

PEAK CHARGE

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

SEFSD Newsletter

September 1998

Volume VIII Issue 9

Calendar

September

6 Pylon Races
16 SEFSD Meeting
20,21 KRC

October

4 Pylon Races
10,11 Fall Fun Fest
21 SEFSD Meeting

November

8 Pylon Races
10 SEFSD Meeting

September Meeting

Agenda

Field Clean-up Day

Entertainment

Robin - Birds & Bunnies Lady

Show and Tell

Phil's little ARF
YOU - Bring something

Raffle

Aveox Electraglide II Kit
7 cell 600 AE Pack
Hobby knife set
Glue
Pliers
Building Mtls

Thrust Offset

By Bruce Cronkhite

All of the trimming that you did so carefully as a result of my previous article is really only good for one flight condition: the one you most use for that model. But I'm sure you've noticed by now that a change of throttle position untrims the airplane. If it's a glider you probably have to hold some right roll (turn) in the climb, and if it's a trainer you may notice a tendency for it to turn right when you pull the power off. This is all because the application or removal of power presents a whole new set of trim conditions for the model to deal with.

If we start with the model trimmed in the glide, application of power causes a number of things to happen that weren't present before:

1. The speed will likely increase, causing whatever incidence settings there are that make the model stable to have increased effect. This most likely will cause a pitch up.

2. The model will react to the thrust force acting along the thrust line. Depending on the location of the thrust line with respect to the C.G. and the center of drag the thrust force can cause a change of attitude trim.

3. Torque reaction to the motor and prop causes an airplane rotation around the roll axis. This will only happen when the model is in flight, obviously. It does not cause the model to yaw (turn) left on takeoff because the landing gear prevents any change in roll attitude.

4. The spinning propeller generates a "prop-wash" that is a rotating column of air behind the prop. This spiral slipstream causes a change in aircraft attitude depending on where and how it hits the rest of the aircraft structure. The most annoying effect of this prop-wash is the left-yaw tendency on takeoff (and to a lesser extent during the climb). This is due to fact that the spiral slipstream hits the left side of the vertical fin, pushing the fin to the right. During takeoff there are no other aerodynamic forces available to trim the model into forward flight. So you should notice that the left yaw tendency reduces as the takeoff roll accelerates as the normal stabilizing surfaces begin to take effect.

Thrust effects numbers 1 and 4 are the most troublesome. For number 1, inasmuch as the trim setup normally produces a pitch-up when you add power, you compensate by pointing the thrust-line down to pull the nose down when you add power; "downthrust". Put "right-thrust" in the thrust-line to counteract the spiral slipstream problem (unless the prop turns clockwise. (My son said he got a significant surprise the first time he flew a Sukhoi 26, having to hold LEFT rudder on takeoff because of the clockwise prop rotation.)

How much thrust offset to use? Well, that's really hard to answer, because it is a function of the kind of flying you do. Here are a couple of suggestions:

Cont'd on p. 3

Silent Electric Flyers of San Diego
Club Information

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

1998 Officers:

- President** **Wayne Walker**
 284-6119 wayne.walker@daou.com
- Vice President** **Bill Everitt**
 (760)753-1055 75022.1530@compuserve.com
- Secretary** **Bob Davenport**
 222-4075 bobdport@adnc.com
- Treasurer** **Mike Neale**
 674-1378 mneale@accucomw.com
- Editor** **Steve Belknap**
 693-3739 Let1Fly@aol.com
- Safety** **Steve Neu**
 284-0816 SNEU@aol.com

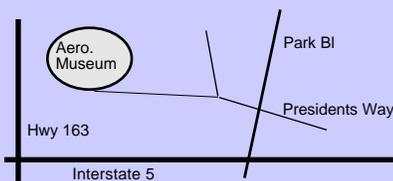
SEFSD Mentors

These individuals want to help you (current or potential members) with your electric-flying questions:

- Steve Belknap 693-3739
 Wayne Walker 284-6119
 Jim Baron 278-8099
 Harold Reed 273-6023
 Fred Harris 223-3043
 Phil Moore (909) 696-1975

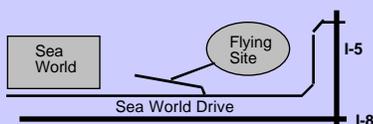
Monthly Meeting

Held on the third Wednesday of each month (no meeting in December) at 7:00 PM. Meeting room is at the San Diego Aerospace Museum, San Diego, CA.



