

EL TORBELLINO

NEWSLETTER OF SAN DIEGO ORBITEERS FREE FLIGHT CLUB

December 2017



The Prez's Corner – Don Bartick

Happy Holidays to all out there in Orbiteers land. The outdoor flying has been really hit or miss this year. Let's hope Mother Nature is kinder to us in 2018. The indoor flying has been great. Only have to deal with occasional conflicts with a basketball tournament. Even that can be scheduled around thanks to John Hutchison. He has a wonderful relationship with the Grossmont College higher ups. Thank you John.

The Board of Directors met December 13th at the Jester's abode. We invited John and Jane Alling to attend. John is retiring from the airlines after umpteen years of flying big planes. I mean big planes such as 747s. The Board thought John would be a great candidate to fill the 7th sit. He has a lot of history with the Orbiteers. The meeting provided insight as to the dealings of the Board. We are now waiting his decision. The Minutes may be in this issue of the ET. Mark Chomyn had to sit-in to take minutes for John Merrill, our secretary who was dealing with emergency family matters. Of interest was setting the contest calendar for 2018, make-up of missed outdoor contest events because of contest cancellations and the addition of a new event for the Indoor contest.

The 2018 outdoor contest season will launch with the SW Regionals in Eloy AZ 13-15 January. This is always a great contest. Well organized. Unfortunately, it will be without it's stalwart CD Al Lidberg, who past way this year. In February, at Lost Hills starts with the Isaacson Winter Classic. This contest contains something for all interest in FF. This also starts the week of FAI contests. Flyers from all over the world will be there. Quite a sight to witness. Look for fliers in this ET.

This is the time of the year for starting Science Olympiad. A national event for Middle and High Schools. Of interest, is the Wright Stuff event. The event focuses on indoor free flight. There normally is a rotation between catapult glider, rubber band powered fixed wing aircraft and rubber band powered helicopters. The students must build the planes and then fly them in competition against other schools. Orbiteers have been involved with the program for years. This year I have 3 middle school teams competing. Each team comprises 2 students. Each student will build and fly a plane. The rules provide very specific specifications for the planes. The planes can be purchased as kits from a qualified manufacture or custom designed by the student's coach. My students will be building my design. This program fosters potential future free fliers. At least we hope so. We know parents of some students have taking up the hobby. Good examples are our own Mike Jester and Kang Lee.

That's a wrap for now. Remember:

"Today is the day, you worried about yesterday". Make the most of it.





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Howard Haupt(858) 272-5656
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ORBITEERS MEMBERSHIP DUES

Annual Membership - \$20
Lifetime Membership - \$250
Non-Member Newsletter Subscription - \$15
Junior Members 16 years old or younger - Free

Submit Dues to Club Treasurer:

Howard Haupt
3860 Ecochee Avenue
San Diego, CA 92117-4622

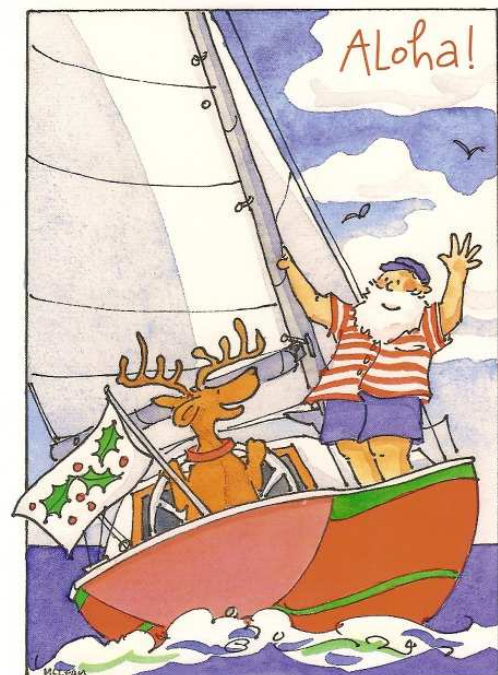
THE FINE PRINT THE FINE PRINT

El Torbellino is the official newsletter of the San Diego Orbiteers, an Academy of Model Aeronautics (AMA) Charter Club (#1113) and a California not for Profit Corporation. This newsletter is sent monthly to all paid members, selected exchange and magazine editors. Non-Members may subscribe at \$15.00 per year within the U.S.A., offshore price will be adjusted to reflect the postage required. Materials from El Torbellino may be reproduced on an unlimited basis by other publications, but proper credit is requested.

