

AVANZ



NEWS

Newsletter of the Vintage Special Interest Group of Model Flying New Zealand #185





The Vintage Championships

Final scores are in, the calculator keys have played their tune, and results for the year's Championship are included in this issue.

Congratulations to all who took part, and especially to those who pushed themselves a little by entering events for the first time, or, knowing that an event was not their strong point, still gave it a go. Next time it will be easier.

For the first time, all Vintage classes were encompassed in the Championships through competitions spread over a period that was previously covered by regional Vintage meetings. Between January and June, Vintage Radio Control events were flown at designated regional meetings and Vintage Free Flight events were coincident with the NDC programme.

To better reward flyers who competed in highly contested events such as RC Precision and FF Catapult Glider, points for each event were allotted according to the graduated scoring system used at the Nationals. Separate Champions for RC and FF were determined by summing points scored in these disciplines. Champ of Champs was determined by summing six of each competitor's scores - the three highest from RC plus the three highest from FF, again using the Nationals scoring method.

This format has been a trial, and after six months of competitions you may see ways it could be improved. Decisions on changes to, or continuation of the Champs will be published in the October AVANZ News, so *now* is the time to review the Championship. The Committee will appreciate your comments and suggestions.

In this Issue

Committee Notes

Future Events

Championship Results

Nostalgia Glider

- Mackenzie A2 1955

- Sans Egal 1959

It was 10 Years Ago, Today

Faddo McFadden

E-Texaco Battery Chart

Vintage Power

- Pirate 1949

- Pirate 1949

- Wasp 1938

Zaic Yearbook 1955-56

Frank Bethwaite's Record

Value of Model Aeronautics

Real Vintage

Wakefield Cup 1933

Reader's Models

Electric Vintage Free Flight

Lanzo's RC1

Snippets of SIN

Vintage Rubber

- Liestungs Motorflugmodell A10

Low Tech Flying

Thrust Measurement

Cloud Tramp tips

Control Line Dreaming

Leader Boards

Cover Stories

Miscellaneous

Contributors to this Issue Allan Knox Rex Bain Ross Gray Charles Dietz Paul Lagan Barrie Russell
Harvey Stiver Wayne Cartwright Peterborough MAC Graham Main Dayle Montgomery Japanese War Dept.

On the Cover: Ian Monroe's TD Coupe at the 2021 Nationals. Ross Gray photograph.

Logo: Pavlova (see Miscellaneous page)

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2022 VINTAGE NATIONALS PROGRAMME					
REGISTRATION	DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
VINTAGE FF 7am - 12am	Vintage Power Vintage Rubber			Classic Comb R/P/G Vintage Precision	
VINTAGE RC 9am - 5pm	Vintage IC Duration Classical IC Duration Vintage Precision Classical Precision	1/2A Texaco Vintage E Duration Classical 1/2E Texaco Classical E Texaco	Vintage A Texaco Classical E Duration Sport Cabin E Texaco Vintage E Texaco	Open Texaco Vintage 1/2E Texaco Vintage E Rubber Tex	Rain-date for RC

Nationals Vintage Radio Control events will be held on RC-3.

Days 1-5 Contest Director Don Mossop

Nationals Vintage Free Flight events will be held at Gladstone Road.

Day 1 Contest Director Bryce Gibson

Day 4 Contest Director Stew Cox

Nationals Vintage AGM will be held in the Vintage Car Clubroom, upstairs next to HQ, time to be announced.



September 18 - 19	2021
Airsail MAC	
October 23 - 24	2021
Tuakau MAC	
November 20 - 21	2021
Thames Blackfeet	
December	2021
No contest flying	
January 03 - 07	2022
Nationals Carterton	
February 26 - 27	2022
Airsail MAC	
March 19 - 20	2022
Awatoto (TBC)	
April 9 - 10	2022
Thames Blackfeet	
May 21 - 22	2022
Tuakau MAC	

From SAM 114 comes an invitation to a 1/2A Texaco challenge. This could be flown at JR AIRSAIL on 18-19th September although intending fliers would need to determine which single day was used.

The rules allow for flying at different sites provided it is on the same day so intending fliers who cannot be at Airsail could contact the Editor who will coordinate with other entrants.

The only variations from NZ rules are a restriction of propellor to a maximum diameter of eight inches and score is the best two of three 15-minute maximum flights.

Entering a NZ team would, I suspect, be a bit of a surprise for SAM 114.

2021 Frank Ehling International 1/2A Postal Texaco Challenge

SAM 114 of Western Ohio invites SAM Chapters to compete in the 2021 Challenge. Pick one day for flying during the **ninety-day** window, Sept. 1st through Nov. 30th. At the first flight, you must finish on the same day. Any team member unable to participate at the team site may fly at his location on the same day and report results to the team manager. Record results as follows: Team member's names, model flown, wing area, weight, and times in seconds for the three flight attempts. Each member's score is the best of two of the three flights. Please list the results for all team members. The three highest members scores become the team score. Please comment on weather, flight conditions, date and location flown. Include your SAM Chapter number, address, telephone number and e-mail address. Results are due by December 7th, 2021. SAM 2020 1/2A Texaco rules apply (Section IX, Paragraph 6. We'd appreciate a photo of your team. Results will be posted on the W.O.R.K.S. Club web site www.worksrclub.net and forwarded to the SAM Web Master for posting on the web site www.antiquemodeler.org Send results to: Dennis Sedlock, Email address: dsedlock5657@att.net



2021 VINTAGE RC CHAMPIONSHIP SCORES and POINTS

Vintage Precision

B Treloar	798	10
B Russell	795	9
D Crook	790	8
D Mossop	600	7
T Gribble	599	6
J Ryan	599	5
W Elley	591	4
B Hall	590	3
F Ravn	589	2
T Beaumont	588	1
B McKay	588	0
S Nicholas	587	0
B Scott	586	0
J Miller	583	0
B Robinson	583	0
A Knox	583	0
O Stuart	576	0
D Little	575	0
S Cox	574	0
R Brinsley	571	0
D Thornley	568	0
H Stiver	565	0
T Glogau	505	0
J Ellison	459	0
S Hubbard	439	0
J Ellison	338	0

Classical Precision

S Nicholas	599	10
A Knox	592	9
M Shears	590	8
B Robinson	589	7
B Russell	575	6
G Main	553	5
D.Thornley	553	4
G Fulton	548	3
B.Scott	391	2

Vintage IC Duration

A Knox	773	10
T Beaumont	764	9
D Thornley	757	8
S Cox	703	7
J Miller	655	6
W Elley	596	5
J Ryan	589	4
D Little	495	3
O Stuart	386	2

Vintage E Duration

B Russell	1421	10
D Mossop	914	9
A Knox	910	8
S Nicholas	869	7
W Cartwright	639	6
B Scott	535	5
P Townsend	310	4

Vintage 1/2A Texaco

A Knox	2122	10
S Cox	1490	9
L Rodway	1489	8
B Treloar	1466	7
P Townsend	1239	6
S Morse	1233	5
J Ryan	1110	4
S Grant	1025	3
W Cartwright	953	2
B Scott	746	1
D Little	528	0
J Beresford	308	0

Classical E Duration

B Russell	1199	10
B Robinson	891	9
A Knox	853	8
W Cartwright	825	7

S Nicholas	755	6
M Shears	741	5
D Mossop	713	4
J Miller	712	3
D Crook	694	2
B Scott	590	1

Classical IC Duration

B Scott	539	0
D Thornley	514	0

Vintage Open Texaco

B Scott	1830	8
A Knox	1756	7
B Treloar	1586	6
S McCurrie	187	5

Vintage A Texaco

B Treloar	2529	10
A Knox	1852	9
S McCurrie	1643	8
S Grant	1395	7
T Glogau	1218	6
B.Scott	1138	5
S Cox	1028	4

Vintage 1/2E Texaco

W Cartwright	2839	10
J Butcher	2388	9
T Gribble	1624	8
B Robinson	1576	7
B Russell	1378	6
L Rodway	1372	5
B Scott	1202	4
A Knox	884	3

Vintage E Texaco

D Crook	2793	9
W Cartwright	2317	8

A Knox	1600	7
J Butcher	1450	6
T Gribble	1427	5

Classical 1/2E Texaco

T Gribble	1482	8
D Crook	1437	7
B Scott	804	6
W Cartwright	637	5

Vintage E Rubber Texaco

J Butcher	4570	10
D Mossop	3835	9
D Crook	2688	8
B Russell	2687	7
J Danks	2533	6
S Nicholas	2468	5
T Gribble	2026	4
A Knox	1566	3

Classical E Texaco

P Townsend	1857	7
T Gribble	1219	6
D Mossop	697	5

Sport Cabin Texaco IC

S McCurrie	1646	10
A Knox	971	9
J Beresford	543	8
L Rodway	389	7
B Scott	324	6

Sport Cabin Texaco E

J Butcher	2382	7
B Scott	747	6
L Rodway	603	5

Scale Texaco

A Knox	1660	0
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2021 VINTAGE **FF** CHAMPIONSHIP SCORES and POINTS

Vintage Precision

B Scott	266	8
J Beresford	258	7
S Morse	256	6
L Rodway	228	5

Vintage Glider Duration

L Rodway	236	7
J Beresford	77	6
B Scott	33	5

Vintage Power Duration

B Scott	466	8
R Bain	423	7
L Rodway	382	6
A Koerbin	337	5

Vintage Rubber Duration

A Koerbin	512	10
W Lightfoot	511	9
G Lovejoy	399	8
R Pilcher	312	7
B Scott	305	6
P Squires	290	5
C Murphy	256	4
L Rodway	227	3
S Morse	218	2
J Beresford	173	1

Nostalgia Rubber Duration

W Lightfoot	442	8
G Lovejoy	422	7
B Scott	368	6
P Squires	180	5

Nostalgia Power Duration

B Gibson	469	10
B Scott	462	9
K Barnes	431	8
S Morse	261	7
L Rodway	239	6
Rex Bain	85	5

Vintage CAT

P Squires	308	10
R Pilcher	307	9
A Reed	231	8
R Brown	228	7
A Knox	219	6
L Rodway	194	5
A Fuller	172	4
S Morse	153	3

Vintage HLG

A Knox	157	0
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Nostalgia Glider Duration

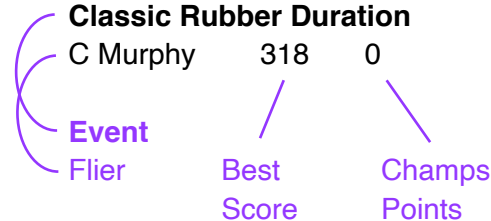
B Scott	273	0
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Nos / Vin Small Power

L Rodway	174	0
S Morse	165	0

Classic Rubber Duration

C Murphy	318	0
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In 1980, Airborne Magazine captioned this photograph with: "Allan Knox, (Kaiapoi MAC) NZ's top RC glider exponent, displays his OD Talon . . . flies like a dream ... future looks good".

In light of Allan's Championship and Leader Board performances perhaps Airborne's last two observations were not referring to the Talon.

(Text mercifully positioned to obscure flared trousers)



RADIO CONTROL CHAMPION

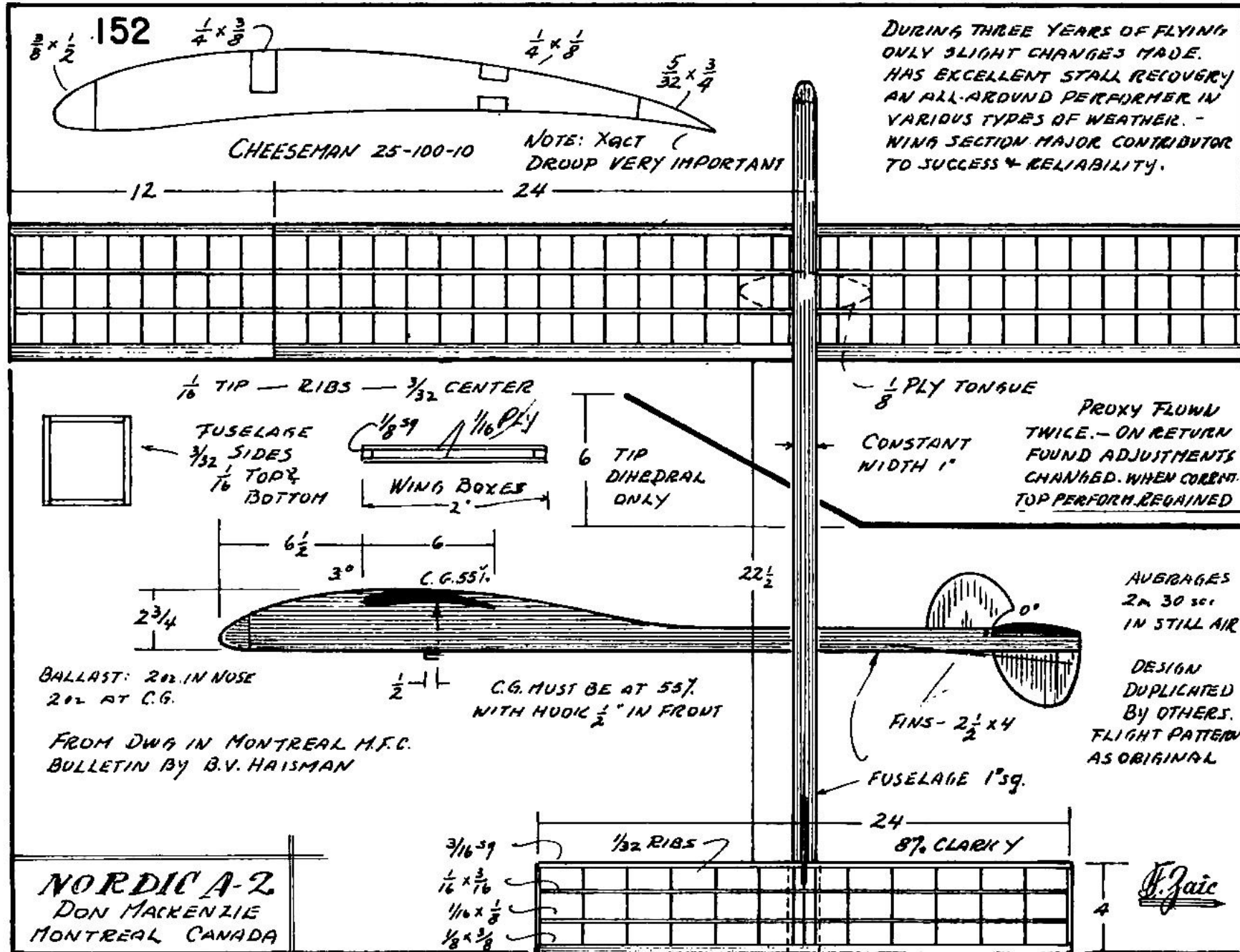
1	Allan Knox	82 points
2	Barrie Russell	48 points
3	Bernard Scott	43 points

FREE FLIGHT CHAMPION

1	Bernard Scott	42 points
2	Lynn Rodway	32 points
3	Paul Squires	20 points

CHAMP OF CHAMPS

1	Bernard Scott	45 points
2	Lynn Rodway	38 points
3	Alan Knox	34 points



DURING THREE YEARS OF FLYING ONLY SLIGHT CHANGES MADE. HAS EXCELLENT STALL RECOVERY AN ALL-AROUND PERFORMER IN VARIOUS TYPES OF WEATHER. - WING SECTION MAJOR CONTRIBUTOR TO SUCCESS & RELIABILITY.

FROM DWG IN MONTREAL M.F.C. BULLETIN BY B.V. HAISMAN

In this issue

- From the Editor*
- Contacts*
- Black Magic build*
- 1/2A Power memories.*
- Spark Ignition for beginners*
- Vintage Diesel Model Aero engines*
- A Scram modelled*
- An approach to Electric Vintage*
- Top Ten Comp.*
- Tauranga Electric Competition.*
- Top Ten Leader Board results*
- Events Calendar*
- Marlborough NDC*
- AVANZ Plans News*
- Nos 1/2A Postal*
- Tomboy Rally*
- Postal*
- Vintage SIG News*

"You need a new hobby!" Well, that was what she had said (my dear long-suffering wife that is) and so here I was buying balsa like it was going out of fashion at the local hobby shop.

So started an account of the building of this *Black Magic* by Roger Riley.



