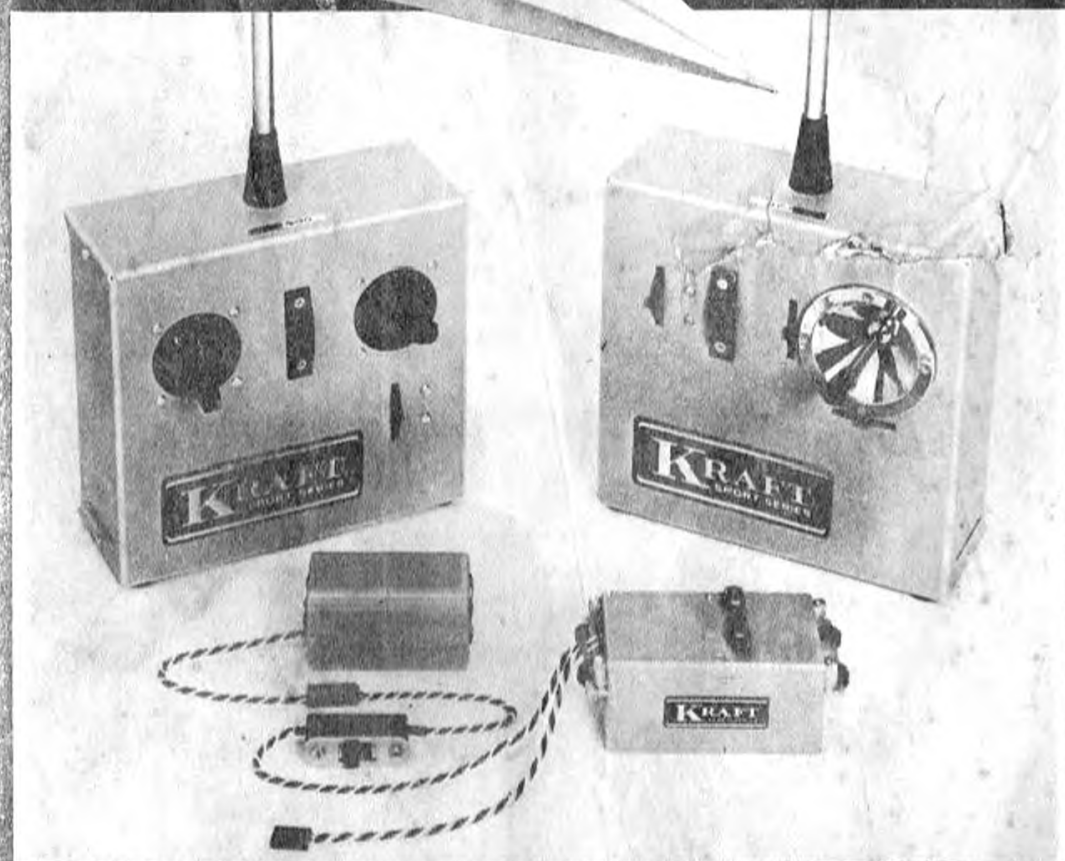


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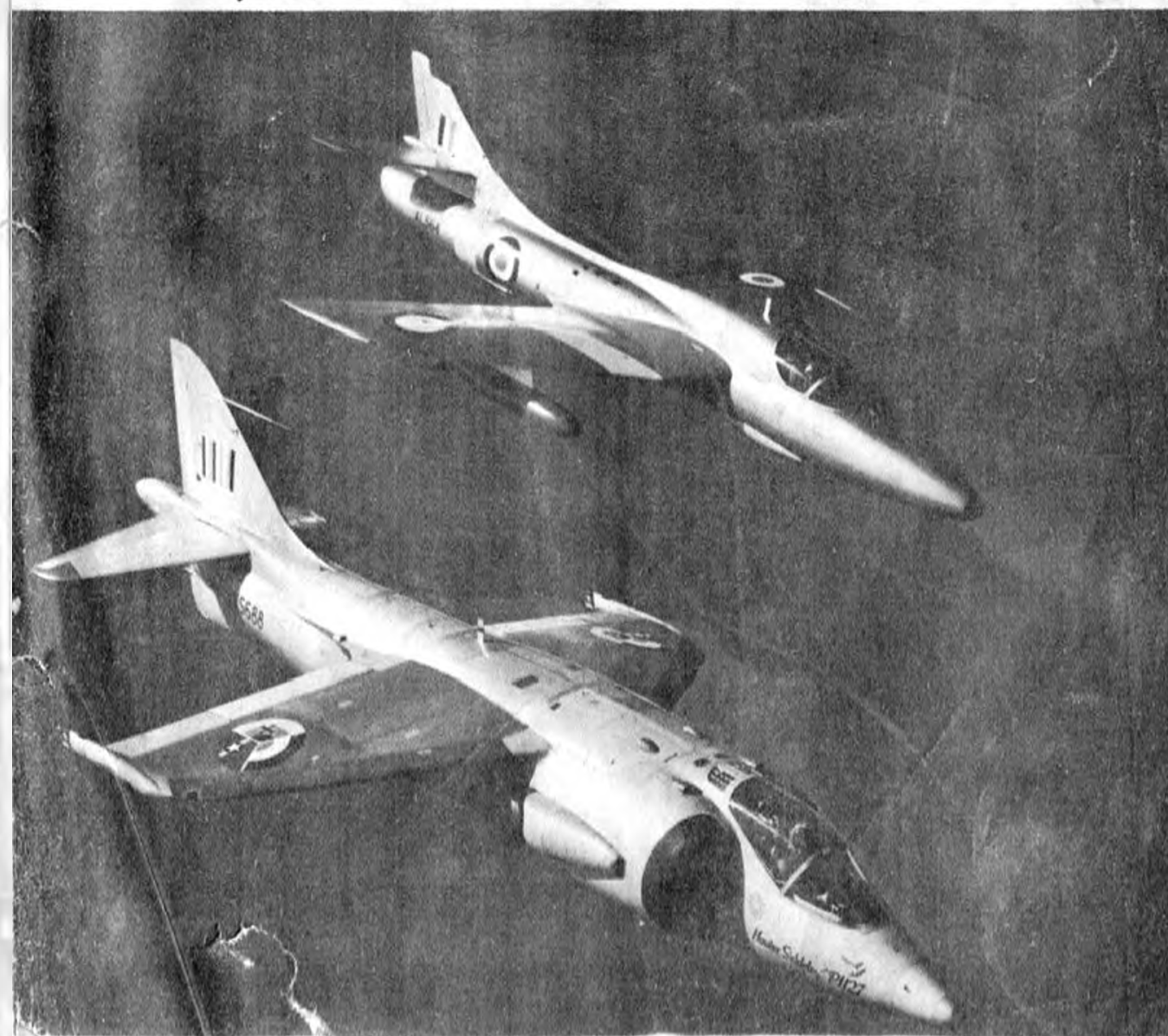
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VOL I, No 5 & 6

MAY-JUNE 1974



MODELLERS' MONTHLY



VOL. 1, Nos. 5 & 6

(FORMERLY AUSTRALIAN) MODELLERS' MONTHLY

MAY-JUNE 1974

PLASTICS MODELLING...

