

FLYING ACES



Club
News

No. 268

Nov/Dec 2012





2012 FAC Outdoor Champs - Photo captions:

1 - Wally Farrell's launches are so photogenic that even people besides his wife want to take pictures of them. Tom Hallman caught the action this time as Wally's brand new Staggerwing dimer took to the air. He won the event, but in a sad postscript, the model went off the field and was lost a couple weeks later at the Gathering of the Turkeys in Pensacola. Sic transit gloria mundi ...

2 - Pat Murray, with blast tube held at the ready, prepares to wind up his T-34 with the help of mechanic Marty Richey. Pat had to settle for third place in the Low Wing Military Trainer event when his final round flight came up short. Tim Lavender photo.

3 - In an attempt to upstage Wally for style points, Dave Niedzielski launches his Kharkov. Hallman photo.

4 - Mike Midkiff placed a very close second in the WWII mass launch, but flew his Hellcat in that event instead of the P-40 shown in the photo. Lavender photo.

5 - Tim Lavender, proudly wearing his Blue Max, poses with his FW 190 D-9 after placing third in the WWII mass launch.

6 - No contest photo spread would be complete without a shot of a mass launch line. This is the first round of the WWII Combat event. You can feel the excitement in the air!

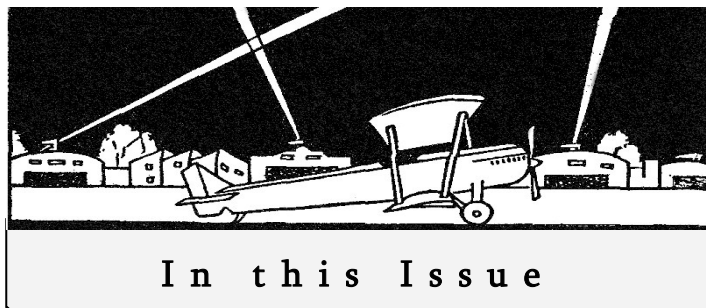
7 - Pres Bruning can always be counted on for something a bit out of the ordinary. Safe bet that he had the only flying fish on the field. The Embryo class plan appeared in a recent issue of the Cloudbusters Newsletter. Hallman photo.

8 - Frank Rowsome doesn't need any style points as he usually finds a way to fly into the final round without worrying about them. This time his Chambermaid finished just a few seconds behind Dave Niedzielski's third place Chambermaid. Hallman photo.

9 - Stew Weckerly received his milestone plaque for 300 kanones during the awards presentation. Our CinC made the presentation despite the fact that Stew was not wearing his Blue Max. Roy Courtney photo.

10 & 11 - Tim Lavender and Gary Morton both got their Blue Max medals from the CinC himself. Congrats! Roy Courtney photos.

Below - The companion shot: Dave Franks' winds up his Jumbo biplane prior to that classic launch shown on our cover. Hallman photo.



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Plans

We have a big pack of smaller models this time. Most of these would scale up to larger sizes very nicely if you like 'em bigger.

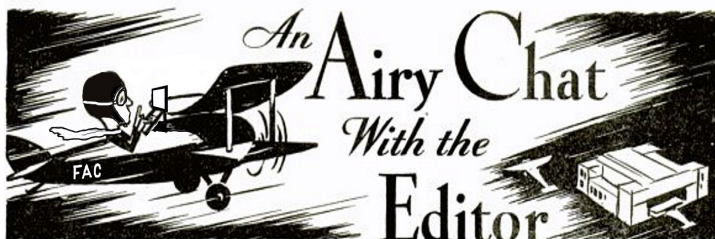
- Mike Isermann drew up his Peanut Scale Lemberger LD 20b for us, and it's a honey. If you've been leery of building a biplane, this could be your ticket. No struts (!) and it flies like a dream.

- Our thanks to Mike Stuart for another original; his Blackburn Ripon is a model that could work as a Dime Scale, or with some added detail, a full blown Scale entry. Loads of Golden Age charm, and a good layout for a flying model.

- Alain Parmentier sent us a nice packet of "Cacahuète" (Peanut) plans, including his Potez 36, a charming little high wing cabin job from the Golden Age. Also included are several by J. Cartigny: Leduc RL-16, a 1947 record breaker; Leduc RL-19, a low wing sport plane from 1952; and the One-Design Postal Contest plan - the Morane Saulnier Type H. The rules for the postal contest are pretty simple; build it to the plan, and send in two flights and a photo of the model. The info is with the plans.

On our cover: Dave Franks launches his beautiful Jumbo Waco SRE at the FAC Outdoor Champs. Tom Hallman caught the action on that fabulous flying field in Muncie, and framed it beautifully against the September sky.





Greetings Junior Birdmen,

The flying season for most of the country has come to a close. It's time to get the model bench cleaned off and dive into a new project or two. We've got some interesting plans for your consideration and inspiration this time around.

Be sure to check out the One-Design Peanut Postal Contest sponsored by our Free Flight friends in France. 2013 is the 100th anniversary of Roland Garros' historic flight across the Mediterranean. The Morane-Saulnier type H he used to accomplish this feat has plenty of wing area and should be a fine flier in Peanut Scale. It will also give you an entry into Pioneer Scale or the SLOW race. Special thanks to Alain Parmentier for sending the invitation and plan, and to the whole crew at "Les Cahiers du CERVIA" for organizing the event. Details are on page 13.



The FAC Board and Council met in October to take care of some business, and address the concerns, comments, and suggestions submitted by our members. The meeting was held in Pensacola, and several Board and Council members took part in the Pensacola Free Flight Team "Gathering of the Turkeys" contest while they were in the neighborhood. There will be a full report on the meeting in an upcoming issue of the FAC News. Sneak preview: I think it's safe to say that there weren't any major changes adopted. The one item that is worth mentioning here is the retirement of Jack Moses from the Council. Jack has been a steady influence on the board from the beginning, and we'll certainly miss him. He's been added to our Emeritus list.

Thanks to all who sent kind words on our last issue. It was a lot of fun to put that one together. Thanks also to all the guys who make this publication possible. I can't say that enough. Their contributions of plans, photos, and articles are what makes it happen. My job is simply to cram it all into 36 pages.

Speaking of contributions; we omitted mention of one in our Nats edition. Keith Sterner donated one of his lovely contra-prop units so that it could be auctioned off on scale judging day. Slightly belated, but still heartfelt thanks to Keith! That's the kind of support that keeps us going strong.

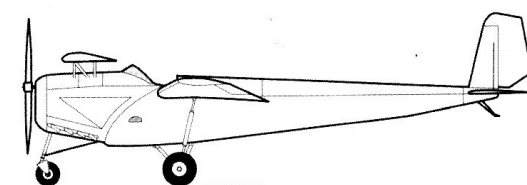
And to keep the record straight, we should mention that we had the names switched on a couple of the FAC Special Awards in our Nats report. Russ Brown was the recipient of the Lin Reichel Memorial Mentor Award, and Mike Nassise got the Vic Didelot FAC Spirit Award. The upside is that we get to send congrats to both once again!

Word has arrived from our "Keeper of the Squadron List" George White that Bob Hanford is assuming leadership of Squadron 56 from his late father. SQUADRON #56 is known as The Thunderbird Squadron. Thanks to Bob for taking the reins! If there are any FACers in the Oklahoma area who are looking for some flying buddies, contact Bob at: 1608 S. Popular Avenue, Broken Arrow, OK 74012, email: bhantulsa@cox.net, or call: 918-251-7564

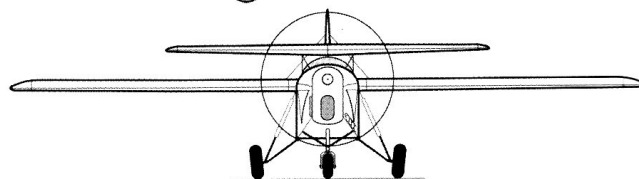
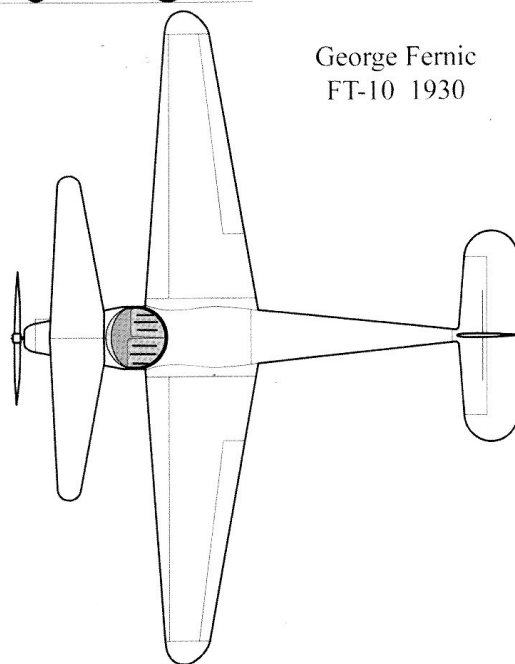
You can check out the entire Squadron List at the FAC website.

See you on the flying field!
Wingnut

Bonus Point Quiz



George Fernic
FT-10 1930



Answer on page 7

News on the Wing



First - It's Official! 2013 FAC NON-NATS. JULY 17 - 20. Geneseo, NY.

1) Wednesday...all day...registration, scale judging, compliance checks and fun fly. Early evening BLUR and SLOW.

2) Thursday, Friday, and Saturday...events to be announced ASAP.

3) Saturday evening...NO banquet, but perhaps a catered "cook-out" by a local restaurant.

Second - If a club wishes to be the HOST CLUB with lots of assistance from GHQ and the D/C Maxcuters, please let me know ASAP! I will answer any questions in regards to hosting via email or a phone call.

Third - Motel, dorm and meal info will be announced ASAP.
Ross Mayo FAC CinC



S.O.S.

Recently I returned from the Outdoor Champs in Muncie. A great time was had by all. I hope a lot of photos make their way to you one way or another.

When packing, I decided to take two (identical) canopies with me: mine for personal use and one of the GHQ canopies for official use. When packing the two, I noticed that one was slightly heavier than the other, but didn't have the time or energy to deal with the discrepancy.

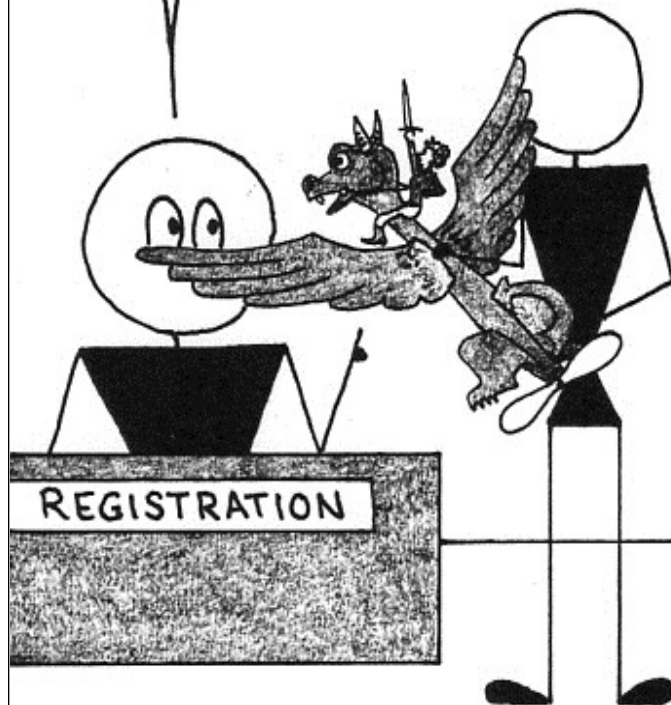
The mystery was solved at the flying field once I got them out of the carry cases. It wasn't that one was heavier...one was actually lighter. Somehow at Geneseo, the wrong canopy "top" was placed in the FAC bag with the frame.

If you thought when putting your canopy away after the FAC NATS that it was heavier than usual, well, check it out. The missing canopy top is a 10' X 10' FIRST-UP by OUTDOOR SHELTERS...beige on the outside and silver inside. The "found" top is for a SHADE TECH by QUIK-SHADE...also beige and silver. It appears to be for an 8' X 8' canopy (guess I should have measured it)...hence the difference in weight.

Please contact me so we can work out a switcher.
Ross

INKLINGS by Chuck Wenlock

NO, NO, DRAGONS MUST COMPETE
IN THE FICTION FLYER EVENT,
NOT PIONEER SCALE.



Worthwhile Website

Air Adventures Of Jimmy Allen

Here's just the thing to have on in the background in your shop while you're building that new Jimmie Allen ship. They've got over 50 episodes available from '36 and '37. (Yes, we noticed that they have "Jimmie" misspelled. We won't hold that against them.) The title of the website is perhaps a little off putting, but don't let their motto: "Your source for dumb stuff" keep you from some good old fashioned radio fun.

http://www.dumb.com/oldtimeradio/radio/89/Drama/Air_Adventures_Of_Jimmy_Allen.html

WESTFAC...The Word from Out West

The famous TEXAS FAC SCALE CHAMPS was held recently and was treated to exceptional flying weather. Clear sky's and minimal drift as flyers from all over the West convened to have some fun. Twelve Events were featured and the competition was hot. Jerry Porter won WWII Combat with his high performing EKW 6503 with Don DeLoach coming in 2nd flying a Vought F4U and Bob Isaacks nailing 3rd with another EKW 6503. Rubber Scale was won by Don DeLoach with that great flying Corsair. Garnering 20 bonus points, Mike Isermann took 2nd with his Boeing 306B and "Iron Mike" Midkiff FAC HOF flew his DH Tiger Moth to 3rd place.

The overall Champion for the Scale Champs for 2012 was Don DeLoach. This follows a double Grand Championship for Don at the FLYING ACES NATIONALS this year. Now that's one for the books!!

Over 49 aircraft could be seen around this Texas event, and many of these flyers will be coming west for WESTFAC IV in April 2013.

There is a fantastic Event coming up in January that will absolutely provide a great opportunity to tune things up for WESTFAC IV in April...!!! The Phoenix Model Airplane Club has added three FAC MASS LAUNCH EVENTS and several FLYING ACES duration events. The Dates are January 19th , 20th , and 21st.

The 63rd ANNUAL SOUTHWEST REGIONALS, held at Eloy Arizona each year will for the first time, feature the following FLYING ACES Events:

- WWII COMBAT MASS LAUNCH
- GREVE/THOMPSON MASS LAUNCH
- FAC HIGH WING SCALE MASS LAUNCH

Check out the SWR web-page at:

www.aalmps.com/swrintronu.htm

and click on 2013....take a look around. This is a major National Event and will draw flyers from all free flight venues to Eloy..as it does each year. MARK YOUR PLANNING CALENDARS.

Preparations are well underway for the 4th WESTFAC Event .



Don Roseburg lends a hand to Mike Midkiff as he preps his SE 5 for the WWII Combat event at the Texas FAC Scale Champs.

This one will be held at Perris California on the fantastic SCAMPS flying site. The SCAMPS field is a 4 minute field under normal drift. It is perfectly flat with no trees, corn-fields, or other planted crops. We are all excited about this WESTFAC, which will be on April 24th through the 27th and will feature 22 great FLYING ACES events including two new Mass Launch Events:

- DOUBLE TROUBLE will be the first ever mass launch event with scale twin motor models.

- The new MEDITERRANEAN WWII COMBAT mass launch will feature all of the fighter aircraft in that theatre. For pilots who got a D- in history (like me), we have appointed a WESTFAC Historian to help you make decisions about which models were in that theatre and what their markings were like. It's our own Phil Thomas. The WESTFAC website will direct you to Phil if you want to do a "sanity check" on certain models.

Many Maxes to All... Roger Willis

MMM Club President Marc Sisk surprised Don DeLoach with this hundred-Kanone plaque at 2012 Rocky Mountain FF Champs, Denver.



Photo 1 shows the usual box of spaghetti, sometimes known as a 1-pound box of FAI rubber. Keeping the end of the noodle located can be vexing.



Photo 2: a simple square of cardboard with a small slit cut at the center. It should fit the box snugly.



Photo 3 is self-explanatory. Never lose the end of the rubber again.



Half Price! New Member* Offer

Two-year memberships \$58 now **\$29**

*new members (U.S.), or members who've lapsed for 12 months or more.
International dues: \$37.50; Youth dues (18 and under): \$9. Expires 1/1/13.

National Free Flight Society

Preserving, enhancing and promoting the art, sport and science of Free Flight Model Aviation in all its forms.

