

HUGHES HK-1

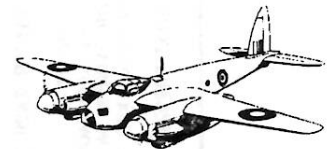


PBY-5



MAX-FAX

**DUES
NOTICE**



DH98 MOSQUITO

NOVEMBER-DECEMBER 1991

MEMBERSHIP INFORMATION: Dues are \$15 per year in the USA, Canada, & Mexico, and \$25 per year for all other countries. Expired dues will have a red X in the box at the top of this page. You will receive only one notice for renewal. Make checks payable to the D.C. Maxcuters and send to the Treasurer. The D.C. Maxcuters meet the first Wednesday at 7:30PM at College Park Airport, the world's oldest continuously operating airport.

CLUB OFFICERS

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NEWSLETTER CONTRIBUTORS: Please send all correspondence and contributions for MAX FAX to the club President

UPCOMING EVENTS

16 NOV. PAX RIVER INDOOR MEET--NOTE BENE-- PRIOR NOTICE REQUIRED!

8 DEC. MAXECUTERS XMAS BASH 94TH AERO SQUADRON, C.P. AERODROME

INDOOR FLYING AT FARQUHAR SCHOOL 4-7PM MONTGOMERY COUNTY, MARYLAND

12/14 1/4 1/18 2/1 2/22 3/7

CLUB NEWS -- BY STEW MEYERS

This holiday issue contains Alan Lawton's HK-1 Hugh's Jumbo Spruce Goose in lieu of a Thanksgiving turkey as well as the notice of the Xmas party and indoor flying, and a final warning on the PAX river contest. As usual we have Super Schmidt photo pages and plans folded by Rich Hensel. The Spanish Fly series continues by Dan Driscoll my partner on this issue. Results of the Fall Maxecuter and Kudzu contest are courtesy of the Alan Schanzel and Dave Rees. Don Srull presents some power curves to help you select props and understand electric power. And of course we have a shameless plug for Hiline motors marketeers of the famous Electro-Slag. Alan Luerhmann has contributed a drawing of a spinner clutch.

You architects shure can draw. And speaking of drawings...

This is the last oversize plan we publish! Please restrict the size to 17 x 22. Non-standard sizes cost us to print, cut, fold, and require larger envelopes. Members of the club have been cutting, pasting, and redrawing to accomodate oversize plans into the newsletter. Please if you can't get your plan on one 17 x 22 use another sheet which is some multiple of 8.5 x 11.

I M P O R T A N T N O T I C E

ANYONE WHO ANTICIPATES ATTENDING THE INDOOR MODEL AIRPLANE CONTEST AT PATUXENT RIVER ON SATURDAY THE 16TH OF NOVEMBER MUST SEND THEIR NAME, ADDRESS AND PHONE NUMBER TO CLAUDE POWELL TO ARRIVE AT HIS HOME ADDRESS BY SATURDAY THE 9TH OF NOVEMBER. IF YOUR FAMILY OR GUESTS ARE COMING THEIR NAMES MUST BE ON THE LIST. ALSO IF YOU HAVE NOTIFIED FRIENDS WHO DO NOT RECEIVE MAX-FAX PLEASE TELL THEM OF THIS REQUIREMENT. THE LIST IS A BASE REQUIREMENT AND WILL BE USED BY THE GUARDS AT THE MAIN GATE AS A CHECK-OFF LIST FOR APPROVED ENTRY.

CLAUDE'S ADDRESS FOLLOWS

CLAUDE POWELL
BOX 454
RIDGE, MARYLAND 20680

IF YOU HAVE ANY QUESTIONS CONCERNING THE CONTEST OR ENTRY PROCEDURE PLEASE CONTACT CLAUDE POWELL AT (301) 872-4105 OR TOM SCHMITT AT (301) 530-0327.

THIS IS A LITTLE INCONVENIENCE TO ATTEND A GREAT CONTEST AT A TERRIFIC FLYING SITE. WE HOPE TO SEE MANY OF YOU THERE.

INDOOR MODEL AIRPLANE CONTEST

NAS/NATC PATUXENT RIVER - LEXINGTON PARK, MARYLAND
LOCATION - ROTARY WING HANGAR BUILDING #11
DATE - SATURDAY NOVEMBER 16, 1991
9:00 AM - 5:30 PM

NO ENTRY FEE BUT DONATIONS TO THE NAVY RELIEF SOCIETY ARE WELCOMED

MAJOR EVENTS (FAC Rules & Icedishes awarded)

MASS LAUNCH OTHER EVENTS

- | | | |
|--------------------|----------|----------------------------------|
| 1- OLD TIME SCALE* | 11:00 AM | 5- FAC RUBBER SCALE |
| 2- MW-1 | 12:00 PM | 7- COCONUT SCALE** |
| 3- NAVY SCALE | 1:00 PM | 8- BOGUS SCALE BOSTONIAN |
| 4- PEANUT SCALE | 2:00 PM | 14 GRAMS MINIMUM WGT.*** |
| 5- GOLDEN AGE | 3:00 PM | (Rules in Nov-Dec 89
MAX-FAX) |

SPECIAL EVENTS

- 1- FAC POWER (Electric & CO2)
- 2- WALT MOONEY COMMEMORATIVE 14 GRAM (WEST COAST) BOSTONIAN.***
- 3- NOVICE PENNYPLANE (AMA Rules).***
- 4- NO-CAL.***

* OLD TIME SCALE RULES - Any old time kit plan; vintage before December 31, 1942 with 20 inch wingspan or less.

** COCONUT Rules - 1 oz minimum weight w/O motor
Minimum wingspan - monoplanes 36 ins. - multiwings 30 ins.
Judging - 30 point maximum scale points

*** Single best flight time determines winner in these events.

AIRCRAFT FOR SCALE JUDGING MUST BE TURNED IN BY 11:00 AM
NO QUALIFYING FLIGHT IS REQUIRED

ALL FLIGHT TIMES MUST BE SUBMITTED BY 4:30 PM DEADLINE
AWARDS: 5:10 - 5:30

LOCAL RULE: ONLY ONE MASS LAUNCH EVENT PER AIRCRAFT

CONTEST INFORMATION: CLAUDE POWELL 1 (301) 872-4105
TOM SCHMITT 1 (301) 530-0327

IMPORTANT NOTICES:

FOOD AND BEVERAGES WILL BE AVAILABLE IN THE HANGAR AT NOMINAL PRICES
ALSO PLEASE NOTE THERE WILL BE NO TABLES OR CHAIRS AVAILABLE IN THE HANGAR SO BE SURE TO BRING YOUR OWN.

SPONSORED BY: NAVAL AIR STATION/NAVAL AIR TEST CENTER,
PATUXENT RIVER, MARYLAND AND
ST. MARY'S COUNTY RECREATION AND PARKS.

PHOTO PAGES

1. The full size plan for this issue is Allen Lawton's Hughes' "Spruce Goose"; note prop and replacable nose block on left.
2. Don Srull's latest electric flyer, a profile P-38 with twin Hi Line MICRO-4 motors.