SCALE DETAILS

HAWKER P1127 and KESTREL

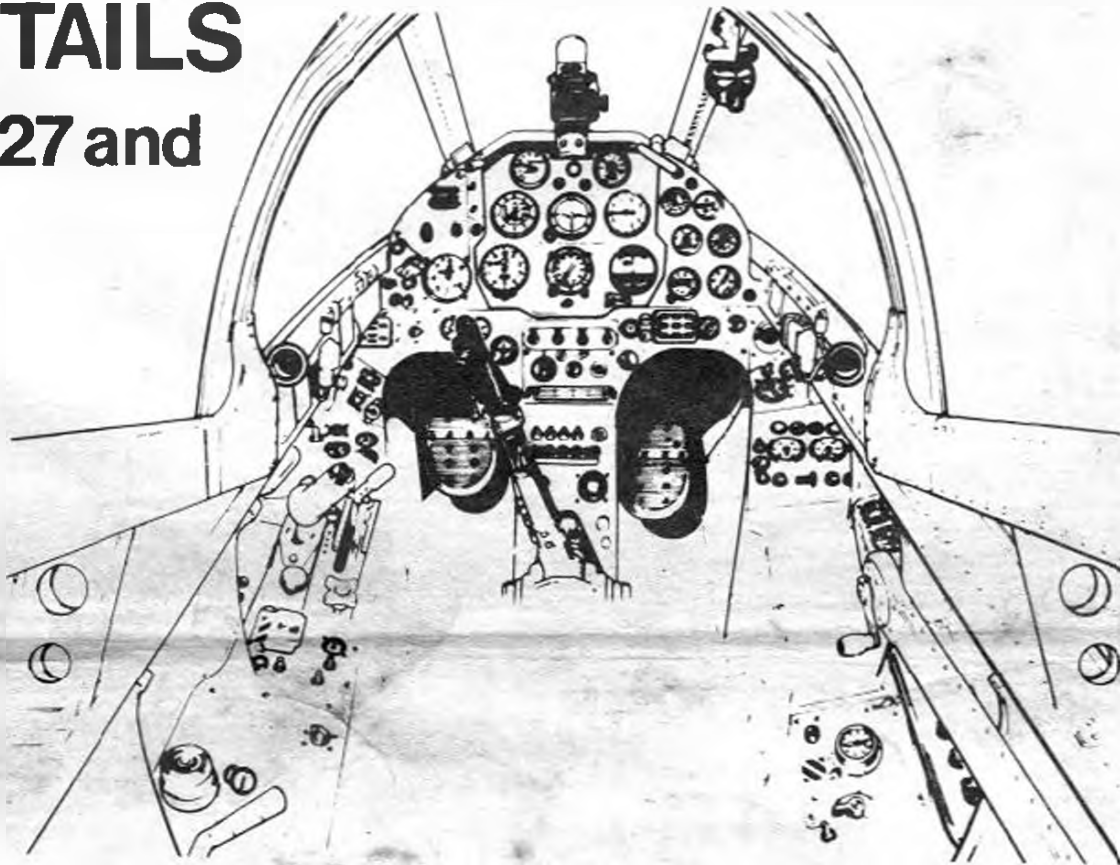
HISTORY — P.1127

In 1957 Hawker Aircraft Limited, now part of the Hawker Blackburn Division of Hawker Siddeley Aviation Limited, were informed by Bristol Engines Limited, that they were engaged upon the initial design study of a vectored thrust jet engine which could give a fighter aircraft V/STOL capabilities.

Hawker Aircraft expressed interest in this engine — known as the BS.53 — and under the guidance of Sir Sydney Camm initiated, as a private venture, a Project study which resulted in the design of a single seater V/STOL fighter aircraft, the P.1127. No operational requirement existed for this aeroplane but it was hoped that it might be considered suitable, for instance, as a replacement for the Fiat G.91 in the high speed low level strike reconnaissance role. It is important to recall that the P.1127 was designed as an operational aeroplane and not as a Research and Development project.

The design and development of the engine went ahead financed largely by American dollars donated by the Mutual Weapons Defence Programme. Bristol Siddeley Engines themselves supplied the balance.

The first engine, now known as the "Pegasus", was started on a test



bench in September 1959.

Construction began on the Hawker P.1127 early in 1959 and in October 1960 the first aeroplane left the ground in hovering flight. Early in 1961 the P.1127 flew as a conventional aeroplane with the engine nozzles directed aft during the entire sortie. In September 1961 the P.1127 completed the first two-way transi-

sition — vertical take-off, transition to wing-borne flight, followed by a vertical landing.

In December 1961, Mr. Bill Bedford (the Company's Chief Test Pilot) exceeded the speed of sound in the prototype P.1127. By 1962 a contract had been received from the Ministry of Aviation for a total of six airframes.

In February 1963 the first flight-deck trials by a V/STOL fighter were carried out at sea on board HMS Ark Royal. Once again, the prototype P.1127 was used and the pilots were Mr Bedford and Mr Hugh Merewether (the Company's Deputy Chief Test Pilot). The aircraft performed a series of short take-offs, vertical take-offs and vertical landings, including transitions to high speed flight. Neither Mr. Bedford nor Mr. Merewether had had any deck landing experience before. This trial was considered to be a great success. February 1963 also saw the first flight of the fifth P.1127. The sixth aircraft will fly in the summer of this year.

Construction is well under way of the additional P.1127's which will form a Tripartite military evaluation squadron next year. Pilots from America, Germany and the United Kingdom will gain experience on the operational applications of this V/STOL fighter.

HISTORY — P.1154

P.1154, a Mach 2 V/STOL aircraft powered by a BS.100 engine of over 30,000 lbs. thrust, was conceived to meet Nato Specification N.B.M.R. 3. This aircraft would have been a logical successor to the P.1127. Instead, logical development of the P.1127 to the 'Harrier' and now into Phase 2, seems to be destined to make the ultimate 'Harrier' very like the ill-fated P.1154.

Contributions of articles, plans, drawings, etc., should be sent to the Editor at the above address. All contributions will be assessed on merit, and paid for on publication. No manuscripts should be submitted unless other copies are retained by the author. The publishers cannot be responsible for manuscripts submitted without this precaution, and all contributions should be submitted with sufficient return postage so that they can be returned if unsuitable. Manuscripts and drawings accepted will become the property of MODELLER MONTHLY unless other arrangements are made in writing. Every care will be taken with submissions, but modellers' MONTHLY can take no responsibility for loss or damage to material submitted.

This is a combined MAY-JUNE issue due to production delays of May issue — Subscribers will receive one extra issue to compensate. July issue Pub. date: 1 July.
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- Moth Minor' rubber F.F. model
- Model Boat Club News
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The initial detailed design work was carried out in 1961 and in January 1962 a detailed description of the Hawker P.1154 was submitted to the N.A.T.O. authorities in Paris. In the summer of 1962, the British Minister of Aviation — Mr. Julian Amery — announced in the House of Commons that the Hawker P.1154 would be developed for use by the Royal Air Force and Royal Navy.

HARRIER

The story of the Harrier had its beginning in the varied fortunes of the P.1127 and the production Kestrel. Four development P.1127s were built followed by nine Kestrels.

A tri-partite squadron comprising pilots from UK, Germany and the USA was formed in October 1964 and tested the aircraft till November 1965. At that time, the Kestrels were transferred to the three participating countries. Six were shipped to the USA for research. Meanwhile, the P.1154 project was cancelled by the incoming Labour Government and Hawkers received a new contract instead for six developments of the P.1127. These were eventually named the Harrier in 1967.

The Harrier GR.1 flew in August 1966 and the sixth by July 1967. The last two flew with the new Bristol-Siddeley BS 101 Pegasus engine. (Bear in mind that the P.1154 was to have flown with the BS.100.) XV277 was retained by Hawker Siddeley and A & AEE, Boscombe Down for tests.

XV738 to XV743 were used for research by the two mentioned, and Rolls-Royce. Filton. XV744 to 762, XV766 to 810, XW630, XW763 to 771 and XW916 to 924 were operational with No. 1 Squadron and No. 233 OCU Wittering UK, and also equipped Nos. 3, 4 and 20 Sqdns at RAF Wildenrath, West Germany. 77 GR.1s were ordered but two additional ones were apparently produced.