Membership includes access to the NFFS Plans Catalog of over 800 plans, scholarship and volunteer opportunities, rulebooks, committee support, and 6 issues/year of Free Flight Digest, the world's most respected journal of its type. Each 40+ page bimonthly issue includes in-depth content on building and flying all types of Free Flight models: indoor and outdoor rubber, electric, glow, glider, duration, scale, Old Timer and more!

☐ **Yes!** I love Free Flight and I've not been a NFFS member during the past twelve months. Please sign me up at this special 2-year price of \$29 (International: \$37.50; Youth: \$9).

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Secure Online payments at <www.freeflight.org>

BP Quiz Answer

Weird as it looks, all it gets is 5 points for the canard. On the plus side, you could be the first person *ever* to build a model of one!

2012 FAC Outdoor Champs

The big AMA field at Muncie beckoned once again and the faithful gathered for the thrill and satisfaction of competition and fellowship. This year we welcomed Dan Olah as Co-CD and his lovely wife Sandra who did a great job in keeping things in order at the Official's station. The weather however once again (storm) clouded the issue. A severe storm front was to move through the area around noon the second day of the meet. I decided to fly both days scheduled events on the first day and on the second day fly just that day's events. Urging all to fly as much as possible on the first day, I extended flying that day until 6 PM. Most did this, and on the second day the three scheduled Mass Launch events comprised the bulk of the flying. Flying on the second day was halted early with the approaching storm in view. With completion of the last Mass Launch event, trophies (16 ounce etched beer glasses) were awarded. The Grand Champ award went to Wally Farrell for another spectacular two days of flying.

I must point out that tabulating for the meet was done by inputting data into Stew Meyers' computer program. This system, which is a giant step forward in aiding the accuracy and ease of running a meet, provided instant results and place positions with a push of the print button. Stew is always thinking of ways to improve and expand the program's capabilities. We owe him a big "Hurrah." Consider that he made the trip from Maryland to Michigan to be of service to another FAC event. I was honored to work with him for those two days.

Generous support came in the form of event sponsors. I can't say enough about the comfort this provides the Cloudbusters who are faced with the up-front expense of organizing and providing for this contest. Our sponsors were:

Thomas DesignsFAC Peanut Scale,	FAC GHQFAC Scale,
Jack MosesLow Wing Trainer,	Dan Olah & Mike WelshansGolden Age Scale
McCook SquadronFAC Jumbo Scale,	Pat MurrayOld Time Rubber Stick
Wally FarrellOld Time Rubber Fuselage	Pat MurrayFAC Dime Scale
Pat MurrayEmbryo Endurance	EasyBuilt ModelsGreve Race
Wally FarrellWorld War I Combat	Pat MurrayWorld War II Combat
EasyBuilt ModelsHalf Size Wakefield	Ross MayoErie Daily Times

The annual Raffle was stocked this year with 120 donated items. Wow! I think everyone who purchased tickets walked away with something.

Our most sincere thanks to the folks who took of their time to act as judges and event directors.

The Cloudbusters wish to thank all Fifty One FAC Flyers who came and joined us in helping to make the 2012 Flying Aces Outdoor Championships another memorable Contest. The Sanction Application is submitted for next year's FAC Outdoor Championships to be held on Sept. 5 & 6, 2013.

My best Regards to you all,
Ralph Kuenz, CD, FAC Outdoor Championships



Chris Starleaf's amazing B-24 Liberator climbs out on another majestic flight in Jumbo Scale.

Tom Hallman photo

	FAC Peanut Scale	Event # 1					FLIGHT SCORE	
			CP	MK	WK	BP		TOTAL
1	DENNIS RUHLAND	FOLKERTS SK-2	29	20	12	5	71.00	137.00
2	Tom Hallman	MARTINSYDEBUZZARD	30	20	12.4	15	55.00	132.40
3	PRES BRUNING	ARADO 198	30	20	11	0	70.50	131.50
	George Bredehoft	KR-2	27	20	9	10	65.00	131.00
	Wally Farrell	FLOYD BEAN SPECIAL	28	20	10	0	68.50	126.50
	ROBERT STEVENS	VOISON FERES HYDRO	26	20	11	30	35.00	122.00
	Claude Powell	HURRICANE	24	10	9	10	62.50	115.50
	JACK TISINAI	CURTISS R6	28	18	12	15	40.00	113.00
	CHRIS BOEHM	BELLANCA T-250	12	20	9	10	60.00	111.00
	Ross Mayo	FARMAN ANTIONETTE	20	18	7	5	44.00	94.00
	John P. Houck	DAPHNE	25	20	8	0	40.00	93.00
	Paul Boyanowski	PZL SZPAK 4-T	29	20	12	10	0.33	71.33
	Pat Murray	WACO UKC	27	12	10	15	0.33	64.33
	TIM LAVENDER	AW FK-8	15	20	9	15	0.33	59.33
	William Garrison	REARWIN SPEEDSTER	8	10	7	0	0.33	25.33
	SECOND ENTRIES	WITH LOWER TIMES						0.00
	Tom Hallman	MITSUBISHI 1MF1	30	20	12.4	15	0.33	77.73
	CHRIS BOEHM	P-51-D	28	20	10	10	0.33	68.33
	John P. Houck	TURBULENT	28	20	8	10	0.33	66.33
	George Bredehoft	FALCON SPECIAL	28	20	12	5	0.3333	65.333

WWI Combat		Event # 25		RAW TIMES		
				T1	T2	T3
1	FRANK ROWSOME	FOKKER D-7		51	75	166
2	Wally Farrell	MARTINSYDE		57	85	133
3	Tom Hallman	FOKKWE D-VII		58	79	125
	Jim DeTar	FOKKER D-7		70	63	124
	CHRIS STARLEAF	POMPLIO PE		64	69	75
	Pat Murray	FOKKER D-7		62	40	
	PAUL BOYANOWSKI	ALB D-1		58	38	
	John P. Houck	SE-5A		49		
	JACK TISINAI	NIEUPORT 28		46		
	MIKE MIDKIFF	SE5-A		33		
	OLIVER BENTON	FOKKER D-7		2		

Low-Wing Military Trainer		Event # 6		RAW TIMES	
				T1	T2
1	PAUL BOYANOWSKI	SEVERSKY BT-8		46	51
2	John P. Houck	AT-6		53	48
3	Pat Murray	T-34		68	15
	Claude Powell	PT-19		18	
	Mike Welshans	T-28-D		5	
	Wally Farrell	MAGISTER		5	

Our CinC exhorts the masses as he makes a presentation at the awards ceremony.

Roy Courtney photo



Greve Race		Event # 23		RAW TIMES		
				T1	T2	T3
1	Charlie Sauter	KR-4		74	75	94
2	Wally Farrell	MR. SMOOTHIE		135	65	81
3	David Niedzielski	CHAMBERMAID		161	64	71
	Frank Rowsome	CHAMBERMAID		154	55	68
	Jim DeTar	MISS LOS ANGES		101	57	2
	Paul Boyanowski	HAINES H-3		70	48	
	George Bredehoft	KR-2		74	42	
	Jack Bredehoft	KR ELMENDORF		76	41	
	Roy W. Courtney	KR-3		74	39	
	Norman Becker	CHAMBERMAID		113	31	
	JACK TISINAI	RED HEAD		49		
	TIM LAVENDER	GB-D		30		
	Mike Welshans	KR JACKRABIT		5		
	OLIVER BENTON	CHAMBERMAID		4		
	David Franks	MR. SMOOTHIE		3		

Goodyear / Formula Race		Event # 24		RAW TIMES	
				T1	T2
1	JACK TISINAI	HURLBERT HURRICANE		9	94
2	Wally Farrell	POGO		59	72
3	George Bredehoft	FALCON SPECIAL		8	26
	Pat Murray	LONG		3	
	HARRISON KNAPP	BUSTER		1	

	FAC Rubber Scale	Event # 2					FLIGHT SCORE	
			CP	MK	WK	BP		SCORE
1	CHRIS STARLEAF	CESSNA 310	28	19	12	35	67.50	161.50
2	Jim DeTar	GREAT LAKES	28	19	11	15	82.50	155.50
3	Wally Farrell	MILES FALCON	27	19	10	10	78.75	144.75
	Tom Hallman	PULQUI	27	19	12	10	76.00	144.00
	Claude Powell	JAKTFALK	26	18	10	15	69.50	138.50
	JACK TISINAI	NAVION	28	18	10	10	70.50	136.50
	MIKE MIDKIFF	TIGER MOTH	26	19	11	15	61.00	132.00
	David Niedzielski	GLADIATOR	24	18	10	15	57.00	124.00
	JIM BAIR	DOUG A-26	27	18	10	30	38.00	123.00
	Greg Thomas	CLIPPED WING CUB	28	19	12	0	62.00	121.00
	WILLIAM GARRISON	BIRDDOG	18	10	8	0	82.50	118.50
	PRES BRUNING	AIR TRUK	29	20	12	15	36.00	112.00
	Jack Moses	DH MOTH MINOR	27	19	11	10	43.00	110.00
	Roy W. Courtney	LACY M10	27	18	10	0	31.00	86.00
	JOE BARTEK	CESSNA 140	22	16	10	0	35.00	83.00
	PAUL BOYANOWSKI	ALBATROS D.I	29	19	12	15	0.33	75.33
	John P. Houck	SE5-A	22	17	10	15	0.33	64.33
	TIM LAVENDER	SVA -5	23	17	8	15	0.33	63.33
	OLIVER BENTON	ORION	22	18	9	10	0.33	59.33
	SECOND ENTRIES	WITH LOWER TIMES						0.00
	Tom Hallman	DO-X	30	19	12.5	34	45.00	140.50
	Claude Powell	PIPER CHEROKEE	21	15	10	10	61.50	117.50
	JIM BAIR	PILATUS PC 21	27	18	11	10	45.00	111.00
	David Niedzielski	ORION	26	18	10	10	0.3333	64.333

It was great to fly at Muncie again and see so many fine scale ships overhead. The thermals at Muncie are usually abundant and often apologize if they keep you waiting. The air this year seemed a little more difficult to read, but still great flying.

I got there Wednesday just before the rain started. Once the rain began I was able to hang out with Tom Hallman and John Houck in the AMA library. It was neat. These guys are certainly more well read than I am. John's knowledge is encyclopedic. Once the rain stopped, we were back at the field and it was great. My new Staggerwing was doing goofy stuff and I was puzzled for a bit. Then realized the trouble was the stab. Once I had that straightened out, she went like all good S'wing's do....I was elated. Then I went on to help Roy Courtney. Roy and I had been corresponding about his new racer, never been flown. We put in 300 turns and launched....CRACK...the upper spar and TE...nuts....so we tore off a gore of tissue and did a field repair...wound it up again....CRACK....oh man, now I was starting to feel really bad.....it broke again just off the last glue repair.....I don't know why, but Roy let me continue to "help".....we finally got it going after switching off the prop, rebalancing and a few other bits...it did 60 sec in dead air, did 75 in the ML and survived the first but not second heat.....I was so relieved we got it going.

I flew P-30 on Friday between Mass Launches. I had 2x 120. My old flying buddy, Dan Driscoll came up and said no one had flown perfect and his last flight was a 104--then he starts teasing me "don't choke Wally, be sure to launch completely vertical, you don't need a new motor", etc.. He was in the lead. I put in a new motor and pretended I could pick a thermal....the last flight was 103. The look of joy on Dan's face was amazing. I am so glad I can bring such pleasure to others... I will be hearing about this over lunch for quite some time.



You saw the nice picture of me and Jack Moses. I had found Jack's Typhoon about 10 minutes before the end of the meet. I said "Jack, I am very disappointed to see only your name and address on here, it doesn't say "REWARD IF FOUND"!...we had a good laugh...until he told me he had 2 maxes and 10 minutes to get in a 3rd flight....I said "Jack, you're not the kind of guy who would knock me out of 1st place are ya?" He said "I'm gonna try"..ha!

The flying highlights for my fleet included the best contest times ever for the Falcon and the Sparrowhawk. If there is not a review of the results (I expect there will be)...the

Falcon took 3rd. Amazing. WWII was awesome, as I watched Mike Midkiff's big ol' Wildcat with a 3 bladed prop nearly out glide my new Judy. Amazing. WWI was possibly the best final heat I've been in for that event with the top 3 finishers all getting better than a max.

We had a great steak dinner on Thursday night, followed by ice cream....my gosh, how good life can be..... Wally Farrell

O.T. Gas Replica	Event # 14					
		CHECK	T1	T2	T3	SCORE
1 MARK RZADCA	NEW RULER	YES	120	120	120	360
2 Ted Allebone	PLAYBOY	YES	111	98	113	322
3 LES BURDSAL	STRATOSTREAK	YES	88	60	0	148
Mike Welshans	SCRAM	YES	22	0	0	22

WWII Combat	Event # 26	RAW TIMES		
		T1	T2	T3
1 Wally Farrell	JUDY	98	90	140
2 MIKE MIDKIFF	F6F	52	67	135
3 TIM LAVENDER	FW 190 D-9	48	83	87
Pat Murray	MIG-3	59	61	70
Tom Hallman	MIG-3	109	82	
JACK TISINAI	F6F	70	55	
Claude Powell	HURRICANE	44	47	
CHRIS STARLEAF	P-51	104	30	
Jim DeTar	SB2C	76	6	
Jack Moses	DAUNTLESS	58	6	
OLIVER BENTON	BARRACUDA	43	4	
Mike Welshans	A-36	39		
Paul Boyanowski	P-39	25		
David Niedzielski	KHARKOV	20		
CHRIS BOEHM	P51 D	12		
JIM BAIR	MIG-3	11		
John P. Houck	KATE	7		
Charlie Sauter	P-51B			

FAC Jumbo Scale	Event # 3						
		CP	MK	WK	BP	FLIGHT SCORE	TOTAL
1 Tom Hallman	MIG-DIS	28	19	12	35	74.00	168.00
2 CHRIS STARLEAF	B-24	28	19.5	12	35	57.00	151.50
3 TIM LAVENDER	FOCKE WULF	27	17	11	10	82.50	147.50
Wally Farrell	SPARROWHAWK	24	18	10	10	75.25	137.25
MIKE MIDKIFF	B-25	26	18.5	12	25	47.00	128.50
LESLIE BURDSAL	GADFLY	26	19	10	10	54.00	119.00
Pat Murray	P-61	27	19	11	30	0.33	87.33
David Franks	JUDY	25	17	10.5	10	0.33	62.83
SECOND ENTRIES W/LOWER TIMES							
LESLIE BURDSAL	MO-1	24	17	10	0	0.3333	51.333

Dime Scale	Event # 16						
		CHECK	BP	T1	T2	T3	SCORE
1 Wally Farrell	STAGGERWING	YES	15	113	120	99	347
2 Tom Hallman	STAGGERWING	YES	15	119	96	85	315
3 Jim DeTar	CLOUDSTER	YES	0	95	95	83	273
John P. Houck	REARWIN	YES	0	67	82	83	232
GARY MORTON	PT-19	YES	0	120	57	47	224
Jack Moses	HAWKER TYPHOON	YES	10	120	56	0	186
Paul Boyanowski	SPITFIRE	YES	10	34	51	91	186
Harrison Knapp	STAGGERWING	YES	15	53	47	64	179
PRES BRUNING	PT-19	YES	10	44	59	57	170
Claude Powell	REARWIN	YES	0	66	52	45	163
LES BURDSAL	MARTIN MO-1	YES	0	35	45	0	80
2ND ENTRIES W/LOWER TIMES							
John P. Houck	VOUGHT V-143	YES	10	41	80	47	178
Paul Boyanowski	HELLDIVER	YES	15	52	33	40	140



Paul Boyanowski's Seversky BT-8 outlasted John Houck's AT-6 by just three seconds in the final round of the Low Wing Military Trainer mass launch. They took the top two spots, and they look pretty pleased about it.

