

REGISTERED PUBLICATION

PROPWASH  
H.B.RADIO FLYERS  
BOX 1085, HASTINGS



# PROPWASH

JULY

OFFICIAL ADDRESS: P.O. BOX 1085, HASTINGS  
BULLETIN ADDRESS: 8 NELSON CRES. NAPIER

1987

## HAWKES BAY RADIO FLYERS INC

PRESIDENT	Peter Sharpe	66.435	COMMITTEE	
VICE PRESIDENT	Bob Whitburn	84.135	Ted Beach	65.521
SECRETARY	Richard Bardell	89.804	Leicester Harris	68.697
TREASURER	John Clarke	437.174	Norm Murton	83.357
CLUB CAPTAIN	Harvey Stiver	775.800	Rodger Pilbrow	797.264
RECORDING OFFICER	Bernard Scott	53.450	John Sutherland	776.389
BULLETIN EDITOR	Bernard Scott	53.450		

### COMING EVENTS

JULY	5	CLUB Aerobatics: Round 1.
JULY	5	CPMAA FF Champs, Carterton.
JULY	12	CLUB Thermal B.
JULY	19	CLUB Spot Landing.
JULY	26	CLUB Hand Launched Glider.
JULY	25	NDC Indoor HLG.
AUG	2	CLUB Thermal A: Round 1.
AUG	9	Limbo.
AUG	10	CLUB Indoor HLG (Club Night).

CLUB NIGHT July 13th, 8:00pm, Pakawhai Hall

"History of the Spitfire" : A video giving the full story of the development of this famous fighter.

\* DEADLINE for August 'PROPWASH' : July 26th. \*



Have you recently totalled up your monetary investment in aeromodelling? Anyone who has been in the hobby for a while should be prepared for a surprise when he does ... perhaps it's better not to know.

One time you will need facts and figures is when you make an insurance claim if you are unfortunate enough to lose modelling equipment through fire, accident or theft. Or will you? Are you covered in these cases? A close reading of a typical Contents Policy will usually reveal an exemption something like: '...aircraft or any spatial device and their accessories and spare parts...'

That phrase seems to exclude from cover most modelling equipment, including expensive radio gear. If your policy does have this exemption, you can do one of the following: 1) Change company - some offer no exemptions/total cover policies. 2) Have modelling equipment listed as 'specified items' on your present policy. 3) Check whether your present company regards models and associated equipment as being included in the exemption clause stated above - DO THIS IN WRITING, and attach the company's reply to your policy!

Whatever you decide, the 'in writing' advice applies - insurance companies have been known to be unmoved by a client's claim... "But the girl at the counter said...."



Recently there has been a number of excellent books published about New Zealand aircraft. With my modelling taking a back seat at the moment, a good read seems to be a fair substitute.

With the 50th anniversary of the RNZAF this year, two books related to this event have appeared. First, an inexpensive paperback volume "Aircraft of the Royal New Zealand Airforce" which is authored by Duxbury, Ewing and MacPherson, and is published by Heinemann at \$14.95. It gives a good review of the subject with background history and an illustrated directory of all aircraft operated by the RNZAF. Some pictures are recent and are in colour.

More costly at near to \$40, "Portrait of an Airforce - The RNZAF 1937-1987" is hardbound. Authors are G.Bently and M.Conly, the latter having also illustrated the work. Published by Grantham House, this volume gives a complete history of the RNZAF and is profusely illustrated with photographs and drawings in black and white, and very 'atmospheric' colour drawings.

Also appearing recently, and of interest, is "Vintage Aeroplanes of New Zealand" by John King, and published by Heinemann. This book is highly readable and covers a wide range of aircraft types, mostly civil. Tiger Moths, Austers, Aerial Mapping's Monospar, DC.3, Piper Cubs, Harvards, de Havilland types, as well as others all rate a chapter in this book. Very well illustrated with colour and sharp black and white photos. Good value for scale modellers.

"The History of NZ Aviation" by Ewing and MacPherson is also published by Heinemann, and is described on the jacket flap as a 'unique, valuable and colourful book'. With over 300 black and white and colour photographs plus a very good review of historic aviation events dating from the 1860's, this book is a must for the NZ aviation buff's library.

I can recommend all of the above books - they are available from your Library if you do not wish to buy.