The Harrier T.2 two-seater development aircraft XW 174 first flew on 24 April 1969 and was retained by HSA and A & AEE Boscombe Down, followed by 13 more for Nos. 4 and 20 Squadrons RAF, and No. 233 OCU Wittering in 1970.

AV-8A, the Marine Corps version is in service with the US Marines. VMA 513 was the first squadron so equipped. VMA 542 also flies the AV-8A.

(Continued on page 9, column 4)

Note: Due to space shortages, six photos of P.1127-Harrier held till July.

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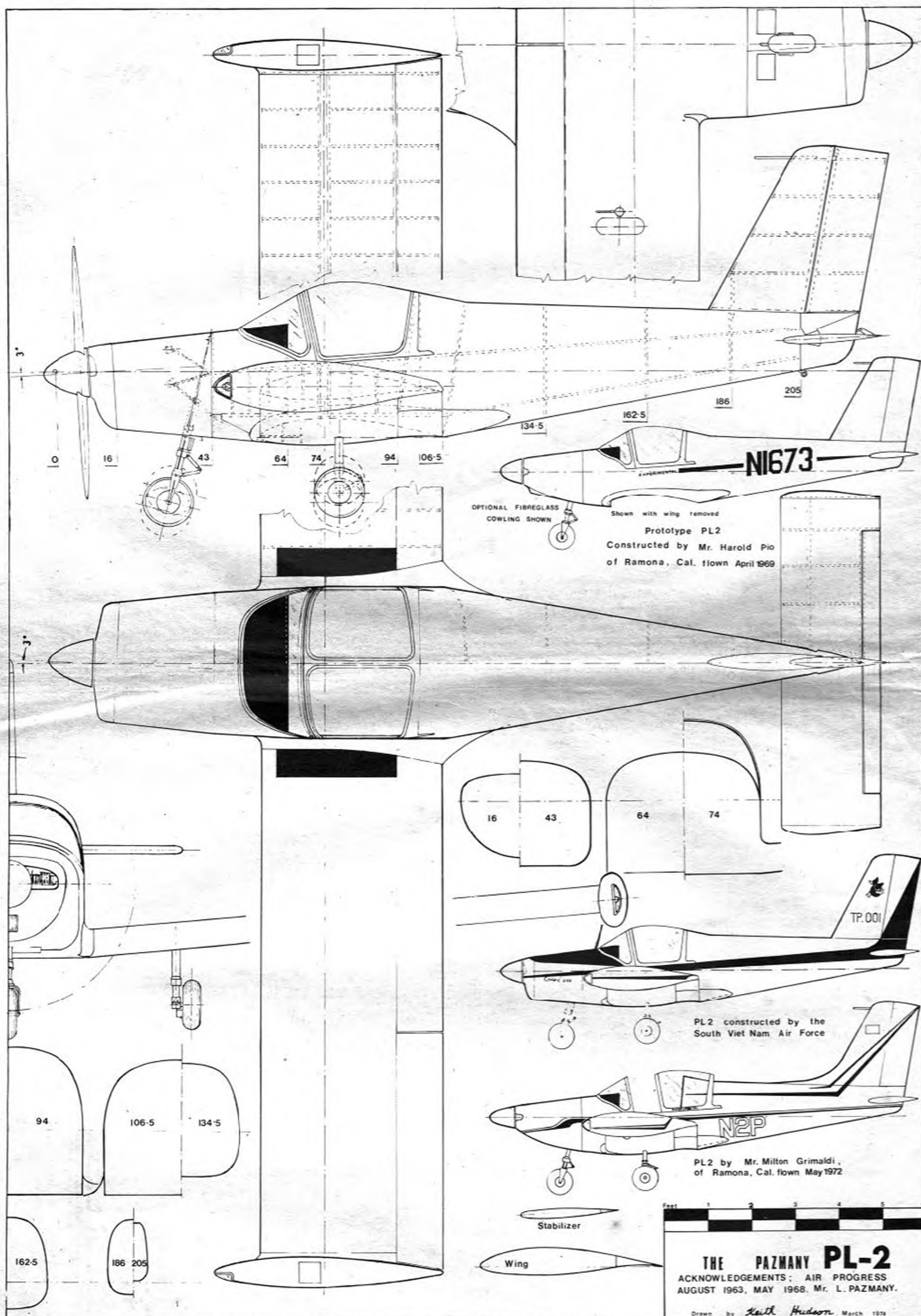
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PL-2 Built by the South Korean Air Force and evaluated as a military trainer. Three more are under construction.

**FLYING
SCALE**

(For specifications see page.....)

Below: PL-1, N60SP built by Sam Pawlowski of Akron, Ohio. Super polished finish.

PAZMANY PL-2

Keith Hudson

The Pazmany PL-2 is a development of the PL-1, which first flew in March 1962. The original conception of this series of aircraft was as a club project for the San Diego, California, Chapter of the Experimental Aircraft Association. The project eventually became a one-man design effort for Ladisalo Pazmany, a Yugoslavian engineer educated in Argentina.

The prototype PL-1 was constructed by Mr. John Green and Mr. Keith Fowler of Los Angeles and has logged more than 2000 hours in the air, an unusual amount of use for a home-built; many copies are now flying or under construction throughout the world.

The PL-2 is an improved version of the PL-1. The cockpit is 2 inches wider and four inches longer; the vertical tail is larger and fuselage lines are changed slightly. Wing dihedral is increased from 3° to 5° and the main spar is changed from built-up spar caps to a special aluminium extrusion, taper milled and bent for dihedral.

The PL-2 was designed to be powered by a Lycoming O-235-C2C engine, rated at 108 HP. It can also be fitted with the Lycoming O-290-G, O-290-D2B, or O-320-A2B. The larger engines have little effect on maximum speed or cruise speed, but offer a better rate of climb and ceiling. The prototype PL-2 was constructed by Mr. Harold Pio of Ramona, California, and first flew in April, 1969. Measured performance with a Lycoming O-290-G at 5000 ft altitude is as follows: Maximum speed — 144 mph; Cruising speed — 128 mph, rate-of-climb — 1400 fpm. These figures were achieved at maximum gross weight of 1486 lbs. The basic PL-2 fitted with the Lycoming O-235-C at 1416 lbs all-up-weight shows the following performance:

Maximum speed — 138 mph.
Cruising speed — 119 mph. Rate of climb — 1280 fpm.

STRUCTURE

The PL-2 is an all-metal low wing monoplane with two-place, side by side seating and tricycle landing gear. Aluminium 2024-T3 is the basic material, whilst the landing gear and the engine mount are of 4130 steel tube and plate. The structure is stressed for a positive load factor of 6.00 and a negative load factor of 3.0.

There are no double curvatures in the aircraft and the wing leading edge, for example, can be formed around a 2" pipe. The single spar wing is constructed in one piece and attached to the fuselage by four bolts. The wing can be removed from the fuselage in two hours.

The fuselage has a conventional structure of frames, longerons, and stressed skins. A reinforced cross beam is provided with shoulder harness attachment points.

A brochure describing the PL-2 is available for \$2.00 from PAZMANY AIRCRAFT CORPORATION, Box 80051, San Diego, California 92138.

Those wishing to construct a model may obtain plans to the following scales: 1/10 full size \$2.00 post paid. 1/5 full size \$4.00 post paid. In each case these plans are a scale drawing only and it is up to the modeller to devise his own structure. They may be obtained from: K.H. PLANS SERVICE 7 Angus Ave., Peakhurst 2210 N.S.W.



Plenty of room, and a clean panel! Simple design for scale detailing. Panel is PL-1 similar to PL-2.