D.C. MAXECUTER'S SUMMER FUN FLY

3. Scotty Paisley burned the midnight oil and showed up with this beautiful FOKKER D VII; and walked away the winner of the WW I event. A Seaglen Peerless reproduction kit.
4. Mike Escalante came all the way from the CACTUS SQUADRON to visit home and have some fun with his old club; shown here with his dad helping with his Albatros in WWI event.
5. Tom Odum's nifty Euler heading for the heavens; another great WWI flyer and a delight to behold with its bright yellow color.
6. Al Fleisher's sensational PBY was the subject of a recent article in Flying Models. It is powered by two Hi Line MINI-6 electric motors.
8. Another twin electric by Stew Meyers; a modified Easybuilt kit of the Mosquito powered by two Hi Line MICRO-4 motors.
9. Kevin Sharbonda came over from Baltimore with a sack full of scale plans to give away and also this nifty P-47; thanks Kevin.
10. A pretty J-4 by Dave Rees originally built for Dave Smith's MODERN event this summer but also qualifies for GOLDEN AGE.
11. Dallas Cornelius made the trip from Allentown and had a great time with our other friends from Pennsylvania.
11. Bill Bell built his Great Lakes from a Cleveland plan. It's bright orange color was a sight to see in the sunny sky.
12. A Zero by Dan Driscoll for the Pearl Harbor commemorative; this is a Guillow's Rufe minus the float.
13. Hurst Bowers dug deep into his collection and flew this nifty Kawasaki fighter in the Pearl Harbor event. It is great to find the seldom seen aircraft showing up.
14. Another rarity! Now how many have built a P-26 and also made it fly great; well Claude Powell has and it is a spectacular performer. A great Comet ten center.
15. Ken Evans built this Stinson Jr. from an old Model Airplane News plan. They are great flyers; just ask Don who has been campaigning with one all summer!

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16. A tidbit of other pics to come; Glen Simperts was kind enough to give us a roll of negatives he exposed at the Paris Air Show and Air Museum this past June. Here is a great shot of a Pfalz DXII for you super detail nuts.
 17. These last three photos (17, 18 & 19) are from that prolific plans producer down in Arizona, Al Lidberg. These are his latest, a mini-series of replica old timer semi-kits (Sunduster, New Ruler & Buzzard Bombshell). They are great for Hi Line MICRO-4 electric motors or the small Brown CO2 and rubber. Each shown here has a different propulsion system. Each semi-kit includes good print wood and Al's usual great plans. A single aircraft goes for \$6.90 postpaid with printwood and folded plan. An introductory offer for all 3 aircraft with plans (rolled) and printwood is \$21.00 postpaid. A 13 page catalog is free with this latter order if requested. An SASE will bring his plans list or send \$1.50 for the complete catalog.

Send to A. A. Lidberg model plan service / 614 E. Fordham / Tempe, Arizona / 85283.

SUMMER FUN FLY 1991

FAC SCALE

NAME	AIRCRAFT	-----STATIC-----					--FLIGHT--			S C
		C	C	W	T	B	F	F	F	
		O	O	O	O	O	L	L	L	R
		N	L	R	T	N	T	T	T	E
		S	O	K	A	U				
		T	R		L	S	1	2	3	

1. TOM HALLMAN	NICHOLAS BEAZLEY	30	19+	12	61.5	10	91	100	-	149.
2. TERRY PITTMAN	HELLCAT	23	19	10+	52.5	10	50	120	-	145.
3. DALLAS CORNELIUS	MR. SMOOTHIE	27	18	11+	56.5	5	107	87	-	140.8
	TOM HALLMAN	29	19	12	60	10	77	58	72	138.5
4. DON SRULL	SBC 3	24	18	12	54	15	75	-	-	136.5
5. DAVE REES	COLIBRI	29	20	12	61	10	65	70	-	136.
6. MARV YODER	P-47	21	19	8	48	10	65	-	-	120.5
7. JERRY PAISLEY	BEECHCRAFT 17B	25	18	9	52	15	47	-	-	114.
	JERRY PAISLEY	28	19	11	58	15	31	-	-	104.
8. JOHN LEWARS	TIGER MOTH	23	18	11+	52.5	15	33	-	-	100.5
9. BILL BELL	GREAT LAKES TRAINER	26	17	12	55	15	25	25	24	95.
10. DAN DRISCOLL	A6M2 ZERO	22	18	11	51	10	34	-	-	95.
11. FRANK ROWSOME	NAVION	20	15	8	43	10	34	-	-	87.
12. JOHN HOUCK	HELLCAT	24	17	8	49	10	27	-	-	86.
	BILL BELL	23	16	11	50	0	30	34	34	84.
	JOHN HOUCK	22	17	8	47	0	37	-	-	84.
13. DOUG BUCHANAN	SPARTAN	21	17	10	48	10	25	-	-	83.

SINGLE SORTI MASS LAUNCH EVENTS

EVENT	NO. ENTRIES	1 st	2 nd	3 rd
GOLDEN AGE	17	DON SRULL	DAVE REES	TOM HALLMAN
THE RACES	13	TOM ODOM	MIKE ESCALANTE	DON SRULL
P-47	6	KEVIN SHARBONDA	STEW MEYERS	MARV YODER
PEARL HARBOR	4	MIKE MOSCOW	JOHN LEWARS	DAN DRISCOLL
PEANUT SCALE	13	TOM HALLMAN	KEVIN SHARBONDA	DOUG BUCHANAN

MULTI SORTI MASS LAUNCH EVENT

EVENT	NO. ENTRIES	1 st	2 nd	3 rd
WW-I	11	SCOTT PAISLEY	DAVE REES	TOM ODOM

POWER SCALE

NAME	AIRCRAFT	----STATIC----					-FLIGHT (SEC)-			S C
		C	C	W	T	B	F	F	F	
		O	O	O	O	O	L	L	L	R
		N	L	R	T	N	T	T	T	E
		S	O	K	A	U				
		T	R		L	S	1	2	3	

1. ALLAN SCHANZLE	SIEBEL HUMMEL	29	19	12	60	10	120	-	-	142.5
2. AL FLESHER	PBY CATALINA	25	15	12	52	35	40	120	-	134.5
3. DON SRULL	CUBE 3	21	15	11+	47.5	0	47	97	120	130.0
4. TERRY PITTMAN	MARTINSYDE S1	22	18	10+	50.5	15	80	-	-	126.3
	TERRY PITTMAN	23	18	11+	52.5	0	24	60	-	112.5
5. HURST BOWERS	GENERAL ARISTOCRAT	23	17	11	51	0	58	-	-	109.0
6. AL FLESHER	BUCKER 181	0	0	0	0	10	41	-	-	41.0

