



PEAK CHARGE

Newsletter of the Silent Electric Flyers of San Diego

1994 Officers

President, Steve Manganelli	225-1152
Vice President, Steve Neu	284-0816
Secretary, Steve Belknap	693-3739
Treasurer, Chuck Grim	274-7322
Safety, Phil Moore	459-3133
Newsletter Editor, Roger Jaffe	463-4455
Newsletter Publisher, Jerry Berman	

Club meetings are held on the third Tuesday of each month at Serra Mesa Recreation Center, 9020 Village Glen Drive, San Diego, at 7:15 pm. Full membership is open to all Academy Model Aeronautics (AMA) members. Next meeting: Tuesday, March 15th, 1994. Next Fun-fly: 8:30 am, Saturday, March 19th, 1994, at Dusty Rhodes Park, SW corner of I-8 and Nimitz Blvd.

Volume IV, Number 3, March 1994

MINUTES OF THE FEBRUARY MEETING

The meeting was called to order at 7:25. All officers, except Phil Moore, were present. A total of 18 members were present.

1. Guests: Wayne visited from the T.P.G.s.
2. Membership cards: Chuck Grim passed out new 1994 cards to all present. The remainder will be attached to this issue of the newsletter.
3. Mission Bay Park Flying Site: Steve M. had good news! Permission was granted by the RWQCB to breach the dike following the pumping of the lagoon into the city sewer. Pumping began Feb. 15 and should be complete within a few weeks. The contractor should be returning to the site shortly thereafter.
4. Astro Flight Merchandise Buy: Anita at Astro Flight will be prompted to help expedite the outstanding orders.
5. 1994 Astro Champs: The feeling now is that if SEFSD hosts the event in late summer or early fall that in all likelihood it can be held at the Mission Bay Park site (God and the bureaucrats willing). The exact date is yet to be determined. Steve N. expressed his desire to combine the formerly yearly events into a one 2-day event. His emphasis will be on "organization" and "family fun". An effort will be made to set up a promotional deal with Sea World to entice entire families to come to San Diego.
6. Group Discount: Roger J. announced that he has \$100 worth of items he would like to purchase that would go toward the 20% discount offered to the club by Superior Aircraft Materials on orders of \$250 or more (\$150 worth of orders still needed for discount). If you need anything from S.A.M. and would like to get in on the discount, contact Roger Jaffe. Offer good through April 1994.
7. Dues vs. Subscription Rates: It was decided that members

\$10 per year. One must be current with the AMA to be official member.

8. Treasurer's Report:

Previous Balance (November 16th, 1993)	\$ 418
Income	
Dues	245.00
Raffle	
November	40.00
January	35.00
Total Income	320
Expenses	
Newsletter	38.05
SD Association of Model Clubs Dues	30.00
Total Expenses	<u>68</u>
Current Balance (February 15th, 1994)	<u>\$ 670</u>

9. **Show & Tell (Cry?):** Bob Kruetzer recounted the glorious moments in the life of his Simitar. Following personal best of 13 consecutive rolls followed immediately 4 axial rolls then a hard pullout, the elevator failed preventing any further use of the airplane ... Bob showed us one we bent Astro 15 motor shaft. Sympathy abounded. Upon further investigation, Bob determined that a piece of thread rod used to attach his elevator servo to the structure, for the sliding tray, stripped out of its nylon clevis during the hard pullout. He remembered that during assembly the rod/clevis fit was not a tight one. Bob assured me that all his future nylon clevises will fit tightly on the rods. (Your secretary has observed on several occasions that when trying to use a piece of 12 inch threaded rod in combination with nylon clevis that the rod is usually undersized and provides an unacceptably loose fit.)
10. **Raffle:** Chuck Grim won a stack of several 50's vintage

home with a Sanyo battery charger for 9V & AA. Yours truly bagged a Weston Aero Designs 7-570 electroglider kit donated by the T.P.G.s.