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THE HOBBITON BRANCH - A START IN A MOST 'N' GAUGING HOBBY

Tim Phillips



The author with his compact 'N' gauge layout. The fiddle yard is behind scenery

I have been interested in model railways for years and like many modellers I know, collected magazines, bits and pieces, drew plans and had a thousand and one ideas that I would one day use. However I had no layout, and after all, this is what it was supposed to be all about. I live in a flat and space is limited but with the advent of "N" Gauge this did not prove too severe a restriction, at least for the pilot scheme I had in mind. So I sat down and drew up a plan, (which would actually be built this time) and which would be simple, compact and yet still be workable on a timetable if I wished and also that could be expanded at a later date. So was born the Hobbiton branch.

As the layout was to be portable I decided to use 4ft x 1ft unit baseboards; these were as open frames of 2" x 1" wood. The track bed of ply was laid over these leaving open areas elsewhere to make scenery making easier. Track was laid using mainly Peco on two of the baseboards as shown on the plan. The points on the main baseboards are hand operated, those on the fiddle yard branch are electrically operated using codar point motors, enabling the layout to be operated from the front. Two more baseboards are now under construction and are planned to fit in between the existing boards at points A & B, so giving a complete layout of 6ft x 4ft which will be operated from the 4ft x 2ft space left in the middle. However more of that in a later issue. At the moment the layout is operating as shown in the plan. All power is supplied by a Hammont and Morgan Powermaster.

Scenery has always seemed to be equally as important as the rolling stock in a model railway. I've often admired other people's scenic work but have never before tried my own hand. As usual it would appear that scenery like many other things sounds a lot more difficult to do than it actually is and once I'd had a go I found there were endless possibilities.

The hills were formed with crumpled newspaper and then overlaid with strips of wet Mod-Roc. This sets in a few minutes and will support its own weight allowing the newspaper to be removed. The

whole surface was then covered with a thin coat of plaster to cover the weave of the Mod-Roc bandage. Some brown powder paint was mixed with the plaster so that if some gets accidentally chipped then it will not leave white scars.

The whole area was once again liberally coated this time with a mixture of 50 per cent Aquadhere and water and a few drops of detergent, and then sprinkled with two or three various shades of green scatter material. (This gives a more natural effect than one colour only). Road, ballast and yard surfaces were made in the same way using various shades of brown and grey.

Trees were made by spiking a lichen on twigs cut from a privet bush, which I feel is very effective and cheap. The quayside and steps were made from strip balsa painted and marked out in biro to represent stone. I'm afraid the water is still not as convincing as I'd like it to be and was made by painting on a real mixture of grey, blue, green, brown and white paint and then several coats of clear varnish. All the buildings are kits, the station being Herpa, the church and gatekeeper's hut Pala and the goods shed Bachman. The old barge by the quayside is a much butchered Pyro kit. A backscene separates the scenic main baseboard from the fiddle yard.

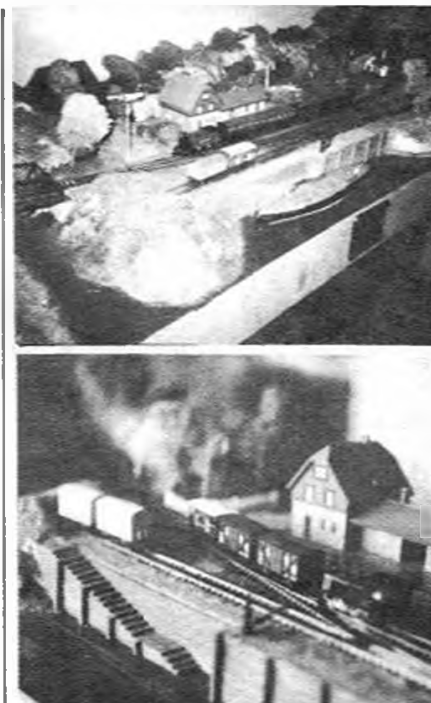
As with most model railways there are enough locos in the motive power depot to service ten branches of this size, but I put that down to modeller's licence. Even so, most are in keeping with a branch line as can be seen.

Apart from the railcar, steam still reigns supreme as I feel it always will in my mind. The rolling stock of some fifty Peco and Farish 10ft wagons and the dozen or so Minitrix, Farish and Arnold coaches is a mixture of mostly English and some European stock. This will offend may purists but I'm running what I like, which I feel, is how it should be. Modeller's licence again.

Operation can be very varied due to the use of the fiddle yard. Maybe I should explain that Hobbiton is only one small station on a long branch and the fiddle yard represents the rest of the system. For this reason it is not meant to be seen as it is only an aid to realistic operation. For example an "up" mixed goods can leave the fiddle yard, pass through Hobbiton, take on or drop off some wagons and continue on, (back to the fiddle yard.) Then a 'down' local passenger can arrive from fiddle and continue on to fiddle. Then maybe a light engine and brake may go 'up' or 'down' local passenger can arrive from fiddle and continue on to

Operation can be very varied due to the use of the fiddle yard. Maybe I should explain that Hobbiton is only one small station on a long branch and the fiddle yard represents the rest of the system. For this reason it is not meant to be seen as it is only an aid to realistic operation. For example an "up" mixed goods can leave the fiddle yard, pass through Hobbiton, take on or drop off some wagons and continue on, (back to the fiddle yard.) Then a 'down' local passenger can arrive from fiddle and continue on to fiddle. Then maybe a light engine and brake may go 'up' or 'down'. Only the number of loops and sidings being any restriction to the number of movements, possible. Thus even on a small layout like the Hobbiton branch operation does not have to be a toy-like round and round affair.

Unlike most 12" to the foot branches the future of the Hobbiton



Top: View showing the water, hulk and siding. Above: The Quayside and siding

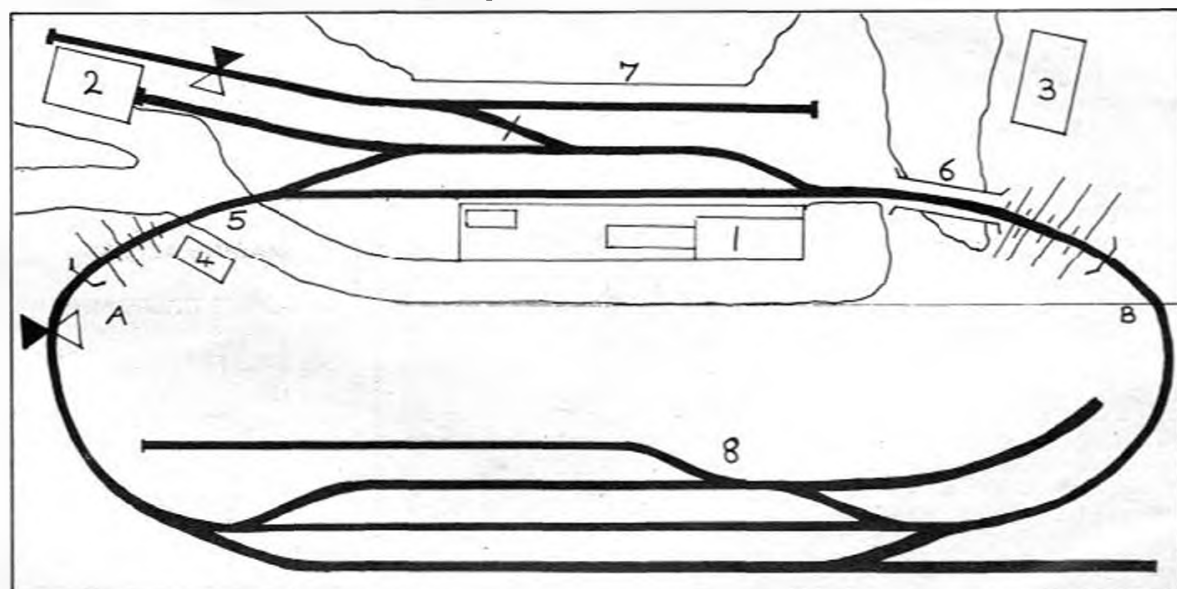
branch is quite rosy. As mentioned before two more baseboards are under way. These are intended to be a single line meandering through countryside at present but I may change my mind closer to completion and maybe add a few private owner sidings i.e., coal mine or saw mill etc. Still that is in the future and I expect many ideas will come and go before I actually start on the scenic work. If enough room is available a few more boards may be added but that will be quite some time off and not under serious consideration yet.