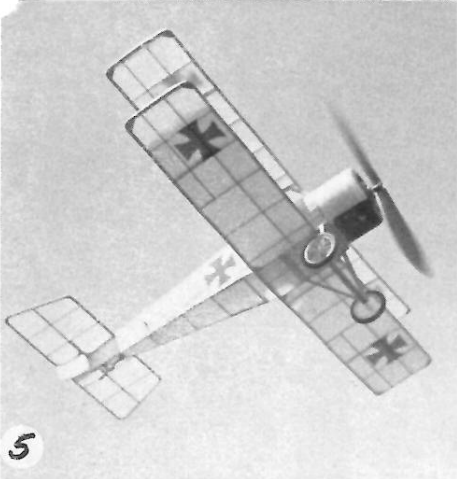
JUMBO SCALE

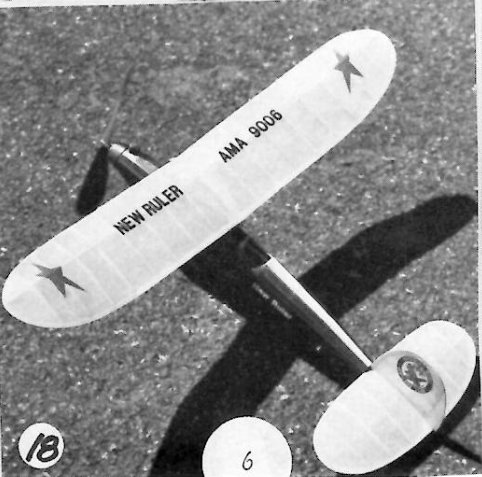
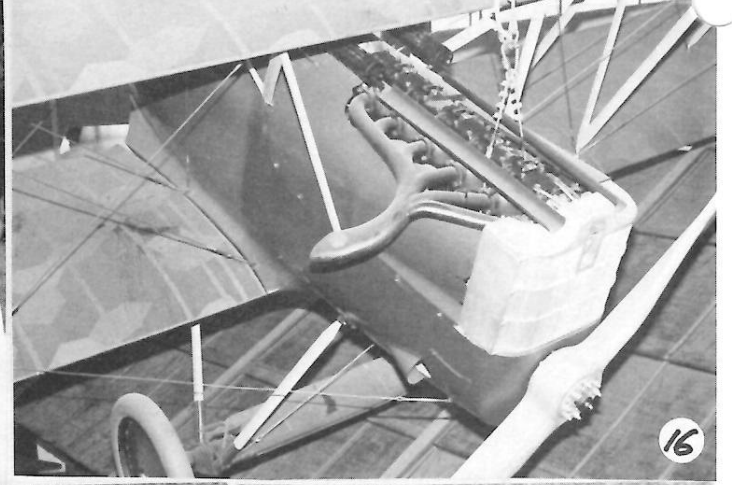
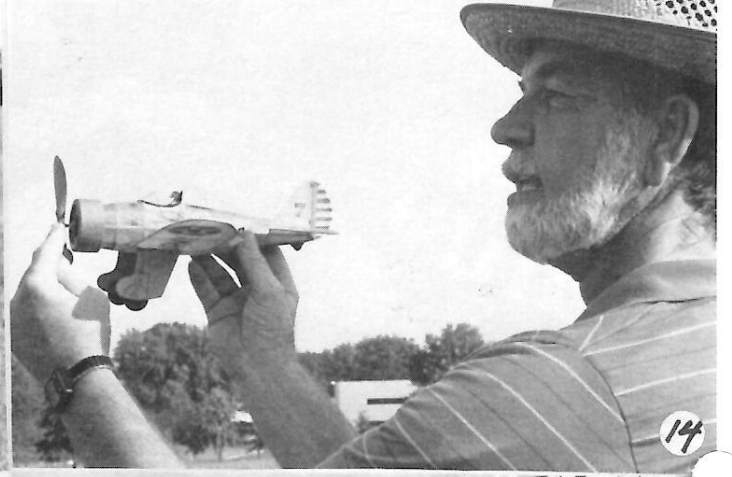
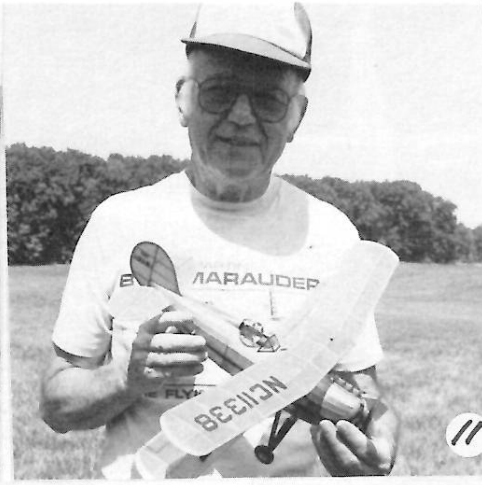
NAME	AIRCRAFT	-----STATIC-----					--FLIGHT--			S C
		C	C	W	T	B	F	F	F	
		O	O	O	O	O	L	L	L	R
		N	L	R	T	N	T	T	T	E
		S	O	K	A	U				
		T	R		L	S	1	2	3	

1. DON SRULL	LIPISCH P-13	29	19	12+	60.5	35	60	-	-	155.5
2. DAVE REES	GENERAL ARISTOCRAT	29	19	12+	60.5	0	94	-	-	136.5
3. DALLAS CORNELIUS	TA-152	29	18	12	59	10	45	54	51	123.0
4. DOUG BUCHANAN	VAGABOND	21	15	9	45	0	68	-	-	109.0
5. MARV YODER	SE5-A	25	18	7	50	15	43	-	-	108.0
	MARV YODER	21	19	7	47	0	49	-	-	96.0

OTHER EVENTS

EVENT	ENTRIES	1 st	2 nd	3 rd
OLD TIME RUBBER (FLYABOUT)	15	FRANK ROWSOME	BUD CARSON	JOHN LEWARS
H. L. GLIDER	3	RANDY KLEINERT		
TRANS COMSAT SPEED	26	TERRY PITTMAN		
TRANS COMSAT NAVIGATION	26	TERRY PITTMAN		





THE KUDZU CONTEST

September 21, 1991

WORLD WAR ONE		Single Sortie	place
NAME	AIRCRAFT	SEC	
Don Srull	DH-6	56	1st
Scott Paisley	Fok D-7	54	2nd
Tom Odom	Euler	48	3rd
David Smith	Sopwith Tripe	28	
Howard Chappell	SE5	10	
Joe Hurdle	SE-5A	06	
Chuck "W"	Morane-Saulnier N		
Jerry Paisley	Albartoss		

RACERS				
Howard Chapell	Time Flies	59	109	1
Dave Smith	CR-3	47	69	2
Pat Daily	Folkerts Toots	45	43	3
Chuck "W"	Laird LCDF	15		
Tom Odom	Chamber Maid	60	07	
Stew Meyers	KR Suzy	38		
Joe Hurdle	Baby Bullet	33		

WORLD WAR TWO		Single Sortie	Place
NAME	AIRCRAFT	SEC	
Jerry Paisley	P-47	68	1st
Joe Hurdle	Machi 205v	49	2nd
Steve Bacom	P-51	43	3rd
Dan Driscol	P-51	27	
Stew Meyers	P-47	15	
Tom Odom	Stormavick	12	
Howard Chappell	P-40	X	

