

\$5 per Event Sr. & Open / \$1 Junior -

Optional: \$40 for Registration & Unlimited Events

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(H) 559-251-0787

(E) steve93612@comcast.net

Web: FGMAC.tumblr.com

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

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 up to 3 events entered that are sponsored by them, the contestant will receive a drawing ticket. Drawing to be held right after Sunday's award ceremony.

BILL BOOTH, SR. MEMORIAL

High time in Old Time Gas. Includes 020 Replica, but not Texaco. Winner will receive a special award from the Fresno GMC.

JOHN OLDENKAMP MEMORIAL P-30

Only John's Hot Box P-30 is eligible for this event. Flown to AMA rules. Cash awards for the top 3 places. Hot Box P-30 plans available through AMA's plans service – Plan #773 or in PDF format from Don Bartick. Email: dbartick@4warddesign.com.

HAND LAUNCH GLIDER & CATAPULT GLIDER

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

NIGHT GAS FLYING

All engine classes combined. Event window between 6:30 pm – 9pm. Engine runs in accordance with aircraft classification; i.e., AMA or Nostalgia.

MINI FAI EVENTS *Low stress format*

F1G & F1H: ***First five (5) flights must be flown from the established line between 7:00 – 12:00 AM. 120 sec 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.

VINTAGE FAI POWER *Low stress format*

For rules, please go to this website:

[http://freeflight.org/Competition/NFFS%20Competition%20Rules%202015 2016%20Rel1.pdf](http://freeflight.org/Competition/NFFS%20Competition%20Rules%202015%202016%20Rel1.pdf). A copy of the rules will be available at the CD's table. ***First five (5) flights must be flown from the established line between 7:00 – 12:00 AM.***

DAWN P-30

Saturday morning 7:30 AM sharp. Mass launch from glider pen; 1 flight, no max.

DAWN MULVIHILL (Timer can ride with contestant)

Sunday morning 7:30 – 7:50 AM launch window, 1 flight, no max.

TWIN PUSHER MASS LAUNCH

Saturday morning 8:30 sharp. Mass launch from glider pen; 1 flight, no max.

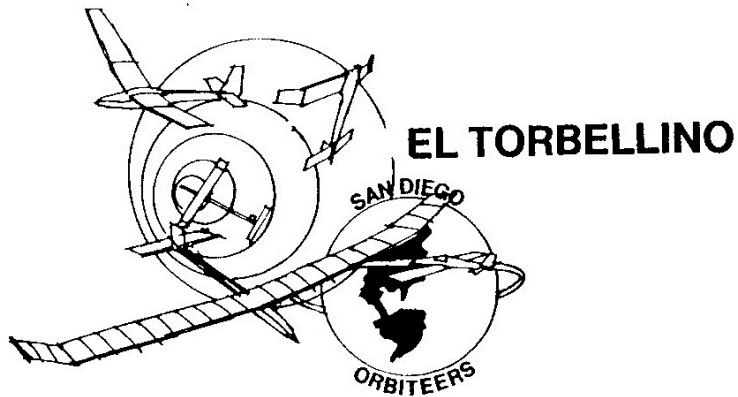
GOLLYWOCK MASS LAUNCH

Sunday morning at 8:00 sharp. Mass launch from glider pen; 1 flight, no max.

TEXACO (Timer can ride with contestant)

1/2A Texaco: Saturday 7:00-10:00 AM launch window, 8cc fuel; Full Size Texaco: Sunday 6:00-10:00 AM launch window, ¼ oz per pound – max 1.75 oz fuel.

SAN DIEGO ORBITEERS
Howard L. Haupt / Editor
3860 Ecochee Avenue
San Diego, California 92117-4266



WHAT'S HAPPENING - MARCH 2015

- Mar 1 - **Indoor Flying**, Grossmont College (Upper Gym), 7:30 am to 11:30 am.
Feature Event: **Catapult Glider** Other Events: **Embryo**
- Mar 11 - **Orbiteer Board Meeting**,
John Merrill's house, 6:00 pm.
- Mar 22 - **Orbiteer Outdoor Monthly**, Otay Mesa, 8:00 am,
Feature Event: **Coupe** Other Events: **Power & Glider**