

# PEAK CHARGE

*Dedicated to the promotion of electric propulsion in all types of aeromodeling.*

SEFSD Newsletter

March 2002

Volume XII Issue III

## CALENDAR

### March Meeting

7:00 pm March 26, 2002  
Automotive Museum, Balboa  
Park

Electro Glide Saturday  
March 30 at 9:15 am

### March RAFFLE

Raffle prizes:  
UHU 1700 mm Elec. Glider Kit  
Digital multimeter  
Kontronik 30A ESC  
Gear, Mount & Prop Adpt. for  
Speed 400  
Diamond Drill Set  
Epoxy & T-shirt



SOME OF THE FOLKS THAT  
MADE THE MWE POSSIBLE



THIS GUY IS ONE OF THE  
FOUNDERS OF SEFSD  
STEVE MANGANELLI

# 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.

## Silent Electric Flyers of San Diego

### Club Information

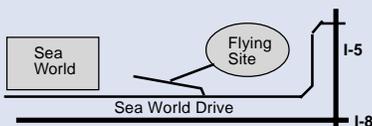
Web Site: <http://sefsd.org/>

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#### Flying Site

Located one half mile East of  
Sea World on Sea World Drive  
at South Shores Park Drive



#### Membership or Subscription

\$25 per year, \$15 for subscription only. \$10 for under 18 or additional family member. Mail to the Subscription Secretary: Dennis Collins, 5150 Corte Playa Catalina, San Diego, CA 92124.

## PREZ SEZ

Well folks, the MWE appears to have been a success. I have reviewed proposed revisions with some of the key players that were responsible for the majority of the organizing, scheduling, and implementation, and I expect next year to be the best ever with your help. Again, I wish to thank all of those who made this event the success it was.

I now have in my possession, the California Coastal Commission application for the field relocation and reconstruction project. Another hurdle to jump through and another \$200 to the government for their approval. Will it ever end? The application should be straightforward, and I do not anticipate problems obtaining approvals. Hopefully, the next MWE will be at a larger facility. The field improvement plans may become a two-phase process, with construction of a half-width (75') D.G. runway and an adjoining half-width plain dirt runway for airplanes with landing spikes (the D.G. is EXPENSIVE and I don't want them tearing it up). IF things go well in the upcoming election (we still need your help, and that includes all of you), we may have a sympathetic ear on the City Council that will listen to us. I would like to plan a presentation to the Council to request City cooperation in completing a first-rate facility that would be a great benefit to us and to the City.

In years past, we used to hold a Fall Fun-Fly. With holding the World Championships in August of 2000, this fun-fly has seemingly gone by the wayside. I have spoken with several jet-jockeys and have tentatively agreed to hold a "Jet-together" sometime in August. An exact name for this event has yet to be determined. This would not be an organized event. No vendors, no booths, no special equipment, no entry fee, no nothing. Simply stated, we would shut down the field to all non-jet airplanes for one day. Any ducted fan is welcome. Propeller airplanes would be welcome if they look like a jet. And just in case you are thinking, a Zagi does not look like a jet, even if you try to make it look like a jet. The one exception to the Zagi rule is

## *February 2002 SEFSD Minutes*

Minutes of SEFSD 2/26/02 general meetin 7:03pm

President Bill Knoll opened the meeting

Old business

Highlights Post MWE event meeting:

In the future events limit # flying at one time limit the demo flying.

Electroglide one round lower price to preregister ( help get a better estimate of attendees)

Scale flights in morning

Helpers get half price admission if work 1/2 day free if work full day

Center line on runway

Avoid flying near birds

Give full scale aircraft a wide berth

Field etiquette, watch the language

MWE 140 registered estimate 600 attended Saturday

Estimate 350 planes

Presentation from the California Space institute Jason.....

Same info as last presentation

UAV to return home after being dropped from 100,000 feet by weather balloon.

Hope to have inflatable version by end of summer.

Electroglide 3/2/02 9:15am

Lou \_\_\_ showed Antenna # idea and using yarn for a windsock on your antenna.

Fred Harris showed his Teradactyl video platform plane. Twin boom using 2 phasor 15/4 motors running parallel on 8 cells. 760 sq in wing area 6 lbs.

Steve Belknap and his sons Sean and Daniel showed the new hobby people ARF Crazy 8. He is using a turbo 450 on 8 cells. Needs a strengthening mod to the wing saddle.