Tom Hallman photo

Embryo Endurance	Event # 19						
		CHK	BP	T1	T2	T3	SCORE
1 DAN DRISCOLL	NIT2	YES	9	120	120	120	369
2 JACK BREDEHOFT	BIG CAT	YES	9	120	113	120	362
3 HARRISON KNAPP	DEBUT	YES	9	120	120	95	344
Jim DeTar	DEBUT	YES	9	71	120	120	320
MARK RZADCA	PUMA	YES	9	120	71	120	320
Wally Farrell	DEBUT	YES	9	111	88	106	314
Ted Allebone	DEBUT	YES	9	54	120	120	303
John P. Houck	SWALLOW	YES	0	87	96	84	267
Stewart Cummins	DEBUT	YES	9	102	80	75	266
DENNIS RUHLAND	HONEYBEE	YES	4	120	79	58	261
JACK TISINAI	JABBERWHAT	YES	9	81	56	109	255
ROBERT SHIELDS	DEBUT	YES	9	56	81	73	219
David Niedzielski	DEBUT	YES	9	82	55	54	200
WILLIAM GARRISON	CRUISER	YES	9	33	120	36	198
RAY RAKOW	CRUSIER	YES	0	48	54	69	171
PRES BRUNING	KLINGON	YES	9	38	38	31	116
JOE BARTEK	ANNA JR	YES	9	39	30	25	103
LESLIE BURDSAL	DURHAM MYSTERY	YES	9	39	45	0	93
GARY H. MORTON	NIT	YES	9	81	0	0	90
TOM ERSTON	SKIP TOWN	YES	9	31	35	0	75
Roy W. Courtney	DEBUT	YES	0	58	0	0	58
Dan Olah	YELLOW CAB	YES	0	42	0	0	42
J. B. M. Griner	PRAIRIE BIRD	YES	0	21	10	0	31

ERIE Daily Times	Event # 99					
		CHECK	T1	T2	T3	SCORE
1 Stewart Cummins	EDT	YES	95	72	88	255
2 Jack Moses	EDT	YES	48	87	98	233
3 Chris Boehm	EDT	YES	47	42	45	134

1/2 Wakefield	Event # 29					
		CHECK	T1	T2	T3	SCORE
1 Ted Allebone	HALF AWAKE	YES	113	70	114	297
2 Jack Moses	CAN. CHAMP	YES	98	75	120	293
3 PRES BRUNING	HALF AWAKE	YES	72	50	61	183
Mike Welshans	CAN. CHAMP	YES	39	58	0	97

AMA P-30	Event # 98					
		CHECK	T1	T2	T3	SCORE
1 DAN DRISCOLL	DD-2	YES	120	120	104	344
2 Wally Farrell	BOOMER	YES	120	120	103	343
3 GARY MORTON	MARIE	YES	120	120	87	327
Ted Allebone	CENTAUR	YES	106	98	120	324
TOM ERSTON	NJAPF	YES	55	120	51	226
JOE BARTEK	ONE NIGHT 28	YES	66	48	80	194
Harrison Knapp	SOUPER 30	YES	57	67	0	124
William Garrison	SWIFT	YES	28	46	0	74

Golden Age Combined	Event # 7					
		CHECK	T1	T2	T3	SCORE
1 Wally Farrell	DH-29	YES	76	120	116	312
2 Tom Hallman	FAIRCHILD F-24	YES	103	120	74	297
3 Jim DeTar	PIPER J-5	YES	120	71	88	279
Paul Boyanowski	REARWIN	YES	93	75	92	260
Jack Moses	FAIRCHILD 24	YES	69	78	76	223
David Niedzielski	AERONCA CHIEF	YES	74	61	62	197
John P. Houck	RWD-5	YES	62	60	59	181
Claude Powell	HOWARD	YES	52	63	52	167
Stewart Cummins	T-CRAFT 057	YES	59	39	50	148
CHRIS BOEHM	FAIRCHILD JK-1	YES	47	51	43	141
GARY MORTON	FARMAN 400	YES	71	65	0	136
PRES BRUNING	FOKKER AMERICA	YES	40	30	36	106
MIKE ZAND	ALLIED SPORT	YES	39	38	22	99
RAY RAKOW	AERONCA CHIEF	YES	30	38	0	68

O.T. Rubber Stick	Event # 10					
		CHECK	T1	T2	T3	SCORE
1 DAN DRISCOLL	SMITH	YES	120	120	120	360
2 Stew Cummins	GOLLYWOCK	YES	120	120	105	345
3 Ted Allebone	WANDERER	YES	112	117	103	332
MARK RZADCA	GOLLYWOCK	YES	100	84	120	304
MIKE ZAND	GOLLYWOK	YES	48	46	51	145

O.T. Rubber Fuselage	Event # 11						
		CHECK	T1	T2	T3	FO	SCORE
1 JACK TISINAI	GULL	YES	120	170	120	68	360
2 MARK RZADCA	MOTH	YES	93	107	120	0	320
3 Stew Cummins	MISS CANADA	YES	74	117	104	0	295
Ted Allebone	AIR CADET #5	YES	120	73	85	0	278
John P. Houck	BLUE FLASH	YES	83	73	119	0	275
MIKE ZAND	VICTORY	YES	50	88	120	0	258
Robert Shields	KING HARRY	YES	120	40	78	0	238
CHRIS BOEHM	FA MOTH	YES	51	89	64	0	204
Ross Mayo	FA MOTH	YES	63	68	0	0	131
Alfred Zimmer	MISS CANADA	YES	140	0	0	0	120
DAN DRISCOLL	JR COMERCIAL	YES	80	0	0	0	80
JOE BARTEK	PHANTOM FURY	YES	21	22	23	0	66
2nd ENTRIES	W/LOWER TIMES						
John P. Houck	SPARTAN BOMBER	YES	52	72	51	0	175
Robert Shields	SPARKY	YES	34	87	34	0	155



John Houck launches his Jimmie Allen Spartan Bomber in the Old Time Rubber Fuselage event.
Tom Hallman photo



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Paul and Ralph Bradley's Model Airplane Page
- If you haven't visited this site, you're missing out on a whole lot of neat Free Flight stuff.
Plans and building tips galore!

FAC Power Scale	Event # 5											
		CP	MK	WK	BP	T1	T2	T3	FO	AVG	SCORE	
1 Tom Hallman	DH-2	29.5	19.5	12	20	82.5	82.5	82.5	61	82.50	163.50	
2 Ted Allebone	VICKERS VIMY	28	19	12	20	82.5	82.5	82.5	59	82.50	161.50	
3 MIKE MIDKIFF	BESSON M B411	26	19	11.5	20	82.5	82.5	82.5	56.5	82.50	159.00	
Wally Farrell	BEECH 17	23	17	10	15	82.5	82.5	82.5	50	82.50	147.50	
MARK RZADCA	FOKKER D-7	20	16	10	15	32	32	32	46	32.00	93.00	
Mike Welshans	JODEL D-9	26	18	10.5	25	1	0	0	54.5	0.33	79.83	
OLIVER BENTON	WACO SRE	24	16	8	15	1	0	0	48	0.33	63.33	
2ND ENTRIES	W/LOWER TIMES											
MIKE MIDKIFF	DH-2	27	18	11.5	15	82.5	82.5	82.5	56.5	82.50	154.00	
Ted Allebone	GOTHA GV	29	19	12	25	1	0	0	60	0.33	85.333	

International
One-Design Peanut Scale Postal Contest
Roland Garros
France-Tunisia 1913-2013

Open to all modellers, subscribers or not.

Entrants undertake to respect present rules.

No modification is allowed that can improve model performances

Especially are forbidden : stick section less than 1,2 x 1,2 mm

enlargement of stab

propeller diameter more than 120 mm (4.72441 inches)

On the contrary, wing profile is free, plain wheels are allowed (same diameter). Nose button can be changed, with no change of length. Decoration must be respected

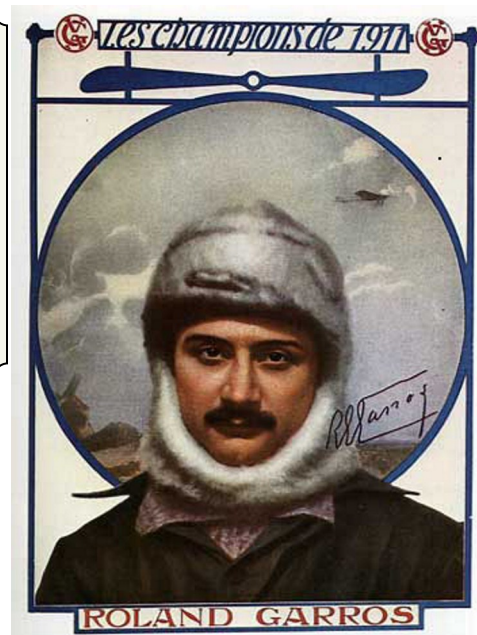
Entrants must complete the results form (below) with place of flight, the best two flights (+ 10s for takeoff) and join a picture of the model.

Small prizes (!) for the three best

Résultats à envoyer au CERVIA J. CARTIGNY 270 rue de Vaugirard 75015 Paris (France)

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Avant le 01 Septembre 2013



Concours Postal Roland Garros FRANCE-TUNISIE 1913-2013

NOM

PRENOM

NAME

FORENAME

Adresse postale

Adresse mail (si)

Postal adress

Mail adress (if any)

Lieu des vols

Date(s)

Place of flights

Meilleur vol 1

Meilleur vol 2

TOTAL

Best flight 1

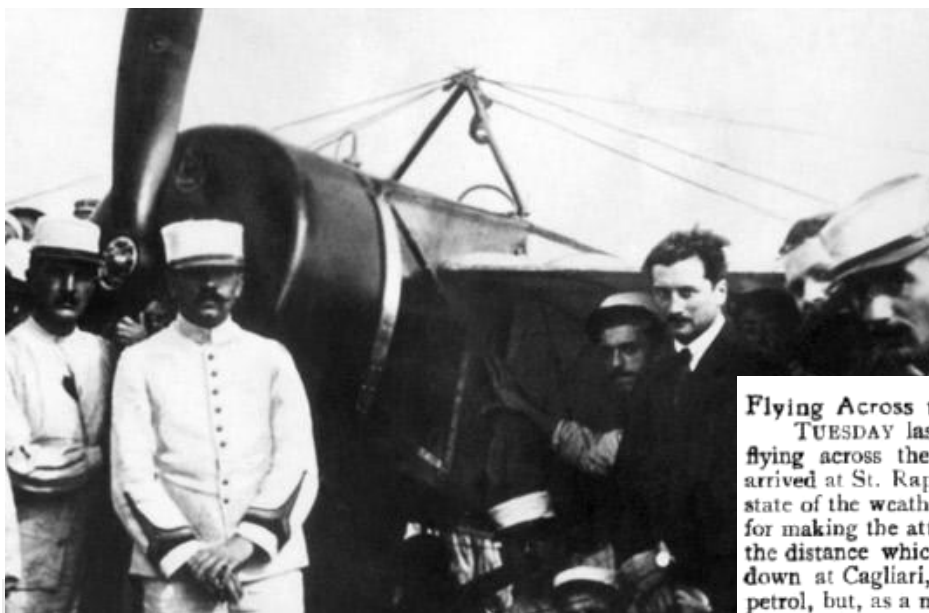
Best flight 2

Signature du modéliste

Signature du chronométrateur

Modeller signature

Timekeeper signature



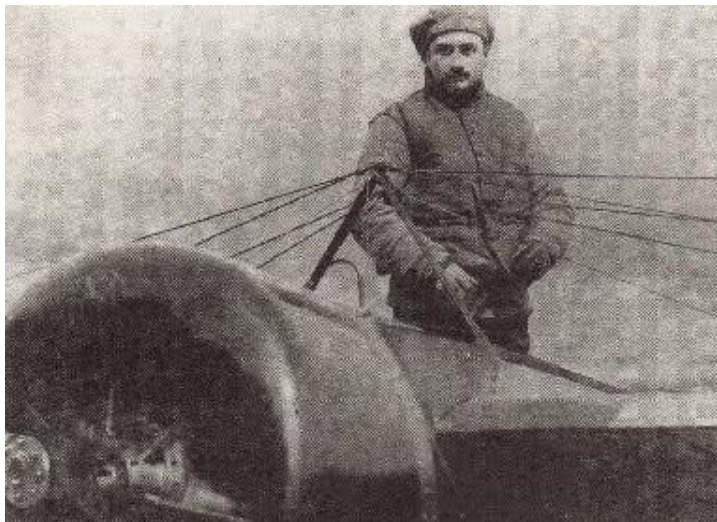
Flying Across the Mediterranean.

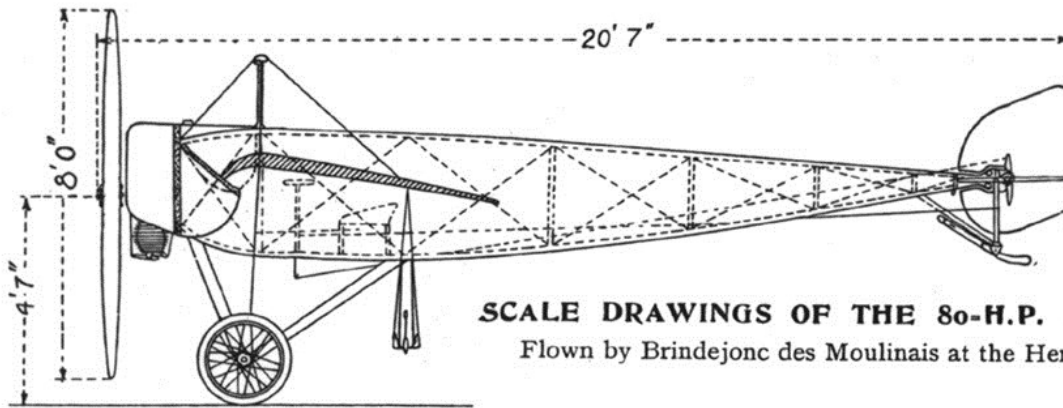
TUESDAY last saw Roland Garros achieve his ambition of flying across the Mediterranean from France to Africa. He arrived at St. Raphael on Monday, and in view of the favourable state of the weather at once set about completing the arrangements for making the attempt at the earliest possible moment. Owing to the distance which had to be traversed Garros intended to come down at Cagliari, the capital of Sardinia, in order to fill up with petrol, but, as a matter of fact, he was going so well that he passed this point at a great height. Leaving the Frejus Aerodrome at St. Raphael at 5.45 a.m., and steering straight across the Mediterranean, over Sardinia, he made a safe landing in Bizerta, in Tunisia,



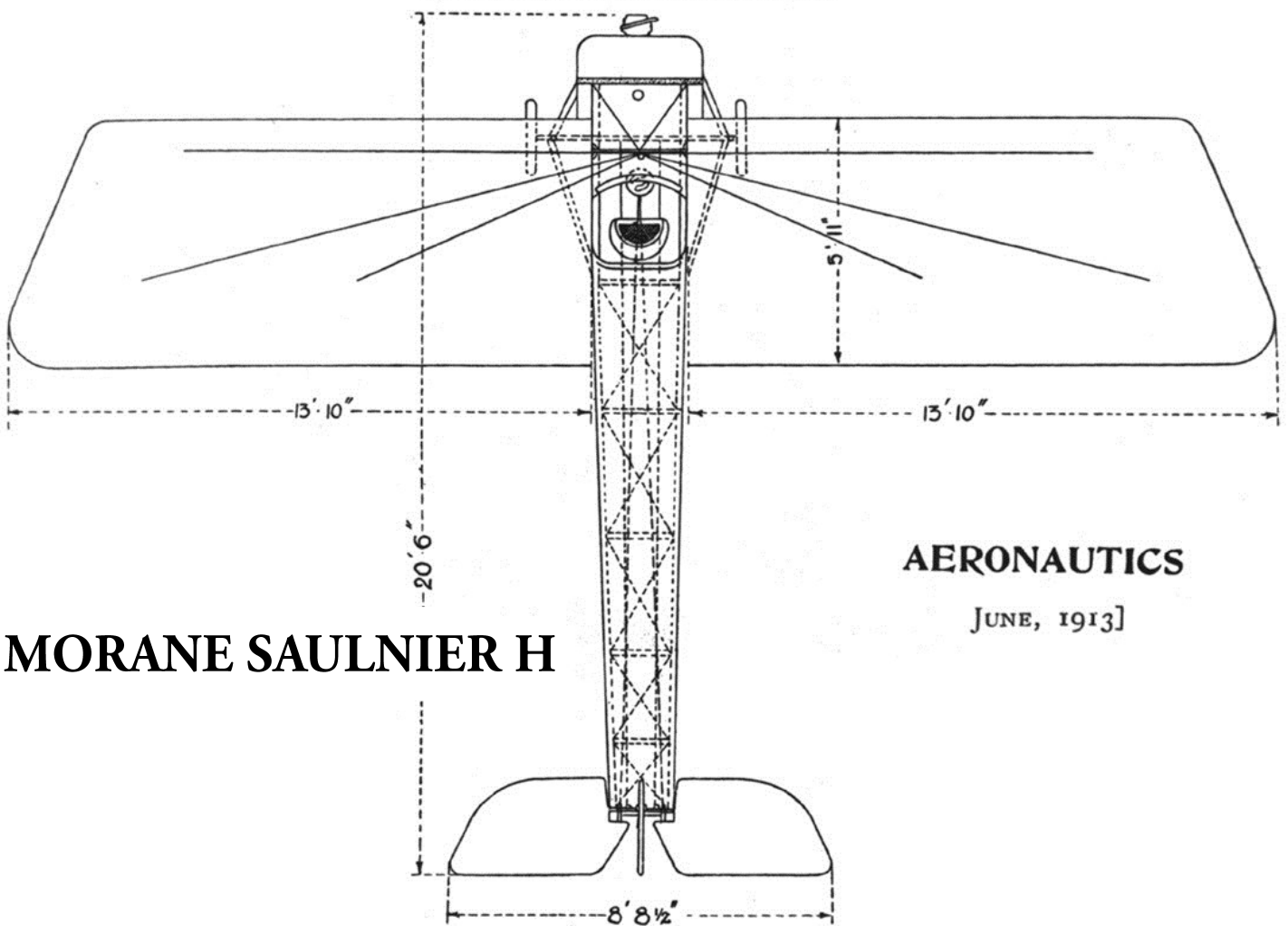
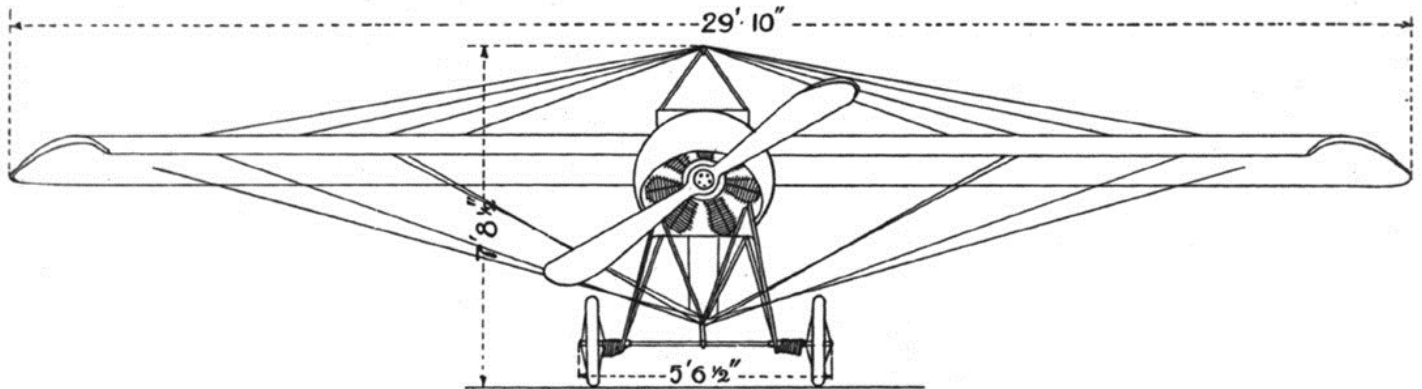
Sketch map showing the points of Garros' Cross-Sea Flight.