MODERN CIVILIAN PRODUCTION		SINGLE SORTIE
Dave Rees	Piper J-4	171 1st
Howard Chappell	Waco 220	92 2nd
Jerry Paisley	Stinson	67 3rd
Don Srull	R4	04
Chuck "W"	Macchi Idro	52
Dan Driscoll	Funk	X
Doug Buchanan	Vagabond	54
Dave Smith	Cessna 177	63
Frank Rowsome	Navion	X

We had a great time again at the KFC. (No that's not Greasy Chicken from Kentucky.) It was windy but the wind died in time to get in some fun at Dave's Dam. Pat Daily won the Rubber trophy and Don Srull the Power. The next day, after Pat tried to lose us going to the field, the wind came up again and had a noticeable effect on the contest. Doug's HL2 flew out of sight in the Golden Age event. Don's Cant was blown into the trees and was amazingly recovered but damaged. My DH98 was blown into the ground and sheared a wing. In Peanut almost everybody was blown into the ground except Doug. We launched from the corner of the field to avoid blowing into the trees and the wind was really squirly and turbulent over the trees. Lots of fun 'though. --Stew Meyers

KUDZU CONTINUED

PEANUT SCALE	Single Sorte	Sec.
Doug Buchanan	Mr. Smoothie	36 1st
Joe Hurdle	Cougar	16 2nd
Dan Driscol	Aeronca Defender	09 3rd
Steve Bacom	Cougar	06
Chuck "W"	Wright WP-1	03
Tom Odom	Chamber Maid	06
Dave Smith	Aeronca	X

OLD TIME RUBBER	Single Sorte	Sec.
Frank Rowsome	Flyabout	94 1st
Pat Daily	Pacific Ace	86 2nd
Joe Hurdle	Korda Goldstar	74 3rd
Steve Bacom	Sparky	70
Dan Driscol	Yankee	55
Scott Paisley	Gypsy Moth	07
Henry Lelong	FAC Moth	X
Stew Meyers	Flyabout	X

GOLDEN AGE MASS LAUNCH 2 ROUNDS		
FLIGHT A		
Don Srull	Stinson	113 1st
Dave Rees	General Aristocrat	X
Pat Daily	Corbin Ace	X
Chuck "W"	Wright WP-1	X
Tom Odom	Verville	61
Dan Driscol	Funk	53
Scott Paisley	Rearwin Speedster	X
FLIGHT B		
Stew Meyers	Miles Mohawk	36
Doug Buchanan	HL-2 Harold Loyd	lost
Joe Hurdle	Curtiss Robin	67 2nd
Jerry Paisley	Cessna C-145	64 3rd
Howard Chappell	Piper J-3	X

ELECTRIC NOTES

Whilst NiCd batteries in the size we use allways have their capacity given in Mah or milliamp hours it is perhaps more useful to multiply this by 60 and divide by 1000 to give the capacity in amper-minutes since that is how we are using them. Charging them in multiples of amps and drawing amps back out of them to run the motors.

Thus a 110 Mah pack gives $.110 \times 60$ or 6.6 ampmin max capacity and if you charge it for 2 minutes at 3 amps it has a 6.0 ampmin stored. And since a 5.5 in Wm. bros. prop loads a MINI-6 to about 3 amps it will run for 2 minutes. Actually more since the prop tends to unload in the air and draw less current more like 2.8 amps. Yes, this combo should give you a max in Power Scale every time if fully charged.

Another useful way to look at electric power is to remember that horse power hp is rpm times torque. The mathematics work out such that if you express torque in inch-ounces and rpm in thousands the product is milli-hp to an error of less than 1%. Typical numbers for the Mirco-4 are 9.5 thousand rpm times .25 inch-ounces to give 2.4 milli-hp. The Mini-6 will turn less rpms (prop not motor) but produce more torque to give slightly better power.

Every time I look at that HK-1 plan I drool over powering it with 4 Micro-4's or blowing it up to 42 inch span and using all 8. I am tinkering with a scheme to drive two small props with one Micro-4 using belts.

Stew Meyers

KUDZU continued

F. A. C. RUBBER SCALE												
NAME	AIRCRAFT	STATIC					FLIGHT (Sec)				TOTAL	PLACE
		C O N S T	C O L O R	W O R K	B O N U S	T O T A L	1	2	3	F L O T I N G		
Steve Bacom	Jodel D-9	28	18	12	10	68	52	37	35	52	120	3RD
Don Srull	CANT Trimotor	25	19	11	35	90	54	97		79	169	1st
Dan Driscoll	A6M2 Zero	21	18	11	10	60	22	30		30	90	
Scott Paisley	Fokker D-7	23	18	10	15	66	54	60		60	126	2nd
Joe Hurdle	Heath Baby Bullet	27	18	13	5	63	26	25		26	89	
Jerry Paisley	Albatross	26	19	11	15	71	25	27		27	98	
F. A. C. JUMBO SCALE												
Don Srull	Lippisch P-13	27	19	11	35	93	57			57	150	1st
Dave Rees	Piper J-4	26	18	11	0	56	171			83	138	2nd
Dave Rees	General Aristocraft	27	19	12	0	58	86			73	131	x
Doug Buchanan	Piper Vagabond	19	18	8	0	45	55	x2	74	67	112	3rd
F. A. C. POWER SCALE												
Don Srull	Taylor Cub Micro 4	20	18	10	0	48	24	58		58	106	2nd
Joe Hurdle	Me-109 CO2	27	19	13	10	69	30	24	38	38	107	1st
Stew Meyers	Dh98 Micro 4	19	10	9	25	63	28			28	91	3rd

MAXECUTERS XMASH BASH

The annual Maxecuter Christmas party will be at the 94th Aero Squadron
 5240 Calvert Road, College Park Md. That's at the Aerodrome guys!
 Dec. 8th Cocktails at 5:30 pm Diner at 6:30 pm
 choices: Prime Rib \$25 or Chicken Moutarde (with mushroom sauce) \$21
 Diners include: beer soup, salad, bread, vegetable, rice pilaf or baked potato, coffee or tea
 and desert either chocolate or cheese cake.
 Seating is limited to the first 50 reservations received with check or cash.
 Send checks to: Terry Pittman
 7863 Colonial Village Row
 Annandale, Va. 22003
 (703) 698-1726

Performance Characteristics of HiLine's Small Free-Flight Motors

There are two small electric motors available from HiLine for free-flight model use. The MINI-6 is the geared motor that has been around for several years and is designed for use with 3 NiCd cells (3.6 volts) of 110 mah capacity. It is suitable for models of up to 5 ounces in weight and having up to 150 square inches of wing area. It uses a 5 to 6" diameter Williams Bros. or Peck prop. HiLine's newest motor is the MICRO-4, a direct drive motor system designed for very small models of 50 to 75 square inches and weighing about 1 & 1/2 to 2 ounces. This small motor system weighs only 20 grams total, and uses a 2 cell battery (2.4 volts) of 50mah capacity. The prop supplied is 3 1/2" in diameter.

