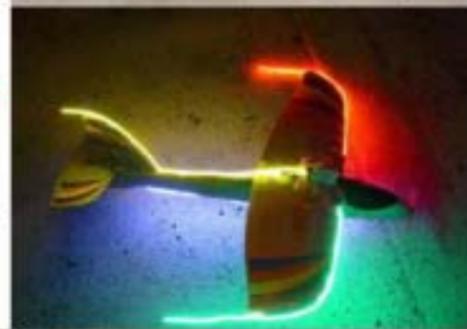




Pietenpol by Les Uyeda

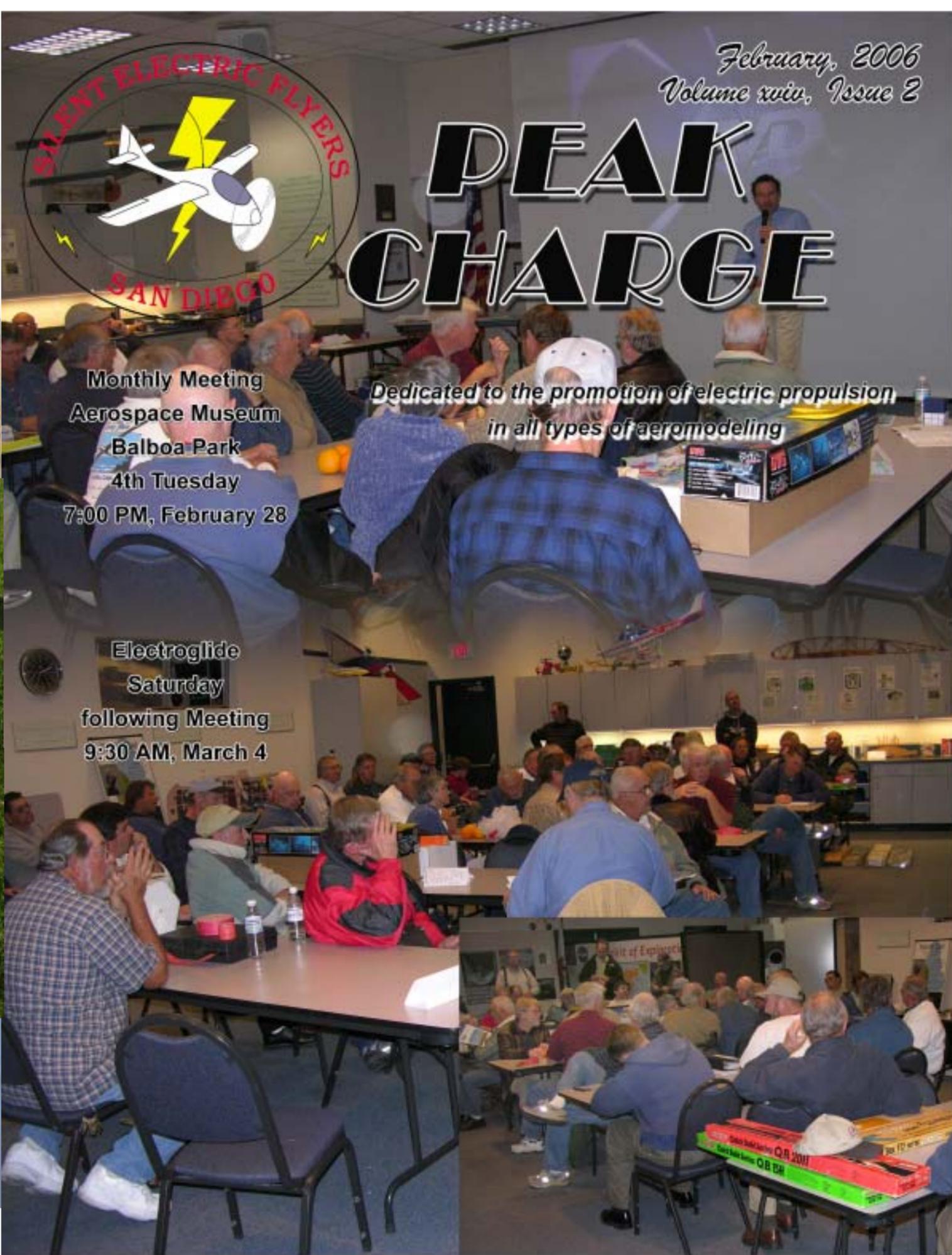


SU-27 Shock Flyer

Silent Electric Flyers of San Diego



Peak Charge



February, 2006
Volume xiv, Issue 2

PEAK CHARGE

Monthly Meeting
Aerospace Museum
Balboa Park
4th Tuesday
7:00 PM, February 28

*Dedicated to the promotion of electric propulsion
in all types of aeromodelling*

Electroglide
Saturday
following Meeting
9:30 AM, March 4

Peak Charge
QR 2011
QR 2011

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Board of Directors

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Mission Statement

The objective of the Silent Electric Flyers of San Diego is to promote and further the technology of electric powered R/C aeromodeling; encourage competition in Electric Soaring, Pylon Racing, FAI-F5B/D, Scale, Old Timer, and Pattern Electric categories by hosting major Industry-sponsored events and sanctioning "Fun-Fly" types of contests; provide forums for the exchange of technical information, instruction and experience; and participate in demonstrations of electric propulsion in area-wide model aviation events.

