

PEAK CHARGE

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

SEFSD Newsletter

May 2001

Volume XI Issue V

CALENDAR

May 2001

Electro Glide Saturday
May 26, 2001

May meeting May 22, 2001
7 pm Automotive Museum
at Balboa Park

Raffle prizes - see President's
Corner

CITY OF SAN DIEGO MEMORANDUM

DATE: April 18, 2001
TO: Mission Bay Park Committee, Agenda of May 1, 2001
FROM: Gary Stromberg, Mission Bay Park Manager
SUBJECT: Relocation of South Shores Model Airplane Flying Field

SUMMARY

Issue - Should the Mission Bay Park Committee recommend approval of the South Shores model airplane flying field relocation as presented in this report?

Staff Recommendation - Recommend approval of the relocation.

Other Recommendations - None.

Fiscal Impact - None with this action.

Environmental Status - Environmental Analysis Division will review the Right of Entry Permit prior to issuance.

BACKGROUND

The South Shores area of Mission Bay Park has been the site of a model airplane flying field since 1993. The area has been operated under a renewable one year Right of Entry Permit issued by the Park and Recreation Department to the Silent Electric Flyers of San Diego, a non-profit club. Since the flying field area is located on the South Shores landfill, activities at the site are coordinated with the Environmental Services Department, the agency responsible for landfill maintenance. The Park and Recreation Department and Environmental Services Departments consider the Silent Electric Flyers to be excellent permittees. Use of the site as a model airplane facility is appropriate at the closed landfill and is compatible with surrounding uses.

The Mission Bay Master Plan contains provisions for extensive development of the South Shores area. The proposed developments have not been designed and funding is not presently available for design or construction, however the use of the area for a model airplane flying site is considered temporary in nature and no agreement more extensive than the current renewable one year right of entry permit will be considered.

continued on page 9 - - -

Silent Electric Flyers of San Diego

Club Information

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

2001 Officers

President Wayne Walker
284-6119 wayne.walker@daou.com

Vice President Bill Knoll
1-760-966-6884

Treasurer Mike Neale
674-1378 mneale@energy.com

Newsletter editors Charlie White
1-619-223-8903
charliwhite@home.com

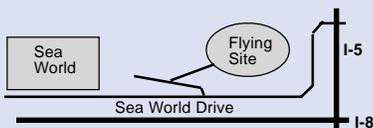
277-8034 Bob Davis

Safety SteveNue
284-0816 SNEU@aol.com

Subscription Secretary
1-858-569-5015 Dennis Collins
dennisc@pobox.com

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 subscrip-
tion only. \$10 for under 18 or ad-
ditional family member. Mail to
the Subscription Secretary: Dennis
Collins, 5150 Corte Playa Catalina,
San Diego, CA 92124.

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.

President's Corner

New: "Team Chaos"! for young beginners!

We've now started the junior group of SEFSD!
They are called "Team Chaos" until they come up
with a name for themselves.

They will have the **Third Saturday of each month (May 19th and June 16th)** as their "Day". This means that they will have priority on flight instruction, frequencies, and the attention of any and all club resources from 8 AM to 11 AM on this day. I would like to encourage the juniors and their parents to come out and get any thing or any information that they want or need to become more proficient at flying, building, tuning, setting up, racing or whatever it is that they want from us. We will have one or two trainers and two or more instructors available to give intro flights and any help wanted in getting started. The secondary purpose is to get all of the club's youngsters together at one time so they can see what the others are doing and **encourage them and their friends and schoolmates to come out** on a regular basis and learn to fly electric planes.

The meeting topics this month will be **"Thrust Measurement" by Mike Blodgette, "Battery care & conditioning" by Wayne Walker, and the AIAA Student Aircraft "TLAR II" will be shown.**

The Mission Bay Planning Committee has approved our request for the expansion and movement of the South Shores Field at their last meeting. Now we will start the layout and dirt moving for the new field! I'll give a full report at the meeting.

The AMA has allowed us to **postpone the F5B USA Team Trials to October** so we can get through the field move. This will also include the **"Inter-Galactic F5B Championships"** for **7Cell** and **10 Cell** as well as the **1.1 Kg classes**. The contest will be held under the new

- - - continued on page 5



April Meeting Minutes

By Tom DeShon

Introduction –

The April meeting was called to order on 4/24/01 at 6:59 PM. Two new members were welcomed; Bob Anson and Rob Dahlbo. The meeting was chaired by Bill Knoll as Wayne Walker was detained this evening.