While the batteries and props supplied with these motors provide very good performance, many modelers are incurable experimenters and want to try various props and battery combinations. The two graphs presented here should be of help to these modelers. The graphs show how motor power, RPM, current draw, and electrical efficiency varies, as larger props (higher torque required) and smaller props (lower torque required) are used.

The charts also answer the common question why very large, slow turning props should not be used - as shown, *they provide less power and tend to cook the motors!*

It should also be pointed out that since the basic motor is the same in both the MINI-6 and the MICRO-4, the two graphs can be used to predict performance for either motor system on 2 or 3 cell operation. I have also used the MINI-6 geared motor on 4 cells (4.8 volts) with very good results; in this case the MINI6 will deliver over 5 watts output and will fly models of 6 ounces or more all-up weight.

Another good possibility suggested by the graphs is to use the direct drive MICRO-4 motor with three cells (3.6 volts) in a ducted fan model. I would start with a small diameter fan

(about 3 inches) having 2 to 4 blades made from a cottage cheese container; the blade width and pitch should be set to get about 18,000 RPM and 2.25 amperes. Such a fan should be able to fly a clean little jet model of about 80 to 100 square inches, and having an all-up weight between 2 and 3 ounces. Give it a try!

Don Srull 10/91

Micro Electric
FLYING!



NEW FREE FLIGHT
MICRO-4 MOTOR

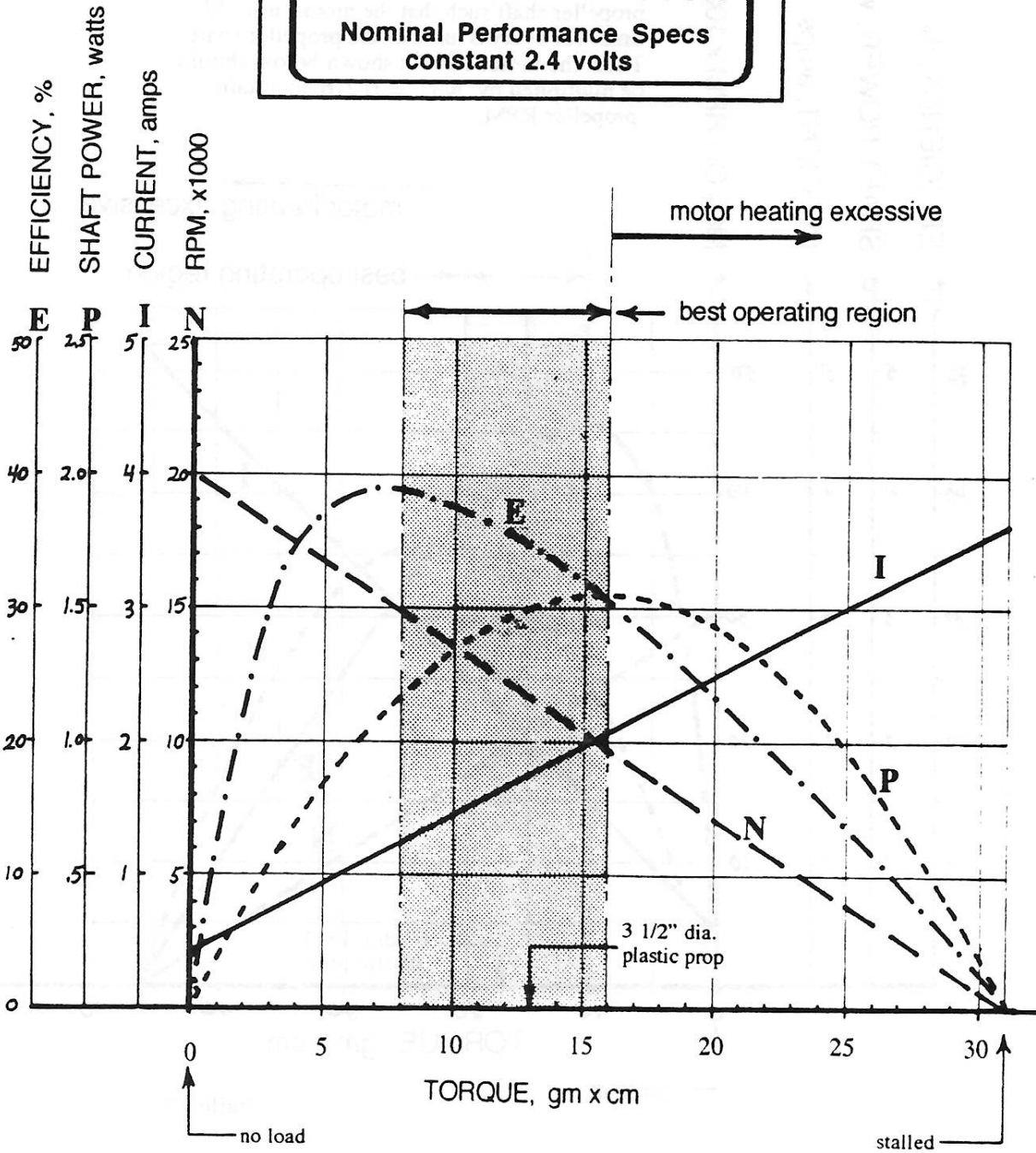
- FOR 50 TO 70 SQUARE INCH MODELS
- MANY 10¢ & 25¢ KIT DESIGNS SUITABLE
- ENTIRE SYSTEM WEIGHS 20 GRAMS
- EVERYTHING NEEDED TO FLY
motor, nicads, props, switch,
charger parts (less 3 dry cells)
- FREE PLAN INCLUDED !