Flying Site

Located one half mile East of Sea World on Sea World Drive.



Membership or Subscription:

Twenty dollars per year for membership. Fifteen for subscription only. Ten for under 18 or additional family member. Contact Mike Neale at 17140 Tam O'Shanter Dr., Poway, CA 92064.

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 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



Wayne Walker

This month's meeting will start with an update on the Endangered Species found in the Mission Bay Park area. It will be presented by **Ms. Robin Stribly of the San Diego City Environmental Protection Department**. Robin will give us the latest on the California Least Terns and let us know what else we should be on the lookout for in the way of endangered plants & animals.

The latest on the **San Diego 2000 World Championships** is that the Parks and Recreation Department has asked us for a proposal on when & how we're planning on utilizing Mission Bay for the World Championships, i.e. which areas we'll need for the events. Chuck, Mike, Steve & I went out and walked the **Fiesta Island Sludge Pond Reclamation** area on Sunday and found that with a little work that area could become **an attractive flying site**. We also believe that after the mulching has settled in the area to the East of where we were before, that could become a nice site also. We're working on the proposals this month for submission to the Parks Dept. by the end of the month.

On Labor Day weekend Steve Neu, Brian Chan, Jerry Bridgeman, Bob Sliff and myself all went out to the American Sod Farm by the Wild Animal Park to help run the **Torrey Pines Gulls F3B Team Selection Contest**. It was very hot & humid and that didn't help any of the contestants dispositions or moods before & during the contest. **The new USA F3B Soaring Team for 1999 will be Joe Wurts, Steve Condon, and Gordon Jennings, the best of luck to them in South Africa** at the 1999 World Championship for R/C Soaring. As a side note I came away grateful that the Electric Flight competitors are very mellow by nature and **Mission Bay is cooler by at least 20 degrees** during August! And we helped our friends in the soaring community that will be helping us with the 2000 Worlds!

The field is getting in need of a little upkeep lately, so I propose that we all turn out on Saturday the **19th of September at 8:30 AM for our semi-annual field maintenance day**. Anyone that has a **gas powered leaf blower**, please bring it so we can **clean off the rugs**, sweep down the runway and **renew the chalk markings** for the runway, pit safety lines and takeoff and landing ends. Hope see you out there, I'll bring Coffee & Doughnuts, Too!



Letters To The Editor

(The following letters represent the viewpoints of the individuals who wrote them, and should not be misinterpreted as those of the club as a whole, Peak Charge, or the editor. Letters are always appreciated.)

Thrust contd

1. It will be very difficult to put in a single value of right thrust for all flight modes. Look at the amount of rudder offset trim you end up with after getting the model trimmed for normal flight. Then, add right-thrust to remove that trim. Don't try to put in enough right-thrust to prevent the left turn problem on takeoff. That will be too much for normal flight.

2. Put in enough down-thrust to prevent a pitch-up to a stall when you add power suddenly (for a glider or old-timer) and enough to prevent any pitch-up at all for an aerobatic model. I think a little pitch-up when adding power on a trainer is a good thing.

3. In any case, more than 5 degrees of thrust offset is probably more than necessary. The model may have another problem

Change of trim with power is one of those real tricky things that you can fix mostly most of the time, but can't fix completely all of the time.

Your thumbs have to do something some of the time.



Bob Davenport

August Meeting Minutes

We met under the wings of the VietNam era planes in the courtyard of the Aero space Museum. The attendance was light, the air was cold, and the noise level from planes in the landing pattern of Lindberg Field was high. There were no new faces present.

A message was relayed from an absent Harold Reed that no progress has been made on the new flying site on Fiesta Island. There is little prospect of moving back to our "least tern" haunted location either, but fortunately no difficulties are expected in the continued use of our currently active strip.