ORBITEER WEB SITE

www.SanDiegoOrbiteers.com

Webmaster: Kathy McLaughlin



The P-18 Event

By Mike Jester



The San Diego Orbiteers club has recently added the P-18 event to its regular indoor contest event rotation. It will be flown every month as an event at Grossmont Junior College starting January 7, 2018. The A-6, Limited Penny Plane (LPP), and catapult launched glider (CLG) events will each be flown every three months in addition to the P-18 event. So it is useful for me to introduce the P-18 event here.

The AMA adopted P-18 as a provisional event a couple of years ago. A P-18 is a beginner's rubber powered stick monoplane with a maximum overall length (including prop) of 18 inches and a minimum weight of 7.5 grams. The goal of the P-18 event is to entice entry level fliers with a model that is easy to build and trim while avoiding the challenges of the more advanced LPP and A-6 events. In overall dimensions a P-18 model is similar to an LPP, however a P-18 is little over twice as heavy and has a much smaller prop.

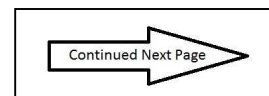
The prop of a P-18 must be an "unmodified commercially available plastic prop" with a maximum diameter of 6 inches. No scraping of the blades is allowed. Injection molded 6-inch plastic props, like the classic grey Peck prop, are relatively heavy, but it is still easy to make the minimum weight of 7.5 grams utilizing hobby shop balsa wood. Another popular prop for a P-18 is the 5 ½ inch red SIG prop which is considerably lighter than the 6-inch Peck prop. The plastic prop need not be a single piece injection molded prop. Therefore, the much lighter indoor 6-inch Ikara prop that has a molded spar and plastic film blades is legal in the P-18 event. However its blades tend to break away from the spar after repeated collisions with a beam and/or due to forces encountered during a landing.

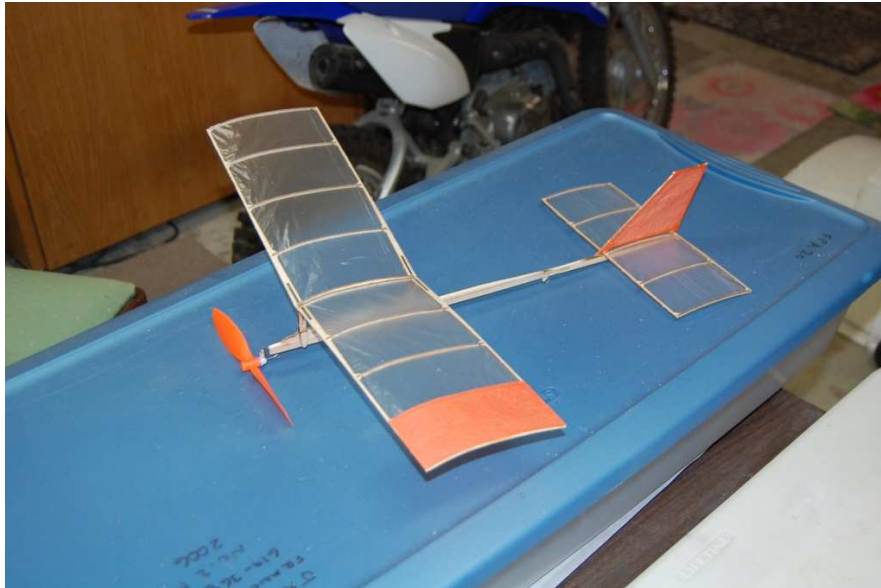
The size of the wing of a P-18 is limited to 18 x 4.5 inches and the size of the stab is limited to 9 x 3.5 inches. The covering used on a P-18 must be tissue or "plastic shopping bag material." It is generally accepted that a grocery store produce bag will suffice for the latter. It is easily adhered to the wing, stab and fin frames with 3M 77 spray adhesive. The P-18 rules limit the hook-to-hook distance to a maximum of 10 inches. There is no limit on the size of the rubber motor.