A Better Foam?: Steve N. passed around a sample of a white polystyrene foam he heard about from Harris Nelson of the T.P.G.s. It seems to have much higher crush resistance than the commonly used blue, gray, or white (expanded bead) foams. Its texture and density are similar to that of the blue or gray foams (approximately 2 LB/cu. ft. density). Steve says it hot wires well but he will do some more experimenting with it and report later. It is available only at SVF Surf Products in Oceanside, CA, (619) 721-9671. It is manufactured explicitly for SVF to SVF specifications and is simply called SVF Foam. Available sizes:

Blocks

2'W x 5.5'Th x 8'L = \$66, 10'L = \$79

2'W x 3'Th x 6'8"L = \$30

Cut-offs

2'W x 5.5'Th x 1 to 2.5'L = 44 cents/board foot

1 board foot = (1' x 12" x 12").

Mega Motors: Included with this newsletter is the catalog for

an impressive new motor import. Club members can get a substantial break on the price. Contact Steve Neu.

F5B Wing: Steve N. showed off his beautiful new experimental wing for his F5B racer. The purpose is to evaluate the Selig-Donovan 7003 airfoil.

Data Acquisition System: Steve N. exhibited the hardware for his Robbe data acquisition system. Very neat and compact. The results of his Jan. 30 Javelin flight using both current and altitude sensors is included. The sampling rate was set at ten per second which allowed a maximum sampling duration of six minutes. Not surprising is the observation that the slopes of both the altitude and the current traces tend to coincide. Also, note that static full power current draw is even higher than full power straight up climb. His next data recording will be in his F5B racer.

Forward Dates:

Feb. 26 & 27 1994 Watts Happening event in Las Vegas, Nevada. See Enclosure.

Mar. 15 Club meeting, Serra Mesa Rec. Center, 7:15 PM.

Mar. 19 Funfly at Dusty Rhodes Park, 8:30 AM.

PRESIDENTS CORNER, MARCH 1994

Everyone reading this is a paid up 1994 member, another E-club newsletter editor, or some privileged dignitary. If you are discussing the contents with your buddies and they don't know what you're talking about, that means they didn't renew -- shame them into it!