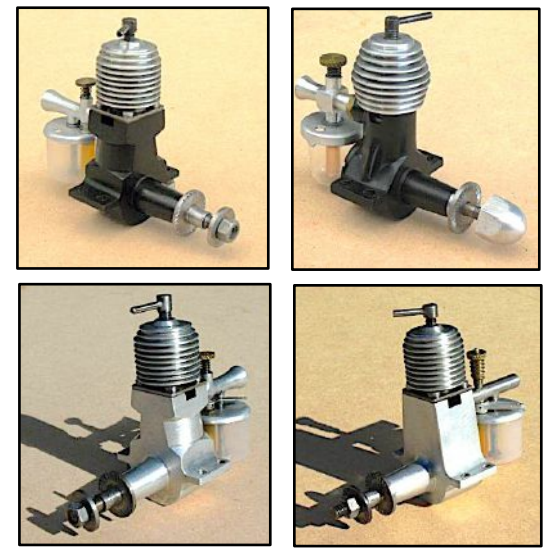
First results were posted to the new Leader Board, where Precision, as always, was the most popular.

Wayne Cartwright was busy organising a Vintage contest at Tauranga with an emphasis on electric events.

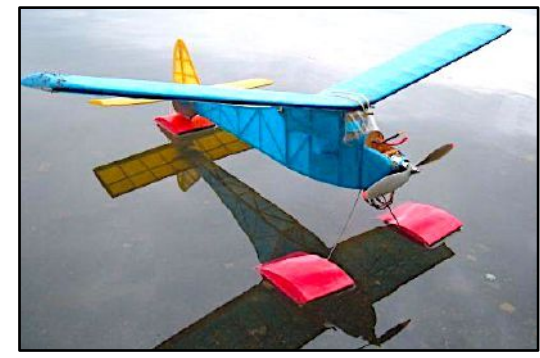
Brian Harris, maestro of the electric model, presented "One Man's Approach to the new Electric Duration and Texaco Classes". Brian's description of his electric models was an eye-opener to electric newbies and provided

performance goals to be aimed for (in the case of the current editor, yet to be achieved).

Ian Munro's home built Mills replicas were featured and the use of diesels in Vintage competition was discussed.



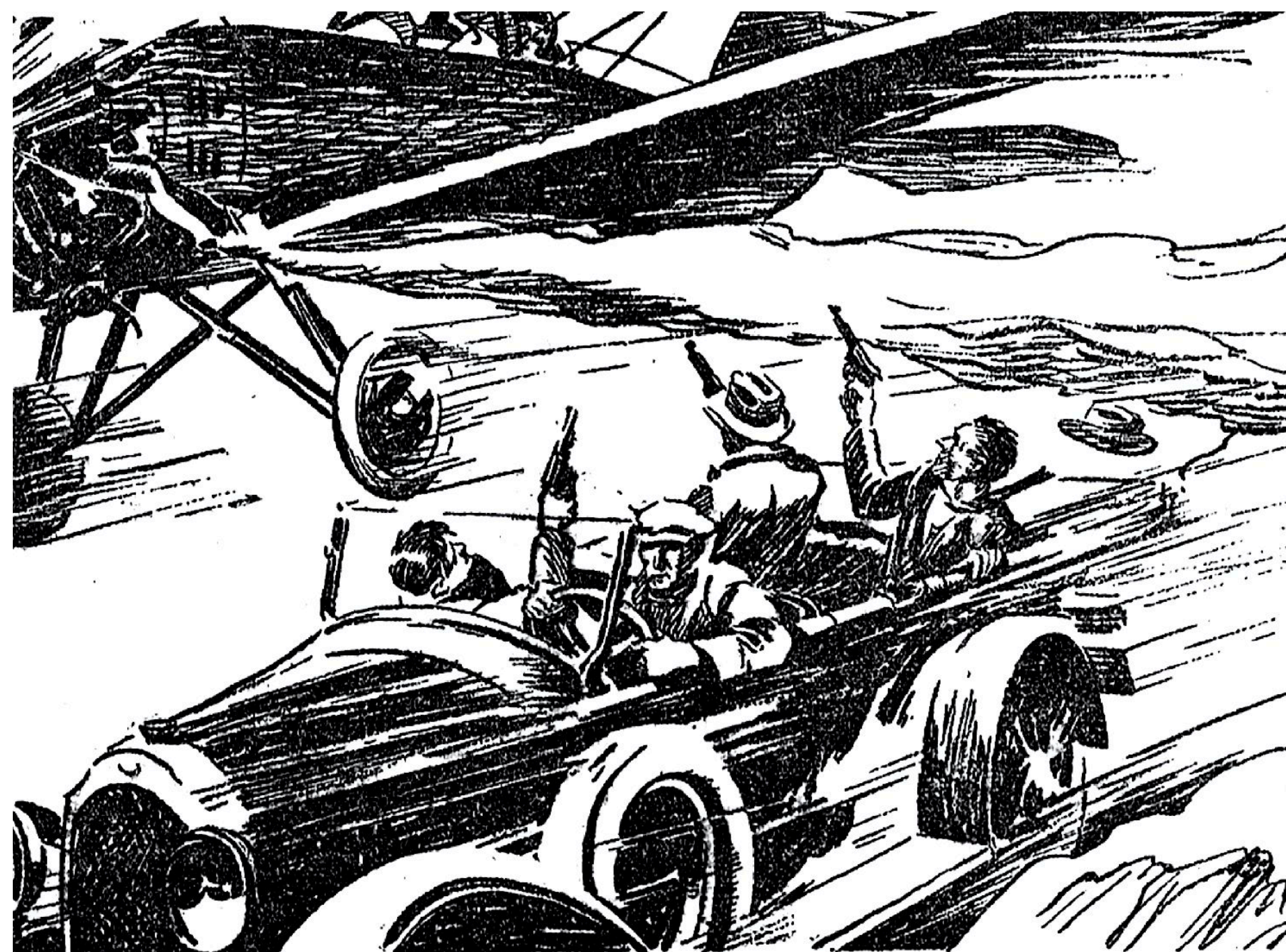
Graham Main was the only entrant from NZ listed in the results of an international Tomboy rally. Both electric and IC could be used and Ugo Baldari of Italy, using IC, managed to top the more numerous electric entries with an outstanding 47 minute score. Accompanying the report was a picture of a Tomboy on floats. More recent Tomboy internationals have had a section for ROW models - there's something to try with your TB.



The "Nostalgia 1/2A and Miniature Replica" event was promoted with a postal event, but like most postals, it had few entrants. This recently introduced event had been an attempt to give purpose to small Vintage FF models after the Miniature Replica event was dropped from competition. Why it never became popular is a puzzle.

It's that man again! This time in a report on 1/2A NDC flying in Marlborough. Allan Knox (*Chilton, 1296*) and Razvan Rocas (*Miss Philadelphia, 777*).



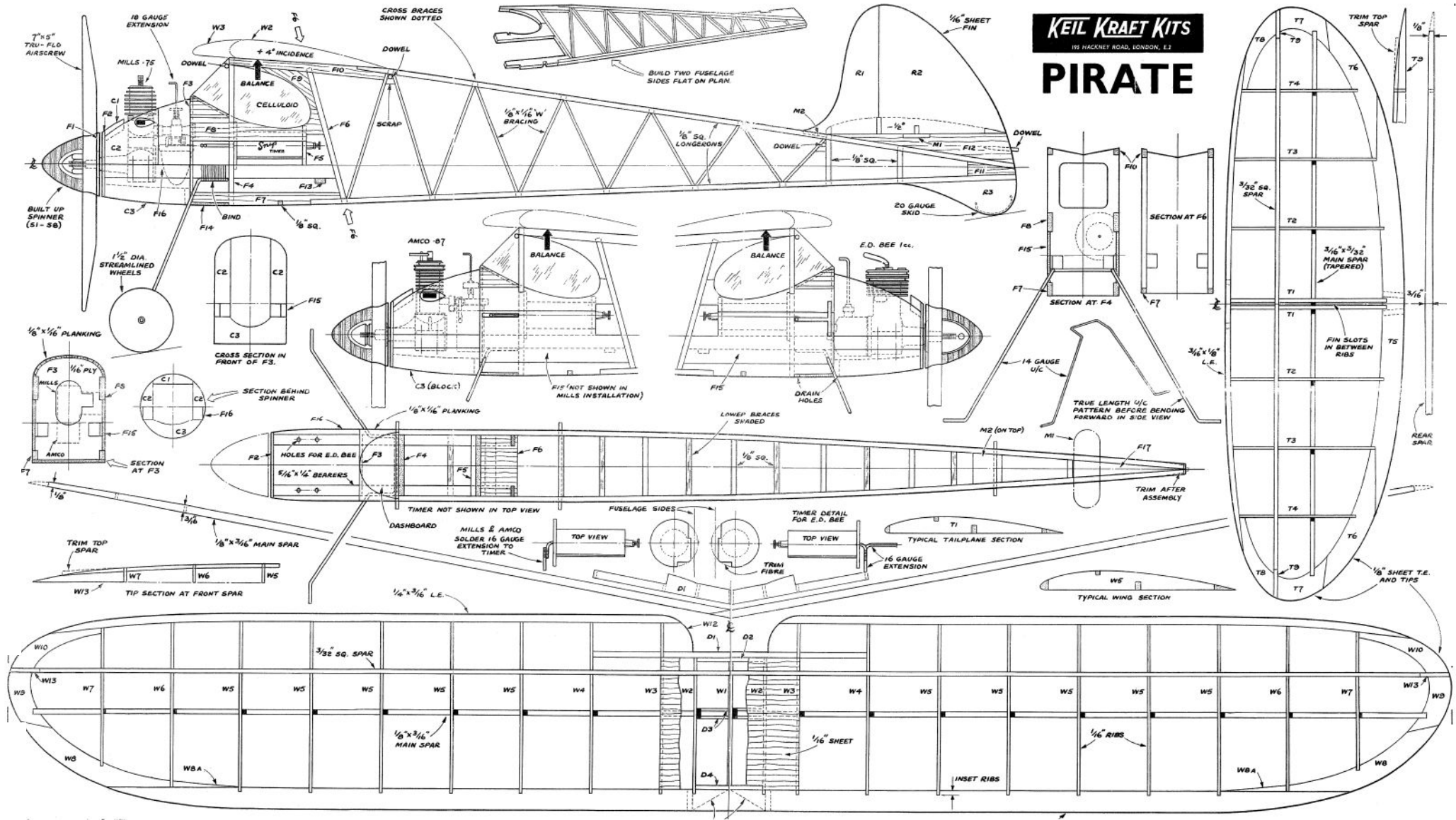


Half-blinded by swirling cigarette ash, driver Faddo McFadden cursed aloud, realising that the edge of Page 12 was approaching fast and their day's fun was going to come to an abrupt end.

"Just as well" he mused, or they would be hard put to find Jimbo's hat which had been blown off by the slipstream of the model's propellor.

Battery Lipo MAH Allowance		Vintage E Texaco		
Minimum Dry Weight in Ounces	Minimum Dry Weight in Grams	Maximum mA for a 1 Cell Battery	Maximum mA for a 2 Cell Battery	Maximum mA for a 3 Cell Battery
5	142	170	90	60
6	170	200	100	70
7	198	240	120	80
8	227	270	140	90
9	255	310	150	100
10	283	340	170	110
11	312	370	190	120
12	340	410	200	130
13	369	440	220	140
14	397	480	240	150
15	425	510	260	170
16	454	540	270	180
17	482	580	290	190
18	510	610	310	200
19	539	650	320	210
20	567	680	340	220
21	595	710	360	230
22	624	750	370	240
23	652	780	390	250
24	680	820	410	260
25	709	850	430	280
26	737	880	440	290
27	765	920	460	300
28	794	950	480	310
29	822	990	490	320

30	850	1020	510	330
31	879	1050	530	340
32	907	1090	540	350
33	936	1120	560	360
34	964	1160	580	370
35	992	1190	600	390
36	1021	1220	610	400
37	1049	1260	630	410
38	1077	1290	650	420
39	1106	1330	660	430
40	1134	1360	680	440
41	1162	1390	700	450
42	1191	1430	710	460
43	1219	1460	730	470
44	1247	1500	750	480
45	1276	1530	770	500
46	1304	1560	780	510
47	1332	1600	800	520
48	1361	1630	820	530
49	1389	1670	830	540
50	1417	1700	850	550
51	1446	1730	870	560
52	1474	1770	880	570
53	1503	1800	900	580
54	1531	1840	920	590
55	1559	1870	940	610
56	1588	1900	950	620
57	1616	1940	970	630
58	1644	1970	990	640
59	1673	2010	1000	650



KEIL KRAFT KITS
 115 HACKNEY ROAD, LONDON, E1
PIRATE



Free Flight

Be it so long ago, none of us can forget the wonder of our first Free Flight.— Be it only a minute ago, all of us look forward to the next flight.

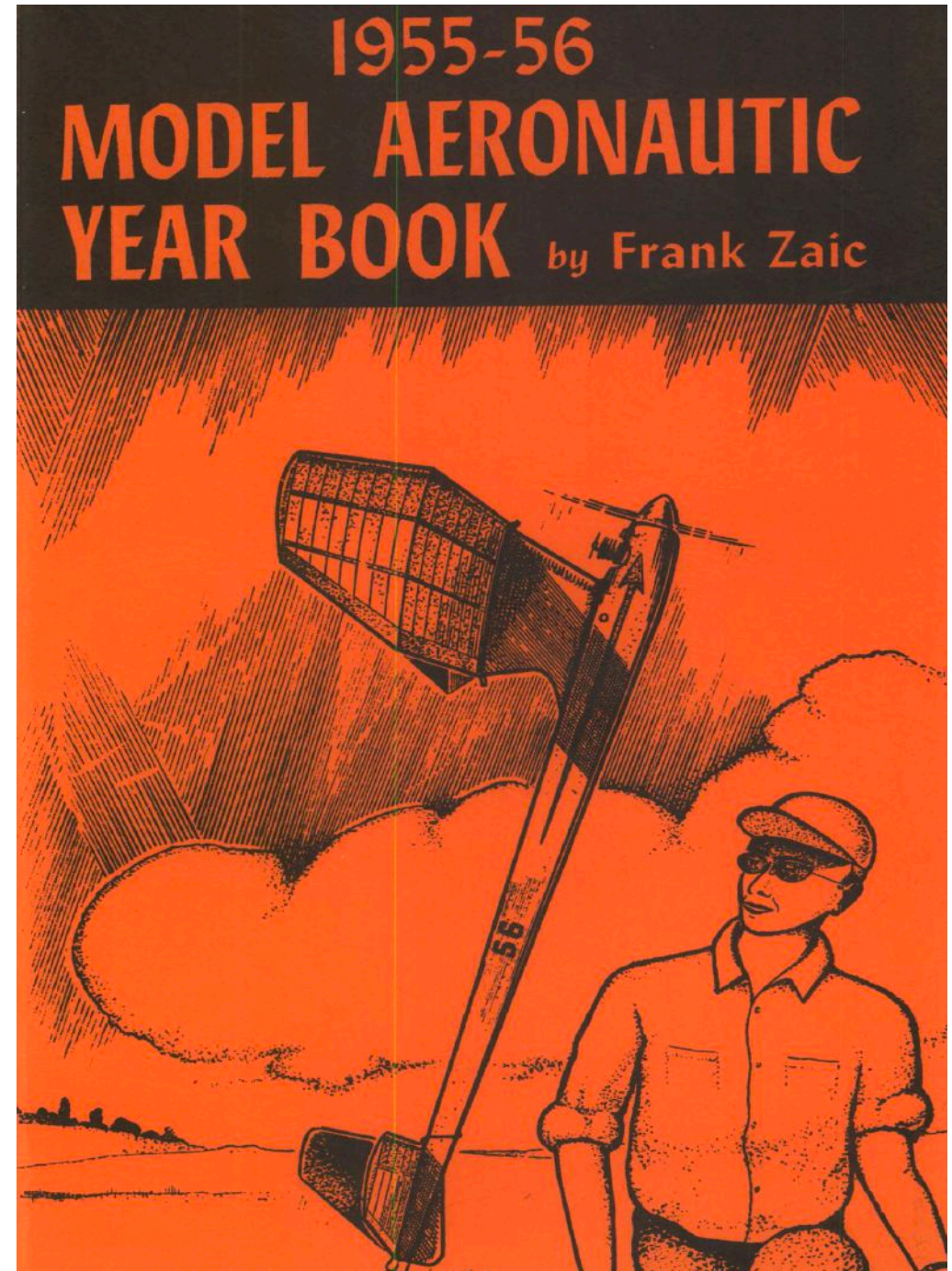
How clean the mind; how weary the body after a day of thermal hunting.— How much more exciting life can be for us because of Free Flight.