A definite date has been set for our field trip to the Chino Air Museum. On Saturday September 12 we will meet at Fry's parking lot off I-15 at 8.00am. All who would like to see this First Class collection of planes should arrive there and final driving arrangements will be made at that time. The coordinator for the event is Lynn Heffren. Give him a call at 463-3227 for further details.

A call is out for volunteers to assist at the FAI F3B World event on Labor Day Weekend. This will be run by Torrey Pines Gulls. Information relating to this activity is at www.torreypinesgulls.org or you may call Ron Scharck at 454-4900.

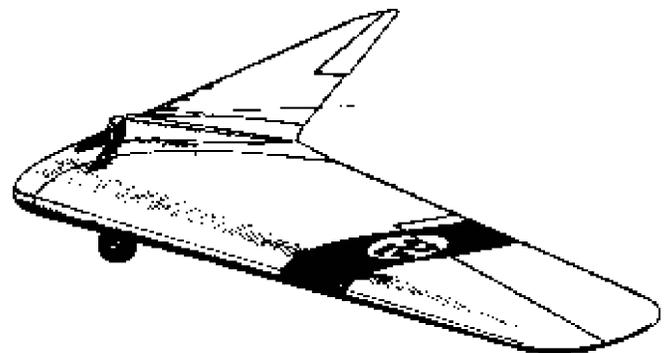
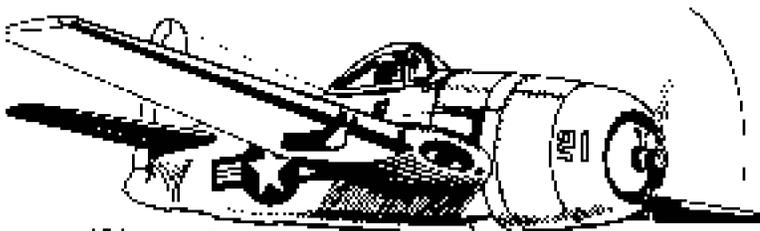
In August of 2000, SEFSD will host the FAI F5B and F5C pylon World Championship competition. As many as 250 visitors from countries around the world will attend for a two week period. A suitable site has not been chosen yet. Sponsorship by major equipment suppliers and the FAI is expected, thus no direct costs to SEFSD should accrue. Our member's assistance however is essential.

Our treasurer reports a current bank balance of over \$2000.

Wayne Walker, who attended the just completed F5B-F5C competition near Berlin reported in detail on this meet. Our San Diego members carried off most of the glory with our member Thomas Pils, becoming the new world Champ. Wayne reported that it was a busy two weeks of concentrated effort at the competition followed by a few days of touring.

In the show-and-tell segment Steve Neu displayed one of the F5B planes used in Berlin and regaled us with stories of the problems our team encountered. He was followed by Ron Scharck who displayed the Playboy 80" used by him to win first place at a recent NATS meet. Also, Ron showed us his Switchblade model which, piloted by himself, won the NATS pylon event too. Glory indeed!

The raffle resulted in major wins by Bob Davis of a oldtimer ZIPPER kit and Fred Harris taking home a novel support stand.



More NATS Results

Courtesy of NEAC President, Doug Ward

1998 Class 1/2 A Sailplane Provisional Event

Last Name	First Name	CH	Round 1	Spot 0/10/20	Round 2	Spot 0/10/20	Round 3	Spot 0/10/20	Total
Elias	David	53	472	20	474	20	477	20	1483
McIntyre	Michael	15	465	10	472	0	469	20	1436
McCullough	John	21	470	20	463	10	465	0	1428
Jenkins	Bill	25	476	20	387	10	480	20	1393
Weaver	Ralph	41	404	20	475	0	480	0	1379
Robinson	Earl	17	480	10	477	10	360	0	1337
Kummerow	Mark	38	405	20	395	20	480	0	1320
Hunt	Tom	27	318	0	477	20	467	0	1282
Fredette	Wayne	16	442	0	480	0	342	10	1274
Scharck	Ron	31	478	20	337	0	405	10	1250
Garber	Les	25	418	0	480	0	319	0	1217
Richmond	Don	31	417	20	247	20	480	20	1204
McVay	Jon	16	279	20	391	20	474	0	1184
Belfort	Don	20	369	0	385	0	403	10	1167
Larionov	Alex	57	430	0	230	0	480	0	1140
Sobolewski	Zbigview	42	473	0	346	0	308	0	1127
Reid	Jim	54	304	10	314	0	397	0	1025
Stucker	Glenn	55	448	10	275	0	288	0	1021
Redmond	Garret	34	208	0	271	0	381	0	860
Vaughn	Ric	22	312	0	174	0			486
Abramson	Don	20	172	0					172