at 1.45 p.m. The distance between the two points is about 460 miles, and after his eight hours flight there still remained in the tank 5 litres of petrol. So confident was Garros in his Morane-Saulnier machine, which had an 80 h.p. Gnome engine and Chauviere propeller, that he did not deem it necessary to accept the Government's offer to be escorted by a cruiser, but the French naval authorities nevertheless took the precaution to have a number of torpedo boats cruising along the line of flight. One of the first telegrams of congratulations received by Garros was from the Premier, M. Barthou. Later in the day on Tuesday Garros restarted from Bizerta to fly to Tunis, but owing to the darkness he was compelled to land at Protville some 15 miles short of his destination. The next morning he went on and reached the Kassar Said Aerodrome, where his machine was immediately dismantled for return to France.





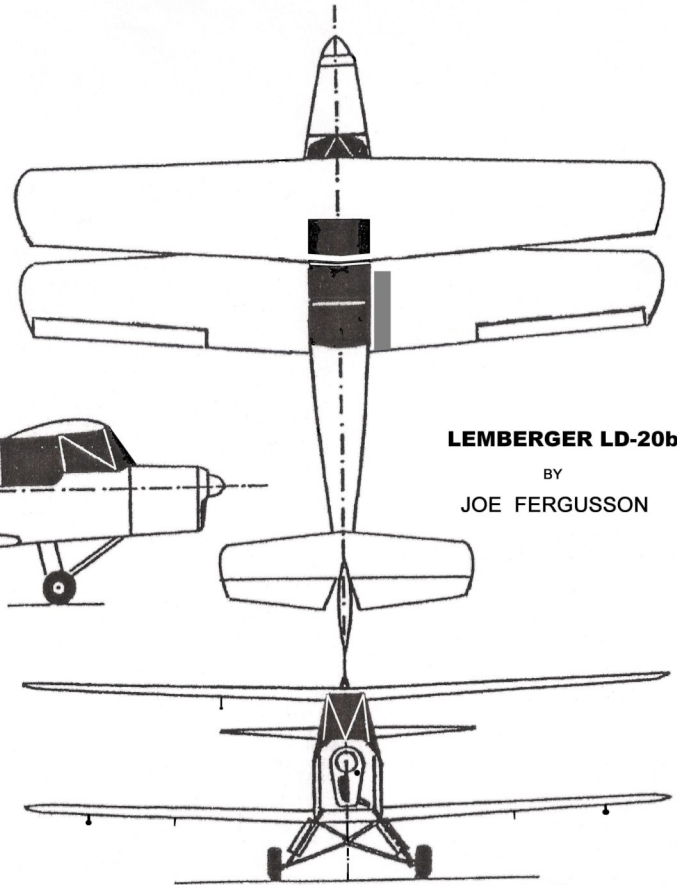
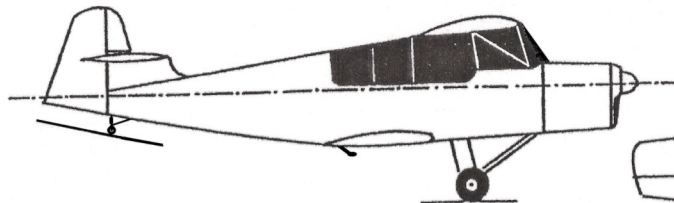
SCALE DRAWINGS OF THE 80-H.P. MORANE-SAULNIER
 Flown by Brindejone des Moulinais at the Hendon Whitsun Meetings



AERONAUTICS

JUNE, 1913]

MORANE SAULNIER H



LEMBERGER LD-20b

BY
JOE FERGUSON



Lemberger LD 20b amateur-built light aircraft (62 hp Walter Mikron engine)

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ADDRESS:

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In September 1968 Herr Lemberger began the construction of a two-seat all-wood light aircraft of his own design known as the LD 20b. All available details of this aircraft are given below.

More recently, Herr Lemberger has designed a two-seat high-wing monoplane powered by a Volkswagen engine, driving a pusher propeller.

LEMBERGER LD 20b

The Lemberger LD 20b is a cantilever biplane, the wings of which are removable to permit the aircraft to be towed behind a motor car. Construction was completed during 1971, but no news of the progress of flight testing was available at the time of writing.

The accompanying illustration shows the general arrangement of the aircraft.

TYPE: Two-seat amateur-built light aircraft.

WINGS: Cantilever biplane wings with considerable stagger, the upper and lower wings having the same planform, dimensions and gross area. Mean wing section NACA 23012. Incidence 1°. Dihedral 2° from roots. Each wing has two closely-spaced full-span spars, which are of T-section out to the sixth rib and then of U-section to form a torsion-box structure with the plywood skin, which covers the leading-edge back to the rear spar. Aft of rear spar, each wing is fabric-covered. Differentially-operated ailerons on lower wings only. Wings can be detached and suspended alongside fuselage when towing the aircraft behind a motor car.

FUSELAGE: All-wood girder structure of basically rectangular section, with curved ply top-decking. Plywood-covered to just aft of pilot's seat; sides and bottom of rear fuselage fabric-covered.

TAIL UNIT: Cantilever all-wood structure, with shallow fin (integral with fuselage) and balanced rudder. Variable-incidence tailplane and dampened elevators. Control surfaces fabric-covered. Horizontal surfaces can be detached for road transportation.



Lemberger LD 20b amateur-built light aircraft (62 hp Walter Mikron engine)

LANDING GEAR: Non-retractable two-wheel type with tailskid. Glass-fibre fairings will be provided for main units at a later date. Cantilever main-wheel legs. To avoid dismantling rudder assembly for transit, tailskid is designed for attachment to a framework similar to a car luggage rack, which can be fastened to the car roof. Propeller ground clearance is sufficient to permit this.

POWER PLANT: One 62 hp Walter Mikron engine, driving a two-blade propeller. Design permits installation of alternative engines of up to 85 hp.

ACCOMMODATION: Tandem seats for two persons in fully-enclosed cabin. Dual controls. Front seat on CG. Ballast tank aft of firewall.

DIMENSIONS, EXTERNAL:
Wing span (each) 23 ft 10½ in (7.28 m)

Length overall 21 ft 10½ in (6.67 m)
Height overall 7 ft 2½ in (2.20 m)

AREAS:

Wings, gross	150.7 sq ft (14.00 m²)
Ailerons (total)	12.92 sq ft (1.20 m²)
Fin	2.15 sq ft (0.20 m²)
Rudder	6.46 sq ft (0.60 m²)
Tailplane	12.92 sq ft (1.20 m²)
Elevators (total)	9.69 sq ft (0.90 m²)

WEIGHTS AND LOADINGS:

Weight empty	661 lb (300 kg)
Max T-O weight	1,186 lb (538 kg)
Max wing loading	7.87 lb/sq ft (38.4 kg/m²)
Max power loading	19.18 lb/hp (8.7 kg/hp)

PERFORMANCE (estimated, at max T-O weight):

Max level speed	96 knots (111 mph; 178 km/h)
Cruising speed	86 knots (99 mph; 160 km/h)
Landing speed	32 knots (37 mph; 60 km/h)
Time to 3,275 ft (1,000 m)	7 min



Gathering of the Turkeys

I'm going to make an exception to my rule about playing reporter in the same publication that I edit. I spent three happy days flying with the Pensacola Free Flight Team and a group of others who had come for the GoT, and I'd like to share a bit of that experience with you. George White and his cohorts in the Pensacola Free Flight Team ran a terrific contest on a first class field. It's a square mile of ankle high grass, without an obstruction of any kind. If you ever have a chance to get to one of their contests, jump on it. The nearby Naval Aviation Museum is worth the trip all by itself. Our thanks to Dohrm Crawford and George White who sent along a big batch of photos from the meet. I wish there was room for all of them.

Bubba Mayo accompanied me on the trek to the Florida panhandle. He's a great companion on a road trip, and he was a lot of help at the field. He acted as timer and mechanic for many of the FAC fliers, and quickly mastered the fine art of being a stooge for a twin engine rubber model.



Bubba Mayo shows off the proper equipment and attire for a FAC mechanic during the WWII mass launch. Dohrm Crawford photo

The FAC contingent congregated at the far end of the flight line to get away from the racket from the gassies that were screaming skyward throughout the day. The conditions on the first day were pretty nice, but the next two were a bit "breezy." In fact they were breezy enough to blow some models off of that huge field.



Gene Smith preps his Yak for the WWII mass launch with the assistance of his wife Lynne. Dohrm Crawford photo

You can see in the photos that the contestants were sometimes wearing jackets. All three days started cool, but then warmed up to a comfortable 70. They ran the mass launches first thing in the morning so I had an opportunity to start each day with a different way of losing; dorked launch, mid air collision, and lost model. A trifecta! I managed to lose Peanut Scale before the contest began by leaving my docs at home. I also tripped over one of the ropes on my stooge and crunched up my Dimer. Then there was Jet Cat. I can say with some authority that trimming a new glider in the wind is *not* the path to success. It was that kind of a contest for me. On the plus side, I had some terrific flights in Golden Age Scale and FAC Scale, and even with a crunched wingtip, my Greve racer gave Wally a run for his money. And regardless of the outcome, the company on the field made it all worthwhile. -----



WW I mass launchers lining up for inspection. L to R: Gary Morton / Fokker D.VII, Stew Meyers / Albatros D.I, Wally Farrell / Martinsyde Elephant, and Rich Weber / Roland D.IIa Dohrm Crawford photo

One Flier's Approach to Better Performance - Part 2

By Don DeLoach

Rubber and Torque

Every rubber motor of a given cross-section has a failure torque. Let's call it T_{fail} . That's the point at which a motor is going to break, regardless of the number of turns or whether or not the motor is broken-in.

$T_{.85}$ is the highest torque you should ever expect to wind a given motor without about a 30% chance of failure. Note that this does not assume your model can safely fly at $T_{.85}$, though. This does assume the motor is well lubed, properly stretch wound and free of nicks or imperfections.

$T_{.75}$ is an even more conservative number you may want to keep in mind, since we are talking about scale models with fragile fuselages.

Figure 1. Torque Chart for post-2008 Tan Super Sport (total width expressed in eighths of an inch)

eighths	T_{fail}	$T_{.85}$	$T_{.75}$	notes
2	3.0	2.5	2.2	
3	5.0	4.2	3.7	4 x 3/32" or 6 x 1/8"
3.5	6.0	5.1	4.5	2 x 1/8" + 2 x 3/32"
4	7.0	6.0	5.3	
4.5	8.5	7.0	6.4	6 x 3/32"
5	10.0	8.5	7.5	4 x 3/32" + 2 x 1/8"
5.5	11.5	9.8	8.6	4 x 1/8" + 2 x 3/32"
6	13.0	11	9.7	8 x 3/32" or 4 x 3/16"
7	16	13.6	12.0	4 x 1/8" + 4 x 3/32"
7.5	17	15	13	10 x 3/32"
8	19	16	14	
9	23	19	17	12 x 3/32" or 6 x 3/16"
10	26	22	20	
10.5	28	24	21	14 x 3/32"
12	34	29	26	16 x 3/32" or 8 x 3/16"
13.5	40	34	30	18 x 3/32"
14	42	36	32	
15	46	40	35	20 x 3/32" or 10 x 3/16"
16	51	44	38	
16.25	51	45	38	22 x 3/32"
18	59	49	44	24 x 3/32" or 12 x 3/16"
20	69	59	52	
22	78	67	59	
24	88	75	66	32 x 3/32" or 16 x 3/16"
26	98	84	74	
28	110	92	83	
30	120	101	90	

The most important number for FF scale is the maximum torque that a given model *can safely fly with*, called T_{safe} . Note that with scale models (marginal wing dihedral, relatively small stability margins in all axes) T_{safe} is only found through trial and error flight testing (and diligent record-keeping). Every model I fly has a T_{safe} that I'm careful to never exceed. Obviously, do your T_{safe} testing over tall grass in calm weather.

Flight Trim

Unlike the experts I have never been able to make my low-wingers fly safely to the right under high power. I find it safer to use the traditional trim scheme of L-straight-R using just enough down thrust to prevent a power stall, and 0-1 degree of right thrust and letting the prop torque turn the model left under high power. As the launch torque bleeds off the left circle widens, straightens, then reverses to a right circle at the end of the cruise. When the rubber unwinds completely the gyroscopic forces of the freewheeling prop keep the model circling right. I've found this trim scheme to be very safe if some basic guidelines are followed:

- Wing washout must be equal. This is especially important on low-wings with high taper ratios like Soviet fighters. They seem very sensitive to slight washout differential.
- Rudder trim also seems critical. Rudder is a very speed-sensitive adjustment (it increases its effectiveness with the *square* of airspeed) so it is best to not use any rudder trim if it can be avoided. Keep your rudders dead straight and I believe you'll avoid a lot of trimming problems.

A common trim problem on L-straight-R low wingers is that they will do a shallow right spiral dive at the end of the motor run. In such cases I've usually found that my wingtip washout was not quite equal, or my rudder not completely straight, or both. It might also be that your propeller has too much blade area or diameter, either of which can increase the right gyroscopic forces enough to create a spiral



Practicing what he preaches: You can see Don stretching the motor of his SE5 for the WWI mass launch at the recent Texas Scale Champs. A very brave Mike Isermann holds onto the model while Don steps back about a half mile to crank in max turns. Roger Willis Photo

Winding to Torque

One of the biggest fallacies in rubber-powered Free Flight is winding to a particular turns count and expecting the same relative power from flight to flight. A real-world example: wind a brand new motor to 1500 turns and note the reading on your torque meter--let's say it is 4.0 inch ounces. Now unwind the motor and let it rest for a few minutes before rewinding. On the second winding to 1500 turns that motor is going to reach only about 3.5 inch-ounces, and this torque yield will only worsen (to perhaps to 3.2-3.4) on the third and subsequent windings. Why? There are volumes of technical articles on this subject in NFFS Symposium books and other sources but the non-technical gist is this: as rubber is repeatedly wound it elongates and softens. This softening is a double-edged sword: it enables you to pack more turns in, but it also can mislead you into believing *turns* equals *power*. This is not the case. On this second winding motors need about 110% of the turns of the first winding to equal the torque of the first winding. On third and subsequent windings as the rubber softens further motors need 111-115% of those turns to equal the first-winding torque.