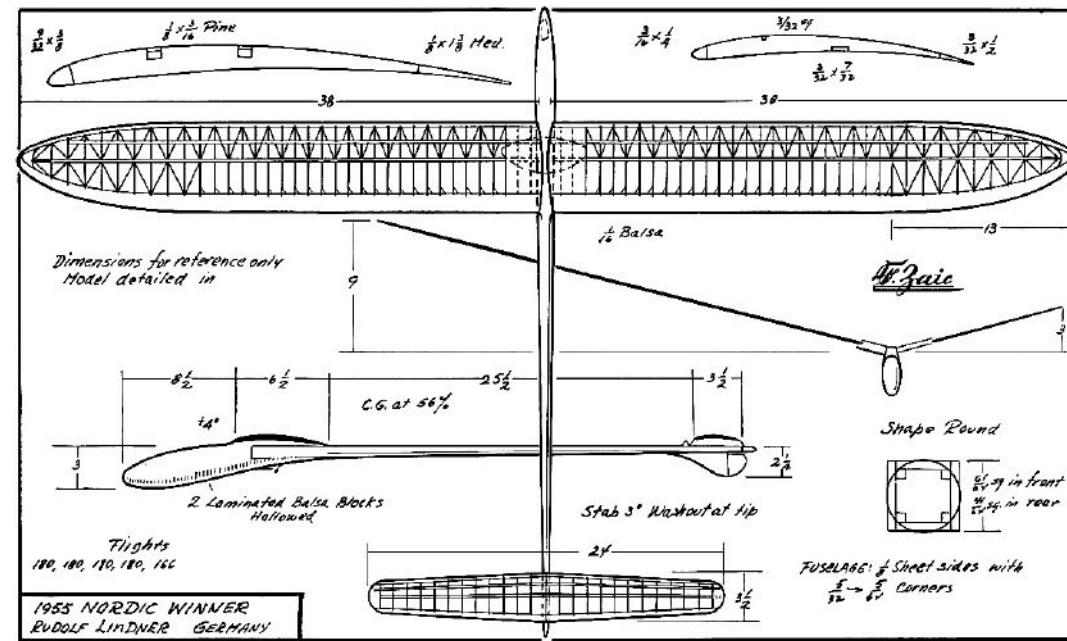
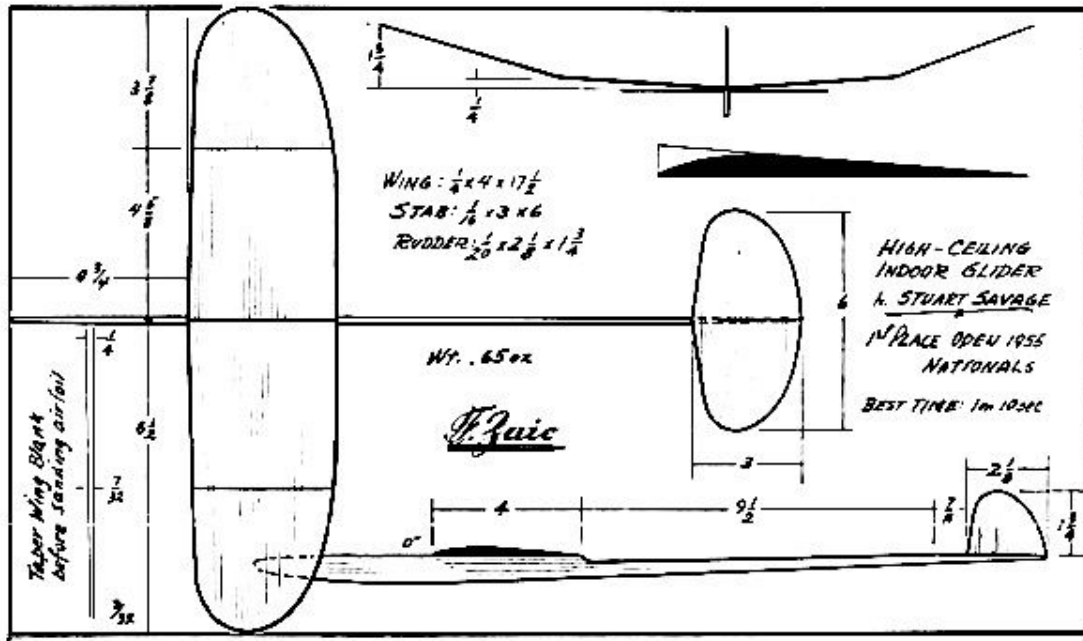
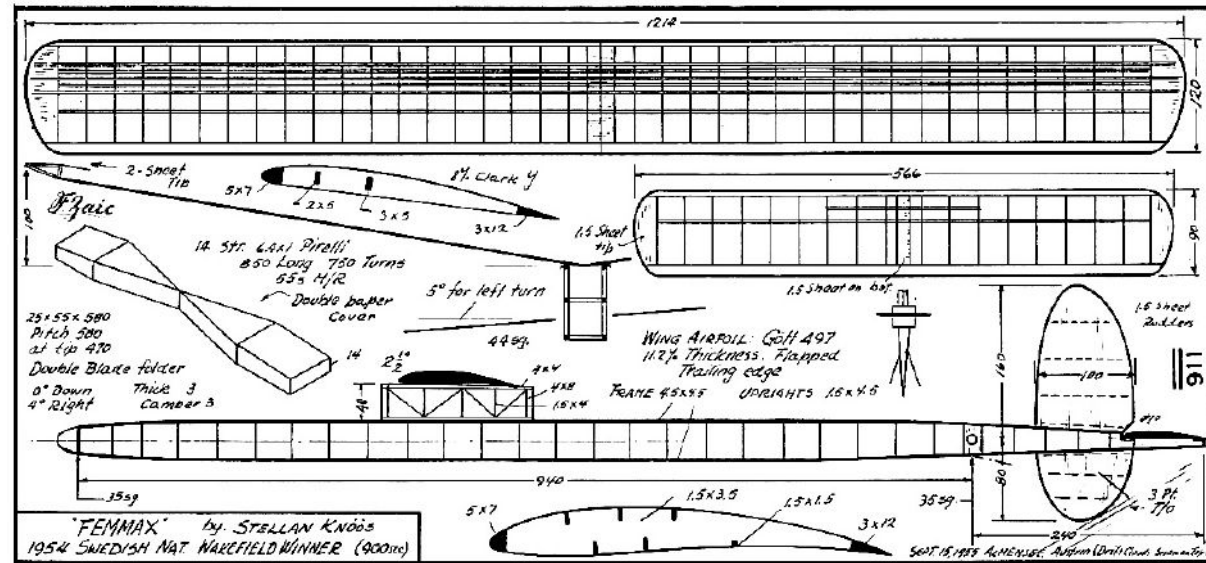
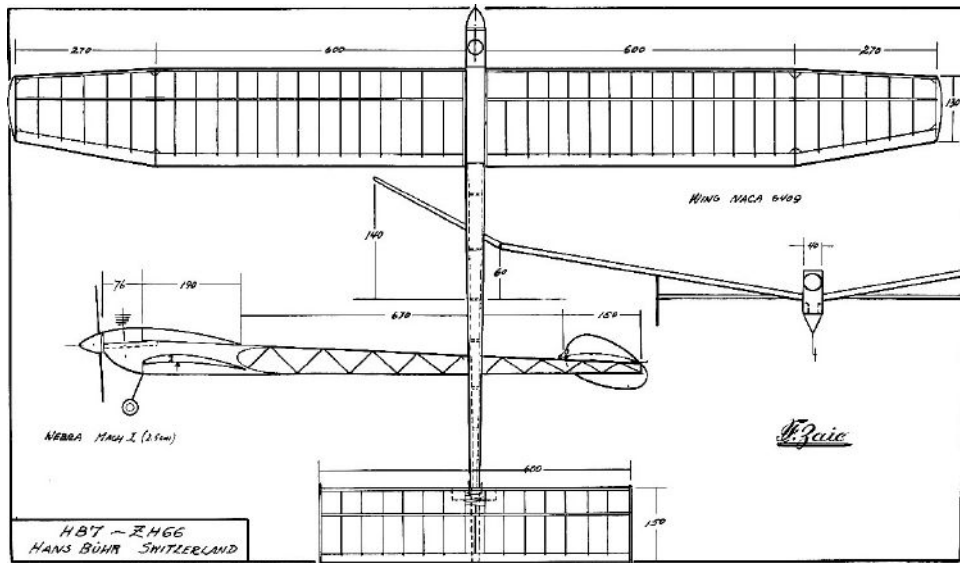
Some would have us believe that the price is not worth Free Flight. Could it be that it takes a special kind of a man to do all the things that need to be done before Free Flight can become a reality?

Yet, who else but those who are willing to pay the price will know in their hearts the glory of the skies; watching their own creation Fly Free.

March, 1956
New York, N. Y.

Frank Zaic





Have you watched a gull soaring a coastal ridge, and imagined all the things you could do with a model up there? Of course you have. So had I. And when a really reliable radio control unit was given me, that was the target I worked for. It all started with the radio. This equipment was unusual in that it promised almost unlimited endurance. Then came the model. If the model was expected to fly for long periods, what sort of model would fly the longest? What would keep it up? The wind, of course. Yes, but what wind? Where from, and how hard, and how long, would it blow?

The research started in earnest in the records section of the Central Weather Office. There I found that Auckland's summer winds were not, as a rule, reliable. But a few times a year a very steady westerly would blow, always starting at least 9 mph a little after dawn, and rising to about 25 mph in the early afternoon, falling away again later. Armed with this knowledge, I then visited all the likely slopes to try to visualize the sort of lift to be expected, and the sort of turbulence to be overcome.

The result of all this was a very clean, stable glider of about 600 sq. ins., weighing about 65 ozs., and flying at 25 mph. with a sinking speed of about 2/2 to 3 ft. per sec. It was (still is) very strong, and has an escapement motor capable of storing 4000 to 5000 turns. The radio will go for longer than daylight will last. So much for hopes and ambitions.

First flights from a ridge showed up the errors and difficulties. First, of necessity the country was steep, and the model took an appalling amount of punishment simply because it flew fast and hit steep hillsides, usually flat out, downwind. Next, the region where lift is to be found is very small at ridge level, but grows much larger at some height above the crest. I had thought the model too heavy to tow up, and all launches were from hand. Thus it was soon apparent that the critical time was just after the launch— if the model could be climbed away, it could be held up almost indefinitely. But it might require five attempts before one successful launch, in even the best of conditions. Finally, the lift available was not anywhere near that which would be expected from a visualisation of a given wind blowing up a given slope. The wind does not blow up the slope, it seems. It simply slows down, and, "thickens," at lower levels. And it blows much harder over the ridge. Thus a wind which will barely lift the glider at ridge level may blow it backwards Uvo hundred feet higher up.

After a few months of absorbing all this, I reached the stage where I could pick those conditions which would be reasonably sure of giving me sustained flight.

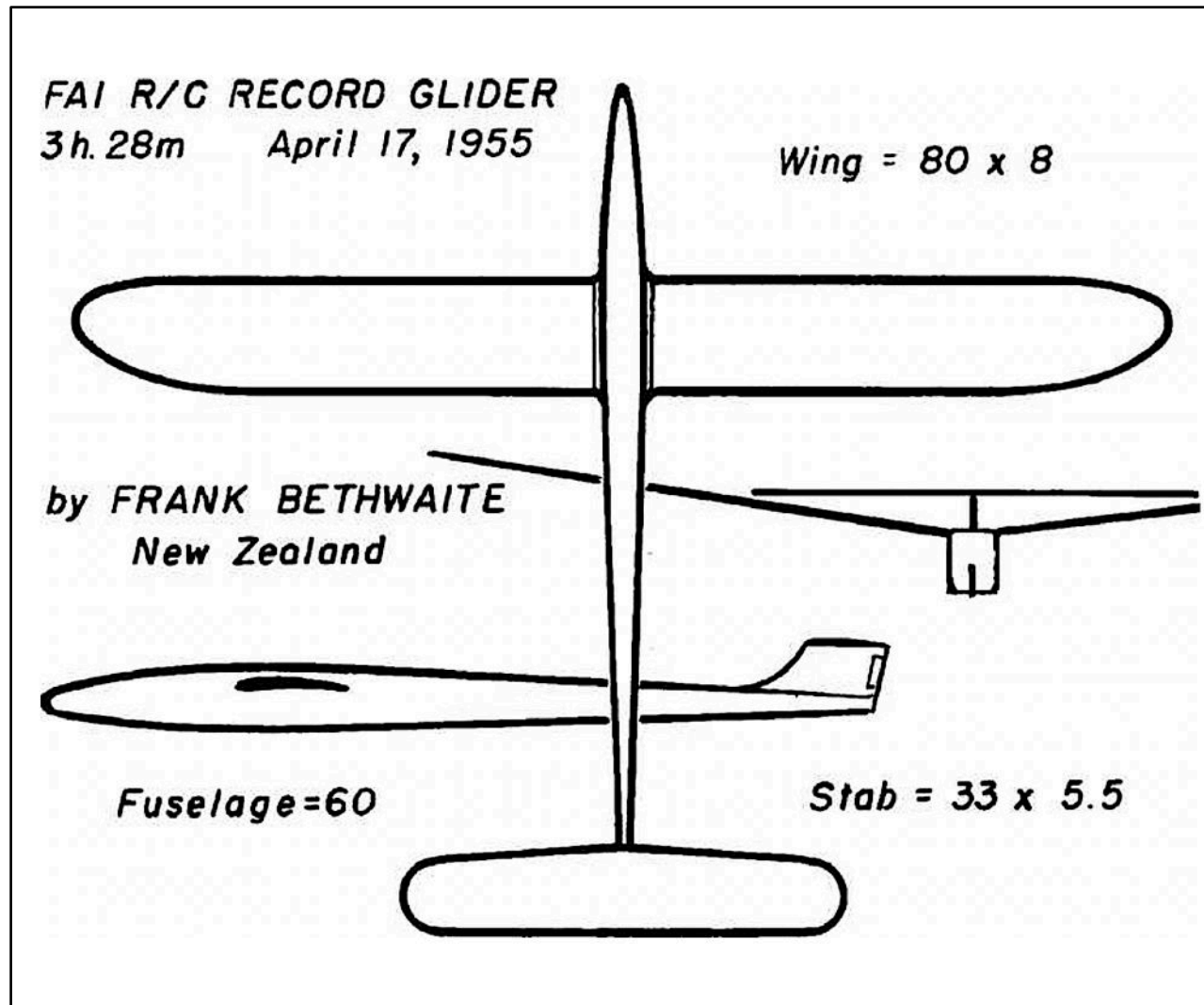
At that time, January '52, the World Radio Control Duration Record was held by Dr. Walter Good, at about forty minutes. I awaited suitable weather, coerced timekeepers into enduring the cold, (for ridge soaring is bitterly cold even in Summer.) and flew the glider for just over one hour. This flight, ratified by F.A.I., gave me the World record I sought.

During the next few months I changed my technique in the light of the lessons mentioned above, as well as growing experience. The model was reworked, and came out lighter, at 53 ozs. It was given a towhook, and proved to be easy to tow provided there was any breeze at all. This tow solved all the woes of launching which had previously plagued me. If, for example, a flight was attempted at a time when there simply was not enough lift, then the model, instead of clouting some obstacle lower down the hill, could be easily and gently landed nearby on the ridge-top, without ever being put in the dangerous "below the ridge" position at all. It proved possible to fly from a towed launch on many occasions when I am certain it would not have been possible to climb from ridge level. Also, I found my choice of ridge altering. There are many coastal cliffs which offer perfect soaring in the right wind, but I had thought it too risky to fly them in case of mishap, for there is nothing but breaking surf below. But in all the months, there had never once been any control failure. I ought to explain that the equipment used is unorthodox in that there is no sensitive relay. The receiver works the escapement directly. Also, by its nature it is insensitive to small voltage changes; it does not need critical adjustment. The current drain is small, and there is no battery life problem. So it seemed justifiable to fly the model out over the open sea, and I did!