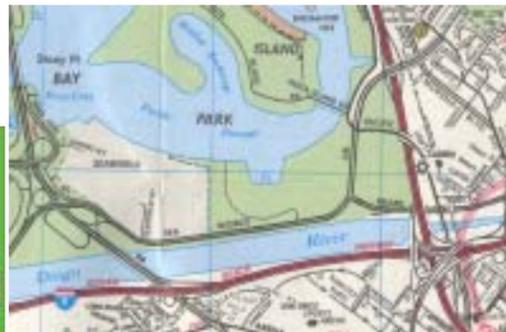
THIS MONTH'S PROGRAM

Special guest speaker Bob Boucher from Astro Flight will be talking about his new balancers and motors! He will be bring a few other new items as well as selling some at a great price! You don't want to miss this one! Big raffle prizes and a new movie to view! You can check out Bob's website @ <http://www.astroflight.com>

Astro Flight Inc. was founded by Bob Boucher and Roland Boucher in 1969. The Company's mission at that time was to develop and produce high performance R/C Sailplanes for AMA competitions. The company's first R/C Sailplane the "Malibu" finished third in the first radio control glider national held at Coyote Park near San Jose, CA in the summer of 1969. After that showing, the sales of the Malibu took off. Bob used his "Malibu" design to set an FAI closed course world soaring distance record of 302 KM at Waimanalo Hawaii in August of 1970. In January of 1971 Astro demonstrated the world's first practical R/C electric airplane. The next year Roland set two electric world records with his Astro-25 powered Fournier RF-4. The model flew for

cont'd Page 4

Aerospace Museum
Monthly Meeting site



Field
AMA Charter Club 3078
Flying Field GPS Coordinates
Latitude 32.7625480 Longitude 1721415
web site: <http://sefsd.org/>
Zip Code 92109

The Hall Property

Some few years ago the City of Encinitas purchased property just West of the I5 and south of San Fe Road. Bill Knoll, President of SEFSD, asked me to check on the possibility of establishing a North County flying field on the grounds of this new park. I sent him many emails reporting on various aspects and development of the park. Turns out he never received my messages, and nothing further happened.

Well, it seems the City is having second thoughts about the park - and no development has occurred, though its in the plan. There are many E-flyers in Encinitas, i've talked to a few. They would love to have a dedicated flying area (they now fly at Moonlight Beach Parking lot and someplace in East Encinitas. Do you think there would be any interest in the club establishing a field in Encinitas? I don't know if

it is even possible, but I do know the city is having some money problems. Maybe we could lease part of the park and keep trees from being planted.

Let me know what you think. I could arrange a courtesy call on City Hall to introduce the idea. It is not too late to alter the "Grand Plan" for the park, save the city money, and perhaps work a deal for a flying field. I think the most negative aspect is the location, which is adjacent to and upwind of the freeway.

Dick Anderson



More Later:

Memories



For those of you who are still around; Spring Flig is alive and well; and bigger and better than ever.

PS: and we can almost guarantee that the sun will shine.

MWE Spring Fling

Electric in the West
May 5, 6, 7th, 2006

presented by
**Silent Electric Flyers
of San Diego**

Loads of Open Flying
Events on Website sefsd.org
Vendors
contact Steve Mangnelli
sefsdpres@yahoo.com

SILENT ELECTRIC FLYERS of SAN DIEGO PROUDLY PRESENTS

ELECTRIC SPRING FLING!

MAY 4th and 5th, 1996

FREE CATERED LUNCH BOTH DAYS -
ENTRY - \$5.00 PER EVENT, PRIZES & RIBBONS TO ALL ENTRANTS!!

SATURDAY MAY 4th

9 AM - HANDICAP CARGO LIFTING - MINUTES FLOWN X TIMES OZ'S CARRIED.

10 AM - 7 CELL PYLON RACE - ROUND #1

DIV I (UNLIMITED MOTORS) -
DIV II (ASTRO OR EGLUV MOTORS) -
DIV III (SPEED 400/600 MOTORS) -

11:00 AM - ALL UP LAST DOWN -

11:30 AM - CONCOURSE DE ELEGANCE - PILOTS CHOICE FOR BEST AIRCRAFT!