In conclusion I would like to say to any modeller who is in the position I was, to start building as you can do a surprising amount with very limited space and there is no substitute for having even a small layout of your own. The Hobbiton branch has given me hours of pleasure and I am sure it will give me many more. This layout will be on display during the May school holidays in the window of the Fantastic Hobbyshop, directly behind Palings, Wynyrd.

1. Station Buildings
2. Goods Shed
3. Church

4. Gatekeeper's Hut
5. Level Crossing
6. Bridge

7. Quay
8. Fiddle Yard



1. Oldtime German 0-6-0T Arnold Rapido
2. Oldtime German 0-4-0T Arnold Rapido
3. Oldtime German 0-4-0T Minitrix

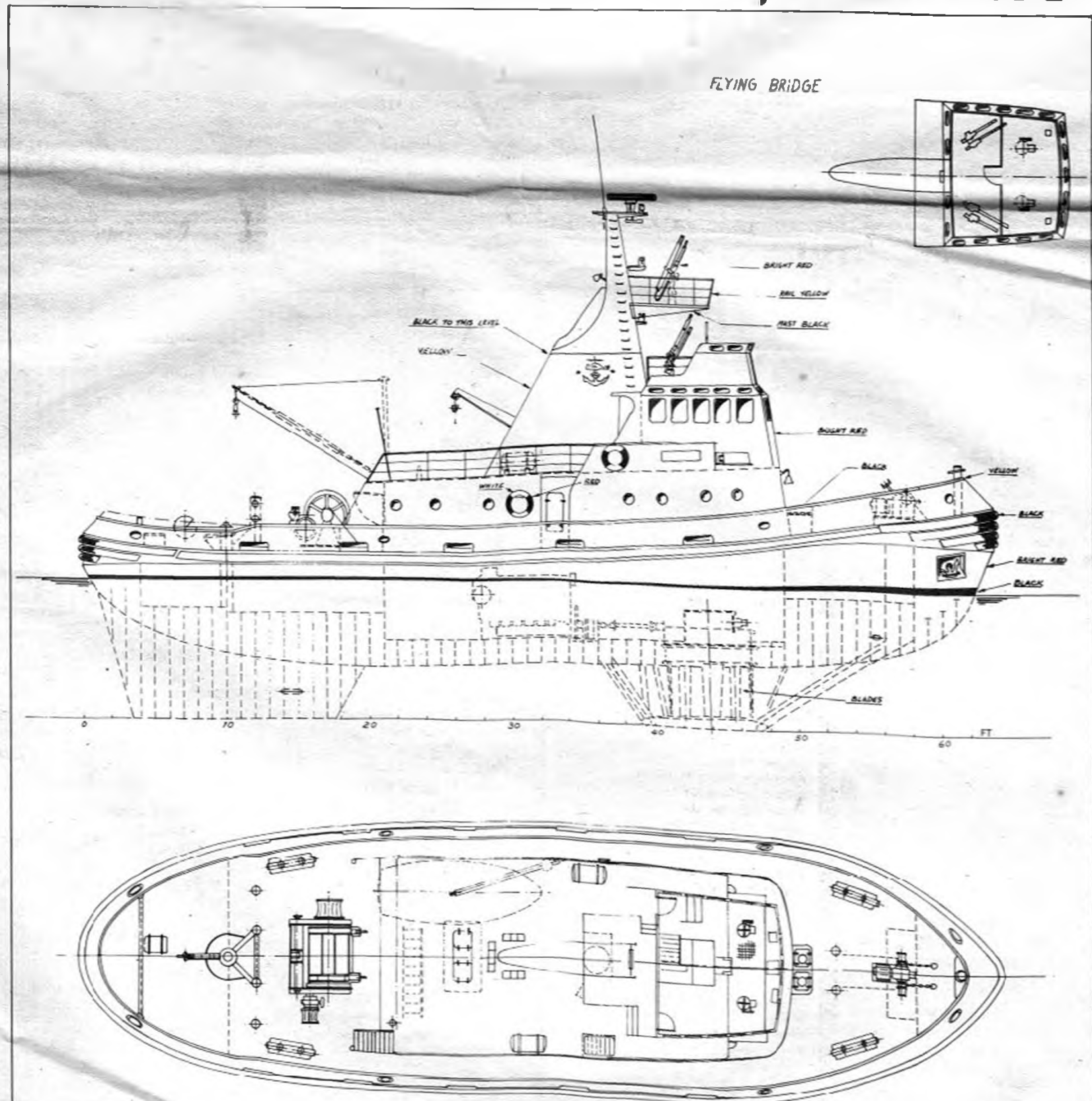
4. English 0-6-0T Minitrix
5. German 2-6-0T Flieschman
6. German 2-6-0 Minitrix
7. English 2-6-0 Minitrix

8. German Railcar Minitrix
9. Holden 0-6-0T Farish
10. GWR 0-6-PT Farish
11. S.R. 0-6-0T Farish



Above, Fine photo of Wellington's Red painted tug, 'Toia' 'Funnel' is yellow with black top mast. Water guns are red and hull is black trimmed. Photo: Wellington Harbour Board.

WELLINGTON'S HARBOUR TUGS, TOIA & KUPE





'Toia' and 'Kupe' demonstrate their prowess — one ahead, one astern at twelve knots! Incredible manoeuvrability is result of oscillatory propulsion unit. Photo: Wellington Harbour Board.

Since its introduction by the Wellington Harbour Board in August last year, the distinctive new bright red tug *Kupe* has attracted plenty of attention and approval from both citizens and visitors. It was built at a cost of \$1,000,000 by the Whangarei Engineering Company Ltd, and incorporates a number of features that distinguish it from most tugs plying New Zealand waters. This February it is being joined by its identical sister *Toia*.

Its potential maximum bollard pull of 31 tons makes *Kupe* the most powerful tug of its type in the southern hemisphere, and the Voith Schneider twin tractor propulsion gives it unsurpassed manoeuvrability. Conventionally propelled tugs have only about 60% pull astern compared with their pull ahead, and have no side thrust at all. *Kupe* has a guaranteed static bollard pull of 28 tons, but on trials achieved 31.2 tons both ahead and astern under engine overload conditions. 70% of power output is available for sideways movement, and it has an action radius of 1,000 miles.

With a gross weight of 304 tons and 104 feet long, *Kupe* can turn 360° in its own length and stop from full speed (12 knots) in 13 seconds. The ship carries a full quota of modern navigational aids, plus special equipment which includes a 22½ ton salvage winch; two marine fire fighting and salvage pumps, each capable of pumping 3,300 gallons per minute; four deep lift suction fittings; and three fire fighting monitors delivering a total of 10,500 gallons of foam, or 5,400 gallons of water per minute.

The Voith Schneider propulsion system was first developed in 1931, but it was not widely used until 1960, when its advantages for specialist ships such as tugs and river boats were realised. Although the system results in a less efficient power usage than normal screw propulsion methods, it has vastly superior manoeuvrability.