Old Biz –

The new field proposal is still moving forward. Wayne Walker is meeting with the MBPC to negotiate improvements to our regular flying site. Our greatest need is still for members at large to communicate our desires to the local political representatives; specifically, Councilman Byron Wear. Letters and phone calls asking Councilman Wear to support our club would go a long way towards gaining his advocacy. In addition, we need to support the construction of the new “sidewalk” adjacent to Sea World Dr. We are hoping to get free paving as a collateral benefit of the sidewalk construction.

There are still some “club” sponsored products for sale. T-shirts, polos, and club patches are still available for sale at the meetings.

New Biz –

Club Competition –

The S400 Electroglide will take place Saturday, 4/28 at 9:00 AM. This event always occurs on the Saturday following the monthly meeting. The rules are reasonably simple. All airplane types and airframes are allowed. Power is restricted to a S400, 6V motor and 7-cell battery packs. The rules of the contest are as follows: All airplanes launch together and climb under power for a specific period of time (usually 30 – 40 seconds). All motors are shut off simultaneously and the gliding competition begins. From this point on, motor runs are prohibited. Points are awarded for time aloft (1 point for each 10 seconds) and landing accuracy (20 points for spot landing). Each heat will last no longer than 15 minutes. The penalty for staying aloft longer than the 15 minute maximum is loss of all points for that heat. Landing “off the field” also results in 0 points for that heat. The contest usually consists of 2-3 heats with the winner having the highest cumulative points.

The flying field will likely be closed on 5/5 for Special Event parking. The next pylon and F5B practice will be 5/6, starting at 10:00 AM. The actual selection trials for the national F5B Team will be held 10/20-10/21.

A general R/C swapmeet will be held at Morley Field on 5/5 @ 7:30 AM. The field is on Pershing Dr, adjacent to the Balboa Muni Golf Course.

Club Programs -

SEFSD is initiating a program that supports junior members. The proposed plan is to select a single Saturday each month where specific club members make themselves available to assist juniors with building, flying, etc. This program is still in the planning stages and leadership & volunteers are still required. Please see Wayne Walker if you would like to assist this program.

For a couple of years now, the SEFSD has assisted UCSD students in an AIAA competitive design project. The University students design, build, and fly (all with the help of SEFSD members) a project plane with very specific design parameters. All teams are measured in accordance with a very detailed set of criteria. These include preparation (reports, research, speculation, etc), cost analysis, and actual flight requirements. Of the 30 University teams represented, UCSD came in 4th place. Club members assisted in configuration design, motor & power selection, and piloting (Steve Neu). According to witnesses, the UCSD plane clearly outperformed all other planes in the actual lifting and flying competition. The team's only weak point was the cost analysis portion of the competition where other teams were able to compete with cheaper components. The students plan to exhibit and fly their plane on 5/6/01 at the South Shores flying field.

Money Matters –

As a function of this year's MWE, the club entered into a sponsorship agreement with Hitec RCD. Glen Merritt, the Marketing and Advertising representative from Hitec, made a presentation of a \$1,000 check to the SEFSD club and announced that Hitec will continue to sponsor the MWE for the next two years.

A check for \$120 was also accepted this evening from a Convention Center marketing company for a short flying demonstration in Balboa Park. The plan was for dignitaries to arrive at a site in Balboa Park while small park fliers landed nearby. Club pilots supported the event and did their best to impress the visitors.

Safety, Safety, Safety....

There was no specific discussion on this topic tonight.

The Training Program-

The training demand for the club simulator has increased so a waiting list has been created. As a note, this software requires an 8mb (or larger) video card and 366 Mhz operating system to run properly. See Bill Knoll with questions or to sign up on the waiting list.

How To-

Tonight's "How-To" was once again presented by Bill Knoll. As more and more small planes are designed with the S400 as the primary power source, it becomes necessary to be able to correctly "break-in" and "time" these motors for additional power.

The current methodology for added performance is to conduct the motor break-in while the motor is submerged in water. This allows the brushes to form themselves to the commutator while the swirling water removes most of the excess debris. The process begins by wiring the motor (without prop) to a constant 3.0 v power source. Two regular D-cells in series work well. Allow the

motor to run submerged for about 10 minutes until the water turns a light gray color. Dry the motor and apply spray cleaner.

Timing the motor is a little more difficult and requires a few special devices. The first step is to find the neutral point on the specific motor. This is accomplished by attaching a current measuring device (Whattmeter works well) in series between the power source and the motor. With the motor running at a medium speed (remember, no load), twist the endbell until the current setting reads at its lowest value. The endbell on most S400 "can" motors is crimped in place and requires no loosening of screws to adjust. Record this measurement. This is the neutral point of the motor. Advance the timing by rotating the endbell in the direction opposite that of the shaft. The motor should sound like it is spinning faster as you rotate the endbell. If the motor sounds like it is slowing, turn the endbell in the opposite direction. For S400 motors, the most efficient and fastest speed seems to occur at about 110 - 120% of the neutral reading. Other motors may be advanced to 125 – 150% of their neutral measurement. Generally speaking, advancing the timing increases rpm, but decreases endurance.