While the rules for the Science Olympiad Wright Stuff event vary from year to year, often a P-18 model would meet those rules and could be flown in both events. Thus middle school and high school fliers who have competed in the Wright Stuff event might enjoy further competition in the P-18 event at indoor AMA contests.

It can be awe inspiring to newcomers when they see a nicely trimmed LPP gracefully circling around a gym with a slow turning 12-inch diameter balsa wood prop. Then again, it can be quite daunting to newcomers when they see that same LPP stay in the air for more than five minutes and learn that it only weighs 3.1 grams. As club members, we want to do all we can to encourage participation in our hobby. Therefore, we need to dispel the "I could never do that" notion by offering a quick and easy alternative. The P-18 fills this niche and it is still capable of putting up very impressive flights from the perspective of a novice.

I built a P-18 using the Vanguard P-18 kit from Laser-Cut Planes. The build took me about four hours. This kit has excellent laser cut parts. The instructions included in the kit are concise and well-illustrated. My Vanguard P-18 was easy to trim. Its wing saddle can be slid fore and aft on the motor stick in order to adjust the location of the CG. The forward end of the wing saddle can be shimmed up and down relative to the motor stick in order to adjust the decalage.





Vanguard P-18 Built By Mike Jester

My impression is that P-18 contests will be quite competitive. Based on my own personal experience, it will not be easy for seasoned fliers to consistently achieve flight times in excess of 120 seconds in a typical gym with 22 - 24 feet of flyable height. However, novice fliers should be able to exceed 60 seconds, and even 90 seconds, early on with relative ease. As in all indoor rubber power contests, peak performance will require good trim and optimizing the rubber motor in terms of both size and winding for a given prop. It is estimated that the relatively small P-18 prop spins at close to 1,000 RPM.

So go ahead and invest a few hours to build a P-18 so you can fly it with us at the Grossmont Junior College gym. The plan for the P-18 Cruiser designed and drawn by Bill Carney is reproduced in this newsletter. A cleaner version of this plan can be downloaded from the Plan Gallery at www.hippocketaeronautics.com.

P-18 Provisional Rules

25.1 General: Except for the specific rules that apply to this event, the rules for free flight rubber hand launch stick shall apply.

25.2 The model shall be rubber powered monoplane covered with either tissue or plastic shopping bag material.

25.3 The wing shall not exceed 4.5 inch cord and projected span of 18 inches. Horizontal stabilizer shall not exceed maximum span of 9 inches with a maximum chord of 3.5 inches. Maximum overall length, including the propeller shall not exceed 18 inches.

25.4 The propeller shall be an unmodified commercially available unit with a maximum diameter of 6 inches. Weight may be added to the blade for balancing.

25.5 The maximum hook to hook distance shall not exceed 10 inches.

25.6 The minimum weight of completed model, less rubber, shall be 7.5 grams.

DECEMBER INDOOR MONTHLY 2017

(December 3, 2017)

CD: William Scott

Embryo:

(Total of three flights)

1) Richard Wood	Prairie Bird	38	42	70	-	150
2) John Hutchison	Sky Shark	50	38	47	-	135
3) Greg Hutchison	Pacific Ace	36	42	43	-	121
4) Nick Panousis	Big Cat	23	33	40	-	96

Catapult Glider:

(Best of five flights)

1) Mike Jester	23.5	23.6	-	47.3
2) John Hutchison	21.6	21.4	-	43.0
3) Richard Wood	21.0	21.0	-	42.0