It was not long before my hour was surpassed, first by an Englishman and then by a Russian. Twice during the Summer of '53/'54 did I try to do better. On each occasion a seemingly perfect wind would grow imperceptibly stronger until the model blew backward, once at 53 minutes and once at 65 minutes. This variation in strength of a seemingly unvarying sea breeze I now think is due to thermal activity. Often seagulls are flying with and around the model. When the air seems warm they all fly several hundred feet up, and there «s lift over a great area. Then they all fall lower and lower, although the telltale marks of wind on water out to sea do not change, and soon all the gulls are flying a "lane," just above the cliff-top, —and that is where my model is too. After say five minutes they are on their way up again, and shortly thereafter the wind will be at its maximum strength, with the glider held poised straight into it, and only luck determining the outcome. It is interesting to note that the glider glides slightly better than a seagull. Inquisitive gulls have to give an occasional flap to keep up with it.

In May of this year another suitable day offered, and again we tried to raise that record, this time successfully. Launched just after three p.m., the glider just matched the wind-speed for about five minutes. I thought there would be no hope at that particular trim speed, but after a while it forged ahead a little, and the game was on. Half an hour later both the model and all the accompanying gulls were much lower, but not at a critical height. At the end of an hour the model was again away up, and going backwards by inches. For perhaps ten minutes it lay perhaps one hundred yards behind the cliff-line, hardly moving. At last the wind eased a trifle, and again we were in business. But half an hour later the strength seemed to have gone out of the wind, and I was perforce flying the glider far lower than was satisfactory

At one particular turn it so nearly did not lift again above the cliff level that I was reduced to nervous exhaustion, and hardly noticed the subsequent increase in wind strength. Which brings up another lesson — a good model may be capable of flying for longer than a good modeller is capable of controlling it. I know that there was no pleasure in the last half hour. I was strained and tense, using far too many control movements and still



controlling badly, despite that were in fact improving conditions. We flew for two hours for the sake of doing two hours, and then in the rising wind and failing light I drove the model with scant ceremony into the trees and shrubs a hundred yards behind the cliff-edge. This flight of two hours and five seconds is, at writing, the F.A.I. R/

all this. Despite the work and the disappointingly slow progress, I would not exchange this for any other sort of flying. For to fly a clean, fast glider, soaring gracefully up above the hills, often out over the sparkling sea, and in fitting company playing amongst soaring sea-birds, is an experience utterly unlike any other I have known.

C Duration record; the second that this glider has won.

The lessons from this flight? Simply that a ridge-soaring flight such as this was the purest luck. A shade less speed, or a little more sink, and it would not have been possible. The model itself, while capable of improvement, is nevertheless very good, and simple design refinement will not help much.

Future work, for our NZ conditions, will concentrate on two-speed models, necessarily a little different from the old ship. The radio gear, now into its fourth year, is beyond praise. Winter and Summer, in rain or dry heat, it simply works. More cannot be said. And the man? I feel that we have already gone beyond the reasonable endurance of one man, and that future attempts will all be based on a system of flying in spells. Otherwise it becomes inevitable that silly mistakes, will be made due to fatigue.

A final word about the pleasure of

Model aeronautics offers many fields of endeavor to its devotees and, conversely, those who engage in model aircraft activities comprise a vastly heterogeneous group. Men and women, both young and old, from all walks of life, spend considerable portions of their spare time delving into the pleasures afforded by model aeronautics. Throughout the world there are eager followers of this hobby. In Africa, Australia, India, and China there are just as ardent and accomplished modellers as in Homeville, USA. As a result of international contests such as the Moffett, Wakefield, and others, model-builders from all nations are brought closer together under the influence of a mutual devotion to model aeronautics.

In the United States alone there are over two million model aircraft builders who are the customers of an industry valued in excess of three million dollars. Model aviation combines three types of hobbies (1) collecting, (2) craft, and (3) recreation. In the course of time, a hobbyist will collect valuable friendships, experiences, airplane pictures and magazines, contest awards, and many kinds of aircraft models. Handicraft is practiced when models are built and repaired. In the case of model airplane construction there is something else, an intangible quality, that serves to make this phase of model aeronautics very satisfying to the individual.

There is something very inspiring in the realization that the graceful miniature flying so majestically overhead is the brain-child of its builder. Recreation is achieved when the models are flown. Very often a modeler has to combine the talents of a monkey and superman when pursuing a wayward model* which, after a five or six mile chase, finally comes a not so graceful landing in the branches of the biggest tree in the neighborhood.

The educational value of model aeronautics is another one of the hobby's assets. This education is decidedly informal and usually accumulates as the result of much painful experience. Spiral dives and stalls are relatively easy to explain and account for in theory, but any model builder who has sadly raked together the remnants of a once perfectly good model can tell you with all his heart and soul the meaning of such terms.

Model builders gradually develop a steady hand, patience (ah that's the one the layman appreciates), and resourcefulness. Building successful models necessitates a knowledge of mathematics, characteristics of airfoils and methods of plotting them, relationships between areas of different flying surface, the proper placement of aerodynamic forces, and an appreciation of stress and structural design. One soon becomes versed in watch repairing (mending timers), soldering, electrical hook-ups, and the mechanics of internal combustion engines. Throughout this educational process the modeller gains a profound respect for the practical limitations of empirical formulas and techniques and the compromises on theory required by actual working conditions and materials.

Model aeronautics serves both as a preparation for and an incentive to a career in some aeronautical activity. Such men as Donald Douglas, Igor Sikorsky, the Wright Brothers and William Stout started as model builders. Recent polls taken at air schools throughout the country reveal that from fifty to seventy five per cent of the students are model builders. At the same time this survey showed that these same students

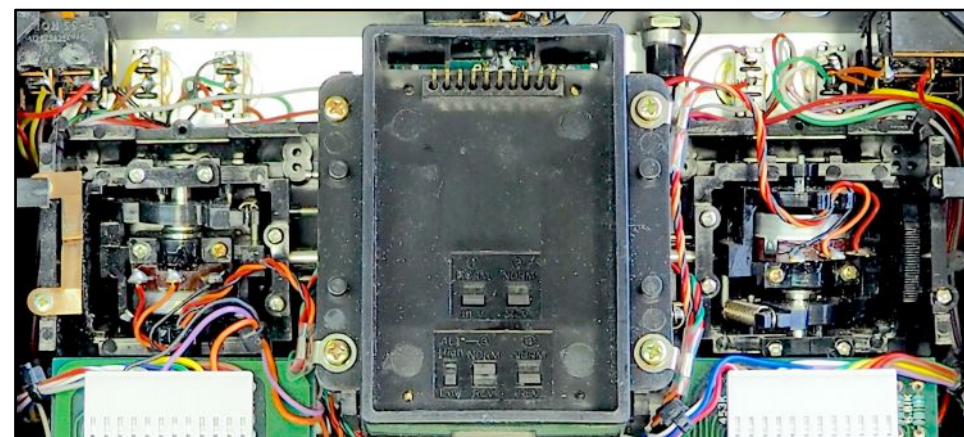
exhibited greater proficiency in the use of aircraft terminology and tools than did those who had never built models.

Today, as well as in the past when men merely dreamed flying, model aircraft are indispensable factors in the success of full size airplanes. It is to research with models that full-scale aircraft largely owe the refinements of design which are the admiration of the laymen. As yet, aeronautics is not an exact, mathematically proven science and thus many results and formulas are largely empirical. Consequently, exact-scale models and parts are essential in determining the relative performance of full-scale aircraft. Many aircraft plants have their own research divisions, but probably the best known research center is that at Langley Field, Virginia. Here many of the skilled model makers were formerly model hobbyists. The characteristics of the scale models are directly determined in wind tunnels, free flight tunnels, free spin tunnels, gust tunnels and towing basins. After certain correction factors are applied to the experimental data to account for scale effect and difference in working conditions, the performance of the full-scale craft may be determined within two or three percent.

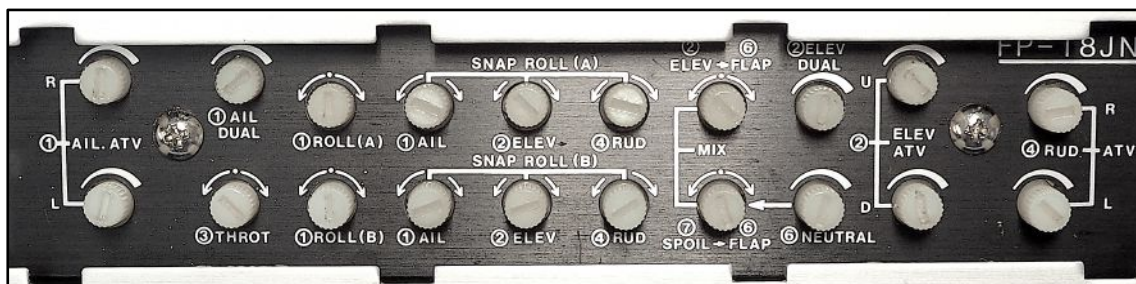
The aircraft industry is vitally concerned with the acquisition of plant personnel, and thus the educational value of building models works both ways. It is as much a boon to the employer as it is to the employee. It might be amusing to send new workers to the boss for "dihedral grease", but it is no joke to plant managers trying to speed up production and increase plant efficiency. Any new worker who is already familiar with the language of aviation is a valuable asset to the aviation industry.

Considerable effort has been expended in educating the public to the advantages and safety of aviation, but it is the model builder who has brought aviation into the American home. We are all familiar with the circus barker type at the neighboring airport and the polished high-pressure advertising of aircraft plants and transport lines. Yet it is young model-minded America assiduously at work in home workshops who have largely made the American family aware of the potential of aeronautics. A Sunday afternoon's visit to a model airplane contest and it isn't long before the entire family will at least acknowledge that aviation does "have something".

The United States, in a war torn world, has come to the abrupt realization of the essential position of aircraft in modern wars. Model aeronautics is also essential. Germany, Russia, Japan, and England all foster a youth movement emphasizing and establishing aviation backgrounds through the medium of model aviation. In the United States such organizations as the Junior Birdmen of America (now defunct) and the Academy of Model Aeronautics have served to guide and consolidate developments in model aeronautics. A fundamental doctrine of the social sciences is that of multiple causation, and thus no claims are made that model aviation is all important or even strictly essential, but it certainly can be an important factor both as a source of pleasure and as a chance to profit by the gaining of valuable knowledge and training.



Advertising for the FP8JN claimed "It will do everything but scratch your back". It was marketed for F3A pattern flyers and to this end used cross-trim sliders to aid trimming a channel with one hand while the other was working the function being trimmed. In 1981 it sold for just under \$1000 yet I picked up this pristine unit at auction for \$20. In its day, most fliers would have settled for the lower priced, but still stylish, Gold Box. What a delight this transmitter is to hold and just to look at. No flimsy lightweight like some current transmitters and there is a complete lack of frippery. Like all top end products, there was no need to shout to impress as its understated elegance was enough. Back in the 1980's this transmitter must have really made an impression on me as after forty years I still remembered that Harvey Stiver had one and contacted him for comment - see pg 23. Harvey's experience with a 8JN made me think twice about bringing it back into service, and yet ... it would be hard to find a better looking or more business-like transmitter. *B.Scott*



Hi Bernard. For many months when owning the FP8JN I was building weekly to be able to fly at the weekend. Firstly, a little history as to my early radio control systems. My first radio set was in 1957, as a school boy, with the Wright System of Radio Control by a great Wellington club member Les Wright. Les worked for a radio development company called HMV, well known in that period. My Wright radio was in the original blue box, later changed to grey when taken over by HMV.

My first aircraft for the Wright radio was the Veron *Deacon*, a 50" span cabin design. The Wright radio had the rubber band escapement system, giving only one control, usually to the rudder for steering. This radio was not the best for constant performance, was difficult to set up and often failed in flight. Then came the Teletrol, well received by all, had four functions with trims on all four.

My next purchase was the latest by Futaba the FP8JN. This radio was well advanced with eight channels, trims on four channels, and four other channels on slides or switches. Much success in the early days, with good steady control. I next built an *Ole Tiger* a 65" single seat pylon racer as, flown full size in the USA. This aircraft powered by an OS 1.08 was soon ready to test fly and assigned to the FP8JN. Test flight day at our Highway 50 site was warm, no

wind, all systems on and ready to go. The little wind was from the north, so take off was from the strip, over a fence and above an orchard on our north boundary. The model rose well off the strip, only enough to clear the fence and entered the orchard below tree height. The *Ole Tiger* flew between orchard rows shattering wings, tails and fuselage until crashing into a large boundary tree. Most disappointed, I checked reception between transmitter and receiver to find all OK, a real mystery as to why I had no control.

After a few attempts to fly another model with the FP8JN, with little success, I went to a radio repairer in Havelock North. He was not surprised when I put the FP8JN down on his bench. To cut a long story short, this radio had proven to be real trouble with the final resolution being, in the repairer's words, *take it home and end its miserable life with a hammer*. I was informed that the FP8JN was prone to poor soldering connections, also the extended aerial sometimes gave no outgoing signal even though the signal was strong enough to give a ground range check.

So, Bernard, I am pleased to hear that you have purchased the radio with no intention to use it, maybe the best thing.

Regards, Harvey Stiver.
Patron Model Flying HB inc.

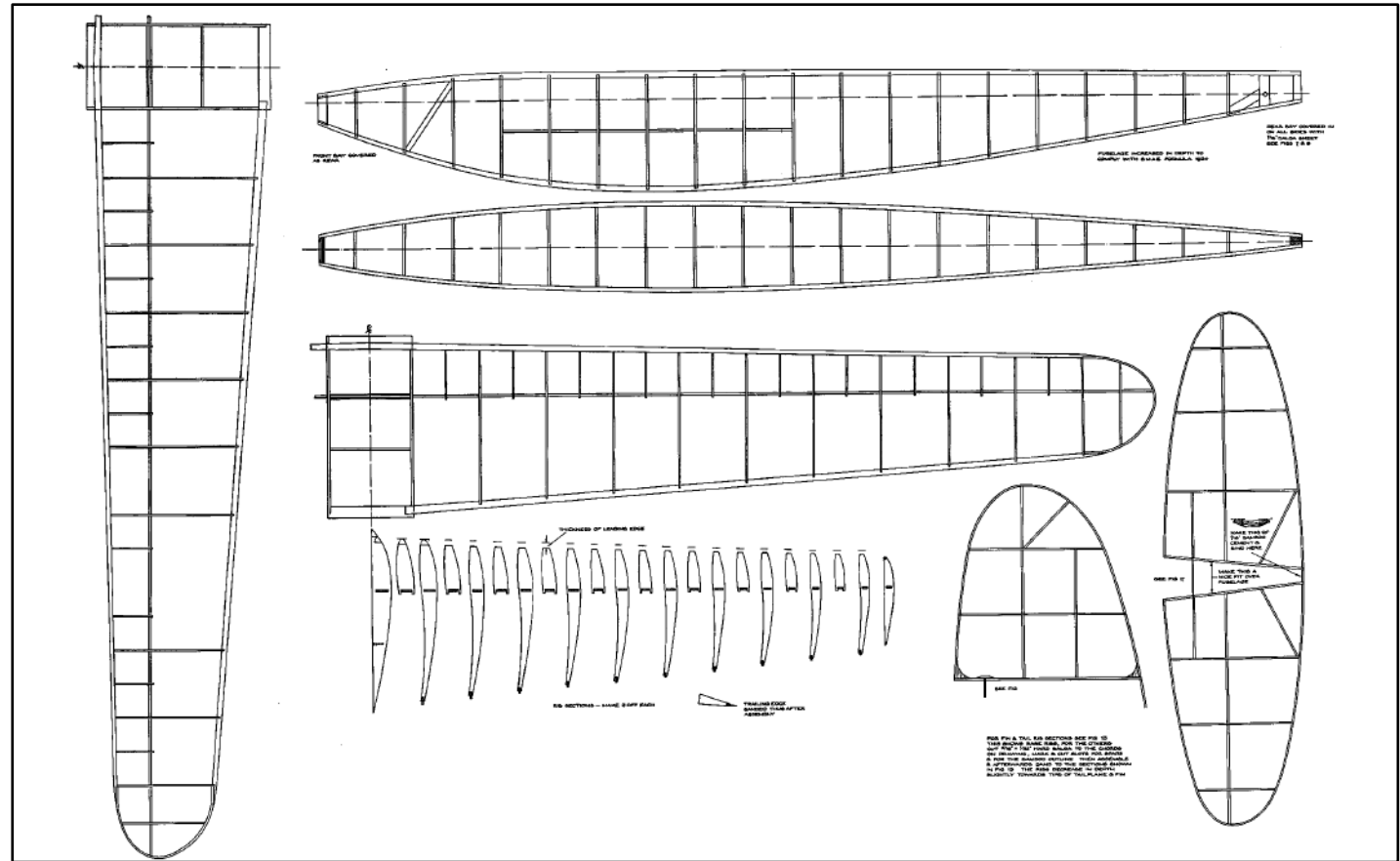
After the 1932 debacle, a controversy still surrounded the "win" by Gordon Light. Eventually the contest was declared null and void by the SMAE, and the Wakefield cup was ordered to be returned to England.