11:30 AM - LUNCH / FUN FLY / SCALE FLY / PATTERN DEMOS

SUNDAY MAY 5th

9 AM - CONCOURSE DE ELEGANCE - PILOTS CHOICE FOR BEST AIRCRAFT!

9 AM - SIMPLE PATTERN - DIV I/E CLASS - OPEN CLASS - MASTERS CLASS

10 AM - F5B - ROUND #1 - HANDICAP, 16 CELLS = 15 PTS PER LAP
7 CELLS = 13 POINTS PER LAP, ALL OTHER FAI RULES APPLY.

11 AM - LMR - DEDUCT MOTOR RUN RECORDS X # CELLS/WEIGHT FROM TIME.

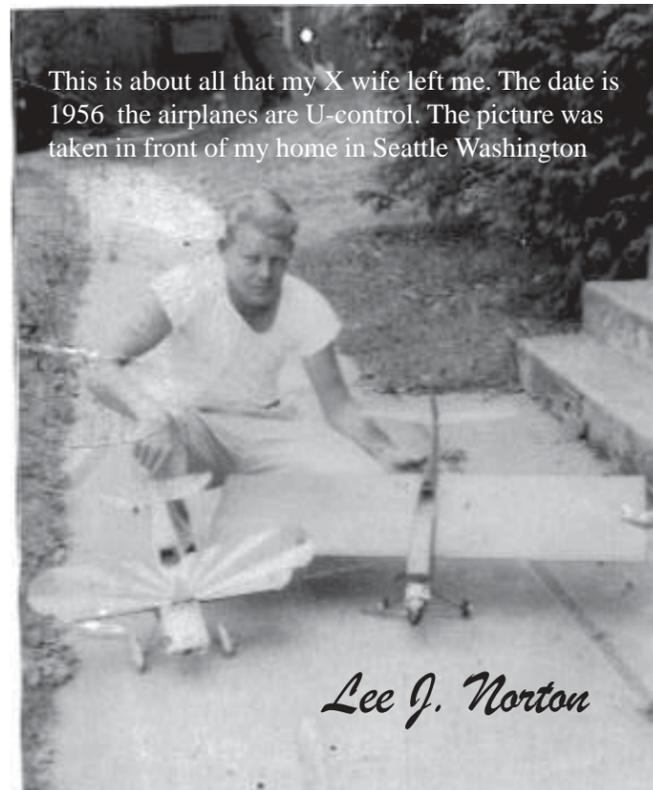
12 NOON - LUNCH / FUN FLY !!
3 PM - AWARDS

MAY 4th and 5th, 1996
AT MISSION BAY PARK, SEAWORLD DR., SAN DIEGO
1/4 MI. EAST OF SEAWORLD PARKING LOT
1/2 MI. WEST OF I 5, SAN DIEGO

CONTACTS: WAYNE WALKER (619) 294-8119
STEVE BELKNAP (619) 493-3739
ENTRY - \$5.00/EVENT, PRIZES & RIBBONS TO ALL ENTRANTS!!

a LIPO fire *Gene Schultz*

This is the aftermath of a LIPO fire I had last week in my garage. Yes, I broke a lot of LIPO rules, but look what happens. If my dog hadn't warned me, the garage, house and everything I own would have gone up in flames! I don't have to repeat the rules, they are good! I was using a brand new expensive AstoFlight Lithium Deluxe Li-Poly Charger/Discharger, charging a 1320 mah LIPO pack still in my Wattage Piper Cub. I was charging a perfectly normal, partially discharged pack in the plane on a shelf in my workshop in the garage. Normally it charges at a rate that you select initially with a rotary knob, 1000mah in this case, then it selects the number of cells automatically, 3 cells in this case, it does a 3 stage charge and then shuts down by itself. The battery has always charged normally, had normal power on the last flight, wasn't damaged, etc, but this time something went wrong. It destroyed the Outrunner motor, a Typhoon 5-3D, the ESC, 4 miniature servos, the miniature receiver and the plane. The new car battery I was using just to charge my LIPO's was destroyed, and the vertical blinds over the garage window, but fortunately, since the garage is plastered and didn't catch on fire before the dog warned me, I was able to put it out with a fire extinguisher. I guess I will be sending the charger back to Astro even though I can't really blame them, I didn't take all the good advice I have read, charged it in the wrong place and didn't watch it for the 30 or 40 minutes that a normal charge takes. Now I'm beginning to see some advantages to using NICAD's & NIMH batteries.



This is about all that my X wife left me. The date is 1956 the airplanes are U-control. The picture was taken in front of my home in Seattle Washington

Lee J. Norton

The President's Corner

By Steve Manganelli



When I look at the Pin Board on a busy weekend day, I get the blues!