Photos by Arline Bartick



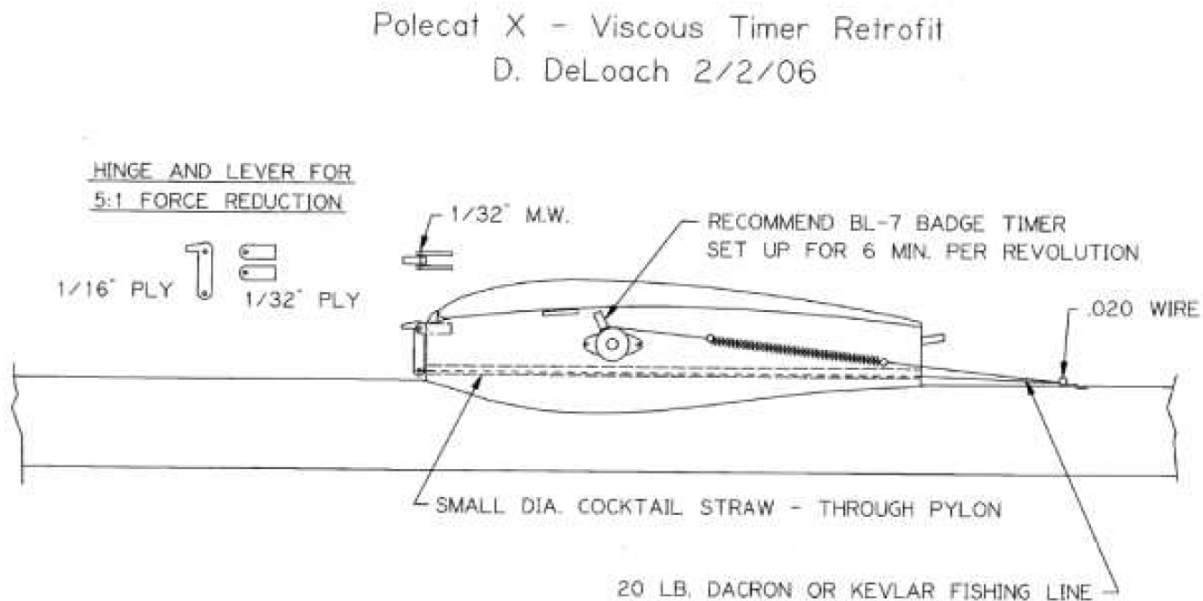
Pop-Off Wing DT for P-30

By Mike Jester

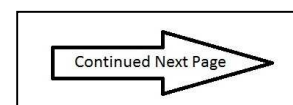


A P-30 model will inevitably catch a thermal and fly out of sight (OOS) without a dethermalizer (DT). The usual DT set-up incorporates a stab that pops up to between around a 45-degree to 60-degree angle once the model has achieved a two-minute max. It will save your P-30 most of the time, but not from the most powerful thermals. I learned this lesson when I lost my very first P-30, a Square Eagle, on a trim flight at our old Otay Mesa flying field. It caught a boomer. That model used a very accurate and reliable wind-up TOMY timer in the DT. On this particular flight the DT triggered on time and the stab popped up, but my model kept climbing. We lost sight of my Square Eagle using binoculars and could not find it that day. Several days later a friend found my Square Eagle for me and I still fly it from time to time.

An alternative DT set up for a P-30 is the pop-off wing DT. As the name implies, the wing comes off the fuselage to bring down the model. This type of DT will allow you to recover your P-30 even if encounters the most powerful thermal. The pop-off wing DT offers the additional advantage of a rapid, but still safe, vertical descent of your model that can shorten your retrieval hike. A well-known pop-off wing DT set-up for a P-30 model, which is attributed to *uber* successful builder and flier, Don DeLoach, is illustrated in the sketch reproduced hereafter.