Tipsy by Graupner designed for a S280. Steve used a S300. Flys great.

Bill Knoll showed his Airworld F9F Cougar ducted fan jet. Runs 22 cells 5 3/4 lbs. Impressed in its speed range.

Mike Blott showed lite stick powered flag. It is covered with a picture that was expanded using Turbo Cad. He brought 1/12 scale plans for a plane he is building called the OPTICA. Showed a wood plug that is being carved to shrink a 3-liter bottle over to form the canopy.

Respectively submitted:

Mike Blott

if someone built a YB-49 with four ducted fans (a real challenge indeed). Otherwise keep them away.

Lastly, with the fence alongside the runway, it has reduced the number of incursions into and out of the pits to almost zero, but it has introduced a new problem. With only a few openings in the fence, pilots seem to want to stand in these openings. Don't do that. It makes it difficult for other pilots to launch or retrieve their aircraft. If your airplane has wheels, set your airplane on the runway, walk to an appropriate place to stand, taxi to the centerline, and take-off. If you have a hand-launch airplane, step out onto the runway, launch your aircraft, and walk back to a position behind the fence and away from the openings. Try to maintain spacing between pilots to reduce the possibility of radio interference.

Until next month, fly safe, have fun.



THIS PHOTO IS RIGHT SIDE UP!



SEFSD ANSWER TO JOHN MADDEN  
- -DON WIMPLE



MORE TOYS



ANOTHER OLD TIMER



### DOUBLE YOUR PLEASURE

The following is an account of actual exchange between an airline pilot and the control tower at LGA.

While taxiing the crew of a US Air flight departing for Ft. Lauderdale made a wrong turn and came nose to nose with a United 727. The irate female ground controller lashed out at the US Air crew, screaming:

"US Air 2771, where are you going? I told you to turn right onto Charlie taxiway! You turned right on Delta! Stop right there. I know it's difficult for you to tell the difference between C's and D's, but get it right!"

Continuing her tirade to the embarrassed crew, she was now shouting hysterically: "God, you've screwed everything up! It'll take forever to sort this out! You stay right there and don't move till I tell you to! You can expect progressive taxi instructions in about half an hour and I want you to go exactly where I tell you, when I tell you, and how I tell you! You got that, US Air 2771?"

"Yes, ma'am," the humbled crew responded. Naturally the ground control frequency went terribly silent after the verbal bashing of US Air 2771. Nobody wanted to engage the irate ground controller in her current state. Tension in every cockpit at LGA was running high.

Then an unknown pilot broke the silence and asked, "Wasn't I married to you once?"

A person needs only two tools: WD-40 and duct tape. If it doesn't move and it should, use WD-40. If it moves and it shouldn't, use the tape.

## **AS TECHNOLOGY ROLLS ON, BATTERIES DON'T**

NEW YORK (AP) — Batteries, the technology that time forgot, should have disappeared alongside the wood-paneled station wagon.

The sealed chemical cocktails we use to power computers, boom boxes and mobile phones are little changed since the 1950s. For decades, electronics designers have struggled to tailor the latest concoction in silicon chips and integrated circuits to the power limitations of the lowly battery.

“They’re holding us back big time,” said Paul Saffo, director of the Institute for the Future. Had batteries advanced at the pace of the computer processor, “a double-A cell would contain more energy than a tactical nuke.”

Other than a few devices like weak solar cells and mechanical cranking devices, there isn’t an alternate portable power source. Batteries are it.

“There’s not much you can do about it,” said Boris Donskoy, who designs portable electronic instruments for InHand Electronics Inc., of Rockville, Maryland. “There are basic limitations in physics.”

Researchers talk of batteries being replaced at some point by portable fuel cells and tiny jet engines — or a new battery made of a better combination of chemicals. But no one can say when.

Until then, we’re stuck with a power source whose origins date to 1859, when the first lead acid battery was made in France.

The same basic energy storage concept still fuels the four billion disposable batteries sold each year in the United States. And vestiges of bygone days infuse the industry vernacular.

The name of number three battery seller Rayovac Corp. dates to the 1930s, when radio technology got a boost from the onset of vacuum tubes — an anachronistic technology replaced long ago by the transistor.

Rayovac engineer Jim Pilarzyk said his industry has no hope of keeping up with fast-morphing computer processors, which double in speed and halve in size every 18 months.

A five percent improvement in power capacity every two years is about the best battery scientists can manage, he said. “The battery industry is somewhat limited,” Pilarzyk said. “They’re analog devices in a digital world.”