Blue is good in this case; sexy new blue 2006 SEFSD pins for members indicating current AMA insurance; blue 2006 AMA cards for our guests. I once again thank everyone for paying their dues on time; you don't know what a pain this is otherwise. Once and awhile I see yellow on the pin board. Yellow 2005 AMA cards do not provide the required insurance necessary to maintain field privileges, nor do 2005 yellow SEFSD pins signify current Club membership properly indemnifying the City of San Diego. Bottom line those 2 documents are worthless and do not grant any privilege. Help me stay with the blues, OK?

Next, another change for the new year is the Board of Directors meetings held a week earlier giving us time to put the proceedings into the same month newsletter. For instance I'm able to encourage you all to come to February's meeting to hear an exciting presentation from "Astro Bob" Boucher, proprietor of Astro Flight Inc. Bob goes back pretty much to the beginning of E-flight and is a very interesting speaker. If there is any way you can make it out this meeting, you won't regret it. By the same token, and rather surprising is that before long, we

may have a permanent Port-A-Potty at the field! I can think of a few times this would have been handy for me and may be boon for our older members with weaker kidneys. We were formerly told this would be an eyesore and not permitted, now apparently, this is no longer the case.

Recall that my last column announced a new newsletter feature of your full scale aero and aeromodeling exploits of yesteryear, with a picture. I had a mild brainstorm : create a simple form with appropriate information solicited that will enable easy creation of the story and it will even include a post paid envelope addressed to me. If I thrust an envelop into your had at the field, it doesn't mean you are delinquent on your dues, just means you have a respectable and/or notorious past and inquiring minds want to know about it!

A month can't go by without mention of MWE Spring Fling planning and solicitation of workers. Our plan is to adjust our expenses to align with the received vendor support which will be not more than 30 vendors in any case. We will have prize sponsors for the fun events being scheduled by Tim Attaway. The events will include Aerobatics, WWII Promenade, Electroglide, Foam 3D and of course the crowd favorite Limbo Combat. We'll be doing Theme apparel featuring a beautiful LOGO created by Jack Hix and a raffle. In the theme of "more for us" we'll be having an fee struc-

ture that gives a break to our Club members and probably will even include some of that apparel; so you sign up and work a little, then you get your models out and fly some : sound like a plan?

Lastly, I want to recap an organizational meeting I attended this past January 25th to create a schedule for the Scale Racing Association's micro AT-6 series (<http://www.electrict6racing.com/>). This sure-to-be-a-blast series uses the Speed 400 size House of Balsa (HOB) AT-6 laser cut kit as the one design model. The limited class uses a long-can Speed 400 and Open Class uses lipos and brushless motors. The heat races originate from a wheels takeoff then proceed to a 2 pylon course with the pylons just 350 feet apart. I'm told that HOB is a sponsor of the series providing the kits to us at a discount. The first batch was a sell out but I'm told another batch is on the way. Contact Frank Gagliardi <Bill : Insert Contact info here> to get yours (or just buy it at the Hobby Shop). The first race of the season is March 18th at the Palomar Club in Fallbrook, so there is still time to build this little gem. Our race is Saturday, March 15, Mission Bay Park; we take May off for MWE and other events and resume June 24th at Santee with the Weedwackers and then August 19th at the Miramar Flyers Field. Four races without even a serious drive and the LA bunch hasn't yet come up with their dates (and they started this!).

PEAK CHARGE
Dedicated to the promotion of electric powered in all types of aeromodeling

January 1991
AMA CHARTER #0078 Volume 9 Issue 1

WE HAVE A FLYING SITE!
By Steve Manganelli

US F5B Team Takes Silver at World Championships
By Steve Manganelli

UPCOMING EVENTS
January, 1991
6,7,8 Endless Horizons R/C Hobby Expo at Long Beach Convention Center
13-15 DMS Pasadena Radio Control Model Sport & Hobby Show
18 SEFSD Monthly Meeting
21 SEFSD Flight Gathering at Mission Bay Park.

JANUARY'S MEETING AGENDA
-Introduction of New Officers
-Goals and Objectives for '91
-Right of Entry Permit for Flying Site
-Collect Dues
-Club One Design Airplane
-Orders for Servo/Speed Control Tester
-Battery Storage in Spring???
-Electric Special Interest Group Formation
-Free New Catalogs
-Entertainment Program
-History Solving Tool to End by Harold Reed (BYO Batteries) Show and Tell

Public/Master H. Reed
Peak Radio G. Holman
"Rascal" Glider W. Walker
New Model YOU
Raffle Prizes TED