The 1933 Wakefield Cup Contest was held in June at Fairey's Aerodrome, with just one foreign entry, the indefatigable Gordon Light. James Pelly-Fry was selected as proxy to fly Light's model, and he made a good contest of it.

It was a seven person contest: the six man Team Great Britain, and the one man Team USA. Windy was between 15 to 20 mph so it was decided to delay flying until 6pm.

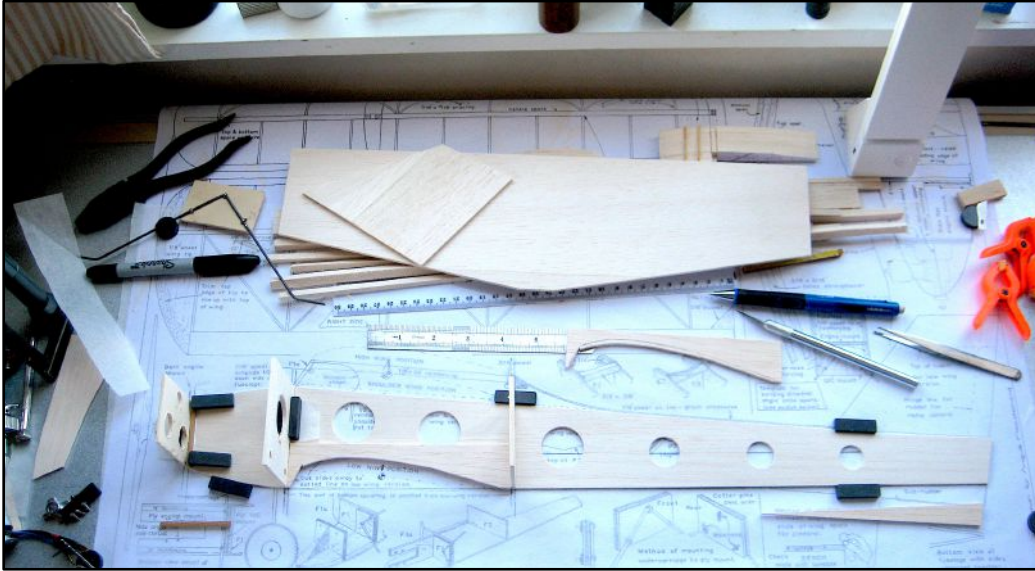
J W Kenworthy was declared the 1933 Wakefield Cup Champion. He flew a beautiful model which had high aspect tapered wings and tail, all balsa wood, weighing 2.8 oz. total. Kenworthy had the longest flight of 5 minutes, 21 seconds, OOS, breaking the GB record for longest ROG flight.

The SMAE had at the last instant fiddled around with the Wakefield Rules, deciding *"The competing aeromodels must fly at least 200 yards in a straight line without a circle upon take off"*. A very curious requirement that calls in question how Kenworthy made a 5 minute thermal flight without circling.





I have finished the *Humming Birds*. The build started with copying all parts from the plan. I use primarily a steel work top and magnets to hold and glue all parts of the build.



The two fuselages were constructed as per plan and I found the u/c fitting method, while "agricultural", works well indeed - simple and effective.



Note how the wing for the low-wing model sits, looking rather untidy, so I did some mods that were not on the plan.



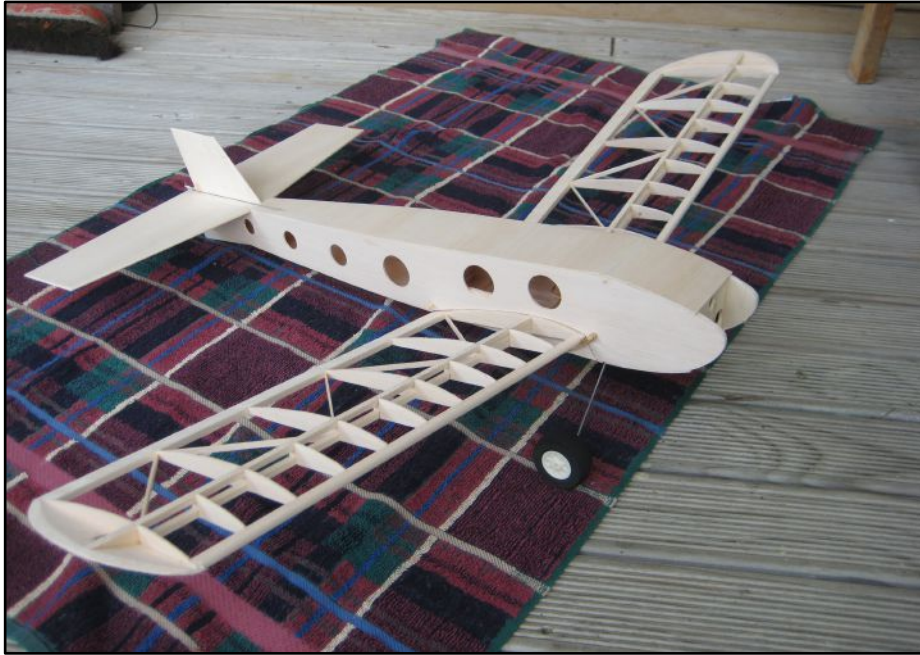
A section of the TE was cut out and remade flat with the fuselage, then the underside was boxed in.





The low wing weighs 296 grams ready to fly and the cabin weighs 291 grams ready to fly. Within 5 grams of each other makes me feel happy. The servos are Turnigy MX-95e. The motors are Hextronic 2211/1700Kv; batteries are Nanotech 950Mah 2s; esc in each is Mystery 10amp. They are fitted with 7x4 props and give about 66 watts/pound. Wing loading is 6.93 oz square foot, and they have a stall speed of about 12.5 mph. I should be able to get about 20 mins flying on a charge if flown sensibly.

Dayle



The use of electric power for Vintage FF models is a largely unexplored area. Our rules allow all FF events with IC engines the option of electric motors, but there has been little uptake of this and no electric Vintage models have been seen in contests.

My first attempt at such a model was a 1936 *Shadow*, intended for the Precision event. It was cute, but a failure, mainly because advantage was not taken of the many off-the-shelf items for electric power. Instead, own-design, and therefore complicated and heavy, elements such as motor speed control and motor cut-off were used. Even so, the *Shadow* presented lessons that nudged the following experiment more fully into the electric world.



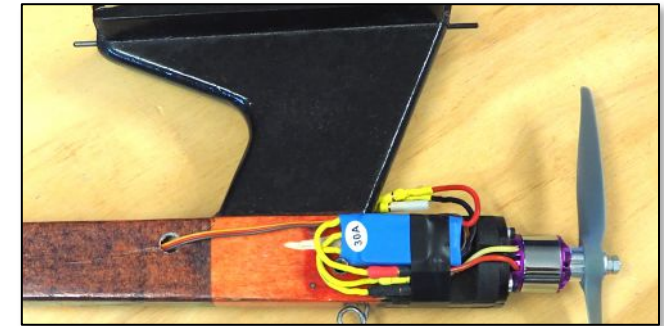
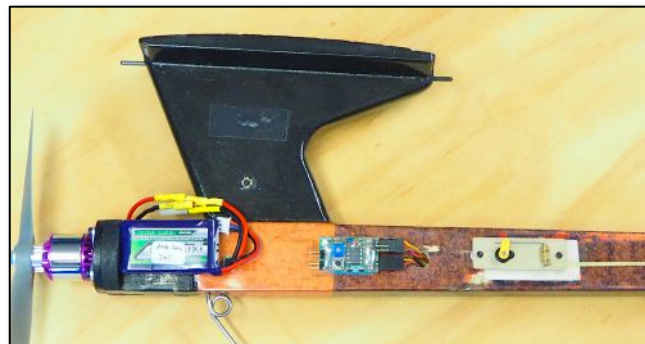
The VEFF *Dixielander* used a commercial timer for motor run, motor speed and DT. This timer was lightweight and simple to use once the single-button programming was learned. Using this timer enabled trouble-free trimming, so it deserves a mention. It is from Den's Model Supplies in the the UK. I chose it because it includes motor speed control and remote

dethermalising - the first to ease into trimming at low speed and the second so I could pull the plug on a flight if needed. It also has provision for remote programming. Some other timers may do all of these, but not at the reasonable cost of Den's units.



The Dixielander's motor was an unbranded unit from a park flyer, while the 30A ESC was highly optimistic considering the 2-cell 350mA LiPo battery. But, the bits all held hands nicely and cooperated to deliver performance that was safe, if uncompetitive. At least this was a chance to practise essential pre-flight routines that were very different from those for IC.

The Dixielander's fuselage offered scant opportunity to conceal any of the electric paraphernalia. The result was an unappealing and inefficient eyesore that put function above form - not really "Vintage".



The next electric build was slightly more refined, a 36" *Pearl* for E-36. Shamefully non-Vintage, it did give further practise in flying electric FF, but did not advance my VEFF goals as the class is iron-clad by its rules. While it is great fun, little learned there could be applied to the following electric build, a *Sportster*. This was also intended for Precision, an event for which an electric model would be well suited, perhaps even giving an edge over IC power.



The *Sportster* has been a great success in that all the dangly and draggy bits have been concealed within the fuselage. All that is visible is the button and LED for programming the timer and a servo output arm for dethermalising. On top of that, for such a homely design it flies beautifully, consistently stable and predictable.

The next build had two goals. First, an improvement on the *Dixielander's* modest performance by more careful selection of components. Second, the concealing of the electric gear while maintaining ease of access, as had been achieved with the *Sportster*

Zoot Suit, the George Fuller design with which he had placed second in the World Champs, was already on my build list. Not only did it have a satisfyingly distinctive appearance, but for my electric requirements its bigger fuselage would allow components to be better housed, and at 380 sq inches compared with the *Dixielander's* 350 sq inches, it would tame some of the extra performance that I was looking for. It was an easy decision.

The only *Zoot Suit* plan I have ever found is from the RAF Flying Review. Enlarging this to full size resulted in lines an eighth of an inch thick. I chose to build to the outside of all lines to give me a tad more space in the fuselage while still keeping to the letter of the rules.

As hoped, the fuselage of the *Zoot Suit* is just big enough to maintain a relatively uncluttered exterior, and with no external timers one that is cleaner than an IC version would be.

The Den's controller is under a hatch behind the pylon and can be programmed remotely using a button and LED embedded in the pylon. Behind the hatch is the servo arm for the detormaliser and a slot for a GPS unit. The remote DT is fully inside the fuselage with its aerial lying along the bottom covering.



A 3S 850 LiPo can be enclosed in front of the pylon, held by a hatch that is in turn retained by a rubber band. A more streamlined retention method that still allows the battery to exit in a crash is being worked on.

The motor is a Bad Ass 2310-1680, chosen by starting with the assumption of a 7x4 propellor then finding a motor that on a 3-cell battery would turn this at the same speed as would an OS.15. Nary an amp, ohm, or watt was taken into consideration, but it made sense.

Performance on the three cell battery is good, although less than that of a .15 IC-powered version. A four cell battery would level performance with a .15 but this would protrude unacceptably below the fuselage profile.

Next, as courage permits, will be to seek advice on selecting power trains, find a design that can stand the full monty, and go for the powerhouse performances of the Classic period.
... maybe.



We fall even deeper into SIN than we did in the last issue - a full 55 years - and yet Paul's exhortations could have been penned much more recently. Interesting that the "Silent South" seems to have been forever so, even at the time of this extract when the number of SI flyers was much higher and the SI Champs was a major event.

SOUTH ISLAND NEWS Jan / Feb 1966

Another Committee change is that of Newsletter editor - all correspondence pertaining to the Newsletter should, however, be addressed c/- the Secretary as you new editor feels it would be to his advantage to become anonymous. We intend to produce these Newsletters bi-monthly and to make them just that, NEWSletters, so we naturally require the support of all Clubs and individuals in this matter.

CLUBS - please send to the secretary all your bulletins or if you do not produce a bulletin, please send regular reports on your activities (or lack of activity) so we may prepare an interesting "Club News" type of feature in this Newsletter.

INDIVIDUALS - for a long time now, our North Island neighbours have regarded South Island modellers as a necessary evil - people to tolerate but on no account a threat to their status. In fact, in the eyes of the average North Islander, there are, or have been, only about a half-dozen South Island aeromodellers worthy of consideration. Now, you know, and I know, that this is a lot of rot. For example, the South Island Champs each year produces a great deal of keen competition and flying standards are generally pretty high, far higher in fact, than an equivalent North Island contest.

Why then, you may ask, has friend North Islander got this superiority complex? Simple. There has never been adequate publicity given to South Island modelling. Even when the NZMAA Council was situated in Christchurch, South Island modelling was usually given about two sentences in the NZ bulletin.

I for one can't believe that Modelling in the SI has almost ceased to exist (as a lot of our sceptics would have us believe) and I feel it is up to you, the INDIVIDUAL to prove we are still as active as ever. Consequently, if you have any plans of that new model, hints or tips, moans or comments on our rules or Classes, reports on local or overseas events, then please write and let us have them.

In 1966 the Nationals was at Feilding where a young Rex Bain flew F1C.

"That is me with my 'bitsa' reserve F1C at the 66/67 Feilding Nats. The fuselage is a Lucky Lindy modified to a rear mounted fin. Not sure if the tailplane is the original Lucky Lindy with the tip mounted fins removed but probably is. Wing is Lucky Lindy and maybe the tips were cut-down a little. I think it had an auto-rudder?

Motor was a Mk.II Oliver Tiger diesel which I wish I still had. Have never seen another one.

This was the final trial at the Nats for the F/F Team to represent New Zealand at the World Champs in Czechoslovakia. I had flown my version of Paul Lagans 18 Tons design with a Supre Tigre G15 in the earlier rounds but it must have been damaged so this battered reserve was deployed.

It performed well enough to earn me my first Team place". Rex



Last week I had a visit from Terry Beaumont of the Kapiti Club. Terry wished to fly his newly finished *RC1* a model by Chester Lanzo. The *RC1* was one of the first models to be flown by radio control. It is an 84" high-wing model designed by Chester in 1934, and first flown as a free flight model with spark ignition engine. Flights were described as below 100 feet in steady circuits with a gentle glide home after motor cuts. Chester's real desire was to have the model controlled by radio signals so he designed an early system of radio control.

The transmitter, Chester said, was simplicity itself, finally settling on a Model T spark coil of 1923 vintage, a key to pulse the signal, and a six volt auto storage battery which made up the bulk of the transmitter, along with an aerial and tuned coil system. Because of the added weight of the receiver package, design and weight reduction took some time to accomplish. The coherer type receiver and its associated spark gap transmitter seemed to fit his requirements very satisfactorily. It was a simple detector and a relay actuator combined, with engine ignition batteries to power the unit for the airborne equipment. The complete receiver weighed less than 8 oz.

Early radio tests. The *RC1* was very stable in both powered flight and glide. These early trials with radio control were well received and many other developers of radio control systems looked at his systems and aircraft designs. Outerzone has many of Chester's designs, a tribute to a talented designer and innovator.

Terry has installed a four-stroke engine with modern radio control. His *RC1* flew well over the week and gave many enjoyable flights. At Terry's visit, my recently completed *Miss America* was ready to test fly. The model weighs 6lbs 7ozs, is powered by an OS 40 four stroke, and flew off the runway with little trim changes - a real delight to fly. I am now looking at enlarging my 60" *Southerner* to 78", This should make a great model and if as good as the smaller version it will be a delight to fly.