The Torque Meter

For 21-24" scale models I use a home made torque meter in with a range of 0-12 inch-ounces. One can be made in about an hour and will become an indispensable part of your winding equipment. Go the Pensacola Free Flight Team's website (www.pensacolafreeflight.org) and search for the article on Herb Kothe's torque meter. Calibrate it to inch-ounces per Herb's instructions or to another meter.

There are also commercially available meters from BMJR products in Florida, and GizmoGeezer in Canada. And Dennis Tyson in Michigan is planning to manufacture a new meter for the FAC market in the near future. Contact Dennis at dennis.tyson@familychristian.com.

The value of a torque meter should be evident now. When I wind for a mass launch I seldom even keep track of turns. It much easier and more valuable to have *torque* targets for each of the three rounds. For example at Geneseo 2012 my torque targets in for the three rounds in WWI combat were: 2.0, 3.0, and 4.5 inch-ounces respectively. My notes indicate that the first round was a squeaker—I under-wound, did only 61 seconds, and nearly got eliminated. Next time my target will be 2.5 in.-oz.

Another example from last year: originally I was flying my 23" Wildcat on 6 strands 1/8" at 5.5 inch ounces. This was the highest I could wind it without looping or power stalling severely. Since this motor will take 11.0 inch-ounces safely without breaking it was clear that I was under-winding the model and it was still overpowered. So, I dropped the cross section to 5-1/2 eighths (2 loops 1/8" plus one loop of 3/32") keeping the motor weight the same. The result is a just-right climb pattern and excellent cruise with more total turns and duration in the 80-90 second range—not bad for this heavy and draggy fighter.

How to Wind

Again, there are yawn-inducing volumes written on this subject. Better to avoid the boredom and follow these simple rules:

1. Don't bother with motor break-in for FF scale, especially mass launches. The first two windings prior to the final launch serve as a perfect break-in for the last round, which should be right at Tsafe.
2. Stretch that rubber way out before putting in a single turn! This is essential, and is something I see too few FACers doing. Tan Super Sport fails at about 10x of its relaxed length. You should pull out to four to five times the relaxed length before putting in a single turn.
3. Once you've stretched out begin winding. Fast winding is not bad early in the turns count. Put in about 50% of the anticipated final turns before progressively moving in. Again, this process is critical. Too many guys start moving in too early and too quickly. Start checking the torque meter after every few handle cranks when you're above about 50% turns. Ideally the torque should not be dropping at all as you move in; if it is you are moving in too fast. Let the rubber pull you in.
4. Your last few handle cranks should occur just as your motor hook or O-ring reaches the nose area. Watch your final torque here carefully and slow down a bit more. Sometimes one more handle crank can mean the difference between 5.0 and 5.5 inch-ounces, which can the difference between a safe flight and a dangerous one.
5. Studies have shown that wound rubber loses 15% of its total energy in the first 5 minutes after winding. In mass launch-

How Torque Affects the Flight of Our Models

With a typical rubber scale model, especially low wing racers and fighters—there's not enough wing dihedral to allow all-out flying at near-maximum motor torque without substantial danger. By "danger" I mean a model that can't sustain a fast, steep helical climb without falling off to the left due to propeller torque. With my 23" Corsair this is easy to spot: at 5.5 inch -ounces the model is perfectly safe in the climb and will do about 80 seconds in neutral air. But at 6.0 I discovered that it will do a partial left torque roll/wingover, losing a bunch of altitude on the climb out. The antidote, found, is to launch it in a slight (20-degree) right bank when I wind it above 5.5. Still, it doesn't get appreciably higher on 6.0 flights versus 5.5, so it'd probably safer to just stick with winding to 5.5.

Contrast this typical scale low-winger with an average non-scale duration ship like a Gollywock (C.G. at 90%, huge 45% stab, TVo of 1.80, lots of dihedral). Gollywocks (and most other duration ships) have at least twice the dihedral of most scale ships, so they are much better equipped for steep climbs. Take out half of the dihedral on a Gollywock and I believe you've have a very hard time trimming it for anything but a modest climb angle.

Summary: Dos and Don'ts

DO - Use a cheap digital 0.1 (or 0.01) gram scale to make up your motors by weight well before a contest. Lubricate, braid and label and bag them by length for weight. Example: I use 6 strand 1/8" motors for multiple airplanes. All are 16 grams unlubed, but some strand out to 34" while others strand to as short as 31" that's a significant difference in cross section (and resultant torque output).

DON'T - Make up motors solely to length. This is especially true when switching rubber batches. Some are thicker than others, which can result in overweight motors and stallish glides.

DO - Test fly to find the absolute highest torque level your model can safely take. Do this over tall grass when it is calm!

DON'T - Ever wind to a new, uncharted torque number in a mass launch final round, expecting stellar results. If you're close enough to Tmax you might rekit your aircraft in a torque roll/wingover.

DO - Discard old motors often. Rubber is cheap! A typical FAC motor costs 75 cents or less. After 3-4 windings I trash them. As a result I almost never break motors, especially with the great new post-2008 Super Sport.

DON'T - Leave an old motor in your plane for a month or two and expect to not break it quickly at the next contest. Again, rubber is cheap; time spent rebuilding fuselages is not!

DO - Have total confidence that there is no bad rubber anymore! Ever since the switch to a new chemical additive in early 2009, all the Tan Super Sport batches have been consistently excellent. They have high energy return (within 5-10% of the best Tan II) but most importantly for scale flying they are extremely durable. At Geneseo 2012 I used May 2009, June 2009 and January 2011 exclusively, not broken-in, and I didn't break a single motor all week.

DON'T - Use Tan II anymore, especially for mass launches. It is getting too old and brittle, and this is exacerbated by the warm temperatures (above 80 degrees F) at which we typically fly in summertime. I learned this the hard way at FAC Nats 2010, where I suffered broken Tan II motors in two mass launches on the first day. That was enough to convince me to make the switch to Super Sport.

DO - Use pure silicone oil for lube. It is available at hobby shops as R/C car shock oil. Get the 100-125 weight stuff—about the viscosity of honey. Work it in really well with latex-gloved hands (it is very difficult to wash off). One light application is all you need for the life (3-4 windings) of a typical contest motor. Since switching to this stuff I don't relube anymore, period. Even a motor that has been wound a couple times and looks dry is not. Try it and see for yourself.

DON'T - Use Son of a Gun or Armor-All for rubber lube. It splatters easily and ruins fuselage covering, but most importantly it evaporates readily and is too thin to stay on the rubber without frequent reapplication.

I am no master rubber scale flyer (I enjoy building much more) but I do possess a solid knowledge base when it comes to the fundamentals of rubber power, props and trimming. That said, when it comes to mass launches I'm keenly aware that there is a lot of luck involved; namely avoiding middairs (I survived two at Geneseo 2012), staying out of crops/trees, and numerous other screw-ups that can, and often do arise at the worst possible moments.

I hope this article will help you in your quest to become a better rubber flyer.

Gone West

Frederick Arthur Wunsche, age 81, of Dryden, MI, died Sept. 7, 2012 at his residence. Fred retired from the GM Tech Center in Warren, after working there 38 years as a Wood Model Maker. Mr. Wunsche proudly served his country in the U.S. Marine Corp during the Korean War. His lifelong interests included gardening, wood working and flying model airplanes. He was a member of the Clodbusters and Flying Aces, where he made many good friends. In lieu of flowers memorial contributions may be made to Christ Lutheran Church, Imlay City, MI.

One of the sad things about being away from the hobby so long is you quickly realize that some of your old flying buddies have passed on. This is an old man's hobby and old men fly west. In the time I was away, I missed out on final flying with Don Lang, George Lewis, Chuck Schobloer from the Clodbusters and Gordon Roberts from Cleveland - and probably some that I have forgotten. This Friday, while several Clodbusters were flying in Muncie, we lost another - Fred Wunsche. I last saw Fred at the Clodbusters Indoor meet and last spoke with him when several of us called him from the flying field back in July. Here is a photo of Fred from happier days back in '99. We miss you already, Fred.

Posted by George Bredehoft on hippocketaeronautics.com September 10, 2012



Earl F. Stahl, Yorktown, Va., died Oct. 16, 2012, at age 94. He was born and raised in Johnstown, Pa. He served in World War II as a U.S. Army Air Corps Celestial Navigation Instructor. Earl worked at NACA/NASA for 42 years, retiring in 1986 as chief, Operations Support Division. In that role he was awarded the NASA Exceptional Service Medal for "leadership in the management of technical support to the Langley research effort assuring effective utilization of the center's diversified research facilities." Since his youth Earl Stahl was a freelance author and graphics illustrator of model airplanes, sport aviation, and aviation history for various magazines, journals, and World Book Encyclopedia. He remains internationally known for creating and illustrating construction projects for flying model airplanes. Many of his publications continue to be reproduced for competitions in the USA and Europe. In recognition of the "enduring and distinguished achievement in the art of free flight model aviation," he was inducted into

the halls of fame of five national hobby organizations.

The family requests that no flowers be sent. Arrangements by Amory Funeral Home, Grafton. You may view and post condolences on our online guestbook at dailypress.com/guestbooks.



Joe G. Joseph, age 86, of San Antonio, died Tuesday, October 23, 2012. He was born on August 21, 1926. A man of keen mind and wide reading, he nonetheless knew that joy sprang not from intellectual achievement but from being loved. He served in the Army during World War II and worked as an electrical engineer at Kelly Air Force Base until his retirement in 1986. He was an accomplished woodworker, founder of the Alamo Escadrille, a model-airplane club, and editor of its newsletter The Windy Sock, which had subscribers from around the world. His proudest life accomplishment was his children.

In lieu of flowers, memorial contributions may be made to Catholic Charities, 202 W. French Place, San Antonio, TX 78212 or San Antonio Food Bank, 5200 West Old Highway 90, San Antonio, Texas 78227.

You are invited to sign the guestbook at www.porterloring.com

We received word of the passing of both Joe and Earl as this issue was going to press. We hope to continue our tribute to these men in our next issue. Ed.



KING ORANGE INTERNATIONAL

December 29, 30, and 31, 2012

Palm Bay, Florida

58th

Call, write, or e-mail for;
complete list of
events, schedule and directions to field

20- AMA events 8 - FAI Events
12 - Old Time Events 8 - NOS Events
11 - FAC Events " Gollywock Mass Launch"

AMA CAT. III
National
&
America's
Cup

CD
Brian Malin
1345 Cepheus Ct
Merritt Island, FL 32953
brian@bmjmodels.com
321-536-4334

FAI
Jim Bradley
1337 Pine Sap Ct.
Orlando, FL 32824
BMP4CARBON@aol.com
407-277-9132

FAC
Charles Shepard
419 Longwood Cr.
Longwood, FL 42750
shepherd00@embarqmail.com
407-834-5675

Entry Fee: Senior/Open \$25.00, unlimited \$30.00
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Awards: One award to each winning contestant through third place.
Plates for each additional win.
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On the field

*****TOP GUN AWARDS*****

For best time in:
AMA Gas 101 - 105
CLASIC Gas 101c - 105c

Sponsored By:

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Florida Modelers Association

SCHEDULE OF EVENTS & ENTRY FORM

12/29 Sat. 8AM - 5PM

1. A Gas
2. Classic II (.051 - .300)
3. D Gas
4. HLG J/SO
5. FIG (1)
6. FIH (1)
7. FIJ (1)
8. OT .020 Replica P/C
9. OT A Gas Fuselage/Pylon
10. OT Rubber Stick Large
11. Nostalgia Rubber / Mulvihill
12. Nostalgia 1/4A Gas
13. Nostalgia A Gas
14. FAC WWI Mass Launch (3)
15. FAC Embryo Endurance
16. FAC Jet Catapult Scale
17. FAC 2 bit + 1
18. OT Rubber Cabin Small

12/30 Sun. 8 AM - 5 PM

19. C Gas
20. Classic III (.301 - .650)
21. Catapult Glider J/SO
22. Payload
23. FIA (2)
24. FIB (2)
25. FIC (2)
26. FIP (2)
27. FIQ (2)
28. OT Rubber Cabin Large ROT
29. OT Rubber Stick Small
30. Nostalgia 1/2 A Gas
31. OT B Gas Fuselage / Pylon
32. Moffett ROT
33. Nostalgia B Gas
34. Super D
35. FAC Phantom Flash
36. FAC Thompson / Graves
37. FAC NO CAL Scale
38. Gollywock Mass Launch (10 AM)
39. FAC Simplified Scale

12/31 Mon 8AM - 4PM

40. 1/2 A Gas J/SO
41. Classic I (.001 - .050)
42. B Gas
43. Mulvihill
44. Electric A/B
45. P-30 J/SO
46. OT C Gas Fuselage / Pylon
47. OT HLG
48. Nostalgia Early
49. Nostalgia Rubber / Wakefield ROT
50. E-36
51. Classic Towline A1/A2 combined
52. FAC Dime Scale
53. FAC Rubber Scale
54. FAC WWII Mas Launch
55. Nostalgia C Gas
56. OT Commercial Rubber

** CIRCLE HIGH POINT EVENTS**

- (1) Five 90 minute rounds starting at 10:00AM (1/2 hour overlap)
 - (2) Seven 90 minute rounds starting at 8:00 AM (1/2 hour overlap)
 - (3) FAC Meeting at 9:30AM Mass Launch at 10:00 AM
- Judging on the field - check with CD

Rules: All events will be conducted according to the most current edition of the appropriate rules;
AMA, FAC, SAM, NFFS Nostalgia

HIGH POINT: Declare six (6) Event. 1 Glider, 1 Power 1 Rubber, 3 of choice. 3 x 2 min. max's each event
No single flight events count. FAI First 3 flights count up to 120 sec. Each flight.
YOU MUST MAX ALL SIX EVENTS BEFORE FLYOFF COUNT

Release: I, the undersigned Contestant/Parent, do hereby release any and all organizations connected
with the meet, from all claims which may arise with said meet

NAME: _____ SIGNATURE _____

ADDRESS _____ AMA # _____ CONTESTANT # _____ AGE _____

CITY, STATE _____ ZIP _____ J _____ S/O _____

E-MAIL _____ CELL PHONE _____ ENTRY FEE PAID _____

No Secrets

Tips and Tricks from the Aces

- Baking soda is a great accelerator for CA and I'll use it when needed as a rock hard fillet material to add substance and strength. For example, often around the brass tube bushing where it protrudes slightly from the noseblock face and rear plug I'll drop in a little dry baking soda and swipe it around the tube/balsa joint, then hit it with a tiny drop of CA on tip of a pin to form a really solid joint. If you do this externally vs. CAing the bushing all the way into the plug, you can break the joint later with pliers if you need to reset the tube for offset. I use it in lots of other places, but very sparingly as it does add weight. Recalcitrant CA that won't set *always* sets up with a little soda - watch the fumes tho!
Tom Nallen II

- One of the non-pleasures in life is sanding blue foam parts to create the shape you want. The stuff gets all over you like gnats on an Alabama afternoon, and clings to you like it really loves you. The problem of course is static electricity. Why foam has to have so much of it is beyond my simple thought capacity, but I've found a way to defeat it. Just do your sanding with water.