Total Scores and Team Rankings Page 6

(<http://www.waterblast.xmgfree.com/forums/viewtopic.php?p=21&sid=e941c04fc183086243b1e3ab6f5d611c>)

almost one hour and over 29 miles on a single charge of its silver zinc battery. Neither the AMA nor the FAI would recognize the electric records since at that time there was no official category for electric flight. The next year Astro received a contract through the Northrop Corporation to develop a stealth low altitude electric powered surveillance drone. Bob was project manager and with the help of Roland and Dave Shadel their one and only employee the prototype was finished in six months. Bob's design was a flying wing with an eight footspan and three Astro 40 Ferrite Motors turning three blade 8x8 props. In August of 1973 Astro Model 7212 carried a 71/2 pound lead payload over a closed course for one hour and twenty minutes at speeds up to 75 mph, another unofficial electric record . In the spring of 1974 Astro Flight was awarded an ARPA contract through Lockheed to build a flight demonstration model of Astro's latest invention, the Solar Powered Airplane. SUNRISE I made its first flight powered only by the sun's energy on Nov 4, 1974 at Camp Irwin Bicycle Lake California. Sunrise I was powered by two Astro 40 ferrite motors connected to a 36 x 24 wood propeller through a six to one gear drive. Over 1000 solar cells on the wings produced about 450 watts of power. Sunrise I

had a 32 foot wing span and weighed 26 pounds. Flight test results indicated that Sunrise I had a service ceiling of about 20,000 feet in June on a clear day. In winter the low sun angle and wet weather made flight testing difficult. After many solar flights, Sunrise I was damaged in a wind storm in the early spring of 1975. A few months later Roland sold his share of the business to Bob and left Astro to start his own company specializing in R/C cars. In June of 1975 Astro received a contract for an improved version Sunrise II. Bob worked night and day with the help of Phil Bernhardt and Bill Warner to build the solar powered plane in just three months. Sunrise II made its first solar powered flight on Sept 27 of 1975 at Nellis Air Force Base Nevada. Sunrise II had many improvements. Its 4480 solar cells put out over 600 watts and weighed only 4 lbs. A single Astro Cobalt 40 motor replaced the twin ferrite set up of Sunrise I. The airplane had 90 square feet of wing area and weighed only 22 lbs. With more power and a lighter weight the climb rate was over 300 ft per minute or about 20,000 ft per hour. Service ceiling was estimated to be about 75,000 feet in June and 45,000 feet in November. Various command and control problems limited actual flights to 20,000 ft.

you in the Pitts! *Doug Rubin*
V.P.SEFSD

At another field last week (Spectrum), I talked to Kelly, a nice young flyer who works at Sea World. She often sees us fly over the Sea World parking lot, and sometimes over the park itself! She told me that Sea World was trying to remove us from our location because they think someone will get hurt! The other day I saw someone fly over Sea World Drive! Bird watchers frequent the North (bay) side of our flying field. Stay away from birds! We have a prime spot! Please fly only in our designated area!

Doug



Silent Electric Flyers of San Diego

Peak Charge

Raffle by Robert Abel

For the February raffle we will have a ready to fly helicopter for the big item. A clamp on volt / amp meter, a couple of servos and a pair of floats for that water take off plane you wanted to build. Time permitting I'll dig up some other items. Safe landings,

San Diego Electroglides -- January 28 January 2006

We have three Electroglides now -- the San Diego Electroglide, the Open Electroglide, and the Standard Class Electroglide. Each has its very own "rules/score" sheets which I put out on clip boards on the front windshield of my green Subaru the mornings of the Electroglides. Briefly, the San Diego Electroglide is for Speed 400 motors with no restrictions on the kind of airframe, the Open Electroglide has no restrictions regarding motor or airframe, and the Standard Class Electroglide is only for pilots flying stock Multiplex Easy Gliders with the stock motor and propellor. Detailed rules and regulations are spelled out on each of the "rule/score" sheets. Please remember to select the correct score sheet of the three for the contest you are entering, and as you fly, fill out the vacant spaces and calculate your own scores. Then either hand them to me or put them back on the clip boards on my windshield.

We are happy to have pilots to fly with us who do not strictly follow the rules. But, please indicate on your score sheet, how you vary from the rules. For example, you can fly with us if you use Lithium batteries, but your score will be asterisked in the results, and we hope that in later months you will modify your ships to comply with the contest rules. If you fly, in one of the events -- following the rules or not -- please turn in your sheets! We are happy to record your results. I mention this because we had 14 pilots flying in the San Diego Electroglide and only seven sheets turned in, and five flying in the Standard Class and only two sheets turned in!

The Open Class has not had many entrants for the past few months. If the number is small for the February Electroglides we may launch them simultaneously with the Standard Class.

And, by the way, I hear that Dymond Model Sport has the Multiplex Easy Glider at a very competitive price!! Let's have more than two legal ships flying next month, OK?