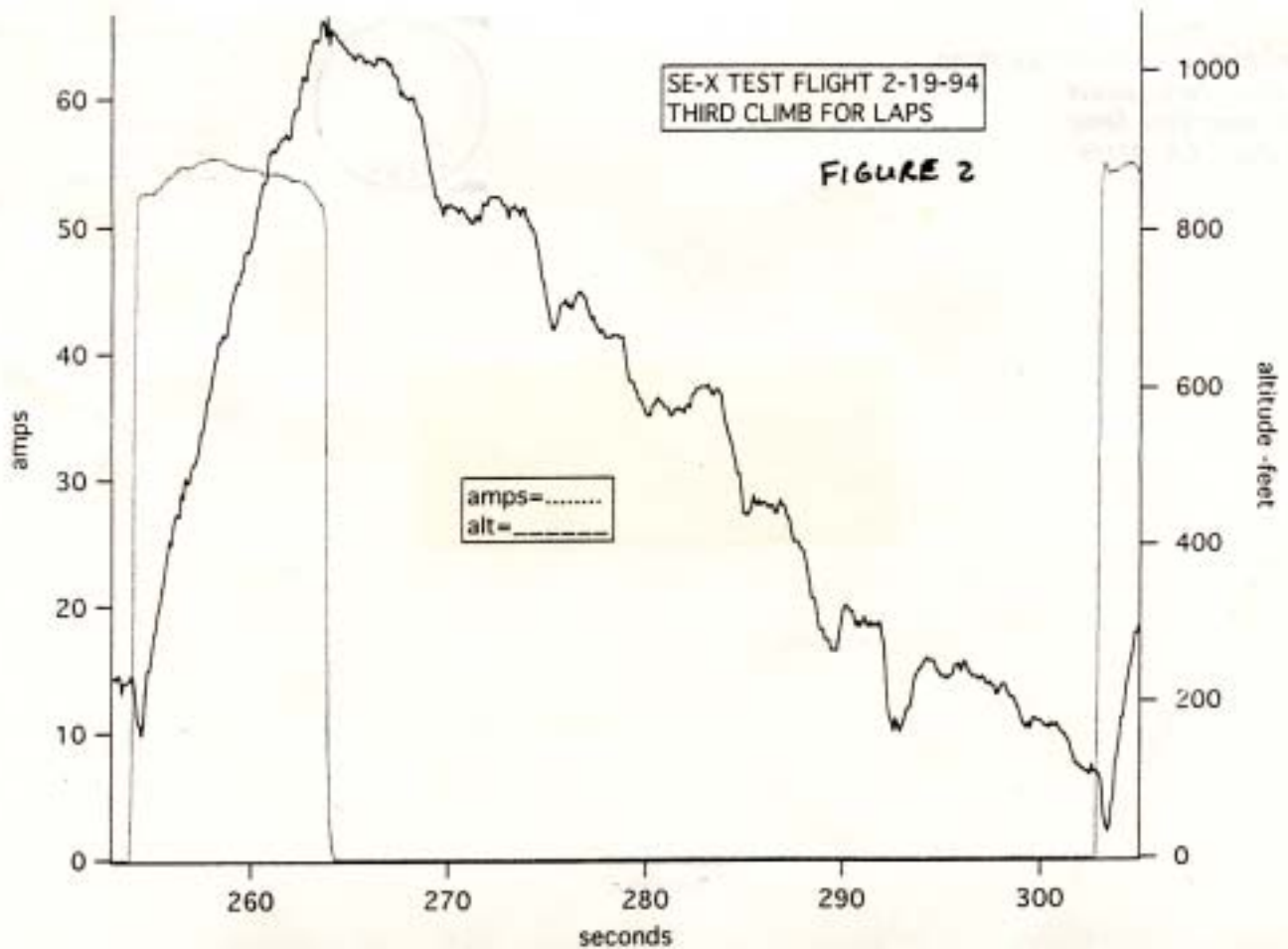
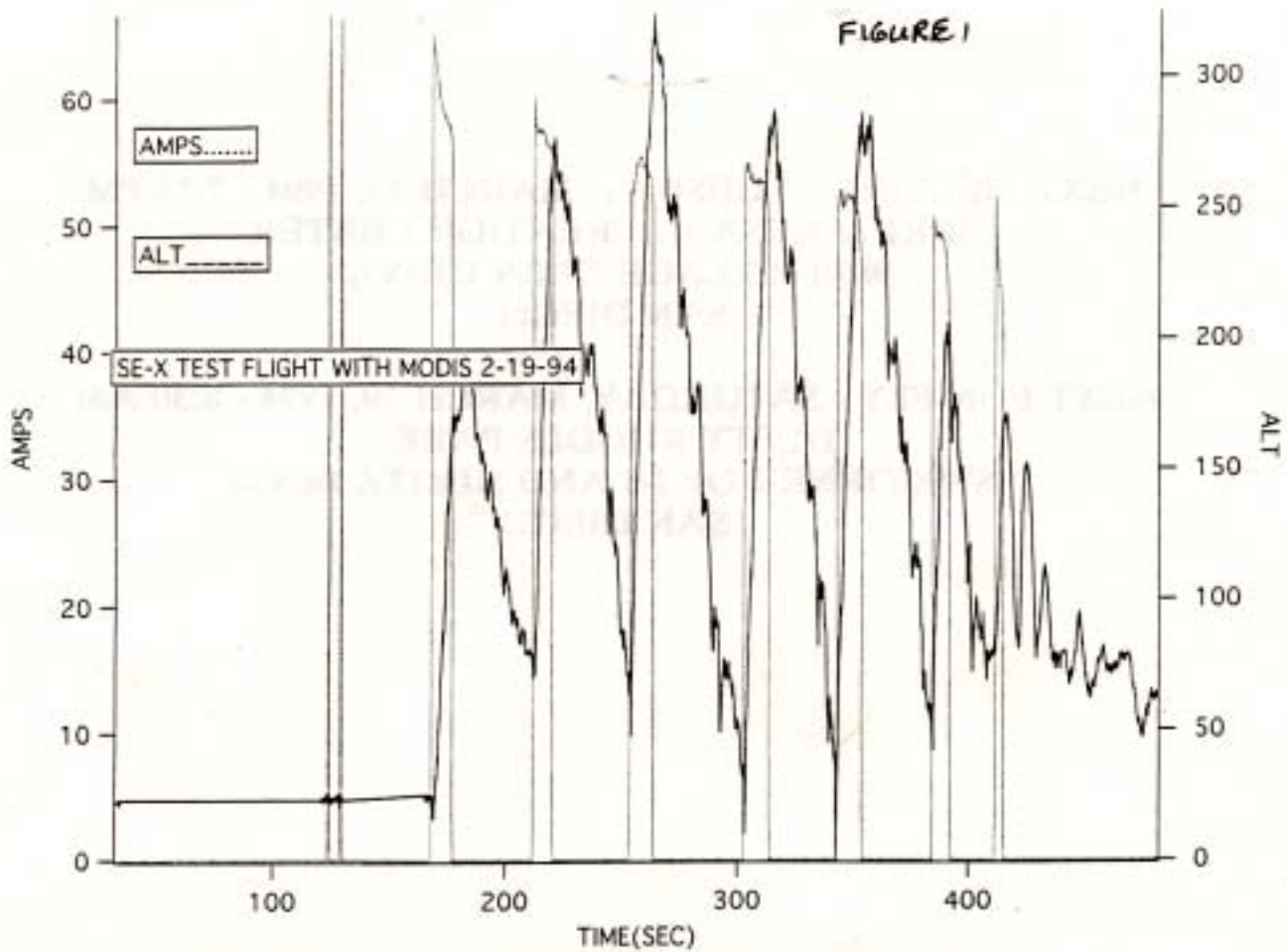
Flying Field Status: Good News! It appears that the final stages of the construction that is delaying the use of our flying site has now begun as of about February 15th. I contacted the City official in charge of the project who informed me that permission from the Regional Water Quality Control Board to breach the dyke after pumping the present lagoon contents into the sewer was imminent, and the contractor should be returning to the site shortly thereafter. Indeed, an accumulation of pipes was closely followed by two big diesel pumps which, as of Sunday, February 27th, are chugging away. Between now and the March meeting, I will contact our City official about our new Right of Entry Permit which will get us back flying.