## WORKBENCH CONSTRUCTION

John Clarke

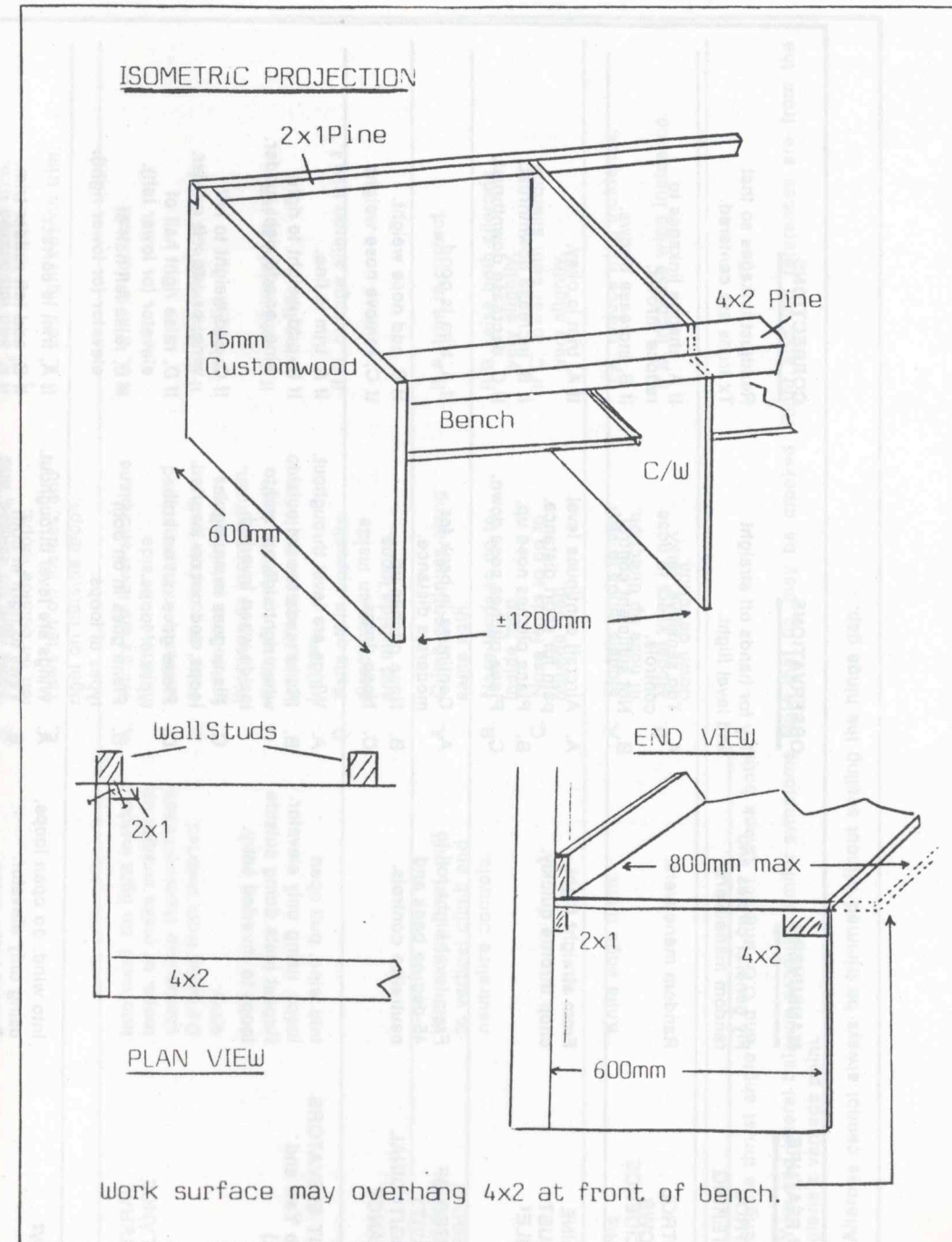
While thinking about the article I had in mind for 'Propwash', I saw the disorganised mess on top of my workbenches and decided to do something about it. I'd leave the P.51, the Little Stik, and the article: this is what I came up with... A system that can be adapted to any size and can be removed or repositioned with ease. If you wish to construct the type of bench shown here, you'll need 15mm Customwood in 8x4 sheets, 2x1 and 4x2 pine, nails, 'screwfast' screws.

Make the bench no wider than 800mm - wider makes it difficult to reach the wall, and 900mm high. Nail the 2x1's to the wall and fix end panels and centre panels to the desired length - (max 1200mm centres). Fix 4x2 along the front, screwing or nailing to panels. Cut top to required size and just place on top. Smooth the front edge. Place a backing of Customwood to wall to prevent articles falling over the back of the bench. Plug all holes with Dap (Tawa) and give three coats of polyurethane, sanding between coats. Don't miss out this last step! Fix cleats between the end panels for shelves to suit the wood you have left over.