The February Electroglides will be Saturday, March 4th. Join us for all three events; the San Diego Electroglide, the Open Electroglide, and the Standard Class Electroglide -- starting at 9:30 AM.

Don Wemple

The January San Diego Electroglide

Pilot	Freq.	Model	Toss 1	Toss 2	Toss 3	Total
Pedro Brantuas	48	Lil Bird	56	64	77	197
Fred Daughery	15	Ascent	22	34	35	91
Lucas Worthen	38	Easy Star	16	27	42	85
Larry Fitzgerald	40	Ascent	40	37	0	77
Roger Pedersen	55	Pulsar	22	20	18	60
Russ Parks	26	Sergio	30	20	0	50
Zeke Mazur	29	Lil Bird	0	40	0	40

The January Sports Class Electroglide

Don Wemple	43	Easy Glider	54	30	41	125
Fred Daugherty	15	Easy Glider	67	0	27	94

Would love to see a for sale section and a "I can help build it for you" kind of column. I became a member some months ago and met a gentleman named Bill (unfortunately I did not get his last name) who was fun to talk to, helpful, and just a guy you would want to be friends with. I also met some guy "somebody the polak", who was exactly the opposite. "I am not the guy who will help anyone learn to fly his model, I am here to fly my airplanes" It was a total turn off and I have not been back since. I was hoping to meet some people that were excited to have a great hobby and would be excited to show anyone the potential of this. Maybe I was one of those guys trying to get into the hobby on a shoestring and bought the wrong airplane. I was not encouraged to make this thing fly, just to get something "real". I guess I am a little discouraged with the lack of contagious enthusiasm that I was looking for. I know I will never find it now that I have written this note, maybe, just maybe, the club could make a better effort to welcome new people and possibly give them some constructive criticism. I had been at the field, probably 20 times, before I had the guts to try and I am a bit disillusioned. It is probably not fair to judge the group by one negative experience, and the "Polak" had a right to not be bothered by such a rank amateur, somehow I was hoping for a little camaraderie rather than "dont bother me I am doing my own thing" from my foray into flying.

The author asked to remain anonymous, but I'm publishing his response to my request for inputs to Peak Charge (positive or otherwise) because there may be others who come to the field and **dont** feel welcome.

Silent Electric Flyers of San Diego

Peak Charge

Flying with a Plan

by Bill Coombes

One of the benefits of flying Pattern competition (as it was called in the olden days) was that it forced you to fly a predictable, recognizable sequence of maneuvers on every flight. In other words, it imposed some discipline in your flying, and it made you a better pilot.

Although I have not flown in competition in many years, I still try to remember the lessons I learned when I did compete. Every time I fly, I have a mental plan of what I want to accomplish during the flight.

When instructing school children, I've found that making them do repeated maneuvers allows them to move more quickly toward their first solo. They become disciplined fliers.

Planning Prevents the Airplane from Flying the Pilot

Watching pilots at our field and at my electric field of choice, I have seen guys who could be skilled fliers constantly chasing their airplanes through the sky until they find themselves disoriented and their airplanes at risk. They aren't flying with a plan, but rather the airplane is flying them.

With the Commemorative Air Force, I have participated in the hardest kind of flying to learn—formation. Believe me, discipline and a plan are the only things that prevent catastrophic accidents (besides a thorough briefing and an understanding of the flight formation rules). Guys who can fly an airplane well enough when alone suddenly discover a whole new set of skills necessary to master before they are safe in a formation.

I'm not advocating that all of us in the RC world rush out and become International Miniature Aerobatic Club (IMAC) pilots, but I am saying that flying each flight with a specific plan (like really round loops, or skillfully centering maneuvers in front of you, or a perfect landing pattern) will impose some meaning to your flying and you will become a safer, better pilot (and your airplane will last longer as well). With the high price of these Alfa warbirds that I am into right now, economy forces me to always fly with a plan.

The 3rd Shanghai International Model Exhibition (SIME)

Jun.3—5th in 2006 in Shanghai, China.

Do you have any interest to have a visit? SIME is the best platform for both China domestic model companies and international professional buyers. Our exhibitors are all Chinese famous model manufacturers. In SIME, they show their best products of the year. Our visitors are all most overseas professional buyers especially in Europe and USA.

In SIME, they can find many business opportunities. Shanghai and SIME welcome you!

Could we make an exchange for web-side links each other? I can send you the list of exhibitors and visitors for return.

Kind Regards

Elfei international manager

Organizer of Shanghai International Model Exhibition

(SIME)

Tel: 0086 21 6483 7665

Fax: 0086 21 6482 6717

E-mail: elfei2003@hotmail.com

www.shmodelexpo.com.cn

Room103 No.8 KangJian RD Shanghai PR China 200235

Details of our fair:

Time: Jun.3th—5th, 2006

Venue: Shanghai East Asia Exhibition Hall (No.666 TianYaoQiao RD), Shanghai, China(English version included)

hotel recommendation, and traffic guide is in our web-site.