\$17⁹⁵ + \$2⁰⁰ Postage and Handling

HiLine Ltd. P.O. BOX 1283
BETHESDA, MD 20827

HiLine MICRO-4 MOTOR

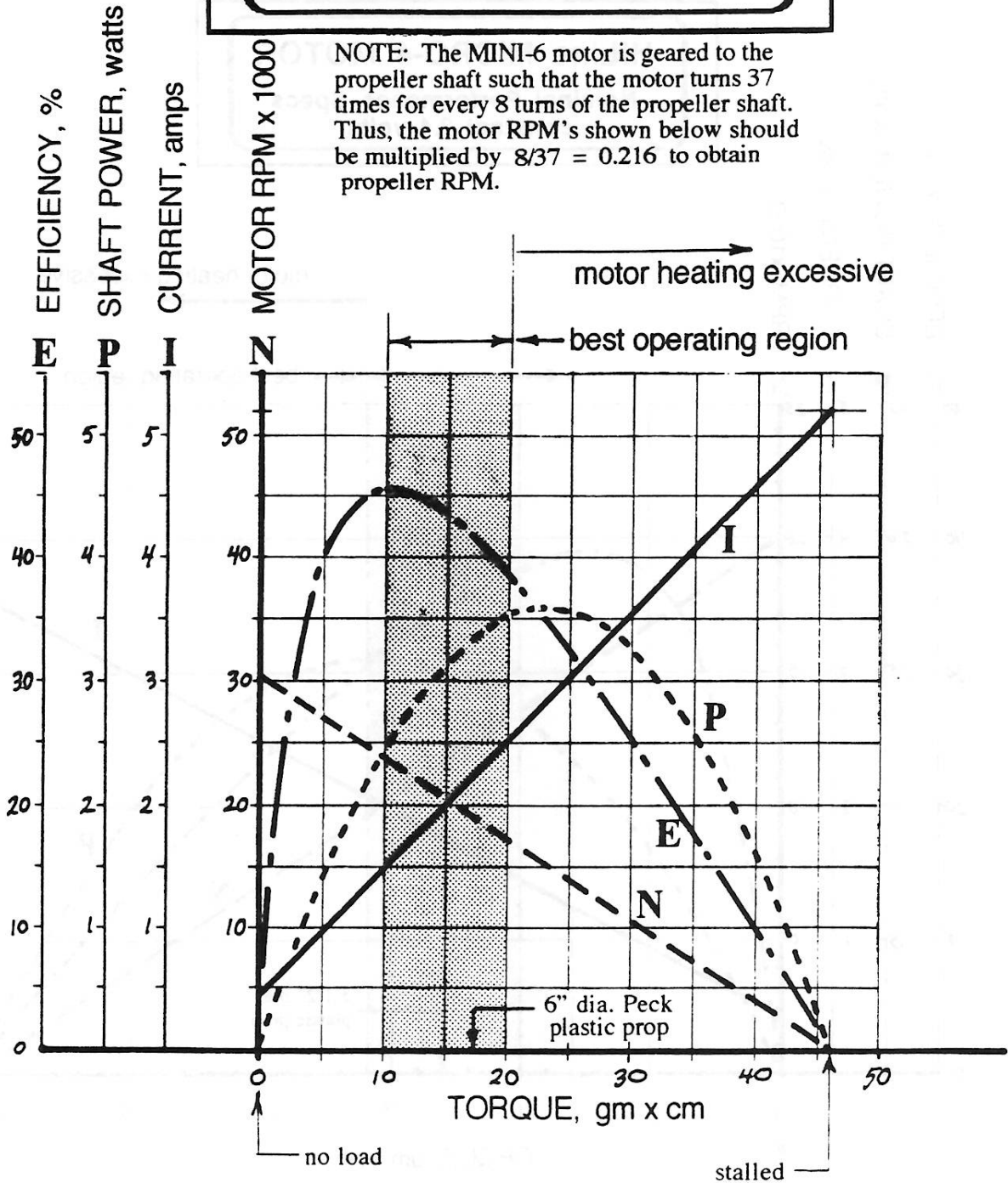
Nominal Performance Specs
constant 2.4 volts



HiLine MINI-6 MOTOR

Nominal Performance Specs
constant 3.6 volts

NOTE: The MINI-6 motor is geared to the propeller shaft such that the motor turns 37 times for every 8 turns of the propeller shaft. Thus, the motor RPM's shown below should be multiplied by $8/37 = 0.216$ to obtain propeller RPM.



SPANISH TIGER MOTHS
by Dan Driscoll

At the start of the Spanish Civil War in July 1936, there were five DH-82 Tiger Moths with the Spanish military - four with the Socialist government (Republicans) and one with Franco's army in revolt (Nationalists). The one Nationalist aircraft was soon returned to Republican hands by a defector. During the first weeks of the war, the Tiger Moths were flown on reconnaissance and liaison missions, and in September 1936, they were transferred to flying schools.

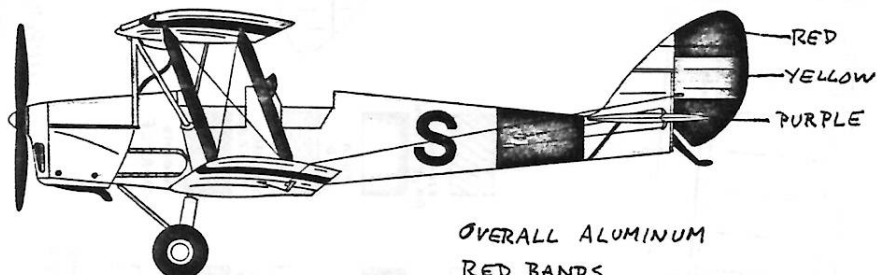
Frenchmen sympathetic to the Republican cause purchased 17 more Tiger Moths, and 16 of these aircraft eventually reached the Republicans in Spain.

The civil war ended in 1939 with the Nationalists victorious. Twelve of the Tiger Moths were recovered by the victors and used as trainers. Seven of these aircraft survived to eventually receive civilian registrations.

In model form, there have many versions of the DH-82 Tiger Moth kitted or published over the years - John Pond's latest catalog lists 15 different plans. Two excellent published plans are the peanut version by Hoby Clay in the March 1983 Model Builder and the 18 1/2" CO2 version by Stan Cole in the February 1982 Aeromodeller. The CO2 version could easily be converted to rubber.

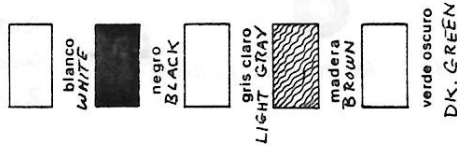
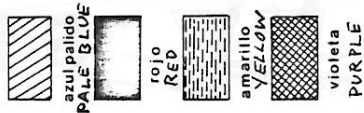
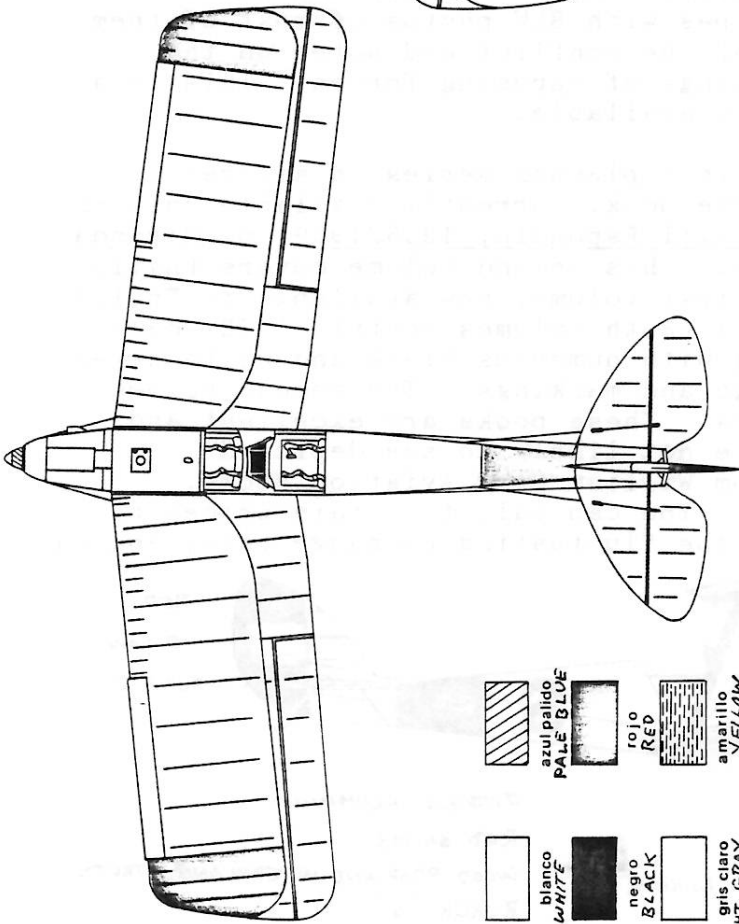
The above information and profiles on the Spanish Civil War come from two books I recently obtained. First is Aircraft of the Spanish Civil War, 1936-1939 by Gerald Howson and published by Smithsonian Institution Press. This book contains a brief description and operational history of over 280 types with B&W photos of most of them. Also included is a brief history of the conflict and notes on the organization, camouflage, and markings of opposing forces. This is a good reference and should be widely available.