You can buy wet-or-dry sandpaper which works great — just get some pretty course stuff. I didn't have any handy, but I did find something designed for painters to sand things stashed away in my shop that I probably bought during the Johnson administration. It's a semi-hard foam thing that has abrasive molded into it. It looks like it's about the equivalent of 100 grit. Just stand over a sink, wet the sanding block and sand away. The foam particles can be washed away by simply running water over it. I'm sure you can find these things in any big box store in the paint department. Give it a try unless you've fallen in love with the foam particles which are sticking to every part of your body.
George White

Ross P. Mayo - President & CinC
4207 Crosswinds Drive
Erie, PA 16506-4451
814-836-1299
CinC@flyingacesclub.com

Roy Courtney
4221 Lakeshore Rd. South
Denver, NC 28037
704-483-3709
rcourt2493@aol.com

Vance Gilbert
17 Rockland Ave.
Arlington, MA 02474
vance@vancegilbert.com

Mike Isermann - Secretary
15006 Hollydale
Houston, TX 77062
281-480-6430
Balsabug@gmail.com

Ralph Kuenz - Board Member
1106 Loeser Ave.
Jackson, MI 49203
517-240-0208
rdkuenz@yahoo.com

FAC GHQ & Council

Blake "Bubba" Mayo - Assistant Treasurer
3447 Adelaide Drive
Erie, PA 16510
bkmbubbamail@aol.com

Stew Meyers
8304 Whitman Drive
Bethesda, MD 20817
301-365-1749
stew.meyers@verizon.net

Dave Mitchell - Webmaster & Keeper of the Rules
230 Walnut St. NW
Washington, DC 20012
webmaster@flyingacesclub.com

Gene Smith
1401 N. Husband Street
Stillwater, OK 74075
grwhiskey@brightok.net

Chris Starleaf - Vice President
2469N 4203rd Road
Sheridan, IL 60551
815-685-0481
ccstar1@hughes.net

Paul Stott
175 Thoreau Dr.
Shelton, CT 06484
alfa28@aol.com

Rich Weber - Treasurer & FAC News Editor
9154 Eldorado Trail
Strongsville, OH 44136
newsletter@flyingacesclub.com
join@flyingacesclub.com

Mike Welshans - Keeper of the Kanones & Board Member
976 Pearson
Ferndale, MI 48220
mbwelshans@aol.com

George White - Keeper of the Squadron List
10100 Hillview Drive #234
Pensacola, FL 32514
850-473-0866
white76@cox.net

Councilmen Emeritus

Pete Azure
Fred Gregg
Tom Nallen I
Tom Nallen II
Mike Nassise
Jack Moses
Bob Schlosberg

*Note - Names in **bold type** are FAC Board members.

When contacting FAC officers via email, please be sure to include "**FAC**" in the subject line so that your message isn't overlooked.

Recruitment & Reenlistment

- Membership brings you six issues of the **Flying Aces Club News**, and all the grins that come with being a Junior Bridman.
- When the **Dreaded Red X** shows up in that circle next to your address label, it is time to renew your membership. Please note: the **DRX** is the only notice you will receive. Memberships will not be back dated so any missed issues of the newsletter will have to be purchased. (For back issues, see below.)
- Your renewal date will be printed on your newsletter mailing label so the **DRX** won't sneak up on you.
- If you would like to use the **PayPal** option to send your dues, go to: **flyingacesclub.com** and click on "membership." The PayPal button is at the bottom of the page. Pick your location (US, Canada, or Overseas) and hit the button.

- You can still send a check through the good old mail service. Use the form below, or any reasonable facsimile. Please make checks payable to: **Flying Aces Club**
- Canadian and Overseas members**, please use PayPal (preferred) or send checks payable in US dollars.
- Change of address** - please note - the post office does not forward bulk mail so be sure to handle this promptly or you will miss an issue! Send your new address, or any questions about your membership to:

**Flying Aces Club, 9154 Eldorado Trail
Strongsville, OH 44136**

or email to - **join@flyingacesclub.com**

FAC News **BACK ISSUES** in limited numbers are available for \$5.00 each. Send orders for all back issues to:

Blake Mayo, 3447 Adelaide Drive, Erie, PA 16510



Gee!!
This Coupon
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Flying Aces Club Membership Form

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Annual dues in \$US:

- \$20 USA
- \$28 Canada
- \$40 Overseas

Name: _____ AMA or MAAC# _____

Address: _____

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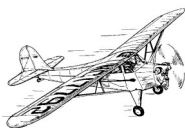
Email: _____ Phone: _____

Please make checks payable to:

Flying Aces Club and send to:

9154 Eldorado Trail

Strongsville, OH 44136



FAC Contest Calendar



Rocky Hill, CT	Nov 18	GLASTONBURY MODELERS & PINKHAM FIELD IRREGULARS TURKEY FLY	Paul Stott	203-929-5139 H 203-258-3962 C
Palm Bay, FL	Dec 29 - 31	KING ORANGE INTERNATIONAL	Charles Shepard	407-834-5675
Eloy, AZ	Jan 19 - 21	SOUTHWEST REGIONALS MODEL AIRPLANE CHAMPIONSHIPS	Al Lidberg	http://www.aalmps.com/13info.htm
Perris CA	Apr 24 - 27	WESTFAC IV	John Hutchison	http://www.westernfac.com
Geneseo, NY	July 17 - 20	FAC NON NATS	T.B.A.	

To get your event listed on this page, send the info to the editor. To get your event listed on the website contest page, send your stuff to our esteemed Webmaster, Dave Mitchell. Contact information is on the Membership Information page.

BUILD...What you really like

FLY...All you can

WIN...Just let it happen



**Best wishes for a joyous holiday season,
from all the guys at FAC GHQ!**

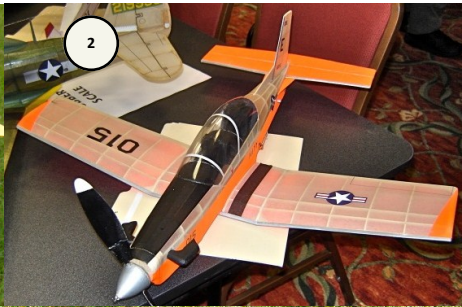


Our hero Phineas Pinkham, as drawn by Tom Nallen I back in the 70s. Tom Nallen II found it in his archives and thought the crew would enjoy it. Note that the "orders" in his hand are for FAC Meets in Durham and Glastonbury.

More Pics from the Gathering of the Turkeys:

- 1 - This Fokker D.VII belongs to Jack Coyle, of Pensacola. It's one of the prettiest D7s I've seen.
- 2 & 3 - George White took a whole batch of photos at the scale judging on Friday evening. I wish we had room for a whole lot of them because there were some top shelf models there.
- 4 - Duke Horn came in from Dallas and brought his Hung Aereon with him. Proof that Dave Stott's influence ranges far and wide.
- 5 - The finish on Duke's model was absolutely beautiful.
- 6 - Dan Berry was our representative from Arkansas. He's a dedicated AMA gas and endurance rubber flier, but his foray into rubber scale flew pretty darn well — his P-51 came in 3rd in WWII.
- 7 - This one is a bit out of place, but only a bit. The venue is Muncie and the contest is the Outdoor Champs. Chris Starleaf treated the crowd there to some great flights with his B-24. He did the same thing in Pensacola, but we didn't get any pics there so here's the gist of it. Tom Hallman photo.
- 8 - The guy with the Rolls Royce is Texan Grant Carson with his wife Maryanne. He doesn't have a chase bike so he simply uses the Rolls sedan to chase his models. Yes, it's that kind of field.
- 9 - George White took time out of his "Gathering of the Turkeys" CD duties to fly his D.VII in the WWI mass launch...and win it!
- 10 - Participants in the Flying Aces Magazine Non-Scale special event staged a reenactment of their launches for the camera.
- 11 - Bill Duke acts as mechanic for Gary Morton in the WWI mass launch event.
- 12 - Judging from the number of spectators, it looks like the last round of the Golden Age Racers event. Julie Farrell holds onto Wally's Mr. Smoothie as he winds his 30 ft. motor. In the background, Bubba Mayo holds onto Rich Weber's battered Newman Special, which had taken a midair hit from Wally in the first round. Wally went on to win it.

All photos courtesy of Dohrm Crawford except as noted.





FLYING ACES

Club

9154 Eldorado Trail

Strongsville, OH 44136

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Gentle gloaming airs caress;
Morning stirs, no more no less.
Grasses stretch their tender arms,
No surprises, no alarms.
Tucked within the sheltering lee
of the backyard chestnut tree,
all is calm, all is light,
All is bent to favor flight.

Subtle trims and nuanced tosses
Ill prepare us for our losses
Taken in the open air;
Violent winds will make us swear,
Dusty earth will crack our spars,
Gouges, tears and other scars
Gnaw upon our favored plane,
Take it down to scrap again.

Yet we do it all again,
Trixie wields her wrath in vain.

Pete O'Tewb

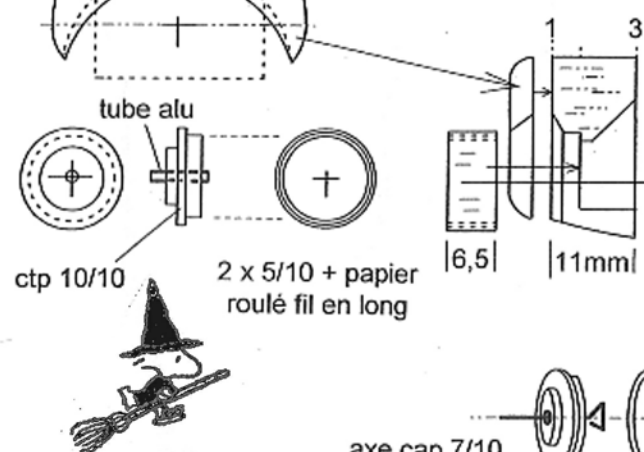


Tom Hallman photo

balsa 30/10

bloc vue face 1

bloc vue arrière 2



2 x 5/10 + papier
roulé fil en long

axe cap 7/10

coller

1913-2013



Centenaire de la traversée
de la Méditerranée



Concours postal "Les Cahiers du CERVIA"

Morane - Saulnier type H

1 x 1,5 balsa dur profilé

10/10

10/10

position optionnelle
de la broche

15/10

1,5 x 1,5

noir
verniss jaune

balsa dur 2 x 1
profilé

noir
gris clair

hauban
arrière

Hélice : 120 mm max

hauban avant

cap 5/10
+ souplesse

ligature élastique

ligature

bambou

cuivre
copper

noir

yellow varnish
verniss jaune

black
noir

VUE DESSUS

5/10

longerons noirs

VUE DESSOUS

FACN # 268

5/10

noir

Les cahiers du
C.E.R.V.I.A.

haubans fils de soie. ils sont fonctionnels
silk thread. they are functional



marginal 15/10 profilé

dièdre 10 mm

0,5 x 1,5

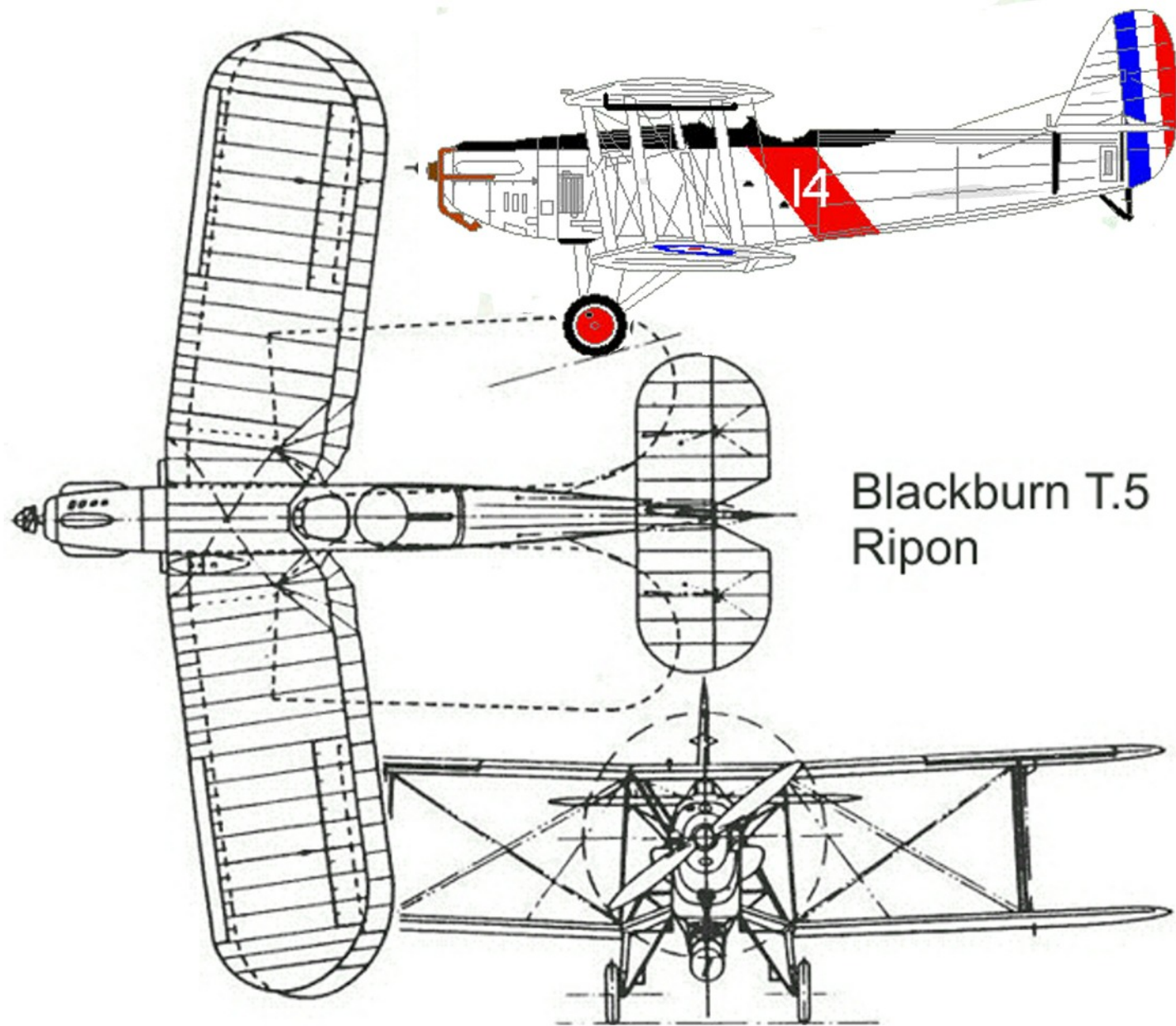
1,5 x 1,5

15/10

5/10

15/10

1 x 2



Blackburn T.5
Ripon

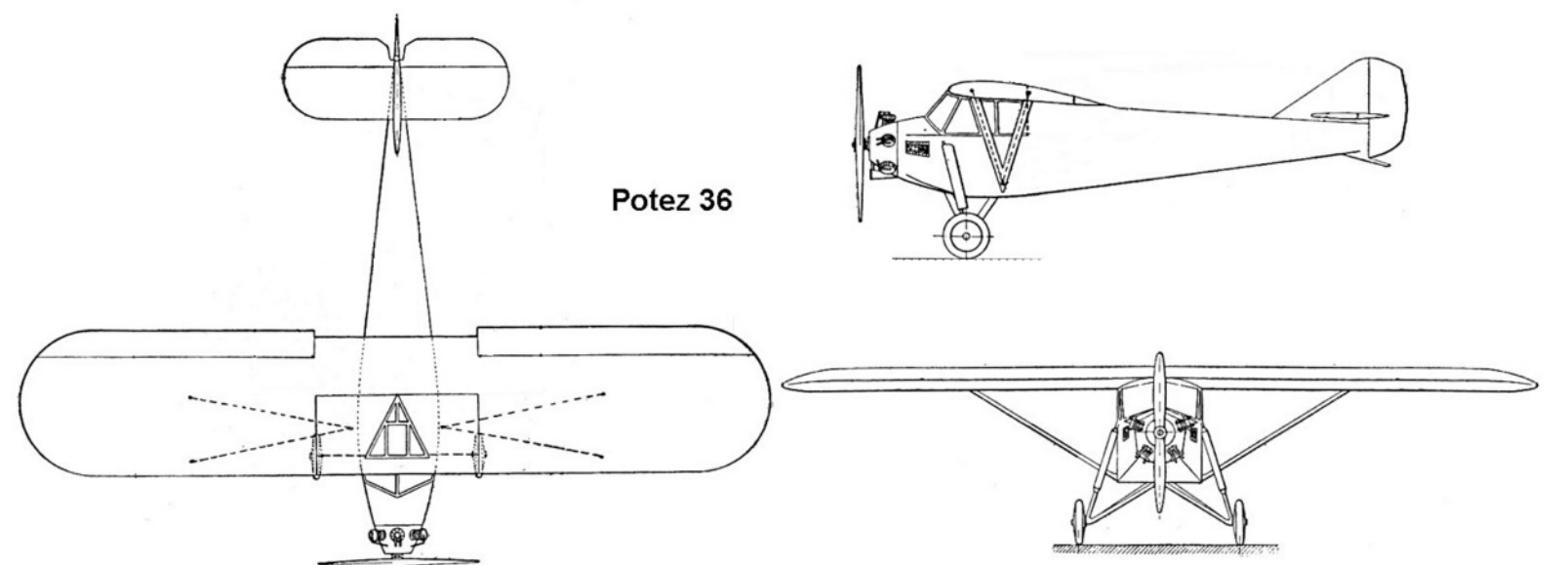
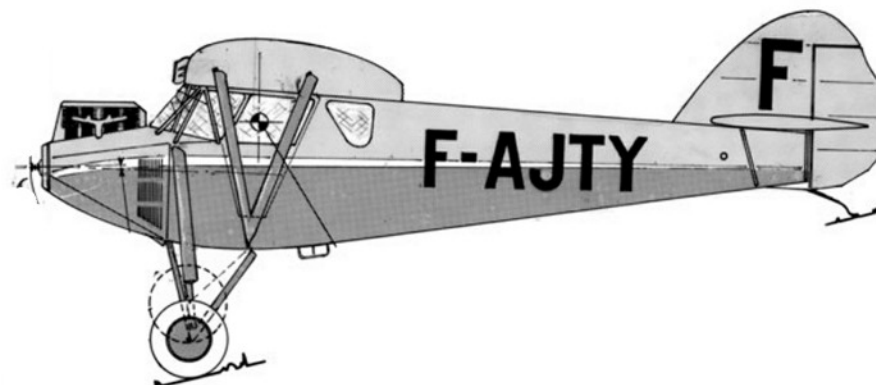