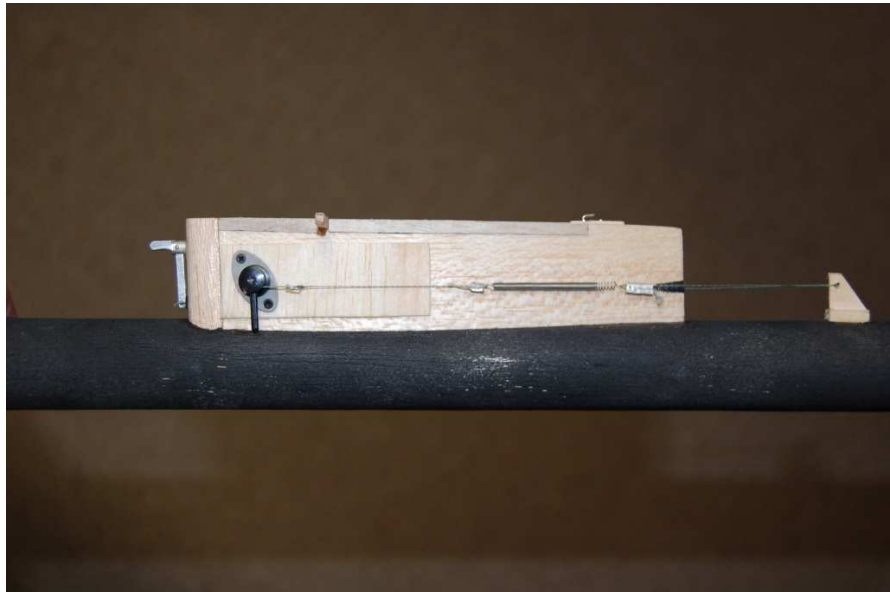


A couple of years ago I decided to experiment with the pop-off wing DT illustrated above after I had seen it being utilized very successfully by Greg Hutchison at our Perris flying field. I built my Holiday P-30 incorporating the same. I used a tiny Aluminum bell crank assembly that I obtained from Starlink Flitotech Models for the hinge and lever. This bell crank assembly is apparently manufactured exactly for this purpose. I can't remember what it cost, but using this bell crank assembly sure beats trying to make such a small hinge and lever out of tiny pieces of 1/16" and 1/32" plywood. I used a large Munson viscous timer button that I obtained from Volare Products for \$20. I think that the plastic drinking straw I used probably came from a Burger King® restaurant. The precision coil spring was obtained from Stan Buddenbohm. I think he winds them out of .009 inch music wire. They are well worth \$2 apiece. I don't like using rubber bands or elastic cord for the driving force of a viscous timer button because they do not provide a consistent and reliable pulling force and degrade in sunlight. I used Spider® line for the string in the DT timer line. It doesn't stretch and is practically unbreakable.