### Unfair comparison

For all their shortcomings, comparing batteries with computers isn't fair. Batteries' roots lie in chemists' beakers. Computer speed is pushed by advances in manufacturing, and the ability to make circuits and transistors smaller and smaller.

"A battery isn't a microprocessor," said Prof. Donald Sadoway, a battery researcher at the Massachusetts Institute of Technology. "It's a chemical device. It observes different scaling laws."

For designers of portable electronics, who yearn to shrink their gadgets and add gobs of features, battery power is the choke point that stunts their ambitions.

"The last 20 years have been aimed at designing around the limitations of batteries," Saffo said.

If the device needs to be small, it won't run long. If it needs to run long, it can't be small — or have power-guzzling add-ons like a fast processor, DVD drive, audio or a color display.

"When I want to design something, my first question is, 'How much power does it consume?' There's a big trade-off between size, power consumption and cost," Donskoy said.

The thirst for portable power is relentless. As soon as a better battery emerges, designers quickly respond with new gadgets that push the cells to their furthest limits.

In the early 1990s, laptop computers were made possible by rechargeable nickel metal hydride and nickel cadmium batteries, which gave portables an operating life of four hours or so.

When more powerful lithium ion batteries emerged in the late 90s, the breakthrough allowed cell phones to shrink to shirt-pocket size. Lithium cells fueled the release of handheld computers, which could run for several hours and even sport backlit color screens.

Since then, battery science has reached a plateau, scientists say. "We're starting to approach the engineering limits of that chemistry," Sadoway said, referring to the lithium ion cell.

Another problem with batteries is environmental. Of the billions sold each year, most wind up in landfills and incinerators, where their toxic contents — mercury, cadmium, zinc, nickel and manganese among them — leach into groundwater and air, said Allen Hershkowitz of the National Resources Defense Council.

While chemists and engineers struggle to eke out a little more power — giving batteries thinner skins, a less inert material— consumers locked into buying and discarding batteries wonder whether there's a conspiracy. Do manufacturers refuse to make a better battery?

"It's not economic for battery manufacturers to develop new technology," said Bruce Rittenhouse,

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If you are not smart enough to figure out how to pay for college then you are not smart enough to get in.

president of Electronic Automation Inc., a Grand Rapids, Michigan company that repairs industrial electronics. "Why do it? They want to sell you batteries every month, not every six years."

Lew Urry, a scientist with Energizer Holdings Inc., pshaws the notion. With Energizer and its archrival Duracell leapfrogging each other, a slowdown in innovation gives the other company powerful boasting rights. "You can't afford to let that happen," said Urry, 76, who helped invent Eveready's first alkaline battery, which hit store shelves in 1958. Before then, weaker lead acid batteries were important to still unelectrified farmhouses in rural North America, powering flashlights and radios. Car batteries rev up. In 1958, it wasn't portable computers that were made possible by Urry's alkaline battery, but a flood of battery-powered toys.

In a Cleveland plant owned by Union Carbide — the former corporate parent of Eveready and Energizer — Urry gave an early demonstration of an alkaline battery by letting a toy car zip around the cafeteria floor.

Batteries, which have long been derided for polluting the environment, will soon do their part to clean it up, MIT's Sadoway said. The same research that is shrinking cell phones has a higher purpose: an exhaust-free electric car. "I didn't get into batteries because I wanted to help some guy yak longer on his cell phone," Sadoway said.

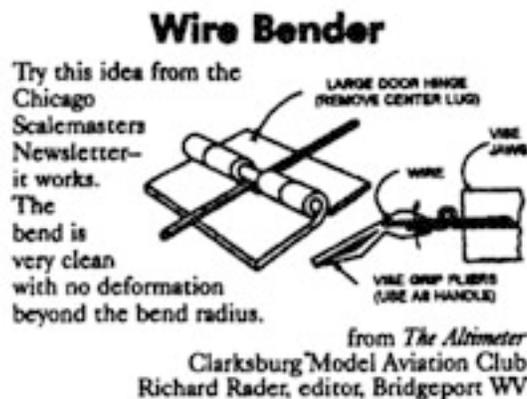
Within a handful of years, batteries will be powerful and cheap enough to propel a car 250 miles without a recharge. When this happens, automakers will junk the internal combustion engine, Sadoway predicted. Except for the battery, the clean car is ready to roll, he said.