First Test : 27 Cell F-5B on the MODIS Data Acquisition System How high, how fast, how much current? Inquiring minds want to know! Using the MODIS computerized data acquisition system, the first tests in the United States (to my knowledge) were made during our February funfly. The answer is high, fast and the current hardly changes throughout the flight (see figures 1 & 2). As can be observed from the graph, the current drops only slightly as the model accelerates during each climb and the peak current drops with each successive climb as the batteries discharge.

This unanticipated result (says Mr. Neu) contrasts sharply with the pattern plane result where the current changes substantially during the maneuvering sequence. Even the static current on the pattern model is 5% higher than the "stand or prop" climb current. So what did we learn about the 27 Cell F-5B SE-XI? Since the motor load remains relatively constant, that neat sound we hear as the model archs over from climb to glide must be due to doppler shift rather than the motor unwinding to a fever pitch. It's a bit hard to estimate from Figure 1, but the calculated average rate of climb is an astonishing 95 ft/sec, which is just a tad under 65 mph! Figure 2 is one climb and glide of the same data expanded to fill the whole page. We've also converted the altitude to feet for your edification. For bonus points, how many laps were completed after the climb?

Congrats Jerry Berman: I inquired of Mr. Berman as to the status of his pregnant wife, his response was that Jessica Rene Berman is now 6 weeks old! Whoops! I humbly offer our congratulations -- better late than never. Jerry needs just 3 more to catch up with Editor Roger Jaffe [*is this a contest?? - RJ*].

[*Editor's Note: Steve included a lengthy article from Terry Stuckey about the Mega motor available from Hobby Lobby and discussed at the last club meeting. Unfortunately, it's really long and I have run out of room. I'll put it in the next issue. -RJ*]



**NEXT MEETING - TUESDAY, MARCH 15, 1994 - 7:15 PM
SERRA MESA RECREATION CENTER
9020 VILLAGE GLEN DRIVE
SAN DIEGO**

**NEXT FUN-FLY - SATURDAY, MARCH 19, 1994 - 8:30 AM
DUSTY RHODES PARK
SW CORNER OF I-8 AND NIMITZ BLVD
SAN DIEGO**

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