Basically the Voith Schneider propeller is a wheel with oscillatory blades projecting downwards at right angles to the ship's hull. It gives thrust in any desired direction solely through a change of the oscillatory movement of the blades and without turning the propeller in azimuth. It can be likened to the fin action of a fish or to the thrust obtained from a sculling oar. A rudder is unnecessary since the maximum thrust from the full horsepower is available as a steering force which is also independent of the ship's speed. Since the magnitude of the thrust can be infinitely controlled throughout its complete range, it can be regarded in the fullest sense as a perfectly adjustable propeller.

Control is obtained by a steering wheel that alters the setting of the blades to produce a thrust to port or starboard as well as ahead or astern.

With the towing hook aft the thrust can be applied directly in line with the

tug at any time with no danger of loss of stability through being girded — an inherent danger in screw propelled tugs.

Kupe normally carries a crew of six, including the master and engineer. For salvage work the crew may be increased to as many as twelve. The three single and four three-berth cabins are well fitted out in true nautical tradition with no frills, nothing superfluous, and an unmistakable atmosphere of masculinity.

A nicely egalitarian touch is provided by the single messroom for both officers and crew: on a ship of this size, where everyone on board is an experienced and fully trained seaman, the rigid naval classification system becomes rather more relaxed. A galley which closely resembles its kitchen counterpart in the average modern New Zealand home, two separate bathrooms with washing,



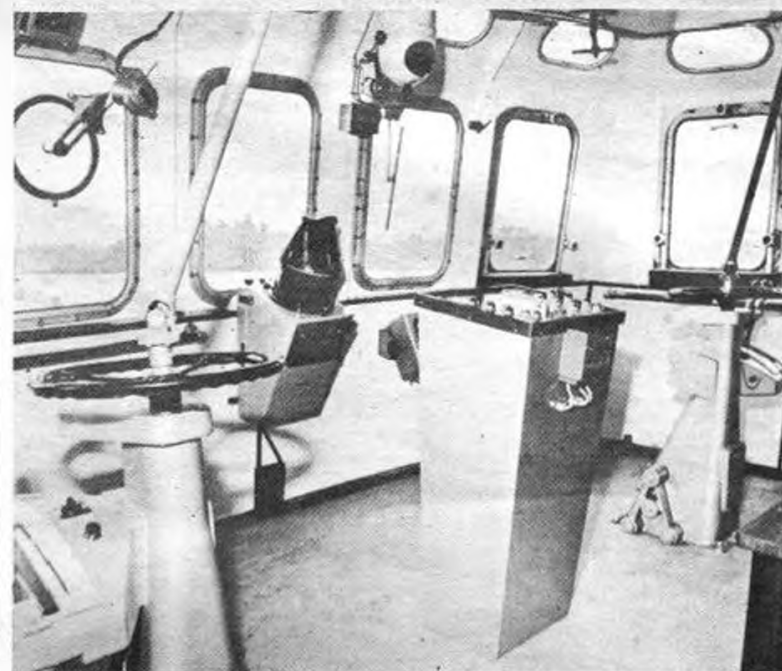
Above, *Kupe* in a stormy Wellington harbour, and above right, in calmer weather towing the container ship *Columbus*.

Below, the lower command deck showing the twin steering wheels with shafts connecting to the upper deck above. The diagrams right, show how the Voith Schneider propeller system works. In fig 1, the blades maintain a tangential direction, and no thrust is developed. Fig 2 shows the blade movement for thrust ahead, fig 3 for thrust astern and fig 4 for thrust sideways. Any intermediate direction is also possible.

KUPE THE TUG



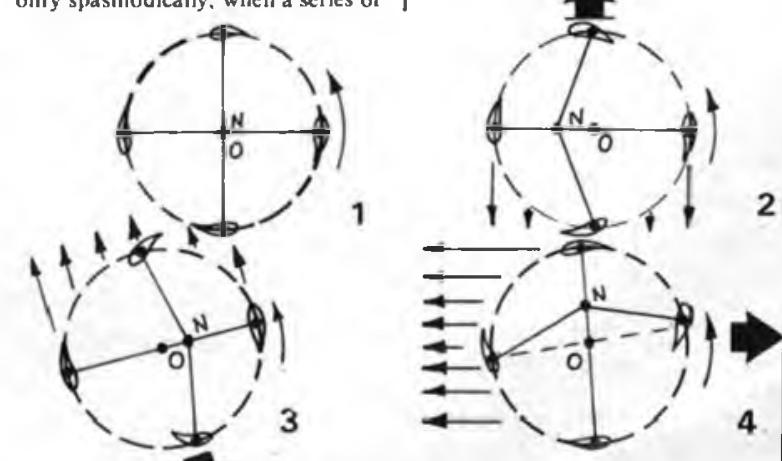
Its beauty lost in this black-and-white rendition, a pristine 'Kupe' proudly steams' down Wellington Harbour.



shower and toilet facilities, and a spacious drying room complete the ship's living quarters.

These facilities are, however, used only spasmodically, when a series of

jobs makes it necessary for the crew to stay aboard overnight — otherwise manning the tug is a normal eight to five job.



CLUB NEWS

Photo shows the models and modellers present at MARS last 'Fly in'



THE MEN FROM

MACQUARIE AIRCRAFT RADIO SIGNALLERS

MARS

R.C. FLY IN AND SUPER MODEL AIR PAGEANT OSHKOSH COMES TO MINTO ON THE 26th MAY

MARS will conduct a radio fun day on the lines of the EAA's Oshkosh, USA annual convention. With events for the Sunday flyer, polished flying demonstrations by stunt scale and racing aeroplanes, helicopters and some really way out experimental flying machines, a good roll up from the other radio clubs is assured.

Publicity planned for this 'Air Pageant' as MARS are calling it is expected to produce a large crowd of spectators so this will be a good opportunity for the R/C movement to present itself to the general public in a very favourable light.

The day will be fully catered for by Ingleburn Apex Club who will benefit from the proceeds.

Events will commence at 9.30 am and the program is as follows.

9.30 am to 1 pm

all fun events:-

Balloon bursting-streamer combat-relay racing R/C carrier decks. Presentation of the fun event prizes by Ald. R. Barton Mayor of City of Campbelltown and Mars Patron.

1.30pm AIR PAGEANT

- * Includes Airfield attack-homming and strafing
- * Scale model flying display
- * R/C Sailplanes
- * Lolly bombers with prizes for children
- * Helicopter Display
- * some most unlikely flying objects
- * Pylon racing

An open invitation is extended through MODELLER MONTHLY to all R/C Modellers, to bring a model even if you do not wish to take part in the days flying as a large static park will be provided to display your pride and joy.

Above all don't miss seeing what will be the biggest and best R/C show you have ever seen. Just remember Sunday 26th May — MARS field Pembroke Rd., MINTO.

MARS PROFICIENCY AWARDS

Any club concerned for its future makes some effort to help beginners, even if it is as simple a system as trimming out new models and helping with a newcomers solo. This is just plain common sense, for lack of a helping hand can only result in

crashed models and a rapid exit from the hobby by most new members.



The MARS club felt however that whilst we did our best to train members to the point that they were self sufficient in flying ability i.e. they could take off, fly around and land safely, the gap between flying at this level and a fully competent pilot was still too great. What we needed was a program of goals of increasing difficulty to point the way and provide the incentive to learn through practice.

So the Proficiency Awards were born.

The object was to break up the rather rocky path from absolute beginner to competent pilot into sections terminating at some specific level of achievement.

Each of these levels is indicated by a badge; we had cloth badges made to be sewn on our club shirts. These badges take the form of pilot's wings, circular centre part with a laurel wreath on it, for Grade II we add one wing and Grade III the other wing. (See photo)

Grade I is awarded after the first solo flight.