Holiday P-30 with Pop-Off Wing DT

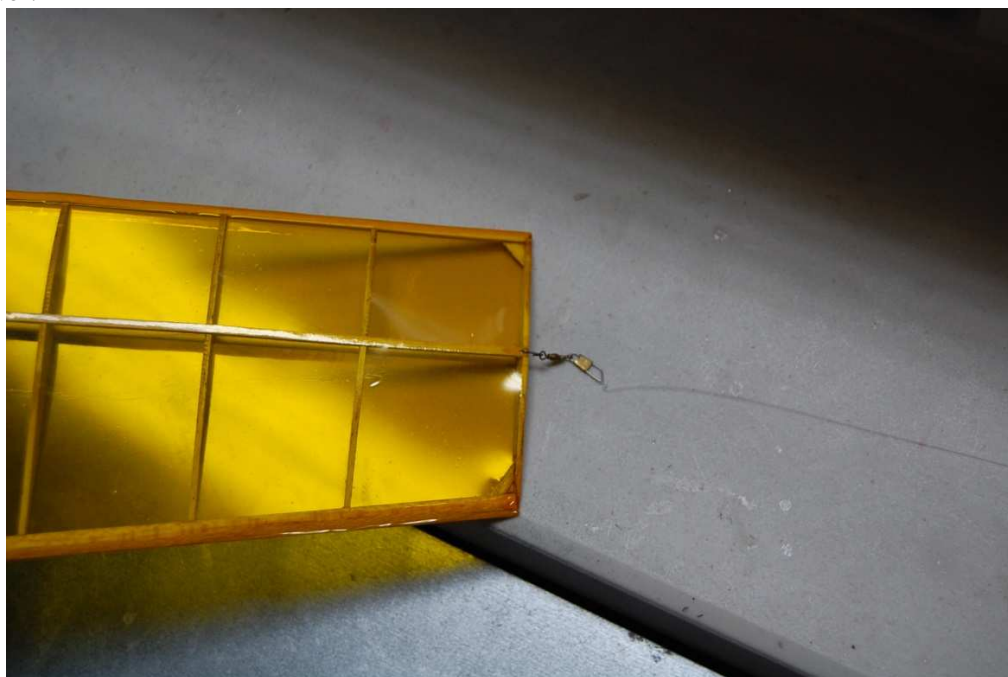


Wing Pylon of Holiday P-30

A number of key details are missing from the sketch reproduced above. As shown in the first picture, two stretched size 16 office rubber bands hold the wing onto the top of the wing pylon. These rubber bands are not illustrated in the sketch. Their front ends loop over the shorter arm of the bell crank assembly and their rearward ends loop over a hook located at the rear end of the wing pylon behind the TE of the wing. When the DT line releases from the rotating plastic arm of the viscous timer button, it allows the longer vertical arm of the Aluminum bell crank assembly to rotate upwardly (clockwise in the sketch) in response to the force of the stretched office rubber bands. This pivots the smaller arm of the bell crank assembly upwardly in the sketch to a vertical position which releases the forward ends of the hold-down rubber bands. This action allows the lift force generated by the wing to detach it from the wing pylon.

Continued Next Page

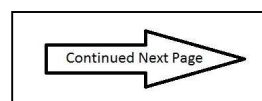
As shown on the plan for Don DeLoach's Polecat MK.X P-30 there is a short segment of fishing line that connects the tip of one wing to the rear end of the tail boom, and extends above the stab. I used 6-pound test monofilament fishing line. The fishing line segment is only an inch or two longer than the distance between the midpoint on the wing tip and the end of the tail boom, so there is not a lot of slack fishing line waving around when the model is climbing, cruising and gliding. Two swivel-type fishing lure connectors are needed to allow the wing to spin about a span-wise extending axis, above the fuselage, without twisting the fishing line segment. It is important that the fishing line segment be connected roughly midway between the LE and the TE of the wing to achieve the optimum spinning action of the wing which slows the vertical descent of the model.



Swivel-Type Fishing Lure Connector Attached to Wing Tip



Swivel-Type Fishing Lure Connector Attached to Rear End of Tail Boom



Expert P-30 fliers like Stan Buddenbohm and Clint Brooks use both a pop-up wing and a pop-up stab on the same model. This DT set-up apparently also saves a P-30 from a boomer. It takes a little more work to construct, but allows the model to descend in a horizontal orientation, thereby eliminating any risk of damage to the prop and/or a bent prop shaft due to a nose down landing on hard-packed dirt.

My Holiday P-30 flies nicely, but it is overweight at 51.7 grams. I like my P-30 models to be closer to the 40 gram minimum allowed under the rules, but I was not careful in wood selection when I built this model. The combination of the excessive weight and the flat bottom airfoil of my Holiday P-30, impairs its glide performance. So in a contest, I need to fly my Pirate P-30 or my Bob White P-30 to improve my chances of winning. Each of these models merely has a tilt-up stab DT. However, I install one of my Walston RF transmitters in these higher performance P-30 models prior to flying the same in order to greatly improve the odds that I can find them if they catch a boomer. Carrying a transmitter and batteries does impose a weight penalty of 3-4 grams but I feel it is worth it.

Doesn't it just figure? In my Holiday P-30 I now have a model with a very effective DT that probably isn't needed. This is because I wouldn't be too saddened if my Holiday P-30 flew OOS! The next P-30 that I build will be Stan Buddenbohm's venerable Air Shark. I plan to incorporate both a pop-up wing and pop-up stab into that model, having never tried this arrangement before. That way I can fly my Air Shark without an RF transmitter, like Stan does, and still hopefully get it back.



NOVEMBER 12th 2017 OUTDOOR MONTHLY

Old Time/Nostalgia Rubber

- | | |
|-------------------|-----|
| 1) Mark Chomyn | 277 |
| 2) John Hutchison | 156 |

POWER

- | | |
|--------------------|-----|
| 1) Stan Buddenbohm | 240 |
|--------------------|-----|

GLIDER

- | | |
|--------------------|-----|
| 1) Tim Batiuk | 320 |
| 2) Stan Buddenbohm | 318 |
| 3) Bruce Kimball | 280 |
| 4) Mark Chomyn | 89 |



Stan Buddenbohm at 2017 Dual Club Annual, Lost Hills CA
Photo by Arline Bartick

FROM THE WORKENCH - J.Merrill

Last night I actually finished a model, first one in a long time. The 'Lark', originally by Jetco, this was from a reproduction kit by Shive Specialties. I finished the model in orange, blue, and white trim. Found out a friend of mine and her Dad, as well as myself, are all escapees of Clairemont High School here in San Diego, so I did the model in the school's colors.