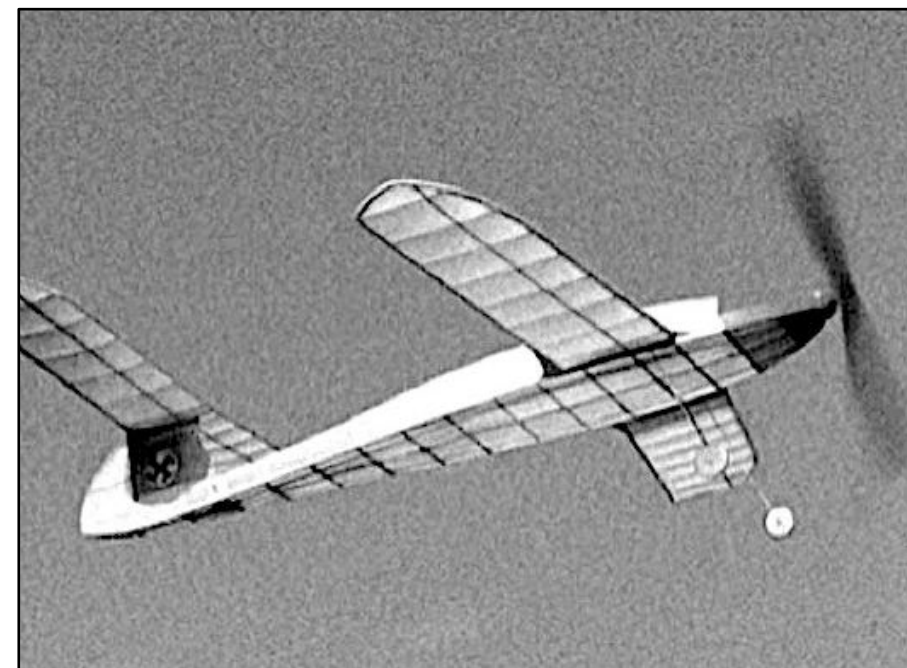
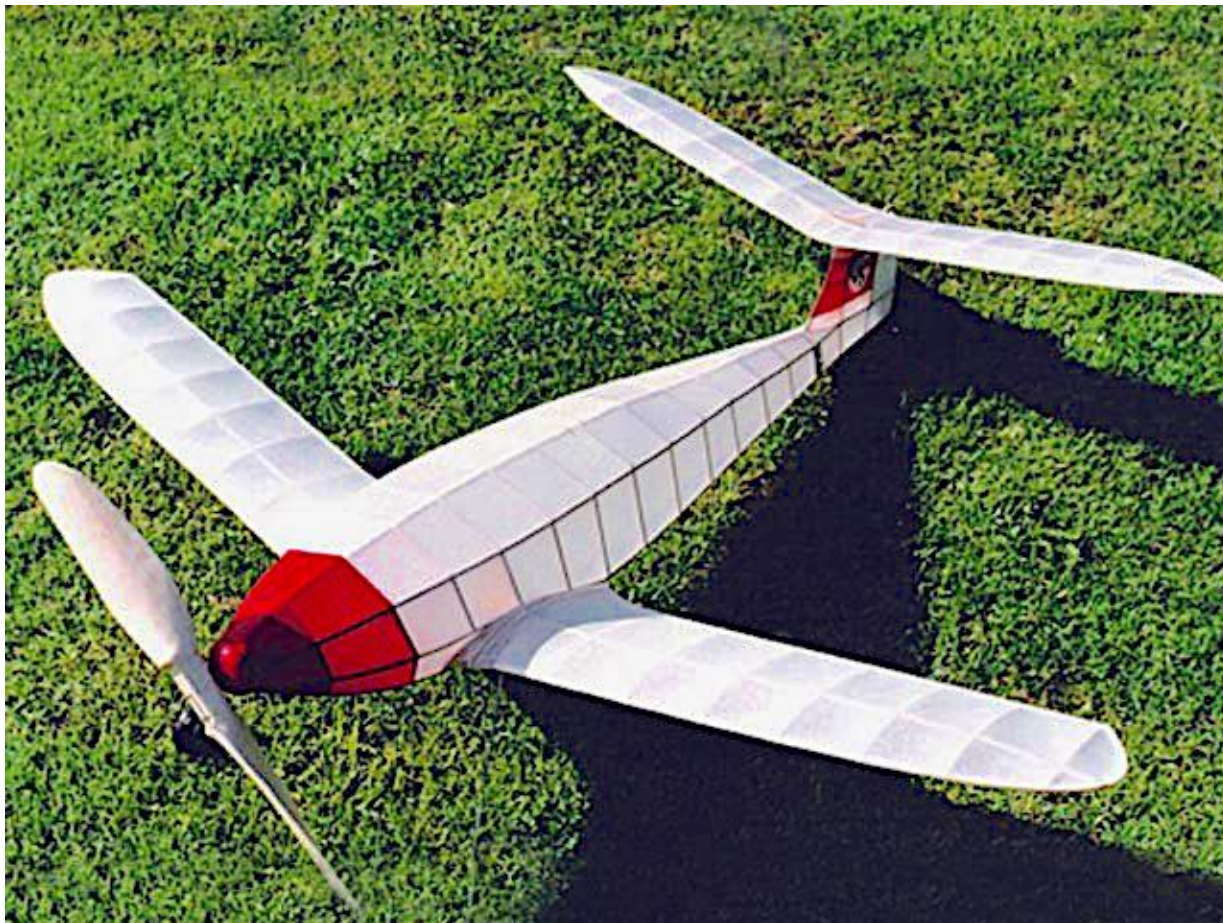
Regards Harvey Stiver
Patron Model Flying HB Inc.



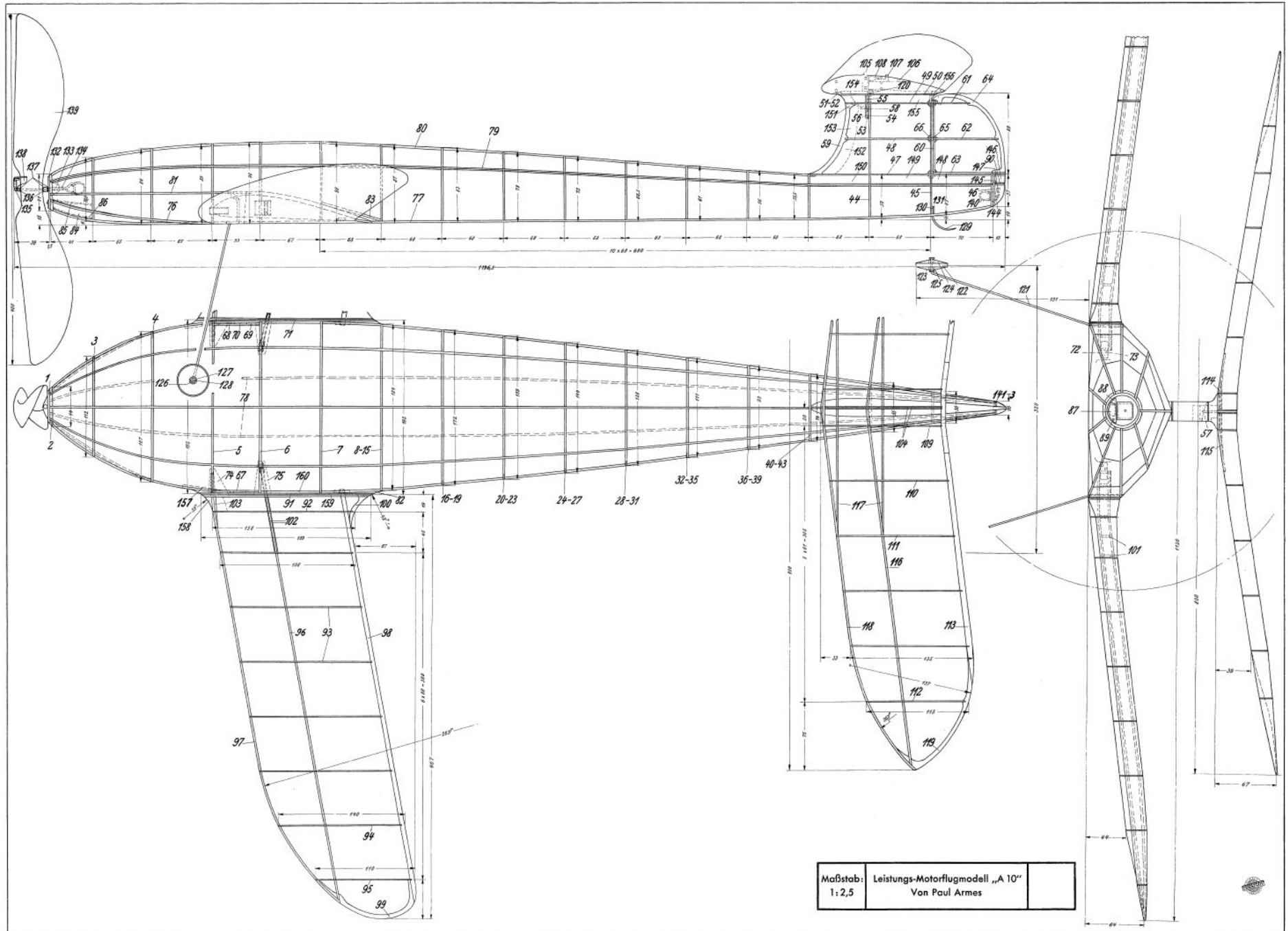
Here's a treat / challenge for those who love fret-saws and plywood. Make a start, as is often advised, by cutting out a kit of parts. The fuselage formers alone should keep you busy until Christmas.

More than usual space is devoted to this model out of respect for both its beauty and the industry of its designer. None of today's three piece, pop-out, paint by numbers kits here - this one sorts aeromodellers from aeroflyers.

Doughty builder Leigh Richardson, *Right*, holds up proof that the model has actually been tackled in recent times.