Minutes from the January Meeting

by David Fee

Introduction-

Steve Manganelli called the January meeting to order on 1/24/06 at 7:10PM. There were three guests/new members in attendance named Jerry, Steve and Wesley.

Old Business-

The "new" club officers for 2006 were announced:

President	Steve Manganelli
Vice Pres.	Doug Rubin
Editor	Bill Fee
Treasurer	Michael Neale
Membership	Sylvia Fee
Safety	Steve Neu
Secretary	David Fee

Board of Directors At Large

Chuck Grim

Tim Attaway

Ray Faulks

Club Competitions and Events-

The S400 Electroglide will be held Saturday, 1/31/06, at 9:30AM. If weather precludes, the event will be rescheduled for the following weekend. The Electroglide event is always held on the Saturday following the SEFSD monthly meeting. For further information, please contact Don Wemple.

The 2006 MWE/Spring Fling is coming May 5th – 7th. In spite of the unintended schedule conflicts with SEFF and the RCX tradeshow, the Board of Directors decided that "The Show Must Go On."

Micro AT-6 pylon racing is coming soon. This new class is based on the House of Balsa electric kit. Contact Frank Gagliardi (jazzdrmr@san.rr.com) for more information.

A new Jet Day at the Bay is coming, along with a helicopter event and several aerobatics competitions. Keep an eye on the calendar on the club website for upcoming events.

Show & Tell-

Mike Blott brought an F18 model made from a single model from the diamond-formation assembly he showed a few months ago. This one is IPS powered, with tailerons and a 340mAh lipoly pack.

Also shown was a "Liberty" from Black Horse Models, available for only \$99 at Hobby Lobby. It uses an Axi 2814-10 motor with a lithium battery. It was modified for dual aileron servos, and looks quite nice.

Raffle-

All sorts of good stuff was included in the raffle. There were calipers and micrometers, airplane kits, receivers, a field buddy box and more!

Entertainment-

This month we had a swap meet, where people got some great deals on other people's stuff!

The meeting was adjourned at approximately 8:30PM.



Solvent Toxicity

From the Willamette Modelers Club of Oregon, Albany OR

By David Rosenberg

Technical Editor's Note: Know your solvents—they can be very useful but can have serious health repercussions if used without sufficient ventilation. Never use an ordinary electric fan to “suck” air out of a room where solvents are in use—instead set up your workroom so the fan blows air through and out of the room.

Definitions Fire point: The temperature at which a material will take fire when exposed to a small flame.

Acetone (Dope thinner, both Nitrate, and Butyrate)

Boiling Range: 130°-134°F

Fire Point: 0°F.

Toxicity: Acetone is a mild narcotic, skin irritant, and has a de-fatting action on the skin. Prolonged inhalation may cause headaches.

Storage: Use minimum volume containers, either High density polyethylene (HDPE) or Polypropylene (PP). They have low vapor transmission, minimizing evaporation.

Safety Precautions: Use with gloves and eye protection in well-ventilated area.

This is a very dangerous and underrated solvent. Store it in sealed, solvent-proof containers in a cool place away from ignition sources such as a furnace or gas tank heaters. Do not store in a refrigerator. Accumulated fumes can be ignited from a spark from the exposed door switch. Underwriter's Labs have confirmed home explosions from flammable solvents stored in refrigerators.

Methyl Alcohol (Methanol and Wood alcohol)

Boiling Point: 146°-153°F

Fire Point: 52°F (open cup)

Toxicity: It has distinct narcotic properties. It is a cumulative poison, affecting the nervous system, especially the optic nerve, causing optic neuritis and blindness. It is an irritant to mucous membranes and skin can become dry and cracked because of the solvent action

Isopropyl Alcohol (Isopropanol)

Boiling Point: 175°-178°F

Fire Point: 67°F (open cup)

Toxicity: Not rated as a toxic compound but it is an irritant to mucous membranes and eyes and is a mild narcotic.

Rubbing alcohol is a mixture of 70% Isopropanol, and 30% water. It should be is stored in bottles made from HDPE which has a low vapor transmission and minimizes evaporation. It is an excellent industrial degreaser. I have used it successfully for decades at both General Electric and General Motors to clean both metal and polymer surfaces prior to adhesive bonding. Its flammability is one of its drawbacks.

From the Checkerboard Field RC Club, Chicago IL

USAirNet Web Site Provides Weather/Wind Forecasts

This Web site provides accurate weather and wind forecasts. Other sites do the same thing, but this one actually graphs the wind speed over the course of the day in three hour increments.