So, that's one out of seven or eight (at least) partially completed projects finally done.

Now it's your turn ... what's on your workbench?



2018 Southwest Regionals Model Airplane Championships AMA Entry Form

Name (Last, First): _____ AMA #: _____ Jr / Sr / Open : _____

Address, City, State, Zip: _____

Phone : _____ E-mail : _____

SWR Competition Fees	Entry Fees	Qty	Expanded cost
Frequent Flyer (unlimited events) >	\$ 50		\$ -
	First event	Additional events	Event count
Event Fees (Juniors only)	free	free	free
Event Fee (Senior and Open)	\$ 20	\$ 5	\$ -
Total Event Fees			\$ -

AMA License New / Renew Fees	Qty	Cost
Open (ages 19-64) \$75		\$ -
additional family members \$38		\$ -
Senior (ages 65 and over) \$65		\$ -
Total License Fees		\$ -
Total Fees		\$ -

Please make checks payable to: **Southwest Regionals**

Please mail entry form along with a copy of proof of 2018 AMA membership.

Event Pre-Registration Selections	Check mark events being flown	Event Pre-Registration Selections	Check mark events being flown	Event Pre-Registration Selections	Check mark events being flown
Saturday Events 1/14/2018 8:30am - 4:30pm		Sunday Events 1/15/2018 8:30 am - 4:30pm		Monday Events 1/16/2018 8:30am - 2:00pm	
1/2A Nostalgia		C Gas		A Nos	
1/4A Nostalgia		C Nos		1/2A Gas	
A Gas		Cat Glider		.020 Replica	
B Nostalgia		Classic 1/2A Gas		B Gas	
Classic AB Gas		Dawn Unlimited Rubber		Classic CD Gas	
D Gas		Jimmy Allen		Classic Open Tow	
E-36 Electric		Greve/Thompson ML		Early 1/2A Nos.	
HL Glider		Large Nostalgia. Rub.		Electric A&B Comb.	
Large Rub. Stk		Large Rub. Fuse.		Mulvihill Rub	
OT Gas Pylon		Moffett Rub		FAC Jet Cat Launch	
P-30		OT Gas Fuse		FAC Modern Civilian ML	
Small Nostalgia Rub		Small Rub. Stick		FAC Embryo	
Small Rub. Fuse		Twin Pusher ML			
WW I Combat ML					
WW II Combat ML					

Mail To: Chris Lidberg
1800 E. Ft. Lowell Rd
PMB 130 Ste. 126
Tucson, AZ 85719

AMA Questions
Chris Lidberg - Contest Director
520-481-2271

Year 2018 rules will be in effect; Events are Jr/Sr/Open combined unless otherwise noted.

Check your events so we can make the proper time cards. Awards given out each day.

Catapult & HLG: Time cards must be posted after each two flights. A launching pen may be in place - be sure to use it!

The *Isaacson* winter classic

February 10 - 12, 2018 at Lost Hills, California



Join us for one of the premier West Coast Free Flight Contests! We are again hosting the Kiwi New Zealand FAI World Cup. All FAI classes are **America's Cup**. AMA and NFFS classes are **National Cup**. Category II

Saturday FAI Events

Kiwi - New Zealand World Cup!

F1A, B, C, P & Q

7 round Schedule: Saturday 2/10

- 1 8:00am-9:00am
- 2 9:00am-10:00am
- 3 - 7 on the hour, to 3pm

Round One Max: All 240 seconds

Fly-Off Schedule:

First fly-off - 6 minute max.

F1A 3:30pm-3:40pm

F1B 3:45pm-3:55pm

F1C/P/Q 4:00pm-4:10pm

Additional rounds to be announced

No official time keepers provided - all help

Jean Batten Awards

For highest placing lady flier in F1ABCPQ and FIGHJS

Grand Master Award

For best performance in F1AB or C by a sportsman over 75

Roger Morrell, FAI Event Director

Saturday Only! 8am-5pm

Paul MacCready HLG

E-36 - AMA rules - Mass Launch TBA

Bud's Buddies Big "E" AMA Rules

Vintage FAI Gas

Five rounds, NFFS rules

AMA HHCLG - NC Pts.