Grade II requires specific manoeuvres (Turns only), some landing accuracy and must be done twice.

Grade III pilots must demonstrate looping and rolling manoeuvres, inverted flight etc and must be able to land from right hand or left hand patterns. Good landing accuracy is required and again two such flights must be demonstrated.

Since we certainly did not intend these awards to become a badge of rank, we require simply any two club members as witnesses. This way everyone understands that the award is only as valuable as they themselves consider it to be.

The results have been up to our best expectations. The awards have spurred our newcomers along at a much faster learning rate and the presentations add interest to club meetings. Our members take their

qualification flying quite seriously and there is considerable competition between friends to reach a high grade quicker.

Further information may be had from MARS Secretary, R.C. Everett, 48 Albert St., Ingleburn 2565

KU-RING-GAI RESULTS INTER CLUB COMPETITION 17th MARCH, 1974

Report by DAVE THOMAS, KMFC

The KMFC Racing Meet took place on the 17th March with St. Ives showing its usual competition weather. Five events were decided and competition was keen. Junior Rat Race started at 11.00a.m. with three entries and only one finisher — the KMFC team of Paul Hewitson and Brett Keogh won with 294 laps, E. Nutter was second and Robert Jenkins and Miles Gore-Brown came third.

Open 2.5cc Rat has six entries, five of which survived the pull-test. The mighty team of Hewitson Keogh again came out on top with 352 laps, and L. Trimmer a very close second with 350 laps. The other KMFC team of Gore-Brown and Jenkins placed third (313 laps) with M. Trimmer at 285 laps. A good event.

B-Class Team Race had three entries with the winner being the team of Peter Tilley, Alan Shing with a time of 6:43.5. D. Wearne was second (8:32.3) and Alan Trimmer third (10:44.4).

FAI Team Race had 4 entries. David Hales and Brian Eather came first (10:41.1) with Hutton Oddy and Julius Reichhardt second (11:38.7) The Hewitson/Keogh team retired.

Goodyear was the most strongly contested event with no less than twelve entries. Three heats were run with Bruce Hoffman serving notice of an outstanding final when his Super Tigre G.15 first-flick-started (twice!) and he posted a time of 4:04.8 — the

fastest I have ever witnessed. Regrettably, the final was disappointing with only one team finishing the 160 laps and that being the Hewitson/Keogh duo (again!) in 9:12.3. Bruce Hoffman was second after retiring at 134 laps and Barry Lee was third at 120 laps. The ease of construction and the fun of flying help to keep this form of racing so well supported and I would urge all juniors who want to break into racing to try Goodyear.

My thanks to all who helped make this a good meet, especially those who judged or timed or counted laps!

RESPONSIVE EXHIBITION

from John White.

Friday, March 29th, marked the opening of the 1974 Brookvale Show held at the ('Sea Eagles') hallowed Brookvale Oval. Regarded by many as a mini-Easter Show, this annual event never fails to gain spectators in their thousands.

Our Club had the privilege and satisfaction of giving a floodlit flying exhibition in the prime time slot of 8.15p.m. immediately following the Premier, Sir Robert Askin's official opening. Thanks are due to those members who responded at very short notice to provide the models and assistance for the display. The sequence of flights was:

1. Graham Lloyd flew his Privateer — an eight foot wingspan original design powered by twin unmuffled .35's. The sound of the two motors revving in synchronous harmony helped to capture the attention of the crowd.
2. Nev Carlos flew aerobatics with his newly completed Windwagon. This aircraft, incidentally, will be a top performer once Nev has done a little more trimming.
3. Combat with Alan Todd, Paul Hewitson and Alan Paulsen. This event never fails at exhibitions. Some close flying with good streamer cuts and a crash or two as well.
4. Rick White finished the program flying his stunter through some

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SUN 16 JUNE

MON 17 JUNE

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SCALE

CHUCK GLIDER

COUP D.V.

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OPEN RUBBER

SCRAMBLE

JUNIOR SAILPLANE

ALL IN EVENT

FOR JUNIORS

FURTHER ENQUIRIES: WRITE TO

SECRETARY — C. GREENWOOD

LADY SCHERGER CRESCENT AMBERLEY

or PHONE: A. GORRIE 444829 (BRISBANE)

beautiful manoeuvres with hair-raisingly low pull-outs: and then one too low as Rick mowed the lawn and cut his flight prematurely. (This was well accepted by the blood-thirsty crowd!)

A special note of thanks to Graham Lloyd who took the microphone and gave forth with a superb oration. The fluent manner of his presentation (off-the-cuff) signifies another find within our ranks.

K.M.F.C. COMPETITION DAY; 24th MARCH, 1974; RESULTS:

| | |
|-----------------|---|
| Stunt | — R. White; N. Carlos. |
| Novice Stunt | — A. Paulsen; B. Paulsen; P. Hewitson. |
| FAI Combat | — B. Paulsen; A. Todd; R. Jenkins; M. Leys. |
| Chuck Glider | — M. Gore-Brown; R. Jenkins; P. Hewitson. |
| Junior Rat Race | — P. Hewitson; A. Todd; M. Gore-Brown. |
| Open Rat Race | — H. Oddy; R. Jenkins; D. Thomas. |
| Goodyear | — B. Paulsen; P. Hewitson; M. Gore-Brown. |

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FINAL K.M.F.C. POINTS SCOREBOARD FOR THIS YEAR: SENIOR

| | |
|------------------|----|
| 1. B. Paulsen | 47 |
| 2. R. Jenkins | 34 |
| 3. H. Oddy | 30 |
| 4. D. Mearne(| |
| B. Franklin) | 10 |
| 6. G. Lloyd | |
| N. Carlos) | 7 |
| 8. D. Thomas | 3 |
| 1. P. Hewitson | 43 |
| 2. A. Todd | 27 |
| 3. A. Paulsen | 20 |
| 4. M. Gore-Brown | 19 |
| 5. R. White | 10 |
| 6. M. Leys | 3 |

JUNIOR K.M.F.C. TROPHY WINNERS FOR THE 73-74 YEAR:

| | |
|-----------------------|---------------------------|
| Senior Points Score | — B. Paulsen; R. Jenkins. |
| Junior Points Score | — P. Hewitson; A. Todd. |
| Stunt | — R. White. |
| Novice Stunt | — A. Paulsen. |
| FAI Combat | — B. Paulsen; H. Oddy. |
| Chuck Glider | — R. Jenkins. |
| Senior 2.5cc Rat Race | — H. Oddy. |
| Junior 2.5cc Rat Race | — A. Todd. |
| Goodyear | — B. Paulsen. |

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NEWTOWN MODEL AERO ASSOC.

RESULTS FREE FLIGHT CONTESTS 17 March, 1974

O/Sailplane:
First: F. Blades
Chuck Glider:
First: F. Blades
½ Hour Scramble:
First: A. Gorrie
Novice C/L:
Equal: A. Blades, I. Gorrie, J. Genn.

Senior:
O/Power
Scramble
Chuck Glider
Beginners:
Junior:
Chuck Glider
Control Line Event
Open Sailplane
Junior Training Programme: Phone 444829
Arthur Gorrie, Hon. Sec.

M.A.A.Q. FLYING CALENDAR — 1974

| | |
|-----------|--|
| 24 May | Lions Club Cracker Carnival. Exhibition Grounds, Brisbane. Flying 7 p.m. 3 Circles. (to be held on 31 May, if postponed on 24th) |
| 26 May | T.R. Stunt, Speed, A Rat — Amberley. (Phone (073) 444-829 Details). |
| 18-19 May | R/C CHAMPS — Thermal & Seaplane (Maryborough) |
| 15 June | F.F. CHAMPS Wakefield, Scale, A1. Jnr. Sailplane Champs. |

| | |
|---------|--|
| 16 June | A.2, Chuck Glider, O/Power, All-in event for Juniors. Champs. |
| 17 June | FAI Power, Couple D. V., Scramble, Champs. (Queens Birthday weekend) |
| 23 June | Consistent Fliers Day — Sandgate |
| 28 July | Control Line Demo — Maroochydore. CONTROL LINE CHAMPS. |

From Arthur Gorrie, The hardest working PRO in Australia (for QLD.)