To try it for yourself at www.usairnet.com. Click on weather, and then choose a region and location.

Now You're Virtually There!



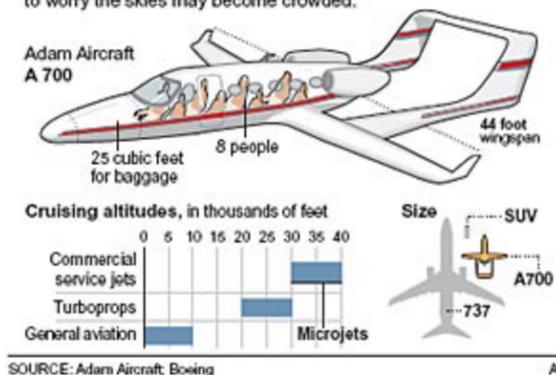
Early in 2004, the idea of a virtual version of Steve Fossett's record attempt was simultaneously mooted by both the GlobalFlyer project team, and by a team of aviation enthusiasts at a

company called Aeroplane Heaven in Brisbane, Australia. Pretty soon, the two ideas came together, and Aeroplane Heaven and Virgin Atlantic met up to discuss the idea. Throughout the year, research and development was carried out and using information and data supplied by the Virgin Atlantic GlobalFlyer Team, a prototype model was flying the virtual skies by August 2004. Flight modeling, the 'black art' of programming a model to fly realistically in a simulation, was entrusted to one of the industry's 'legends' and major contributor to many of Aeroplane Heaven's creations, Jerry Beckwith. Jerry was able to take the basic data available and compute the necessary flight and performance envelopes for the Virtual Virgin Atlantic GlobalFlyer. Challenges to be overcome included persuading the host simulator to even accept a very unconventional aeroplane like the GlobalFlyer. The massive change in all-up weight of the machine as it consumes all that jet fuel is no easy computation as the landing weight is considerably lighter than that at take-off. Gear suspensions behave differently, and the shift in centre of gravity of the craft can be severely affected if the centre of balance is not worked out accurately. Jerry's work has resulted in an amazingly realistic flight experience which can severely test the prowess of even the seasoned simulation pilot. Of course the model is also designed to work with lower or easier settings in the simulator, so novices and less-experienced pilots alike can enjoy this unique

simulation to the full. Aeroplane Heaven are justly proud of their work in producing this unique virtual replica and so wanted to make it available to flight simmers the world over to try their own hand at a round the world flight to see just how hard it is. Knowledge and new skillsets acquired in the process of creating the Virtual Virgin Atlantic GlobalFlyer will now go on to be used in Aeroplane Heaven's next generation of simulation models and many features will be seen in the upcoming Vought F4U Corsair series of US wartime carrier fighters, a definitive history of the Supermarine Spitfire and AH's first major foray into non-combat, commercial aircraft soon to be flying the virtual skies on a computer screen near you. For full details of the simulator, and downloads, go to the Virtual Virgin Atlantic GlobalFlyer site by Aeroplane Heaven (opens in new window). Background on Aeroplane Heaven: In August 2002, a group of aviation and flight simulation enthusiasts from various parts of the world, assembled in loose formation to create a new service to provide high quality enhancements for the flight simulation community and enthusiasts of one of the world's fastest growing computer-based hobbies. With the business based in Brisbane, Australia, Aeroplane Heaven opened its doors in September of that year with a small downloadable product line available from their new website. Some two and a half years later, the company now has an enviable reputation for delivering a wide variety of top quality virtual replicas for use in the Microsoft Flight Simulator series. Specialising mostly in historical warbirds, the group received its first commercial commission in 2003 to build for a large international distributor. Aeroplane Heaven was also commissioned by Historic Flying Limited of England, world renowned restorers of real Spitfires, to build a virtual replica of their two-seat Spitfire trainer, being restored to flying condition. Details of this project can be found at their site <http://www.aeroplaneheaven.com> or at HFL's site <http://www.historicflying.com>

'Microjets' are set to take off

"Microjets" or "Very Light Jets" are scheduled make their debut this year. The small jets carrying 5 to 8 people are causing large airlines to worry the skies may become crowded.



Smaller, faster, cheaper new jets may transform flying America's already crowded skies are about to become more congested. Proponents of the little jets say they'll



offer service to small airports unused by large airlines.

Taking off for the first time this year will be small, speedy, cheap jets that big airlines worry will cause traffic jams around major metropolitan areas.

Called "microjets" or "very light jets," (VLJs) they've been likened to SUVs with wings. With two engines and seating capacity for five or six people, they cost half as much as the most inexpensive business jet now in service. Three thousand of the little jets are already on order at three manufacturers. Albuquerque-based Eclipse Aviation has 2,350 on back order and expects to receive Federal Aviation Administration certification for its E500 by June.