Gollywock One Design 3 - 3min max

Gollywock Mass Launch

Sat. Evening TBA. Everyone flies! A Bob White Event!

NOS Gas

1/4A, 1/2A & C. Separate events.

AMA Gas

C, D, Sup. D Combined. Classes will be separated for NC pts.

Sat or Sun

NEW! Hulan's Old-time Sport Glow

RPM limited glow powered oldtimers. See: sanvaleers.com for rules

Sunday FAI

F1G, H, J* & S

*F1J - contingent on pre-entries (4- min)

Round one, 8:00 am! Champagne Flyoff!

Time to the ground. Round Schedule:

Rounds 2-5, two minute max.

1 8:00am-8:45am

2 9:00am-9:45am

3 9:45am-10:30am

4 10:30am-11:15am

5 11:15am-12:00pm

Fly-Offs will begin at 12:15 noon and finish by 3:00. At 3:00, any remaining ties will be broken by using Champagne Flight Times.

Sunday Only! 8am - 3pm

Paul MacCready HHCLG

NOS Gas A, B & Early 1/2A

AMA Gas 1/2A, A & B Combined

AMA HLG - NC Pts.

P-30

Nos Electric - See Hal Cover

NOS Rubber

Large and small combined-NFFS Rules

Bob White Award for top NOS Wake

Classic Glider NFFS Rules

NEW! DD's Rocky Mountain 5x5 HLG

5 rds, 5 min. window, 15 min. chase period, 20 min. total. 90 second max, ALL flights count. From the glider pen.

Sunday 1:00 - 2:40. **\$100** for individual winner. Special prize for best 3 man team. Addition to the regular Sat/Sun Ike HLG events

Lee's BTV West, 12" CLG. See Lee

Tahn's Aussie Scramble

After awards!

Contest Directors:

Norm Furutani

15423 Haas Ave.

Gardena, CA 90249

(310) 323-1943

norginfo@gmail.com

Roger Morrell

1916 B Gates Ave.

Redondo Beach, CA

FAI Registration Fri.

1pm Pre entry on SEN

Entry Fees:

"Kiwi" World Cup events
\$30

All others, \$20.00 - includes one event. Additional events \$5.00 (\$10 World Cup) each.

All must be current member AMA /MAAC and Lost Hills Assoc. World Cup events require an FAI License.

Awards and Raffle!

Sunday 4pm

Jr.-Sr. Open Class combined.

First through third, each event.

For Updates: watch SEN or go to: <http://sen.fai-freeflight.org/>
Monday, reserve day for FAI Events.

NEW! Monday! E36 WORLD CHALLENGE!

\$1000 in cash prizes! **1st \$500, 2nd \$350, 3rd \$150** plus engraved plaques. MONDAY, to maximize International competition! AMA rules 8am to 12pm. Must fly from the glider pen. Thank you, Bill Vanderbeek!!

Monday! "Kiwi" World Cup F1E

10am-3pm. Five, one hour rounds. On Holloway Hill. Peter Brocks, Event Director

*
*In memory of
our dear friends,
Bob and LaVera
Isaacson*
*

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



WHAT'S HAPPENING -

January 2018

Jan. 7 - **Indoor Flying**, Grossmont College (Upper Gym), 7:30 am to 11:30 am.

Feature Event: **A-6**, Other Events: **P-18** and **Phantom Flash**

Jan. 13-15 **2018 SW Regional's Championship**, Eloy AZ.

(See enclosed flyer for registration details)

Jan. 27 - **Orbiteer & Scale Staffel Annual Awards Banquet**

Giovanni's Restaurant, on 9353 Clairemont Mesa Blvd.

Italian buffet: pizza, pasta, salad and soft drinks. \$20 per person

Jan. 28 - **Orbiteer Outdoor Monthly**, SCAMPS Field, Perris CA, 8:00 am.

Feature Event: **P-30** Other Events: **Power & Glider**