As with all of Bill Knoll's "How To" courses, please ask Bill personally if these cursory instructions are unclear or not detailed enough.

Show & Tell-

As what is becoming a regular part of the meeting, Don Wimple brought his newest airplane. It is called a Fiesler Storsch and flies using a S600 motor and Master Airscrew gearbox. The full size version was designed as a German observation plane with STOL capabilities. Don has painted his in a camouflage scheme over a textured covering material.

Don Haines brought his uncovered Top Flight DC-3. This plane will fly using 2 Astro 15 cobalt motors. It has an 82" wingspan and utilizes ailerons as well as flaps. Total weight is expected to be around 13 lbs including a 28-cell flight pack.

NOTICE: The next meeting (May 22) will be held in the conference room on the opposite side of the mezzanine.

The meeting adjourned shortly after 9:15 PM.

President's Corner - - -

2001/2002 rules. 7 & 10 Cell classes are only restricted by the # of Ni-Cad cells, and surface loading and safety requirements. Be sure and get your models and yourselves ready by coming out to the monthly practice on the 3rd Sunday's at 9 AM (May 20th, June 17th).

Great new raffle prizes are promised again by Bill, so get lot's of tickets!

See you then, and fly safely,
Wayne

FANTASTIC PLANES by Larry Brown
3960 W. Point Loma Blvd., H435
San Diego, CA 92110
Phone/FAX: (619) 222-4337
E-mail: lbtj@home.com

SKYLOOK

(An alternative to the typical "TV News 'Copter")

The usual equipment for big city airborne television news coverage is the Bell Jet Ranger helicopter. Fully rigged for aerial photo-journalism its cost can exceed \$1 million. The monthly maintenance and operating cost for a full-service ground support station are equally daunting. And qualified 'copter pilots don't work cheap either. (Would you want to fly with one who does?) In consideration of certain state-of-the-art technology, KNBC TELEVISION-Channel 4, Los Angeles, has been thinking outside the box and is now tackling the job in a significantly more cost-effective way. SKYLOOK has arrived!

It's an electric-powered thermal glider with a 75-foot polyhedral wingspan. The development of Torium Trisulphide Foam (TTF) batteries has made it possible to create an absolutely silent electric motor small enough to fit into a space no larger than a 5-gallon bucket. Depending upon how many power packs are carried, the actual motor run-time can stretch to 4 hours. Add to this the flying time spent in the power-off glider mode (often longer than the run time itself), and the pilot doesn't really have to even think about coming home for lunch. When SKYLOOK finally does return to base, it's 19 mph landing speed enables it to come to roost in less than 200 feet. And the upswept polyhedral wing panels fold over the center section like some Navy planes do, allowing it to be stowed in a hanger only 30-feet wide.

Because the aircraft sits too close to the ground for the propeller to spin, takeoffs are accomplished with the aid of an electric winch; radio-controlled by the pilot in the cockpit. For the first 50 feet the plane is horizontally leveled by a "wing dolly" attached at the left wing hinge point. Fifty feet down the runway the craft begins to rise and the dolly automatically disengages and topples over. At approximately 120 feet SKYLOOK has attained an altitude of 8-10 feet above the ground and the pilot merely applies motor power to accelerate off the tow line. And so again, even including the winch apparatus, etc., the total takeoff space required does not exceed 200 feet.