The other book is the second in a planned series on aircraft participating in the civil war. The book, currently available only in Spanish, is Aviones en la Guerra Civil Esponola, 1936/1939, by Miranda and Mercado and published in Spain. This second volume covers English, Czech, and Polish aircraft. (The first volume, now available in English, covers American and Russian types.) Both volumes contain 1/72 scale three views of each aircraft along with numerous black and white keyed profiles showing various camouflage and markings. The second volume includes a number of color profiles. These books are excellent and cover a variety of aircraft you are not likely to see depicted elsewhere. They are available from William Byrd Aviation Books, P.O. Box 5108, Torrance, CA 90510. You can call to obtain prices on (213) 326-3341. Prices vary with the fluctuating exchange rate, and can be quite expensive.



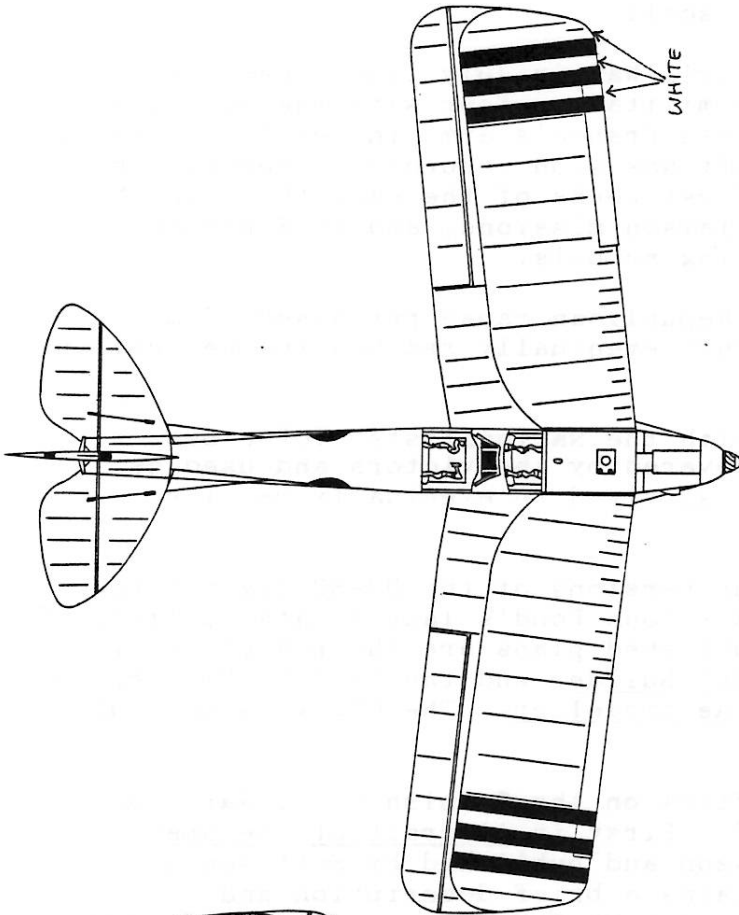
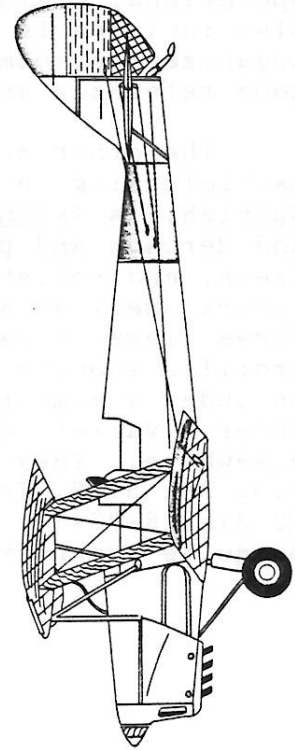
D.H.82. Unidad desconocida. La Ribera, 1937.

OVERALL ALUMINUM
RED BANDS
WOOD PROP AND INTERPLANE STRUTS
BLACK "S"



La Ribera 1938

UPPER SURFACES - DK GREEN
 UNDER SURFACES - PALE BLUE

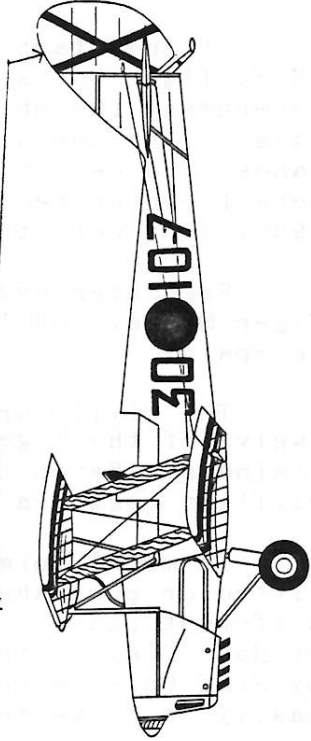


WHITE

Post War MARKINGS

Barajas abril 1939

UPPER SURFACES - LIGHT GRAY
 UNDER SURFACES - PALE BLUE
 RUDDER - WHITE



Spruce Goose

Someone asked, why a model of the Spruce Goose? There were times during the building I asked myself the same question -- like while making the 32 little scale basswood prop blades, 8 nacelles, 8 scoops, 10 flap hinges, coupla wing floats etc. Actually, the seed was probably planted back during -the heyday of the Pan Am Clippers and Sikorsky flying boats (yeah wise-guy I can remember back that far)

The lure of building something not previously done in rubber power (and with 36 bonii) was augmented by the reading of Chas Barton's intriguing book: Howard Hughes and his Flying Boat. Even without an interest in flying boats, most anyone will find the book absorbing. It's well researched and contains many photos and a 3-view.