Potez 36

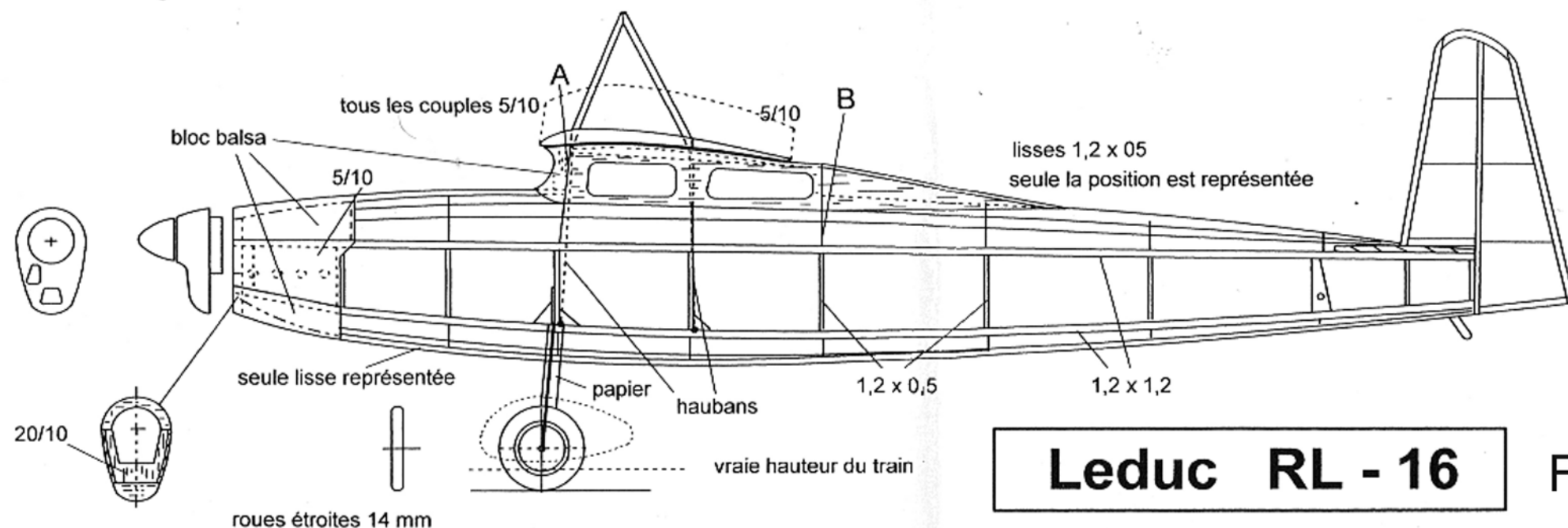
French two-seat touring or sport monoplane designed and built by Henry Potez. The Potez 36 was a high-wing braced monoplane with a conventional landing gear. It had an enclosed cabin with side-by-side seating for a pilot and passenger. The design had some unusual features like folding wings to make it easier to store or to tow behind a motor car. Some of the aircraft had Potez-designed leading-edge slats. The aircraft was popular with both French private owners and flying clubs with a small number being used by the French Air Force during the 1930s as liaison aircraft.

The prototype first flew in 1929. The 36/14 was a variant with a 95 hp (71 kW) Renault 4Pb engine and leading-edge slats and wheel brakes; 103 were built.

Specification		
MODEL	Potez 36/3	
ENGINE	1 x Salmson 5Ac radial piston engine, 45kW	
WEIGHTS		
Take-off weight	650 kg	1433 lb
Loaded weight	427 kg	941 lb
DIMENSIONS		
Wingspan	10.45 m	34 ft 3 in
Length	7.50 m	25 ft 7 in
Height	2.45 m	8 ft 0 in
PERFORMANCE		
Max. speed	150 km/h	93 mph
Ceiling	3600 m	11800 ft
Range	500 km	311 miles



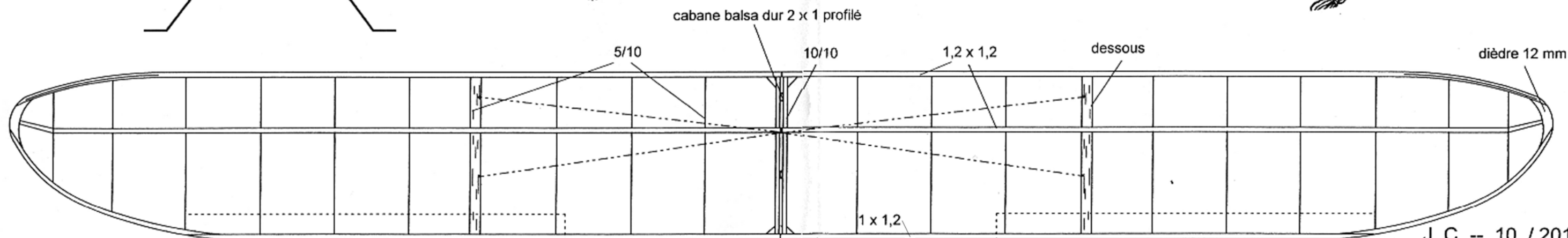
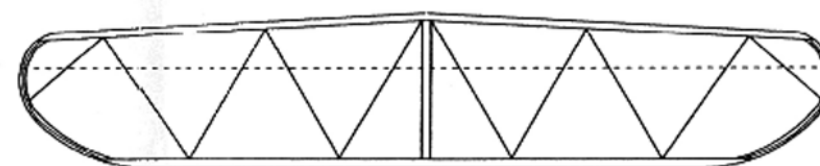
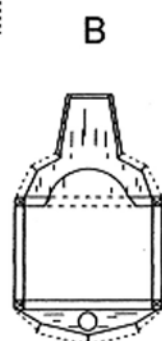
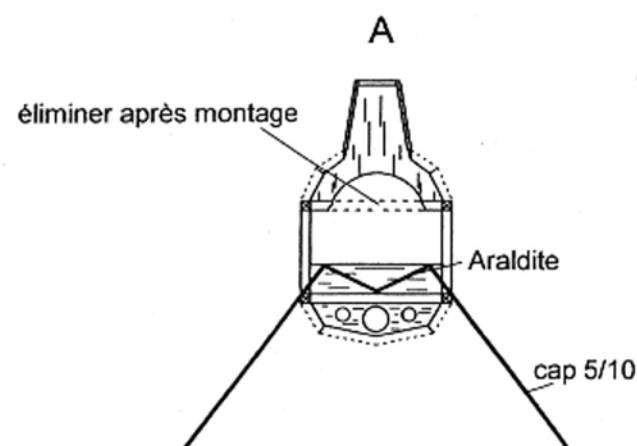
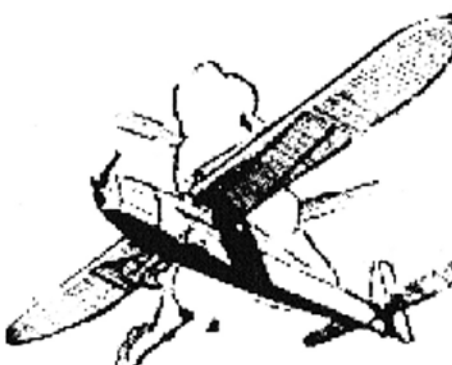
Potez 36



Leduc RL - 16

FACN # 268

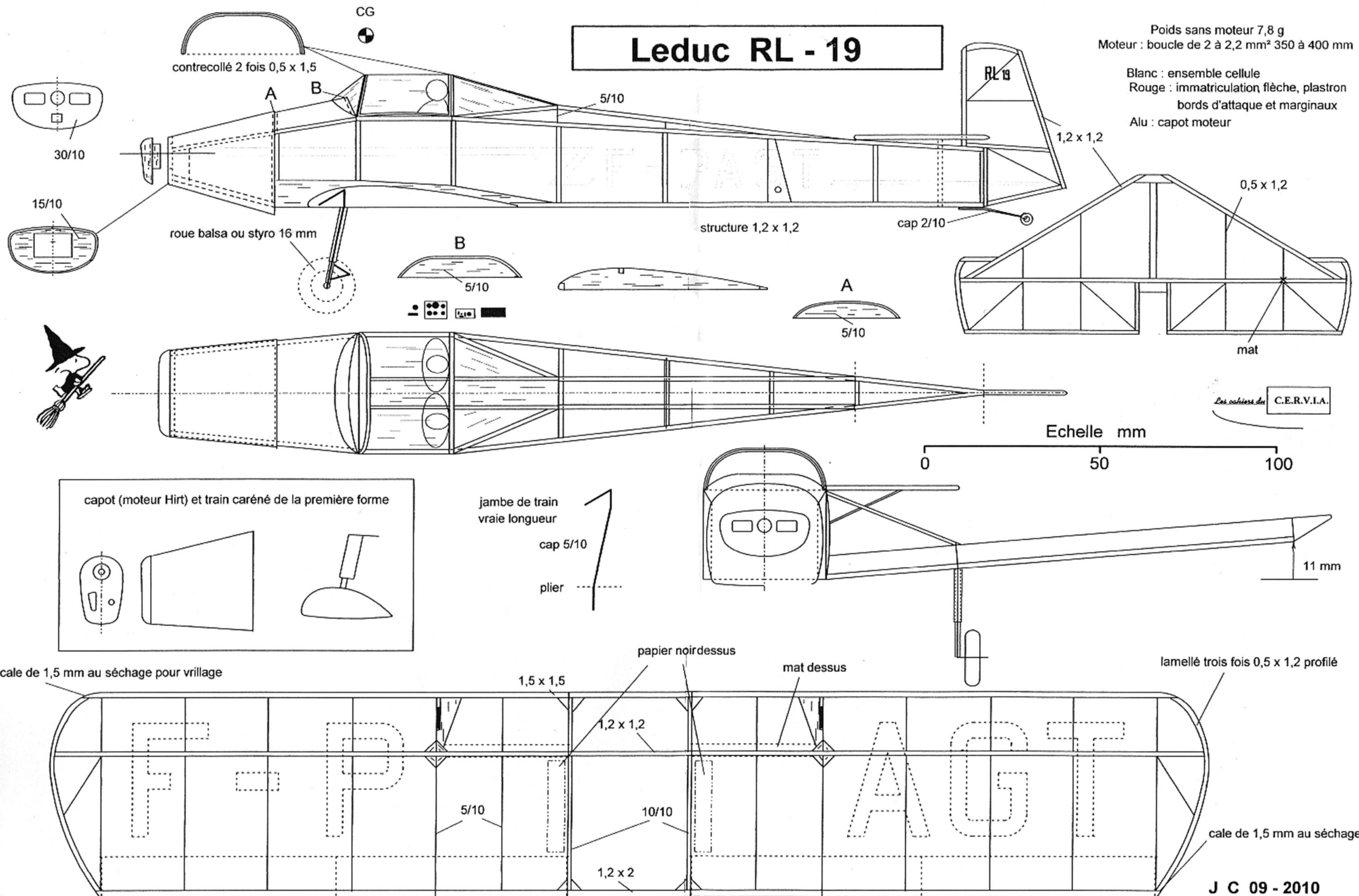
Record d'altitude moins de 500 et 100 kg
7788 m le 13/06/1949



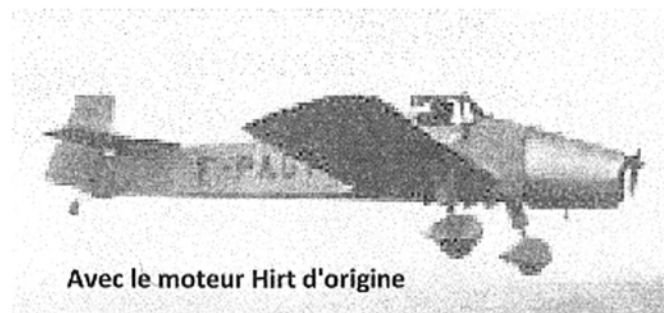
Leduc RL - 19

Poids sans moteur 7,8 g
Moteur : boucle de 2 à 2,2 mm² 350 à 400 mm

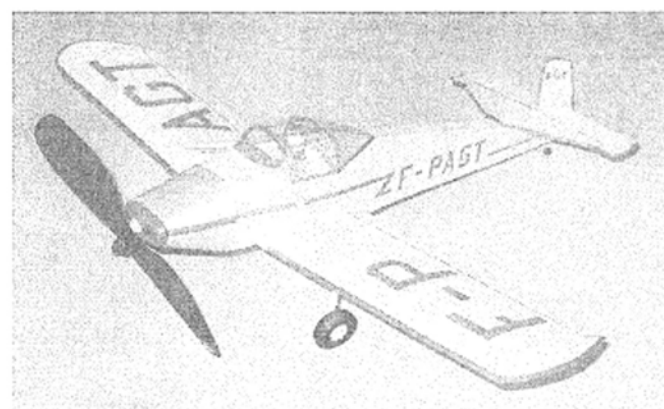
Blanc : ensemble cellule
Rouge : immatriculation flèche, plastron
bords d'attaque et marginaux
Alu : capot moteur