"If this battery existed and I had the patent, I'd be lying next to a kidney shaped pool with the sun on my back right now," he said.

(copied from ASSOCIATED PRESS, March 3, 2002. Used without permission)



UP UP AND  
AWAY



Year 2002 membership cards are available for pick up at the club meeting for the members that have paid the renewel dues of \$25.00. Members that have paid dues but unable to attend meetings will receive their new card attached to the April newsletter . For anyone that have not sent in their renewel dues---" **they are now due**" and can be paid at the meetings or mailed to Dennis Collins (Membership) at 5150 Corte Playa Catalina, San Diego, 92124

## SEFSD Video List

### October 2001

1994 KRC Electric Fly  
 1996 KRC Electric Fly  
 1997 KRC Electric Fly  
 1996 London Bridge Seaplane Classic  
 1996 NATS Highlights  
 2000 San Diego Midwinter Electrics  
 A-10 Warthog  
 Airborne R/C Video ( In-flight video )  
 Airplane ( Joe Wurts )  
 Airforce Top Gu  
 Basic Construction for Beginners  
 Building with Foam  
 Byron Originals show season 1985  
 Celebration of Eagles ( AMA )  
 Combat Models / F-16  
 Desert Storm/ Tornado  
 Double Eagle  
 Electric Flight ( Building & Flying )  
 Electric Flight & Schneider Cup  
 Electrifying the FANTASY  
 Endless Lift  
 Float Flying – John Sullivan  
 Gas to Electric Conversions  
 Let's get serious about Electric Flight  
 Mini-Max Motor Gliders  
 Monokote I  
 Monokote II  
 Polyspan Covering Instructions  
 Power for performance Electric Flight  
 QSAA Fly-In 1994 ( Vol. 1 )  
 QSAA Fly-In 1994 ( Vol. 2 )  
 Schneider Sport Electric  
 Speedy Bee / Lazy Bee – Clancy Aviation  
 T-Birds  
 U.S. AirCore building tips  
 Vacume Bagging tips  
 Warbirds over Schenectady  
 Wring it Out ( Vol. 1 )  
 Wring it Out ( Vol. 2 )

These videos are available form Ferd Harris who usually attends the club meetings.

San Diego Electroglide				
Results of 2002 San Diego Mid-Winter Electrics				
Flight	One	Two	Three	Total
Pedro Brantuas (Sunbird)	56	44	43	143
Tom DeShon (Sunbird)	55	41	22	118
Don Wemple (Systole)	30	42	44	116
Dave Roberts (Voyager)	47	18	28	113
*Daniel Belknap (Fling Thing)	43	40	15	98
Gary Westland (unknown)	47	22	26	95
Glen Sparles (Eclipse)	27	21	27	75
Jack Dickey (Cyote)	11	9	9	29

Although a monthly Club Electroglide was scheduled for Saturday, March 2nd, CD Mike Morgan couldn't find a single electroglider on the field at 9:15 that morning! Evidently the efforts put out by all the pilots during the Mid-Winter Electrics sapped all their strength!

Regardless -- posted above are the results of the 2002 MWE competition. Notice that "junior pilot" Daniel Belknap was right up there in the standings. Remember that pilots under 18 years of age may fly any kind of motor/battery combination. Good flying, Daniel! The next club San Diego electroglide will be held on Saturday, March 30th with the first toss at 9:15. Come join us!

If you need further information regarding the rules and regulations, call me at (619) 469-5566 or e-mail me at <DonK126@cts.com>.

Don Wemple

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If the the early bird gets the worm, it is the second mouse that gets the cheese.

## Membership Application

NAME: Last \_\_\_\_\_ First \_\_\_\_\_ Middle Initial \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

PHONE: (H) \_\_\_\_\_ (W) \_\_\_\_\_

FAX: \_\_\_\_\_ E-MAIL \_\_\_\_\_

AMA NUMBER: \_\_\_\_\_ Dues Paid \_\_\_\_\_

Date of birth \_\_\_\_\_ Date \_\_\_\_\_

Note: AMA Membership **Required**

Flying membership \$25, Newsletter only membership \$15. Join after July \$10. Bring to club meeting or mail with copy of AMA card and check to **Subscription Secretary: Dennis Collins, 5150 Corte Playa Catalina, San Diego, CA 92124.** Do not mail your application or subscription to the SEFSD newsletter.

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SEFSD c/o Charlie White  
4420 Ladera Street  
San Diego CA 92107

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