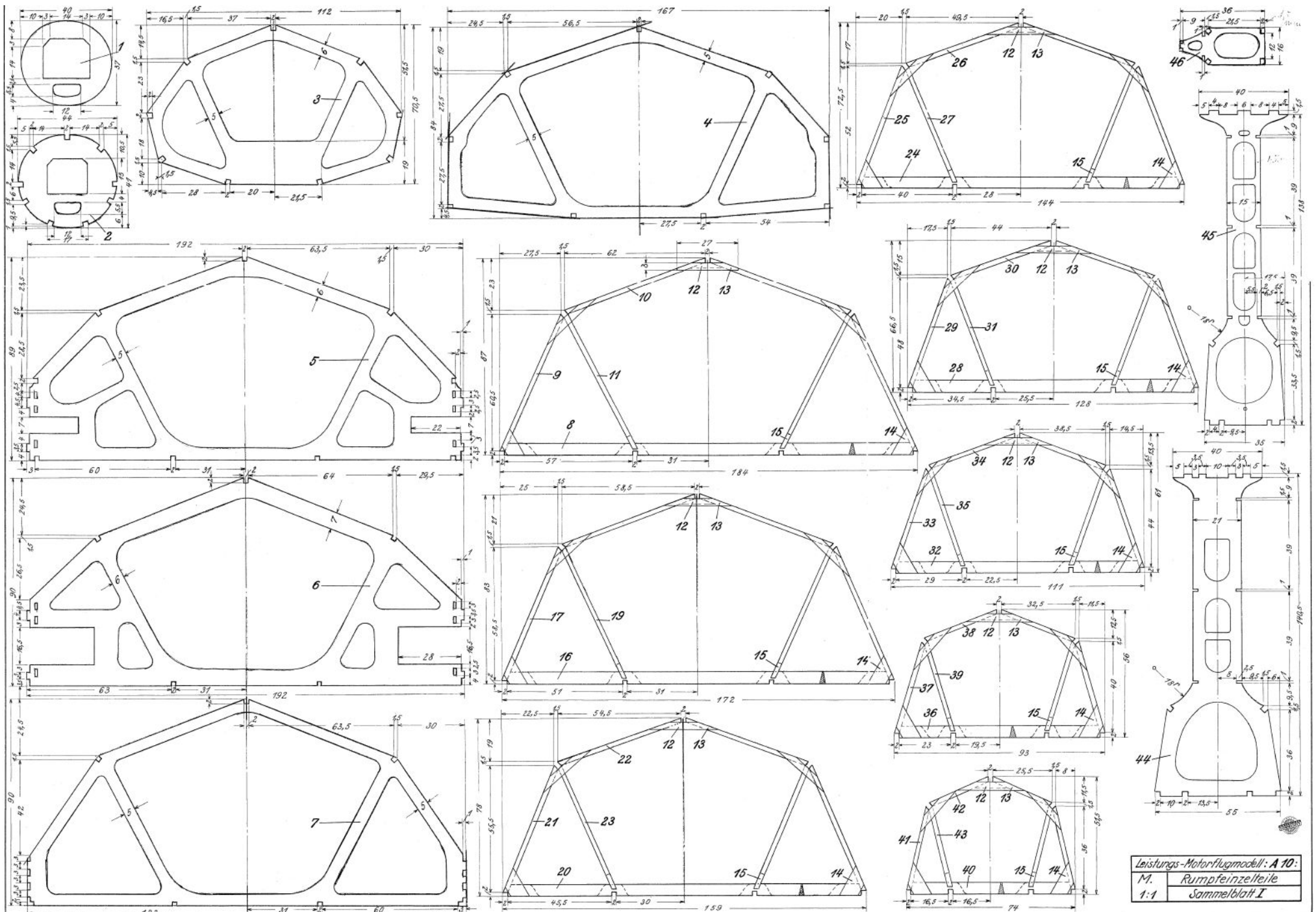


Vintage Rubber Leistungs-Motorflugmodell A10 Paul Armes 1937

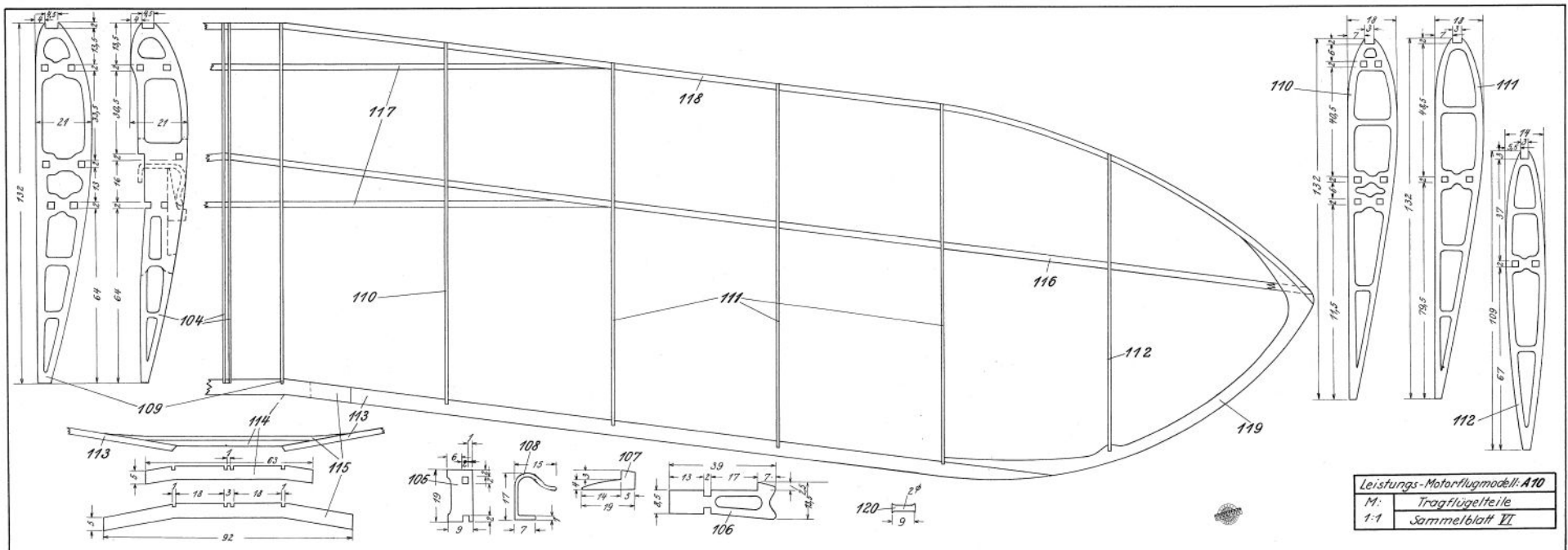
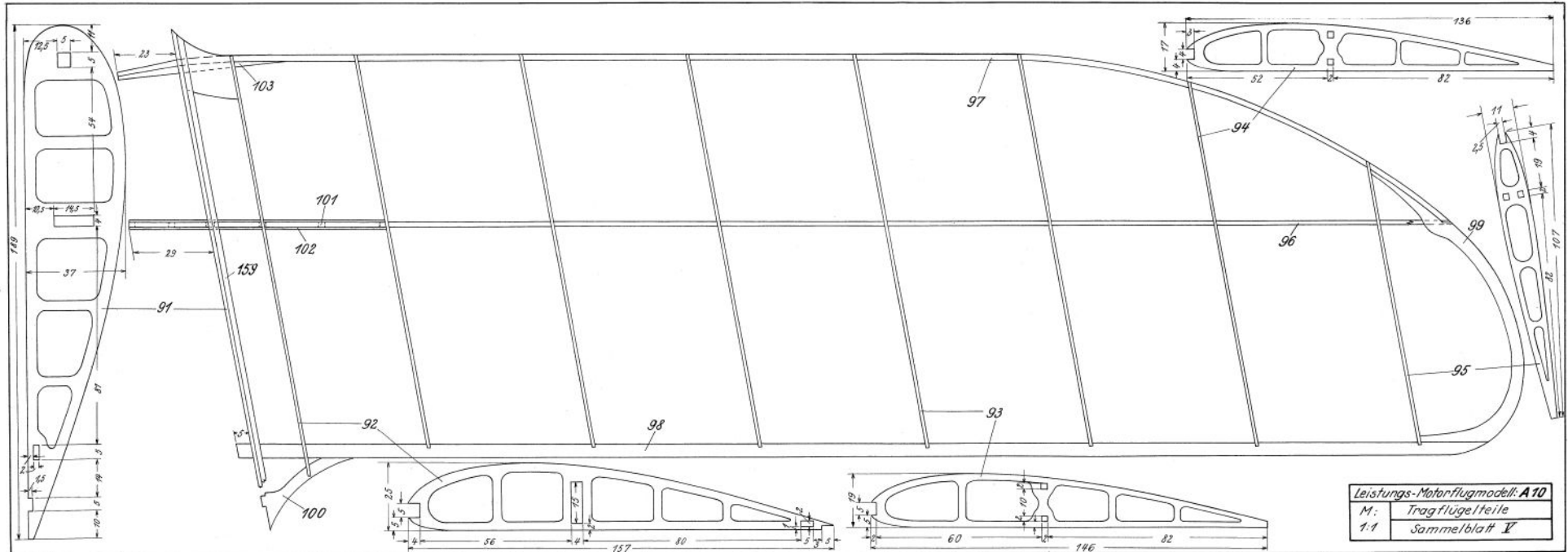


Maßstab: 1:2,5
Leistungs-Motorflugmodell „A 10“
Von Paul Armes

Vintage Rubber Leistungs-Motorflugmodell A10 Paul Armes 1937



Leistungs-Motorflugmodell: A 10:
M. Rumpfeinzelteile
1:1 Sammelblatt I



We have been enjoying some beautiful flying weather recently after the heavy rain. A few of us went out to the field on Thursday for a play.

It was flat calm so I flew my IC Tomboy in these ideal conditions. No lift really but the calm allowed the little Tomboy to not disappear downwind which seems really important with this size model.

I made 5 flights and finished with flights of 11 min 21 secs and 12 min and 1 sec. The little old Mills ran over 4 minutes and hauled the model up until it was just a dot, from where it took 7 or 8 minutes to come down.

That equates to 1402 points for the two flights. I'm well pleased with that.

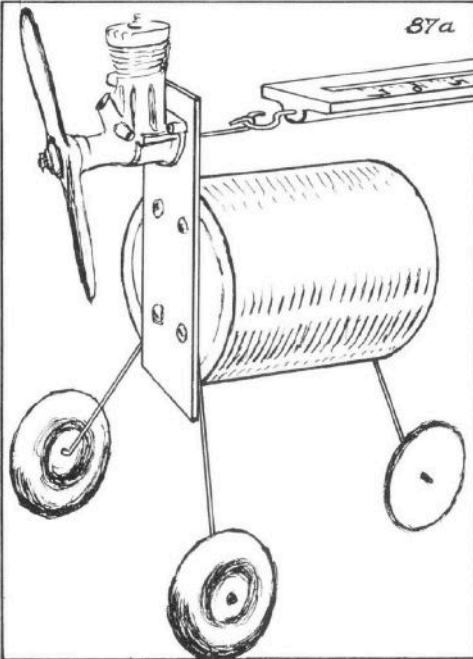
Allan



No excuses now for not entering Sport Cabin Texaco !!! Ed

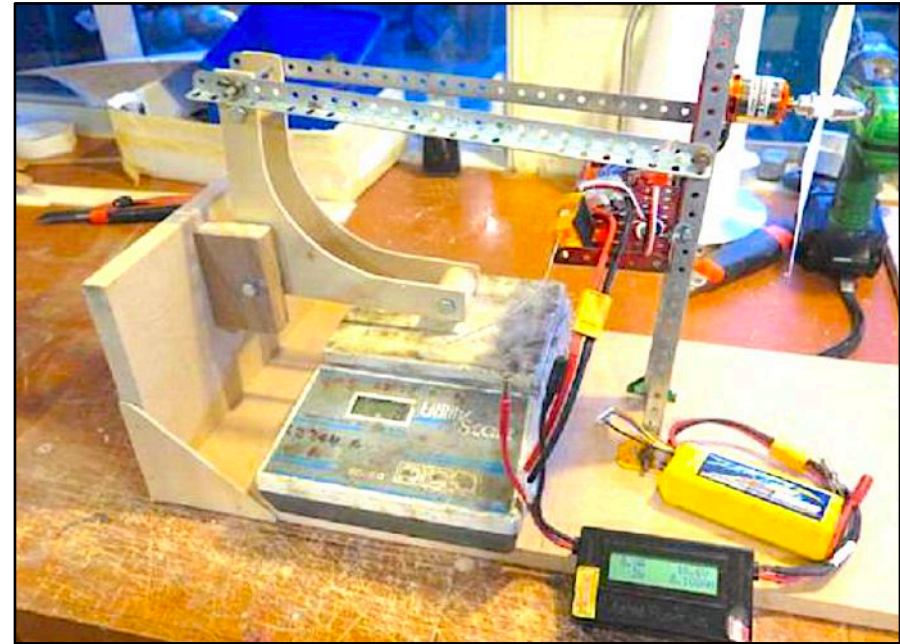
ENGINE / MOTOR THRUST MEASUREMENT *an assortment of methods*

The original model thrust measurement device? Zaic Yearbook.

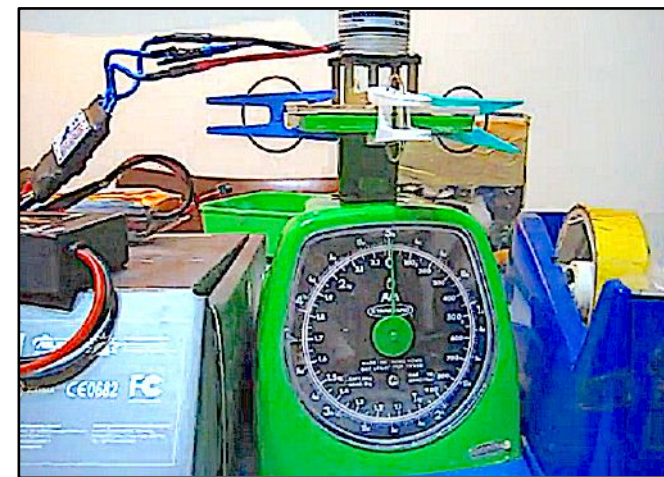
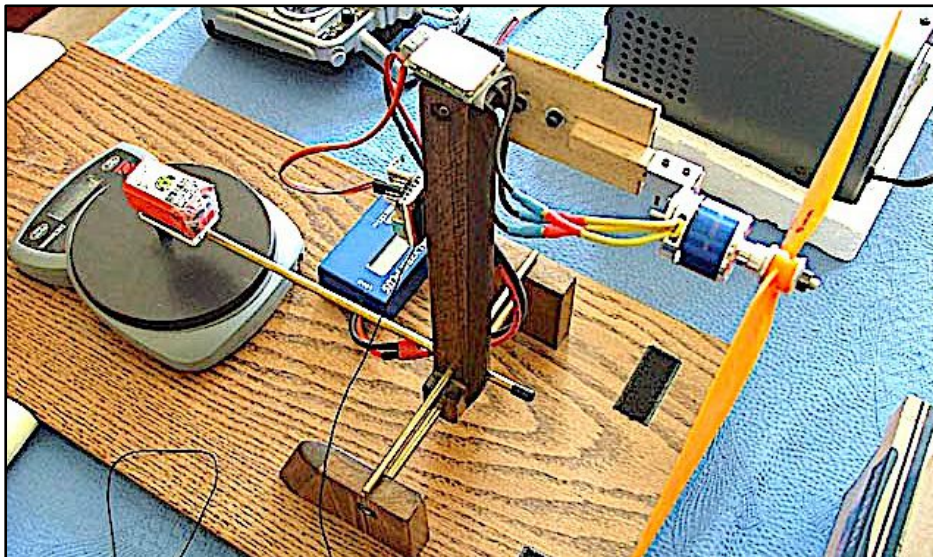


ENGINE	PULL OZ.	FUEL
COX.02	4	T.D. RACE
H.H.049	12-14	STRAIGHT FOX HI
COX.15	26	
FOX 15.	17	NITRO
TORP15	15	T.D. RACE
TORP23	29-31	T.D.
FOX 201	34-36	NITRO STR
FOX 35	40	NITRO STR.
OSMAX 29	42	NITRO STR.

(8) COMBAT SPL (4) SAME ON T.D. RACE
(9) NEW CUST. (5) WILL NOT TAKE NITRO

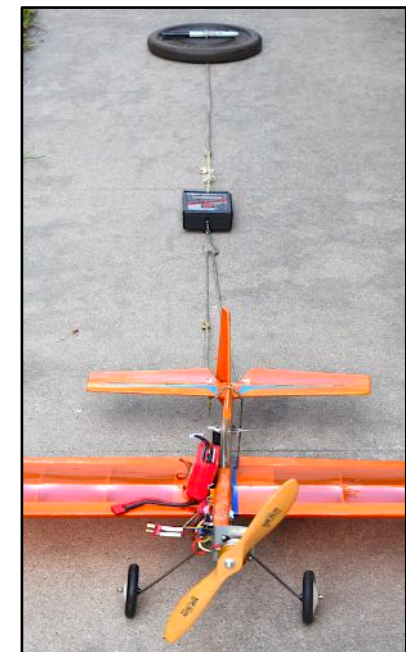


LEFT: Barrie Russell of MFHB dug out his Meccano parts #126 Trunnion, #8 Angle Girders, and #52 Flanged Plate for this thrust stand.



LEFT and ABOVE: from the internet.

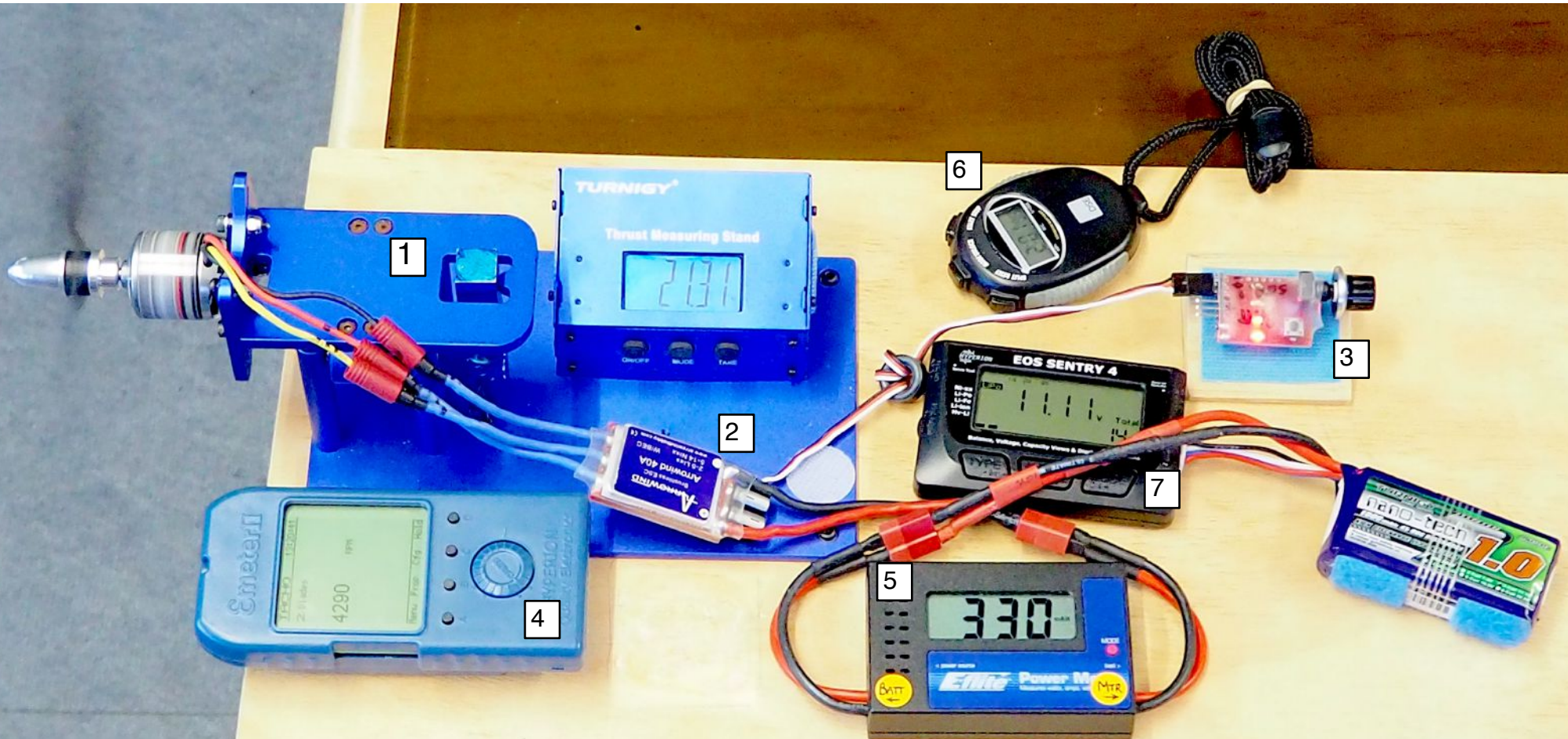
RIGHT: No need to take the motor out of the model with this one. Uses fishing scale. From *The Coastal Flyer*, California.



This comprehensive test set-up started life rather more simply, being used for the IC-powered 1/2A Texaco event. For this purpose, the motor on the Turnigy Thrust Measuring Stand [1] was adjusted to the same target RPM for each propellor to compare thrust. Motor speed is controlled through the ESC [2] which is adjusted via a servo tester [3] and RPM is measured with the Hyperion Emeter [4] here being used in tachometer mode.

When 1/2E and E-Texaco events were introduced, further gizmos were added. An Eflite Power Meter [5] selectively measures Watts and Amps and gives a running total of energy consumption. The stopwatch [6] tells me when to have a coffee break and also serves to record total run time. The EOS Sentry [7] monitors the LiPo's voltage during the test.

Scenario Below A 7x4E propellor has been running for 2:01 minutes [6]. At this point it is turning at 4290 rpm [4] and is generating 21.31 grams of thrust [1]. LiPo voltage is 11.11v [7]. The power meter shows that a total of 330mA have been used [5], which suggests that this test has involved some prior high-speed running.



The Auckland MAC and the Peterborough Model Flying Club hold an annual inter-club Cloud Tramp competition. Even a simple design like the Cloud Tramp can be tweaked for better performance and over the period the MIMLOCT has been running there have been many helpful ideas published. This collection of ideas has been extracted from the Peterborough bulletin.