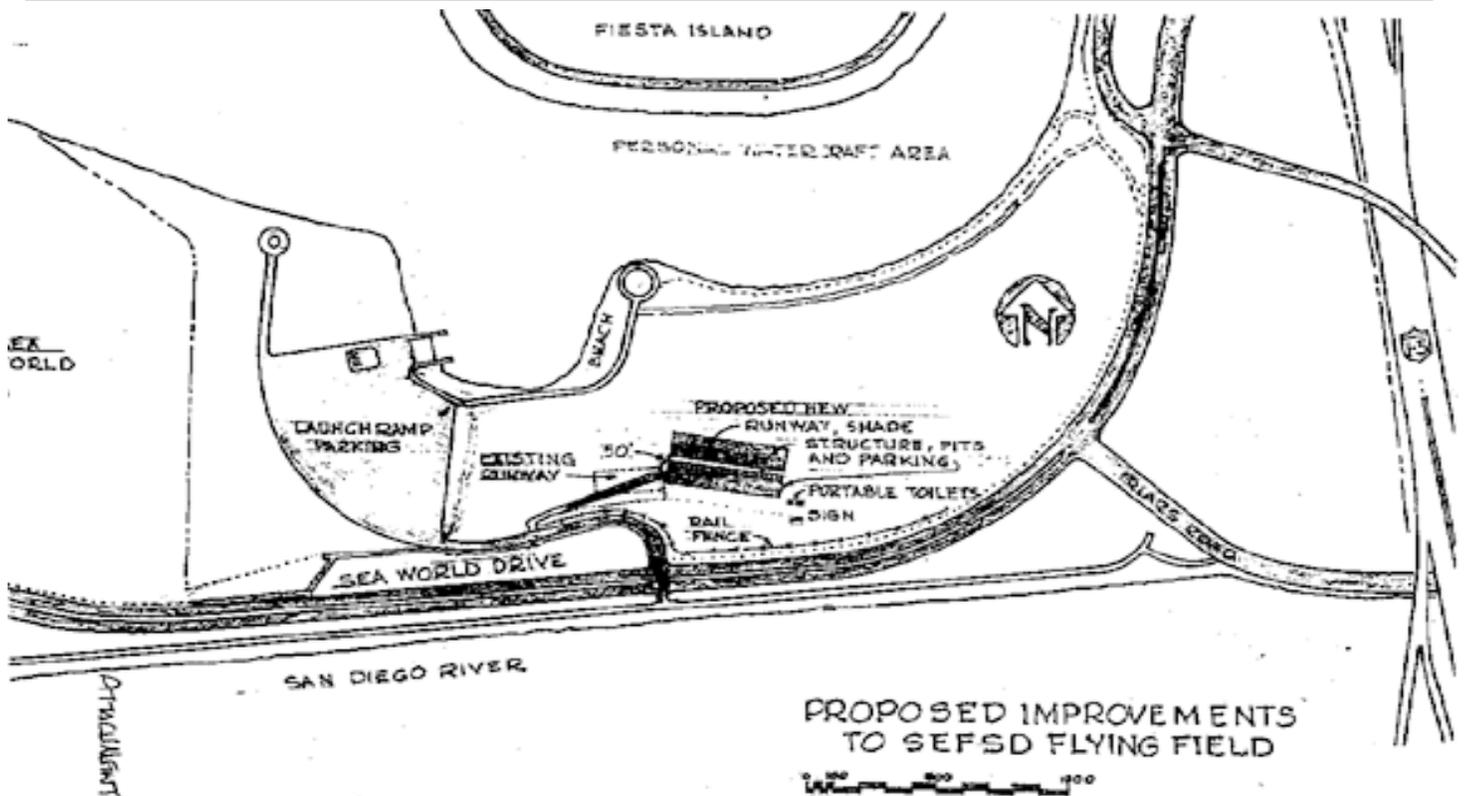
But it is the latest advancement in camera technology that allows KNBC to realistically consider the SKYLOOK concept. Mounted in a streamlined pod beneath the right wing, Veridyne's new DIGICAM DXL camera makes all this feasible, mainly because of its incredible lens system. The lens elements are made of Spolex; a single-stage co-polymer which is about 6% clearer than the finest ULD (ultra low dispersion) optical glass. Spolex is poured as a thick liquid into a mold whose temperature is maintained at precisely 104.4 degrees F, for 18 hours. Then it is linearly cooled to 20 degrees F, in exactly 6 hours and 12 minutes. It emerges a trifle stiff but warms to become a semi-solid at any temperature above freezing; somewhat like soft contact lenses. Far lighter than glass, an 8-pound lens element weighs only ONE pound when made of Spolex. And since focusing is accomplished by altering the curvature of the flexible surface (just like the human eye) rather than varying the distance between multiple glass elements, the DIGICAM needs only three elements instead of the 16 required by standard TV mini cams. Bottom line: DIGICAM (including TTF batteries) weighs only 9 pounds, 5 ounces, and it can read a newspaper at more than half a mile, enabling SKYLOOK to operate 1,000 feet higher than the helicopters. But the camera costs more than the airplane.

ACPL (AutoCamPiLink) is the system that computer-couples the DIGICAM to SKYLOOK's auto pilot so that the airborne reporter, using his helmet-mounted sighter can, simply by turning his head, place a red dot on whatever scene he wishes to "capture". He then "zooms" the lens to his desired magnification and releases a small fingertip lever (like an RC buddy box). The computer then locks onto that scene and takes over; flying the plane in an on-point circle at its slowest maintainable stabilized air speed. SKYLOOK has a 17 mph stall speed. That means that when it is steered into a 22 mph head-wind, its ground speed is approximately that of walking human. Except that, relative to

the ground, it is flying BACKWARDS! Even the helicopters rarely hover "dead still".