I have this type of bench on three walls of my workroom and I find them convenient to work on, as well as being easy to clean. The edge of the bench can be protected by fixing aluminium angle along it. This also gives you a straight edge to work to.

If you have trouble following these instructions, give me a ring: I can make you a kitset (for a price of course). And the article? Well, it will have to wait for now.

PS When the polyurethane has dried, get some 6mm salvage glass (old shop windows) from a glass merchant. Clean and place on one part of the bench. Notices and memos can be slipped under the glass, which also gives a perfectly flat building surface.





<u>TRIM FEATURE</u>	<u>MANEUVERS</u>	<u>OBSERVATIONS</u>	<u>CORRECTIONS</u>
<b>CONTROL CENTERING</b>	Fly general circles and random maneuvers.	Try for hands off straight and level flight.	Readjust linkages so that Tx trims are centered.
<b>CONTROL THROWS</b>	Random maneuvers.	A. Too sensitive, jerky controls. B. Not sufficient control.	If A, change linkages to reduce throws. If B, increase throws.
<b>ENGINE THRUST ANGLE!</b>	From straight flight, chop throttle quickly.	A. Aircraft continues level path for short distance. B. Plane pitches nose up. C. Plane pitches nose down.	If A, trim is okay. If B, increase downthrust. If C, decrease downthrust.
<b>CENTER OF GRAVITY LONGITUDINAL BALANCE</b>	From level flight roll to 45-degree bank and neutralize controls.	A. Continues in bank for moderate distance. B. Nose pitches up. C. Nose drops.	If A, trim is good. If B, add nose weight. If C, remove nose weight.
<b>SPLIT ELEVATORS (Also Yaw and C.G.)</b>	Into wind, pull open loops, using only elevator. Repeat tests doing outside loops to inverted entry.	A. Wings are level throughout. B. Plane tends toward outside when right side up, and to inside when inverted. C. Plane goes in on regular loops, and out on inverted. D. Plane goes out on both types of loops. E. Plane goes in on both types of loops.	If A, trim is fine. If B, add weight to right wing, or add right rudder. If C, add weight to left wing, or add left rudder. If D, raise right half of elevator (or lower left). If E, raise left half of elevator (or lower right).
<b>YAW</b>	Into wind, do open loops, using only elevator. Repeat tests doing outside loops from inverted entry.	A. Wings are level throughout. B. Yaws to right in both inside and outside loops. C. Yaws to left in both inside and outside loops. D. Yaws right on insides, and left on outside loops. E. Yaws left on insides, and right on outside loops.	If A, trim is correct. If B, add left rudder trim. If C, add right rudder trim. If D, add left aileron trim. If E, add right aileron trim.
<b>LATERAL BALANCE</b>	Into wind, do tight inside loops, or make straight up climbs into Hammerheads. Do same from inverted entry.	A. Wings are level and plane falls to either side randomly in Hammerhead. B. Falls off to left in both inside and outside loops. Worsens as loops lighten. C. Falls off to right in both loops. Worsens as loops tighten. D. Falls off in opposite directions on inside and outside loops.	If A, trim is correct. If B, add weight to right wing tip. If C, add weight to left wing tip. If D, change aileron trim. <sup>3</sup>
<b>AILERON RIGGING</b>	With wings level, pull to vertical climb and neutralize controls.	A. Climb continues along same path. B. Nose tends to go to inside loop. C. Nose tends to go to outside loop.	If A, trim is correct. If B, raise both ailerons very slightly. If C, lower both ailerons very slightly.
<b>WING INCIDENCE</b>	Knife edge flight.	A. Model tends to veer in nose up direction. B. Model veers in nose down direction.	If A, reduce wing incidence. If B, increase wing incidence.

1. Engine thrust angle and C.G. interact. Check both.

2. Yaw and lateral balance produce similar symptoms. Note that fin may be crooked. Right and left references are from the plane's vantage point.

3. Ailerons cannot always be trimmed without sealing the hinge gap.



## OUTLINER COMPETITION

Valient efforts from G.Main and N.Murton to score 7/8 in the second contest. Norm's entry was chosen at random as the winning one, much to the chagrin of Graham who promises "I will return!"

Arrangements have been made with Leicester to give each month's winner a credit of \$6 at his model shop. This started with Norm, so I'll just keep the silly old XJ.6 in the meantime.

For a perfect score in #2 you would have put:

1) Consolidated PBY Catalina 2) Lockheed C-69 Constellation 3) Grumman F4F Wildcat 4) Boeing B-29 Stratofortress 5) Yokosuka MXY7 Ohka 6) Cessna AT-17 7) Ilyushin Il-2 8) Grumman J2F Duck.