1998 Class 1/2 A Texaco Old Timer Provisional Event

Last Name	First Name	CH	Round 1	Round 2	Total
Hiner	Jack	59	900	900	1800
Poole	Glen	48	900	900	1800
McIntyre	Mike	15	900	869	1769
Scharck	Ron	16	862	900	1762
McVay	Jon	16	900	798	1698
Smith	Phil	11	838	789	1627
Redmond	Garret	26	746	613	1359
Enders	Nathan	52	655	686	1341
Moskal	Steve	51	546	635	1181
Ward	Doug	24	533	614	1147
Hunt	Tom	29	93	890	983
McCullough	John	24	863		863
Reid	Jim	40	407	380	787
Wheler	Gordon	20	632		632

Speed 400 pylon Provisional Event

1st		
Ron Sharck		10 Points
2nd		
George Parks		5 Points
3rd		
Jim Ryan		1 Point

San Diego Aerospace Museum

1998/1999 Special Events

WEDNESDAY - AUGUST 19, 1998
Golf Tournament

FRIDAY - SEPTEMBER 18, 1998
Blast Off '98

SATURDAY & SUNDAY - OCTOBER 10-11, 1998
Gillespie Field Open House

OCTOBER-NOVEMBER 1998
Fall Membership Drive

TUESDAY - OCTOBER 13, 1998
Volunteer Appreciation

FRI., SAT., SUN. - OCTOBER 16,17,18, 1998
Model Exhibition

EACH TUESDAY - NOVEMBER
Lecture Series

FRIDAY - NOVEMBER 6, 1998
Member Preview-Douglas Ettridge Art Exhibit
(Show 11/6 thru 11/15/98)

FRI. & SAT. - DECEMBER 4-5, 1998
Christmas On The Prado

SATURDAY - MARCH 6, 1999
Investiture '99



Records were Meant to be BROKEN!

Check out this list and see if you think there are any you would be interested in breaking, either as an individual or part of a group.

F5-COMB(Aeroplane,Electric Motor(all sources of current))				
Type of Record	Performance	Held By	Country	Date
No77: Duration	15hr 36mn 55s	Wolfgang Schaper	Germany	06-22-91
No78: Distance in Straight Line	109.00km	Gian Maria Aghem	Italy	06-19-91
No79: Height	4539m	Gian Maria Aghem	Italy	02-20-95
No80: Speed	244.05kmh	Franz Weissberber	Fed Rep of Germany	11-25-89
No81: Distance in Closed Circuit	490.00km	Wolfgang Schaper	Germany	06-22-91
No82: Speed in a Closed Circuit	160.45kmh	Franz Weissgerber	Fed Rep of Germany	11-25-89
F5-P(Aeroplane,Electric Motor,(Non-rechargeable Sources of Current))				
Type of Record	Performance	Held By	Country	Date
No65: Duration	10hr 51mn 16s	Norbert Ladenburger	Germany	06-28-92
No66: Distance in Straight Line	135.00km	Gian Maria Aghem	Italy	06-19-91
No67: Height	2200m	Gian Maria Aghem	Italy	09-18-88
No68: Speed	168.51kmh	H. Josef Hackstein	Germany	06-10-90
No69: Distance in Closed Circuit	240.00km	H. Josef Hackstein	Germany	06-22-91
No70: Speed in Closed Circuit	97.20kmh	H. Josef Hackstein	Germany	06-10-90
F5-S(Aeroplane,Electric Motor(Rechargeable Sources of Current))				
Type of Record	Performance	Held By	Country	Date
No59: Duration	6hr 19mn 49s	Han Xing Yuen	People's Republic of China	07-28-90
No60: Distance in Straight Line	102.40	Anatoly Dubinetsky	Russia	08-25-90
No61: Height	2026m	Anatoly Dubinetsky	Russia	09-24-91
No62: Speed	282.60	Werner Vauth	Germany	08-08-92
No63: Distance in Closed Circuit	167.00	Li Shihao	People's Republic of China	09-03-88
No64: Speed in Closed Circuit	163.68kmh	Franz Wissgerber	Fed Rep of Germany	11-25-89
F5-SOL(Aeroplane, Electric Motor(Solar Cells))				
Type of Record	Performance	Held By	Country	Date
No71: Duration	11hr 34mn 18s	Wolfgang Schaper	Germany	07-13-97
No72: Distance in Straight Line	48.21km	Wolfgang Schaper	Germany	07-13-97
No73: Height	936m	Norbert Landenburger	Fed Rep of Germany	06-30-91
No74: Speed	69.70kmh	Bernd Bobmann	Germany	07-10-94
No75: Distance in Closed Circuit	190.00km	Wolfgang Schaper	Germany	06-17-90
No76: Speed in Closed Circuit	62.15kmh	Wolfgang Schaper	Germany	06-17-90