Four years ago, in preparation for the advent of SKYLOOK, KNBC news reporter Dave Douglas acquired his pilot's license. "Even though it's a two-place aircraft", he figured, "why should they have to pay for a full-time pilot on stand-by, when I could easily do both jobs simultaneously?" (Good thinking! Douglas now earns 85% more than any other TV field reporter in the nation.) He continued, "Its top speed is only 89 mph, BUT one can get around in the L.A. area quite well at nearly 90 mph when you're not confined to the freeways!"

SKYLOOK's initial procurement cost was one-sixth that of the Jet Ranger. Its annual operation and maintenance expense is one-twelfth. This enables KNBC's station manager's wife, the News Director, and the Assignment Editor to all drive late-model Porsches. Is this a good deal, OR WHAT! —L.B.



San Diego Electroglide
April results
28 april 2001

#1 Tom DeShon flying a Sunbird	48, 69, 54 = 171
#2 Bill Knoll flying an Impuls	45, 47, 51 = 143
#3 Daniel Belknap flying a Clinghurg Flingthing 37,	DNC, DNC = 37
#4 Don Wemple flying a Pulsar	DNS, DNC, DNC = 0

(Three launches make up the monthly Electroglide. DNS means there was no score for that launch -- remember that each flight must land at the field with no motor run other than the initial one to score points regardless of how long the flight. DNC means did not compete)

The April Electroglide turned into sort of a destruction derby! Nine pilots started on the first toss. There were a couple of crashes in attempts at landings, and one midair in the final glide area. Only Tom and Bill made it to the final toss, and both made perfect landings on all three attempts, but with Tom gaining the edge with slightly longer flights.

In review, if you missed the initial article on the San Diego Electroglide in Peak Charge, all competitors launch at the same time and the CD yells out when to stop the motors. The scoring is 6 points per minute with a 20 point bonus for landing between the two lines across the runway. Maximum flight time is 15 minutes for scoring points.

Two requirements regarding the aircraft:
a 6 volt, speed 400 motor, and 7 cells.

All are welcome to compete in the San Diego Electroglide. It's great fun and I guarantee that your pilot skills will increase as a result.

Each month's Electroglide is held the Saturday following the general meeting of the SEFSD.

The next one----- May 26th First toss at 9:15 AM

Don Wemple

Electric Event - Mark your calendars: July 14th and 15th, 2001 "World War I Electric Fun Fly" Modesto Reservoir, Modesto, California Open flying on Saturday - fly what you bring! Emphasis on "Great War" planes Sunday No size limits - -AMA required.

Camping available on site, lodging close-by Fishing, boating (seaplanes, too)
Hosted by the Modesto R/C Club <http://www.modestorcclub.com/>
Contact CD, Mike Heer for more details <fixostar@mediaone.net>

...ANYONE NEED CH.54 FUT.A/M RX'S..
B.O; 858 277 3833.

Page 2
Mission Bay Park Committee
April 18, 2001

DISCUSSION

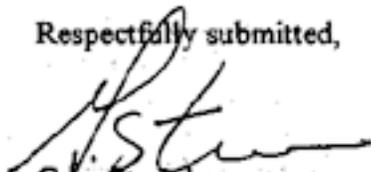
At the March 2001 meeting of the Mission Bay Park Committee, Wayne Walker, President of the Silent Electric Flyers, made an informational presentation regarding a proposed relocation of the runway at South Shores. The proposed changes would move the runway further away from South Shores Road allowing improved vehicle parking and enhanced safety. The directional orientation of the runway would be changed slightly to align more closely with the prevailing winds. The present and proposed runway locations are shown on attachment 1.

The proposed runway location has been reviewed and approved by staff from Environmental Services Department and is acceptable to the Park and Recreation Department. If approved, all costs for relocation and ongoing maintenance will be the responsibility of the Silent Electric Flyers. The City of San Diego Environmental Analysis will review the modified Right of Entry Permit prior to issuance, if the project is approved. The Silent Electric Flyers will obtain from the California Coastal Commission prior to beginning the project.

ALTERNATIVES

1. Recommend approval of the relocation with modifications.
2. Do not recommend approval of the relocation.

Respectfully submitted,



Gary Stromberg
Mission Bay Park Manager

Attachment: 1. Proposed Improvements to the South Shores Flying Field

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.

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