Cloud Tramps to the Fore! Bert Whitehead

I remember a conversation with the late John Barker who told me that in the 1960's CH Grant, the CT designer, had a pet theory that caused a lot of controversy and argument. That being the placing of the thrustline on the CLA (Centre of Lateral Area). The Cloud Tramp is a manifestation of this theory. Because the thrustline is on the CLA, the motor shaft follows a natural line with the rubber and no up or down thrust is required. This results in 100% efficiency of the forward energy plus only one simple flat plate nose bearing resulting in minimum friction losses. He does this by placing the thrustline above the motor stick and having an underslung wing with massive dihedral. The drag above the shaft and below is about equal. Disregard this by altering dihedral and u/c at your peril. A substantial u/c is essential as the dangling undercarriage weight acts as a stabiliser as well as for take off and landing.

A chat with the late John O'Donnell revealed this - anything that touched the rubber on the airframe has a drastic reduction in the power output. So, keep the motor shaft high, 10mm minimum. Also keep the rear hook the same and away from the fin at an angle. It's impossible to stop motor contact but every little helps. To this end, keep the knot at the rear. Undercamber is great on slow indoor models. Our CT's are a bit heavier than they should be so they have to travel a bit faster than normal to fly. Overdo your undercamber and a partial vacuum will result under the wing. The wing will try to suck

down instead of up. My undercamber is 5/32" or 4mm, overall weight is 48 grammes. The same effect happens with CT's when using plastic props. We use these in PMFC comps to make building easier for everyone. But these 8" undercambered props are designed for models of 25 to 30 grammes. Our CT's are almost double that weight, so the prop has to rotate at virtually double its designed speed resulting in high drag, and reduction of lift. I've made CT's with the simple carved wooden prop shown on the plan and they always fly very much better. This is because the wooden prop is flat bottomed and has a proper wing section so it's more efficient.

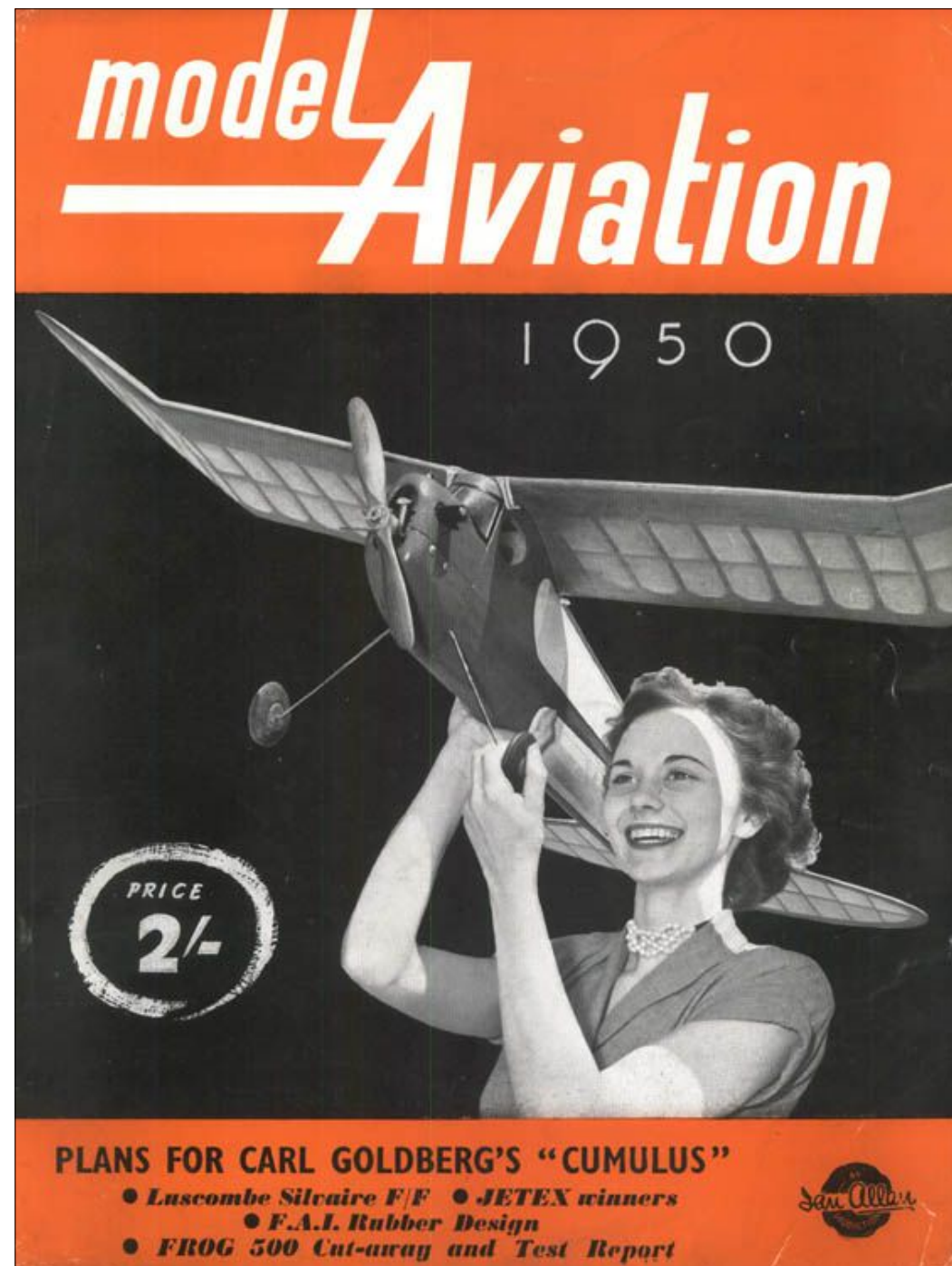
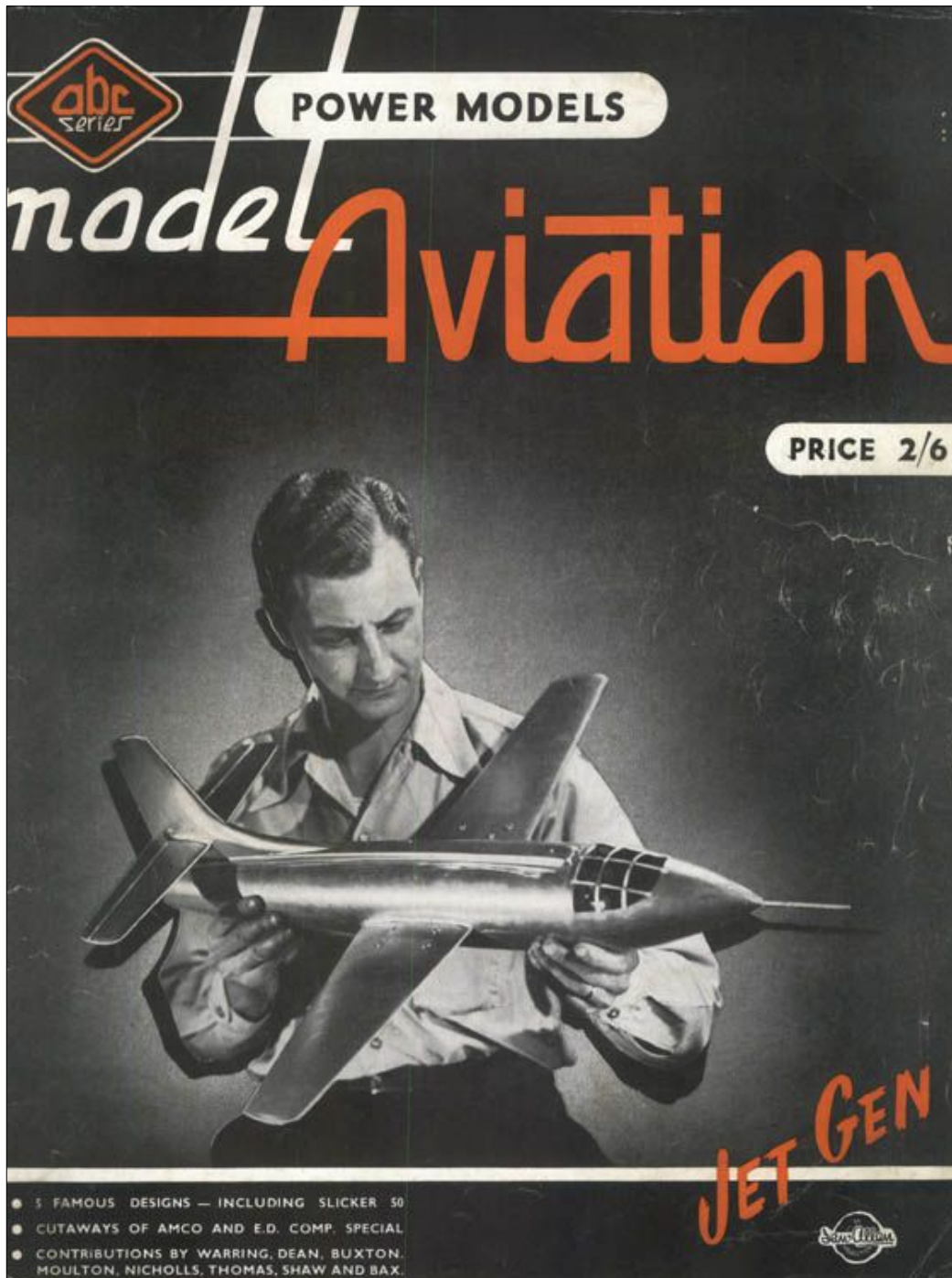
Rubber. I was lucky enough last year to get 5 x 50 second maxes and through to the flyoff. Because the Committee is putting great importance on this comp, I will be using new rubber every flight. 10ft or 10 grammes of 1/8 rubber, 200 turns pretensioned made into 4 strands. Lube with castor oil or similar and an S-hook at each end. Stretch wind to approx. 1600 turns. Be careful as flying S-hooks can be dangerous.

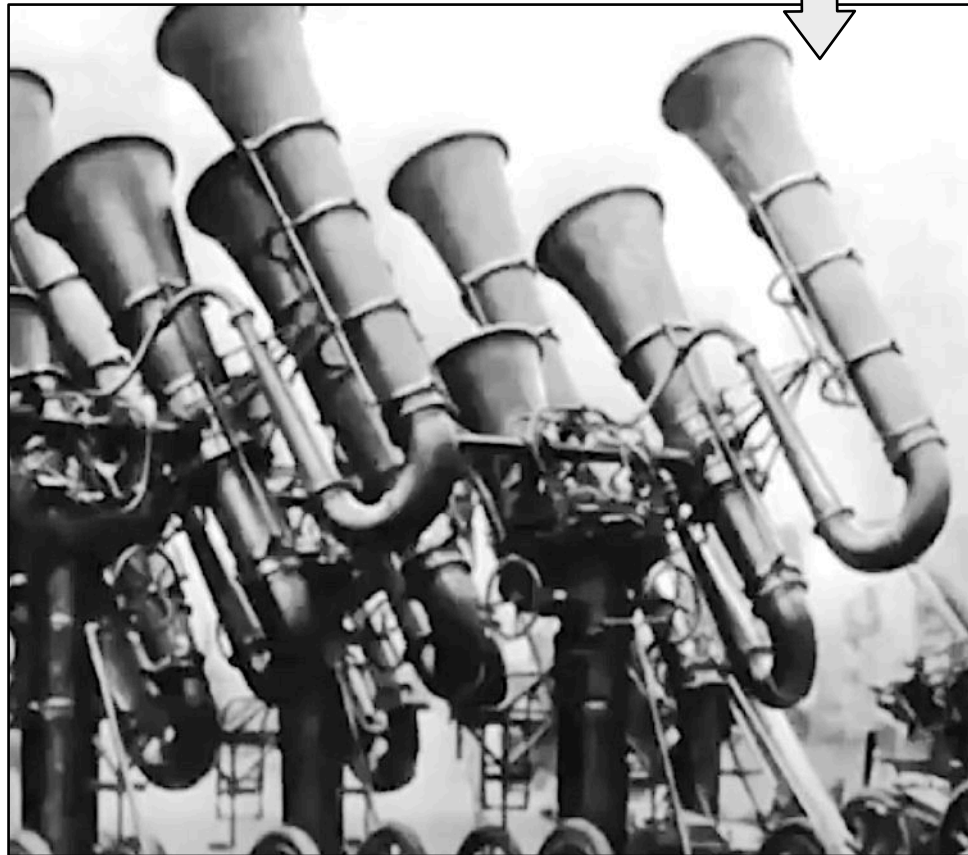
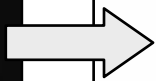
Some memorable CT flights: Dave Rumball was flying OK but struggling to achieve a decent time. Changed his 4 or 5 gramme motor for a 10 gramme - instant max. Dave Leeding was struggling in the same comp with a few low score flights. His motor shaft had a diamond shaped hook. OK for rubber directly onto the shaft, but he was also using an S-hook which needs a rounded hook. He altered the shaft and made well over 2 minutes into the next field. Andy Sephton's model was accurately made to plan including single plate nose bearing. The motor shaft and prop did not wobble about, but runs true. He used about 12 ft of rubber well lubricated and no pretension. This produced well over 1700 turns. He had no freewheeling prop because, like me, he believed that the plane is not a glider but flies under power only. When the turns run out the motor bunches around the rear hook and the plane stalls out of the sky. But the prop has run for plenty of time before this happens: it's his DT method.



When it's raining, could I fly this in the sitting room at home ?

Oh, I'm sure you could my dear, but best wait 'til Mum's out shopping.





Before radar there was the Japanese "War Tuba" a listening device for detecting approaching aircraft.

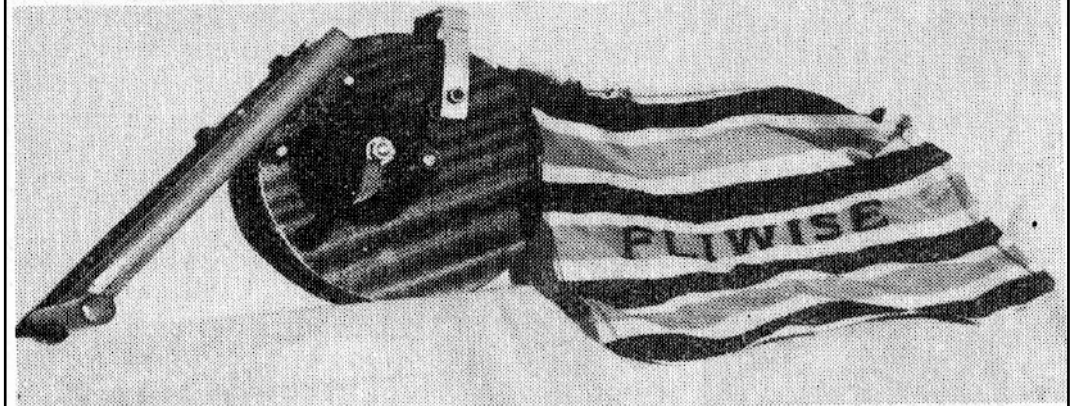
NZ ICON #185 PAVLOVA

The pavlova is named after the famed Russian ballerina Anna Pavlova, who toured Australia and New Zealand in 1926. As the New Zealand story goes, the chef of a Wellington hotel at the time created the billowy dessert in her honor, claiming inspiration from her tutu. Australians, on the other hand, believe the pavlova was invented at a hotel in Perth, and named after the ballerina when one diner declared it to be "as light as Pavlova" Yeah, right !!

4 egg whites 1 tsp vinegar
1 1/2 cups Caster Sugar
2 tbsp boiling water
tsp vanilla essence

Put all ingredients into a bowl and beat with an electric mixer on high speed for 10 minutes. Heap onto a greased baking tray and bake at 140 degrees Celsius for 30 minutes. Reduce heat to 120 degrees for a further 30 minutes. Turn off oven and leave pavlova for 1 hour before taking it out.

Fliwise Box 90amaru NZ



The Fliwise 'Zap' towline winch and line. Designed and made especially for towing Thermal Soarers. Legal FAI line pennant and ring. Basic winch \$23, winch complete with line etc \$27, overseas postage extra.

Ad from the 1960's. Anyone remember this trader?