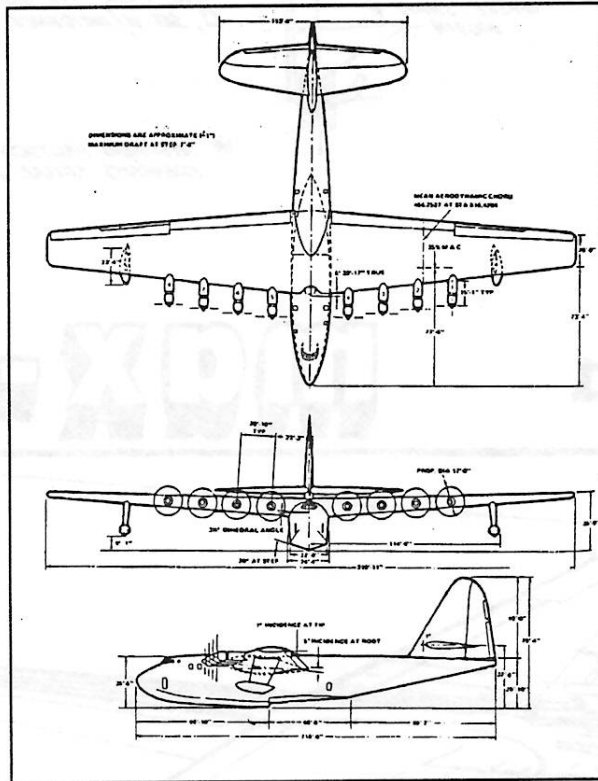
In the frenzy before Geneseo last summer, usual rite of passage, I tried to trim the Goose but the wind was unkind and masked for awhile a tendency for spiral instability.

Murphy was somewhat thwarted, however, thanks to high grass and robust nature of the bird (I'd gone for 'purty' construction rather than Cocoanut-like) During the design phase, I wondered if that honkin tail would be too much so I built a smaller no-cal to check out areas faked me out completely.

At Geneseo, an up front cheater took some of the starch out of the big fin. Before our fall contest at Durham, I

scaled down the fin size (as it now appears on the plan) and results were much better. During the last flight it tried to blind side a fifty foot tree resulting in a 40 foot loss -- straight down -- dropped like the market after a Saddam Hussein hiccup.. But robusticity saved the day again -- other than a few broken scale prop blades, it was OK.

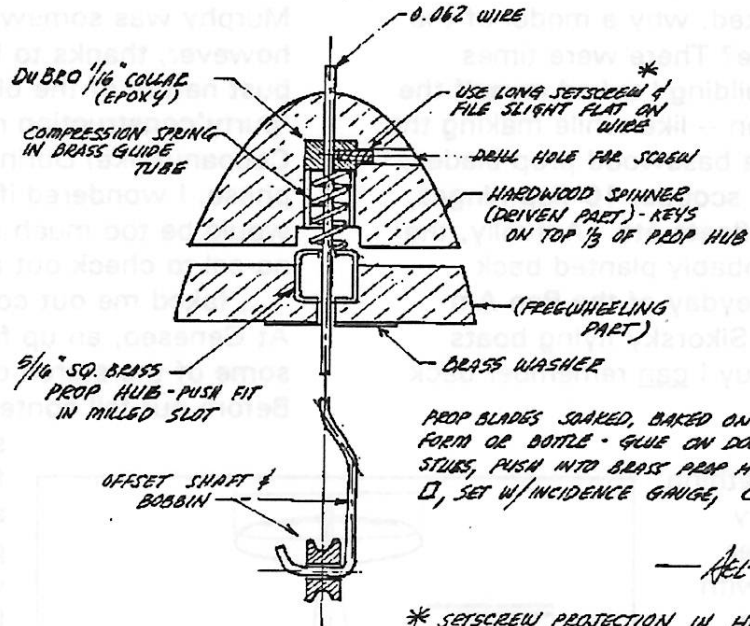
Howard might even have smiled:



Allen Lawton

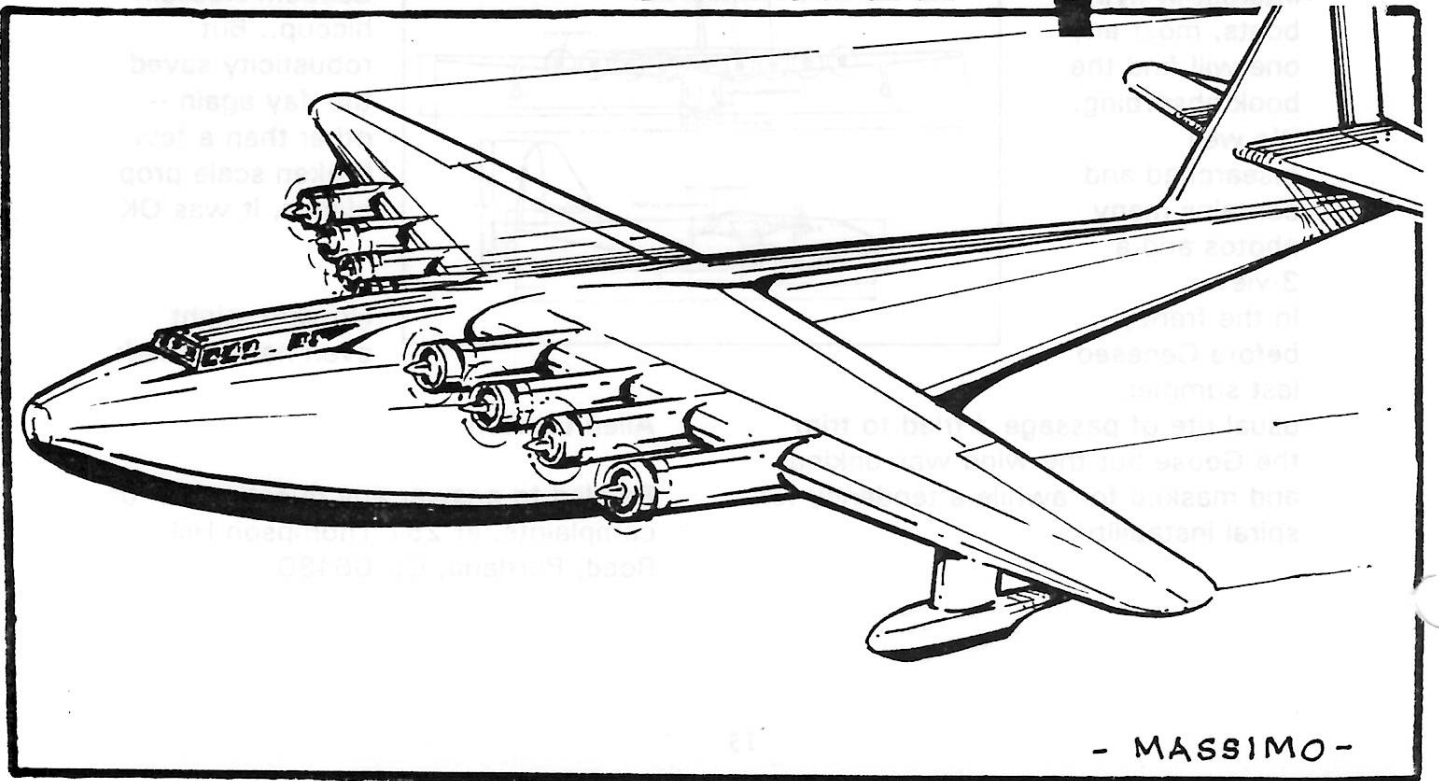
Be glad to answer any questions ... or complaints, at 251 Thompson Hill Road, Portland, Ct. 06480

SPINNER w/ HIDDEN FREEWHEELER
NO SCALE



NOV '91
DEC

max-fax



- MASSIMO -