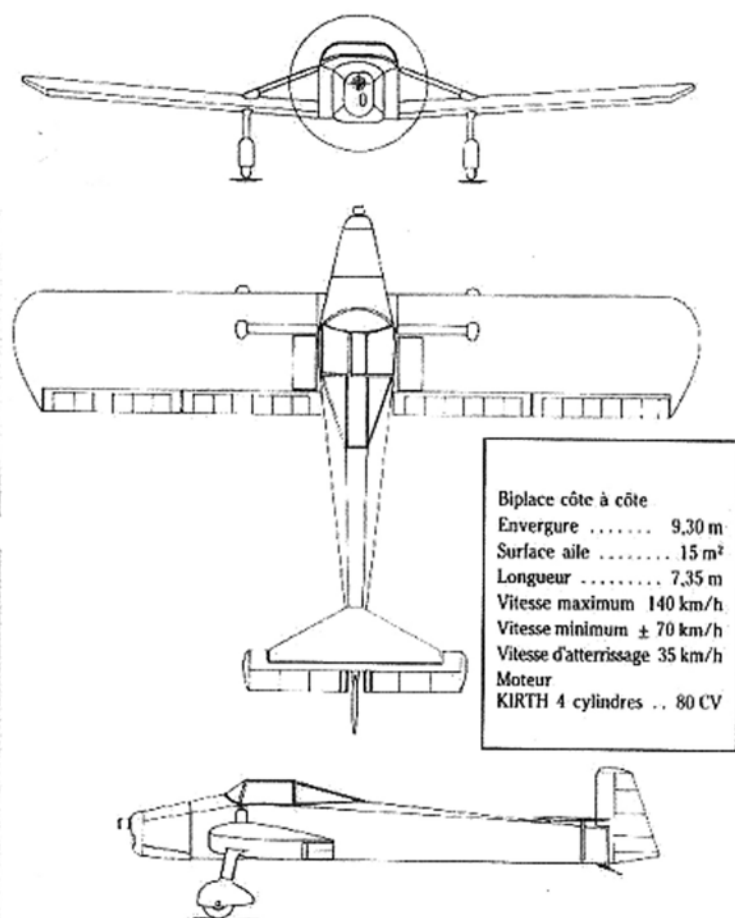
Le Leduc RL-19 en Cacahuète



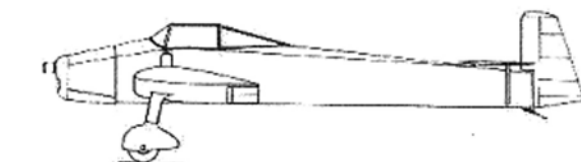
Avec le moteur Hirt d'origine



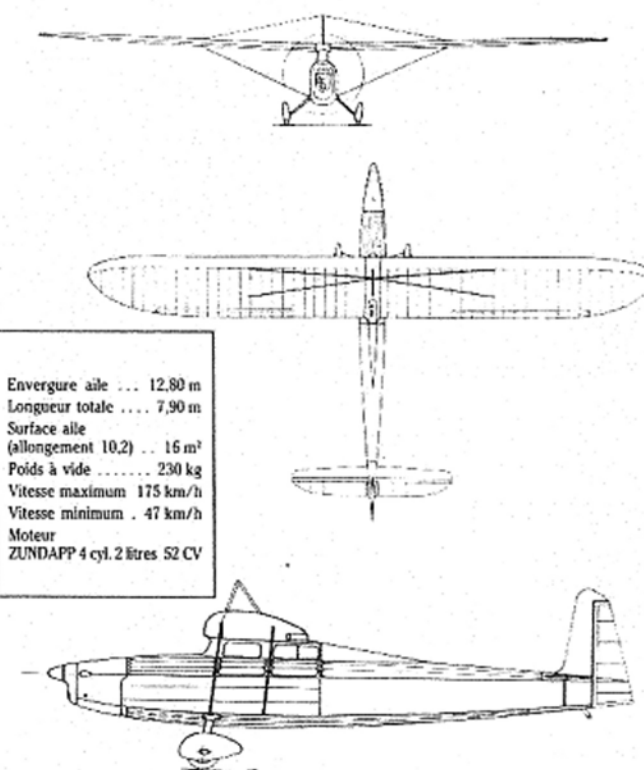
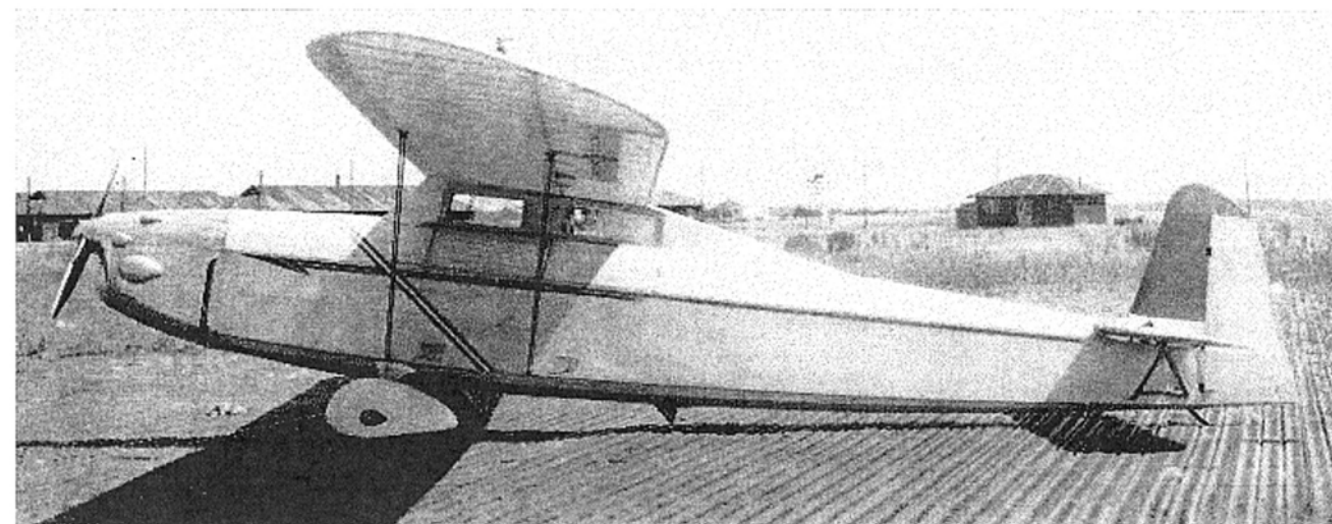
La maquette est traitée très simplement, tout comme l'était l'avion d'origine. Le seul trois-vues connu montre l'appareil dans sa configuration d'origine, avec le moteur Hirt. Il a donc fallu extrapoler un peu, d'après les photos. La seule difficulté, commune à toutes les Cacahuètes légères, est d'assurer, pendant le montage, le bon équilibrage d'un ensemble qui manque de rigidité. L'aile a été faite d'une seule pièce, et il n'est pas certain que ce soit la meilleure solution. Cela donne une faible incidence qui oblige à avoir beaucoup de négatif à l'empennage. La présence des mats permettrait deux ailes indépendantes sans fragilité, avec de l'incidence



Biplane côte à côte
Envergure 9,30 m
Surface aile 15 m²
Longueur 7,35 m
Vitesse maximum 140 km/h
Vitesse minimum ± 70 km/h
Vitesse d'atterrissage 35 km/h
Moteur
KIRTH 4 cylindres .. 80 CV

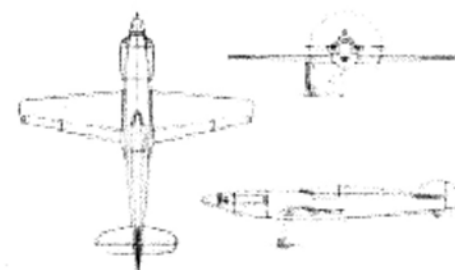


(les avions Leduc avaient la possibilité des régler indépendamment l'incidence des deux ailes), d'où un stab plus "à plat". Toute la décoration a été faite à l'ordinateur sur papier japon blanc. Cela a permis de constater que les différentes couleurs ne bavent pas exactement de la même façon, et que le rouge, même foncé, manque de densité, alors qu'une immatriculation noire serait bien nette. Il aurait mieux valu, malgré le travail, faire les lettres en papier rouge, ce qui, de plus, aurait donné le même ton à toutes les parties colorées (lettres, flèche, plastron, bords d'attaques et marginaux). (voir page couleur)



Envergure aile ... 12,80 m
Longueur totale ... 7,90 m
Surface aile
(allongement 10,2) ... 16 m²
Poids à vide 230 kg
Vitesse maximum 175 km/h
Vitesse minimum ... 47 km/h
Moteur
ZUNDAPP 4 cyl. 2 litres 52 CV

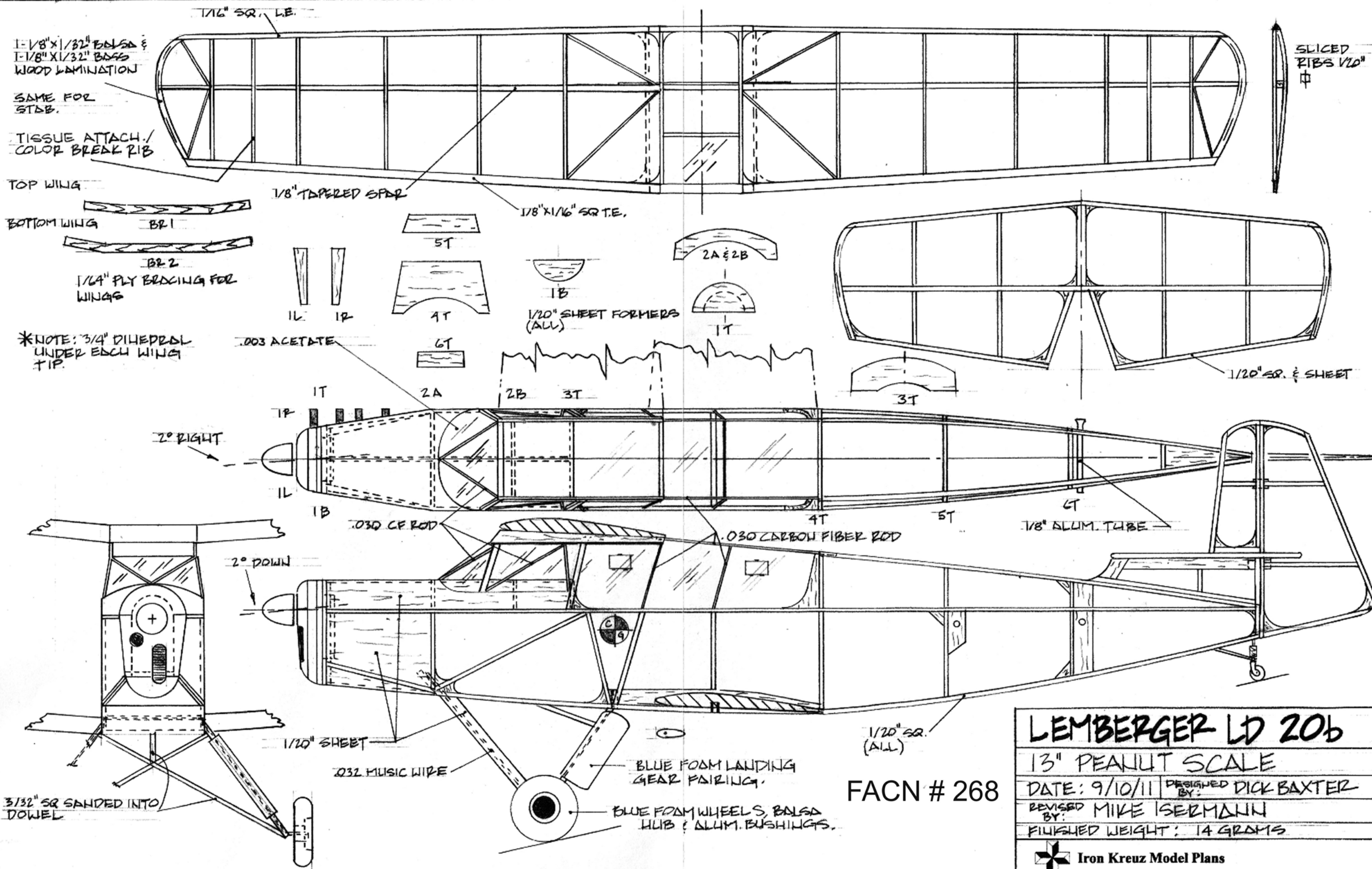
1948 pour un ami ancien pouducieliste, avec, avant tout, la recherche de la simplicité. Le moteur d'origine fut un Hirt, dont une quantité avait été récupérée après la guerre, d'où son emploi sur de très nombreux avions d'amateurs. Le premier vol eut lieu le 23/06/52. Le Hirt céda rapidement sa place à un Continental, et c'est dans cette configuration qu'il a longtemps volé en club, qu'on a pu le voir à Brienne et qu'il est conservé à Angers.




René Leduc n'attendit pas le retour de la paix pour entreprendre un nouvel appareil qui devait devenir le RL-16. Les difficultés matérielles de l'époque firent traîner les choses, mais l'excellent dossier technique incita les officiels à fournir un moteur Zündapp de 50 ch, provenant des prises de guerre, ce qui permit un premier vol le 7/7/1947. Le RL-16 avait le défaut de ses qualités. Construit comme un planeur, très léger et très fin, mais sans aérofreins, avec une visibilité et une accessibilité limitées qui dissuadèrent les pilotes du CEV de l'essayer aux limites. Il n'était pas fait pour un usage public, mais il remplit son contrat le 13/06/49 en atteignant 7788 m, record dans trois catégories en un seul vol ! Le plafond théorique était de plus de 10 000 m, et il devait pouvoir également emporter 620 l d'essence, ce qui lui aurait permis théoriquement de franchir 6700 km, mais c'était sans doute demander trop à un moteur un peu fatigué, et la tentative fut abandonnée. Cet avion a disparu, abandonné et détruit malgré son intérêt historique.

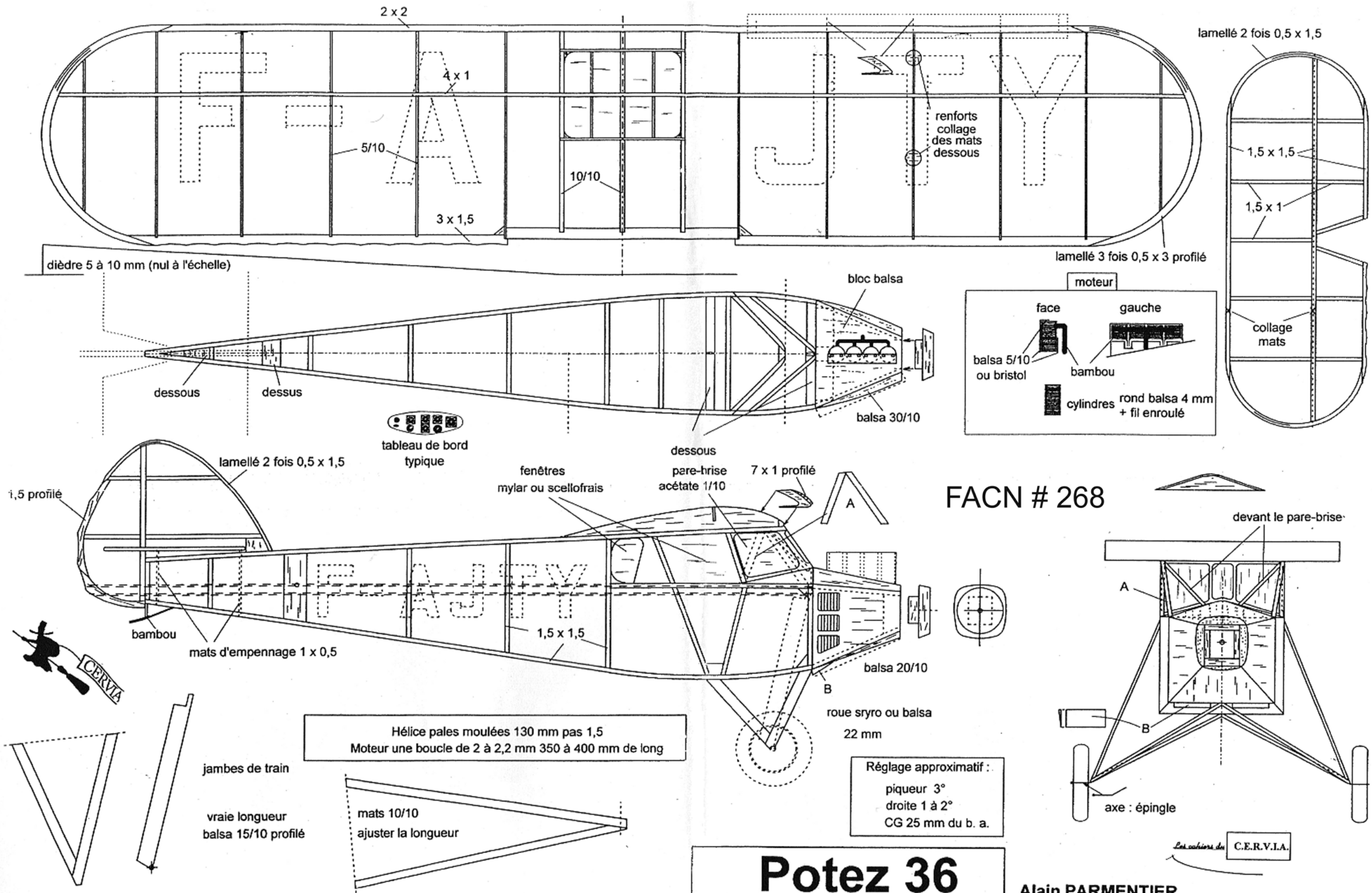
Le RL-19 est un peu comme une détente dans la recherche des records de René Leduc. Il le dessina en 1948 pour un ami ancien pouducieliste, avec, avant tout, la recherche de la simplicité. Le moteur d'origine fut un Hirt, dont une quantité avait été récupérée après la guerre, d'où son emploi sur de très nombreux avions d'amateurs. Le premier vol eut lieu le 23/06/52. Le Hirt céda rapidement sa place à un Continental, et c'est dans cette configuration qu'il a longtemps volé en club, qu'on a pu le voir à Brienne et qu'il est conservé à Angers.

Toujours en 1952, René Leduc dessina le RL-20, un avion de record assez extrême, mais le prix du moteur désiré se révéla trop élevé pour le concepteur, et ce modèle fut rapidement abandonné pour le RL-21, plus simple et équipé d'un moteur plus accessible. L'étude fut commencée en février 54, et la construction entreprise dans la salle à manger de la famille Leduc pour se terminer, avec sortie par la fenêtre du premier étage, en août 60. Le moteur était un SNECMA-Régnier de 135 ch nominaux, probablement prêté par la société. La construction était assez simple mais très soignée, comme



FACN # 268

LEMBERGER LD 20b	
13" PEANUT SCALE	
DATE: 9/10/11	DESIGNED BY: DICK BAXTER
REVISED BY:	MIKE ISELMANN
FINISHED WEIGHT: 14 GRAMS	
 Iron Kreuz Model Plans	



FACN # 268

Potez 36

Alain PARMENTIER