Contest #3 does not require the naming of any aircraft. Simply pair each nose with the correct tail, eg if you think nose 1. belongs with tail c. then your answer will be 1: c

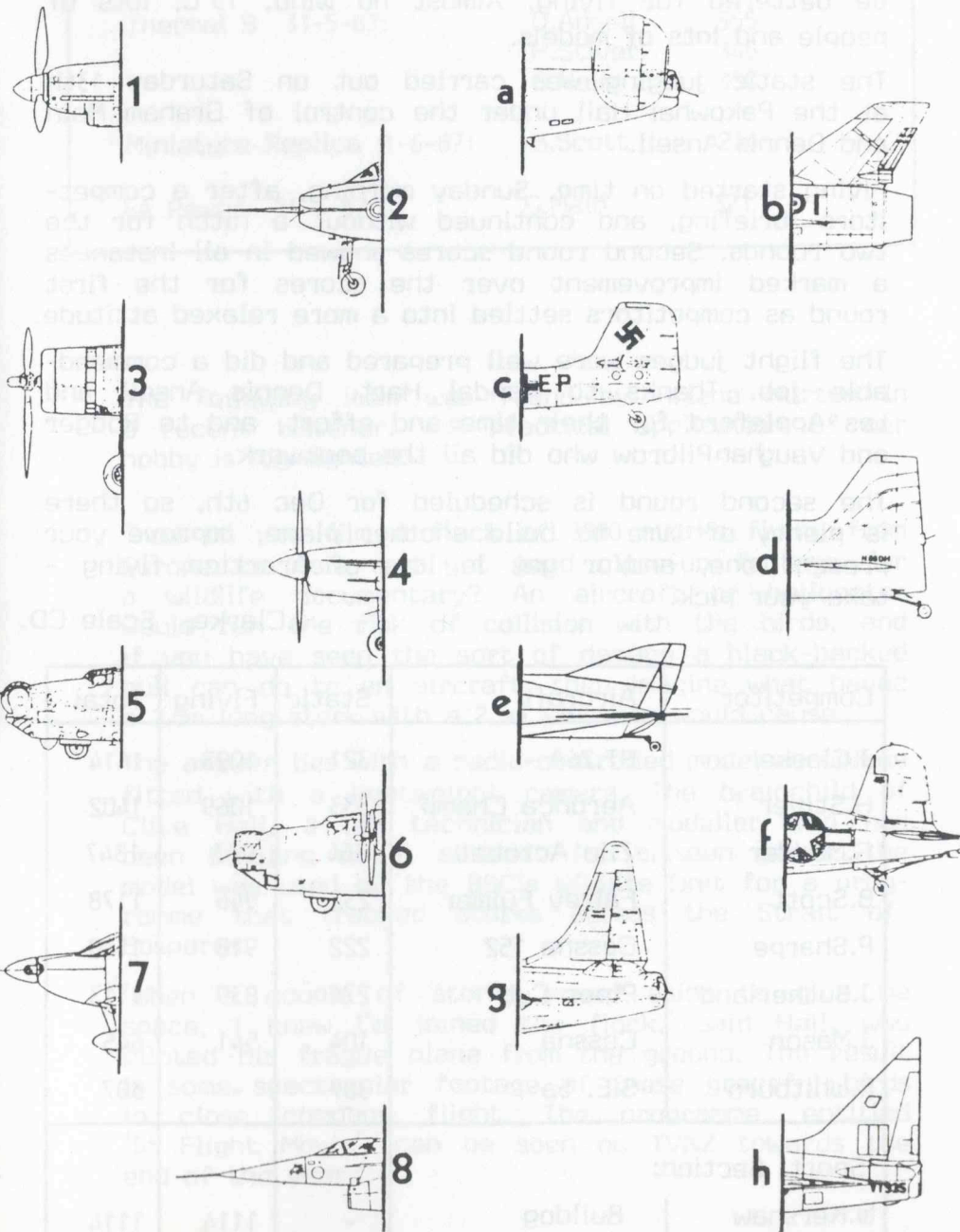
## CLUB AEROBATICS

Round one of this event will be held, weather permitting, on July 5th. Competitors' meeting at 9.45; flying begins at 10:00. Flyers choose from the following schedules.

Advanced	Senior	Novice
" ————— "	Take Off	" ————— "
Dbie Stall Turn	Stall Turn	Wingover
Cuban Eight	Reversal	Immelman
3 Inside Loops	2 Inside Loops	1 Inside Loop
Slow Roll	1 Roll	Barrel Roll
3 Outside Loops	2 Outside Loops	1 Outside Loop
3 Rolls	2 Rolls	1 Roll
3 Turn Spin	3 Turn Spiral	1 Turn Spiral
" ————— "	Rectangular Approach	" ————— "
" ————— "	Landing	" ————— "
(x10)	(x7)	(x5)

Contest Director: John Sutherland, ph 776.389

## OUTLINER Contest #3





CLUB SCALE F4C Round I, 14th June.