FOR SALE

New Lazy Bee Kit
Airtronics 4ch Radio, Ch32
Electric Planes

Make Offer
Call Doc at (619) 277-3833

New Creations R/C

Charging the air with excitement

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(409) 856-4630

E-Mail: 76221.2446@compuserve.com

FOR SALE

Astro 40G \$130
20 cell 1700 Pack \$95
Both \$225

Call Joe at (619) 463-3227
joeheffern@aol.com

Two New For You



CG-330



CG-335

Two new inexpensive Hi-Tech chargers that really perform. The CG-330 and the CG-335 are Peak Detector types that can handle up to 24 cells! Both feature:

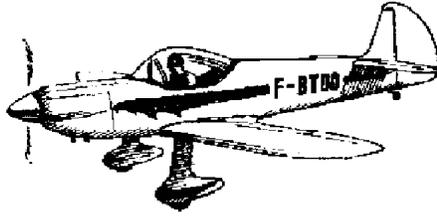
- 1 cell or 4 to 24 cell charging
- Adjustable current 0.5 - 5.5A
- Digital Voltage and current display (335 only)
- Input 9 - 15V
- Automatic trickle
- 65 minute safety cutoff
- Low Input Battery Indicator
- Input Battery Polarity Protection
- Output Battery Polarity Protection
- Charging Port Short Protection
- Secondary Charge Port for Receiver Battery (335 only)
- Initial Cutoff Error Override

Your editor has been using a model CG-330 for a couple months now and I can find nothing to complain about. In fact, it works great. Charges batteries, what more do you want? It is a simple basic charger that doesn't skip a beat. At a selling price of about \$70.00, it is a real value! And best of all it doesn't play Christmas jingles!

SEFSD VIDEO LIST

- See Fred Harris, the Librarian.
- One month free borrow.
- A CELEBRATION OF EAGLES (AMA)
- Float Flying (John Sullivan)
- Airborne R/C Video (Fred Harris)
- Gas to Electric Conversion Airplane (Joe Wurts)
- Getting Started in Electric Flight
- Air Force Top Gun
- 1994 KRC Electric Fly
- A-10 Warthog
- 1996 KRC Electric Fly
- Basic Construction for Beginners
- Lets get Serious About Electric Flight
- Basic Flight Training for beginners
- Monokote
- Byron Originals Show Season 1985
- Monokote-II
- Cutting Foam Cores
- 1996 NATS-Video Highlights
- Desert Storm-Tornado
- Polyspan Covering Instructions
- Double Eagle
- Power for Performance
- Electric Flight
- R/C Flying
- Electric Flight & Schneider Cup
- The Schneider Sport Electric
- Electrifying the Fantasy
- T-Birde (Thunderbirds)
- F-16 Falcon
- Vacuum Bagging
- Wring it Out
- Wring it Out-II

The Second Annual



SAN DIEGO MID-WINTER ELECTRICS

Sponsored By

Silent Electric Flyers of San Diego

February 12-13-14, 1999

SEFSD c/o Steve Belknap
10223 Kaiser Place
San Diego, CA 92126