TAMWORTH MODEL AIRCRAFT CLUB

PRESIDENT:

B. Potter.
115 Carthage St.,
Tamworth.
Phone: 66-3158.

SECRETARY:

B. Weston.
P.O. Box 125,
Tamworth.

TREASURER:

B. Pullen.
Phone: 65-7438.

PUBLICITY OFFICER:

R. Harvey.
Phone: 66-3278.
Every Sunday morning T.M.A.C. fly their models at the Club's Field on Moore Creek Road.
DIRECTIONS for locating the field are as follows:

Turn right just past Sale Yards at Tribe Street.

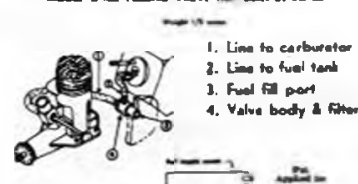
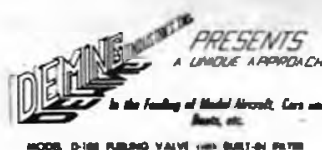
Follow the bitumen road for approximately 5 miles. The field is on the left-hand side.

When visiting Tamworth, the Club cordially invites members from other clubs to come and fly with us.

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G21/35 FI R/C
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ST60 R/C
G60 Bluehead R/C
G71 RV R/C
G15 FI/RC
G20.23 FI
G20.23 FI/RC



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FLEET CYCLES
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255 Main South Rd., Morphett Vale SA
TASMANIAN R/C SUPPLIES
15 Courtney St., Lenah Valley Tas.
SUN CITY MODEL SUPPLIES
38 Henry St., West End, Townsville Qld.

Ideally situated, the field offers excellent outlets for Radio Control (Power and Sailplane), Free Flight and Control-line.

Frequency control is by the key board system, and the Club also has a Bungee High Start.

FUN-FLI

Plans are well under way for a "FUN-FLI", which is to be held during the June long-weekend. The Club has motel accommodation available for over 30 modellers. If you wish to book a room, please contact Brian Potter at the earliest possible time.

SATURDAY — Sail Plane Events.

SUNDAY

1. Start motor, take off do 3 loops and a roll, and then a spot landing.

2. Open Pylon.
3. Stand off Scale.
4. Streamer Cut.

If there is insufficient time available on Sunday, the Streamer Cut competition will be held over until Monday.

A social Evening is being arranged for the Saturday Evening.

The Entry Fee is \$6.00, which includes a Barbeque lunch, Trophies and a Memento for all Contestants.

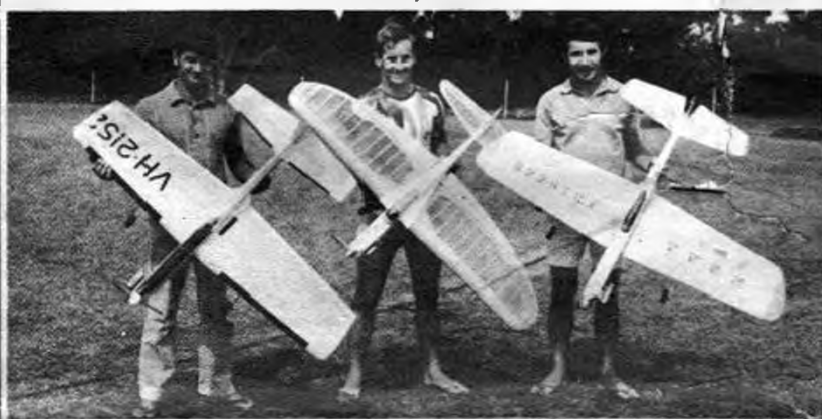
CONTROL LINE TRANS-TASMAN CHALLENGE 1974

Report from Paul Turner.

The challenge initiated by New Zealand is now well under way with all aspects finalised except the Australian team.

The events to be flown are all FAI events: Stunt, Team Race and Speed. The venue, as mentioned before, is Kaipoi, near Christchurch in the South Island; the date, 27th and 28th July. The trials to select the Australian team were held on the 30th and 31st March at the St. Ives field of the Ku-Ring-Gai MFC. The roll-up at the trials was very disappointing with Stunt the only event well patronised with seven entries; Team Race managed a meagre two, with appalling nil in Speed. The first round of Stunt was flown on Saturday 30th with almost everyone having some minor problems, starting, tuning or over-runs. Nevertheless the scoring was very close with W. Williams heading his round.

Round Two on Sunday saw perfect weather with a slight drift and moderate cloud cover. Scores were Control-line Aerobatic team for Trans-Tasman. L to R Reg Towell, Ray Ogle, Warren Williams. Photo: at trials, Ku-Ring-Gai field, 30-31 March 1974



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up on Round One and R. Ogle with a great flight took the lead.

Round Three was a major setback for R. White and W. Williams. R. White after putting in a very good flight had the rear half of his muffler jettison causing the cancellation of the flight, while W. Williams fought with a cranky Super Tigre which refused to start costing him his flight.

The final results were:— R. Ogle, 1st (5130), W. Williams, 2nd (5009) and R. Towell, 3rd (4967). Two heats of Team Race were run on Saturday between the teams of Oddy-Reichhardt and Kerr-Shing. Times were good and resulted in two wins for Oddy-Reichhardt.

On Sunday morning Andy Kerr, claiming his motor was not properly run-in, did some extensive flying before the third heat and managed a win, but after this the motor never sounded well and his times went up. The model of Oddy-Reichhardt was very consistent winning four of the six heats and came out the winner with an average time of 5 mins. 06 secs. against 5 mins. 22 secs. for Kerr-Shing.

With no entries in Speed, Oddy-Reichhardt decided to put in a flight with their team-race model; obviously they will make the Australian team in speed and will now build a speed model to take to New Zealand.

The Trials were a disappointment in respect of the attendance, but the events flown were close fought and top class. The Australian team should acquit themselves well.

The places still vacant in the team will be discussed at the next N.S.W.A.A. Control-Line Sub-Committee meeting and the methods decided upon to fill them will be implemented as speedily as possible.

I would like to take this opportunity on behalf of the C.L. Sub-Committee to thank the Ku-Ring-Gai MFC for their help over the two days of the Trials and also for the use of their superb field, a field on which it is a pleasure to fly and one which certainly brings out the best in the contestants.

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"PUSSYFOOT" COMBAT WING, a smart strong combat wing for 2.5cc engines, designed by Richard Shennan. Full-size plans for this model. Available separately on strong dyline paper, \$1.00 postage and packing paid.

MM 2. PIPER J.3, Free-flight semi-scale or radio control semi-scale for single or two channel radio. This is an old design, tried and tested. Many have been built and flown successfully. Simple construction would allow even a beginner to succeed with this one. Plan was prepared for single channel OS Pixi receiver, but any other current single channel set will do. Price: \$2.95 Postage and packing free.

STINSON SR-6, Free-flight rubber powered, control-line or free-flight power model. Take your pick from instructions on plan. Comprises 2 sheets 17" x 11" \$2.95 Post paid. (See Sheet one, centre pages).

NEXT ISSUE: Theo Georgiadis' superb 'Challenger' stunter for .35-60 cu. in. engines. Magnificent draughtsmanship.

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