How many times have we heard that the weather was great during the week, fair on Saturday, and \*!@#%\* on Sunday? The weekend of the scale competition showed me how powerful prayer can be... The day could not be bettered for flying. Almost no wind, 15°C, lots of people and lots of models.

The static judging was carried out on Saturday 13th at the Pakowhai Hall under the control of Graham Main and Dennis Ansell.

Flying started on time, Sunday morning, after a competitors' briefing, and continued without a hitch for the two rounds. Second round scores showed in all instances a marked improvement over the scores for the first round as competitors settled into a more relaxed attitude.

The flight judges were well prepared and did a commendable job. Thanks to Randal Hart, Dennis Ansell and Les Appleford for their time and effort, and to Rodger and Vaughan Pilbrow who did all the bookwork.

The second round is scheduled for Dec 6th, so there is plenty of time to build another plane, improve your present one, and/or get in lots of practice flying - take your pick.

J.Clarke, Scale CD.

Competitor	Aircraft	Static	Flying	Total
J.Clarke	PT.26A	321	1093	1414
H.Stiver	Aeronca Champ	333	1069	1402
G.Madder	Zlin Acrobat	364	983	1347
B.Scott	Fairey Fulmar	232	946	1178
P.Sharpe	Cessna 152	222	918	1140
J.Sutherland	Piper Cub	274	839	1113
J.Mason	Cessna	104	541	645
R.Whitburn	S.E. 5a	387	-	387
'Sport' Section:				
W.Kershaw	Bulldog	-	1114	1114

NDC RESULTS

Vintage Power 31-5-87:	G.Main	283
Thermal A 31-5-87:	G.Main	1077
Thermal B 31-5-87:	D.Ansell	355
	H.Stiver	345
	G.Main	330
Miniature Replica 1-6-87:	B.Scott	214
½A Power 14-6-87:	G.Main	321

The following item was found by Arlene Murton in a recent Listener. A practical application of our hobby is highlighted.

"How do you film a flock of 3000 storks flying from Europe to Asia and get good close-up footage for a wildlife documentary? An aircraft or helicopter would run the risk of collision with the birds, and if you have seen the sort of damage a black-backed gull can do to an aircraft, then imagine what havoc a 1.5m long stork with a 2.5m wingspan would cause.

The answer lies with a radio-controlled model aeroplane fitted with a lightweight camera. The brainchild of Clive Hall, a lab technician and modelier who has been building model aircraft for sixteen years, the model was used by the BBC's Wildlife Unit for a programme that tracked storks across the Strait of Bosphorus.

'When a couple of storks moved aside to give me space, I knew I'd joined the flock,' said Hall, who piloted his fragile plane from the ground. The result is some spectacular footage of these graceful birds in close company flight. The programme, entitled 'In Flight Movie', can be seen on TVNZ towards the end of the year."



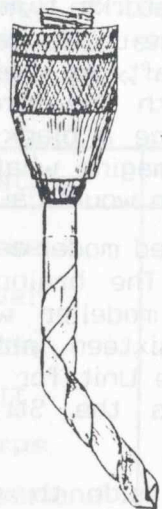
CLUB TRAINER

Peter Sharpe has kindly made available, for tuition of new members, a large-scale Piper Cub. The model is a slow and reliable flyer that will help the new member get those essential first flights without the difficulties that some "trainers" give. The model is ready to fly, with a 'Buddy-box' control system. Maintenance and fuel will be covered by the \$5 per 10min levy - a small price when one considers the potential for disaster that learners inevitably have.

Peter is happy to maintain the radio gear, but hopes that other club members will help with any repairs that may be needed to the airframe.

Persons wishing to take advantage of this offer should contact Peter at the field.

SPECIAL DRILLS  
for  
SPECIAL JOBS



2. HOLE ANGLED  
TO RIGHT.

TIMEWARP

John Urry's eye was caught by a familiar face while looking through an old Aeromodeller. There on page 142 of the March, 1964 issue was:

"G.Madder with his Pasadena"

The 16th Nationals, held at Kaiapoi, were being given a two-page coverage. Graham had come first in A/2 Glider. Times were:

1. G.Madder 803.6
2. L.Holland 777.1
3. D.Kennedy 744.5

Unfortunately the photograph did not photocopy well.