



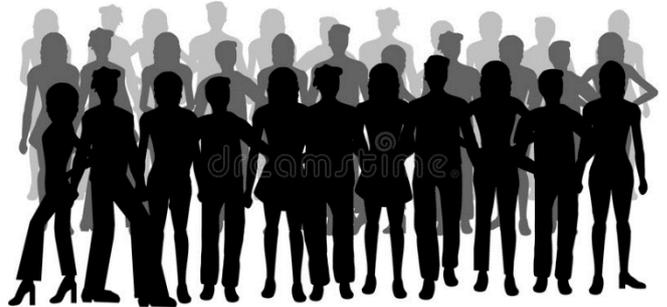
Dave (President of Matamata Club) joined us with his scale Westland Lysander. This is powered by a 3-cylinder Saito 4 stroke petrol radial. Lots of grunt and very realistic sound. Very impressive on the ground and in the air.



So – who are we ?

As Secretary I am frequently asked by media or by our landlord, or by funding charities, on the make up of our club. Our membership database lists occupations as provided to us on the MFNZ membership form at date of joining. According to this we have an eclectic mix comprising the following:-

- 8 juniors (students).
- 15 listed as retired, but some have a level of active employment.
- Ages range from 11 to 90
- In keeping with Tauranga having a large number of small privately-owned businesses we have 6 listed as company director or business owner.
- Not surprisingly we have 10 from all factions of the engineering industry – Marine, Transport, Electrical, Mechanical, Consulting, CPEng etc.
- The health sector is also represented with nursing and dentistry.
- The construction sector is covered with surveying, machine operators and architectural members.
- Other occupations include orchardists, beekeepers, airline pilot, upholsterer, photographer, drivers, computer specialists, salesmen, plumber, boatbuilder, electrician, finance and insurance.



Get to know your clubmates. There is a lot of talent within the club who can help you in many ways beyond flying.

Odd spot (from John Dolphin, member based in Australia)

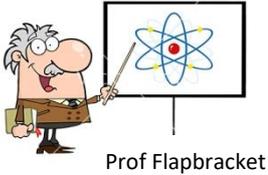
Do you suffer from “CENOSILLICA PHOBIA”.

Its the terrifying feel that your beer glass is EMPTY.

YES, IT REALLY IS A PROPER PHOBIA. Look it up in Wikipedia. (Perhaps its an Australian affliction)

Decalage – what the ?

Recently one of our fliers was heard to remark that “that plane flies with its tail low. It must be tail heavy. Needs some weight in the nose”. This may be a first thought but is far from the truth. Flying attitude is not related to centre of gravity. When a plane is flying, you trim it (either consciously or via holding some bias on the transmitter) such that the angle of incidence on the wing generates sufficient lift to balance the aircraft weight, to maintain it in horizontal flight, at a given speed. The aft part of the fuselage is just a long boom holding the tail feathers. The tail generally flies at zero incidence and acts as a lever to hold the wing at the correct attitude. Any given design could have a tail which in a normal flying position is above or below the horizontal, as long as the tailplane is at zero incidence. A classic example is the Armstrong Whitworth “Whitley” bomber which flew with a pronounced nose down attitude.



Prof Flapbracket

John Lloyd -chief designer of Armstrong Whitworth Aircraft was unfamiliar with the use of flaps on a large heavy monoplane, they were initially omitted from the design. To compensate, the mid-set wings were set at a high angle of incidence (8.5°) to confer good take-off and landing performance. Although flaps were included late in the design stage, the wing remained unaltered; as a result, the Whitley flew with a pronounced nose-down attitude when flown with the flaps in the cruising position, resulting in considerable drag.



We often see on plans that the wing should be at an incidence of 3 degrees or that the motor should have 5 degrees of down thrust – but relative to what?.

Most plans have a side view of the fuselage and often these have a line passing the full length of the model. This is an arbitrary longitudinal axis line (aka “Fuselage reference line”, “decalage line”, or “water line”) which is a reference point for all other angles to be related. In general the main wing will be set at a couple of degrees positive incidence to this line, the tailplane at zero degrees and the motor at negative 5 degrees (trainer). The difference between the wing angle of incidence and the tailplane angle of incidence is called “decalage”. An aerobatic model will probably have no relative incidence between the wing and the tailplane.

So – if your plane is flying tail down, it may be useful to rotate the aft fuselage upwards relative to the wing. This can be done by INCREASING the angle of incidence of the wing – ie by putting a packer under the trailing edge of the wing (low wing model) or under the front edge of the wing (high wing model). If the tailplane incidence cannot be adjusted accordingly, you can trim for a stable flying position with the elevator.

If you are building from scratch, you could consider fitting wing incidence adjusters – these are very simple, cheap and effective. (\$13 from Banggood).



Jungle Rescue

Last month I commented on John Quarrie’s loss of his plane in the jungle, followed by a “drone” search and the plane’s recovery. The full story is more interesting. Having dropped his plane into the jungle, John put his DJI Mavic Pro in the air having first programmed it to fly a grid search above the crash area. He used a mobile phone App “Flight Plan” which showed a GoogleEarth view of the site, on which he was able to draw a search box. The drone then flew a high search pattern within that box. At home, he reviewed the photos and was able to pick out a coloured speck which looked like his plane. Returning to site he then flew a low pattern above the crash site and was able to confirm his plane. He then hovered the drone above the crash site while he hacked his way through the jungle using the hovering drone as a position reference. The plane was easily found. While walking back to the car, the drone went into low battery mode and returned to base, and was sitting on the ground close to the car when John got back. Amazing technology. (I feel that my technical development got stuck in the 70’s)



A touch of nostalgia



Alan Blomquist has 'discovered' some old photos of one of our early auctions. This was held in 1979 at Millers Road. *"The turnover was \$220 and of course the Club got \$22.00. The auctioneer of the day was Lionel Reeve, with helper Alan Blomquist and secretary John Till. There were only about 10 bidders".*

This compares to our latest auction of \$22,000 turnover and 150 bidders.

This indicates an average growth rate of 29% year on year !

Flying site etiquette = what does this mean?

No - its not about holding your knife in the correct hand at a club BBQ. What it means is being courteous and helpful to other flyers and maintaining high safety awareness.

This is a standard question in the Wings Test so its something that we all know and take for granted - yes ??.

This is not something that can be answered in a single sentence but the following gives some indication of how this may be demonstrated.

Simple courtesies :-

- When arriving at the flying site, introduce yourself to other flyers before setting up and flying.
- Please always wear your name badge. This will avoid the embarrassment of members trying to recall your name when they last saw you 2 weeks ago.
- Don't hog the flight line – give others a turn
- Help others who may be having difficulty
- Take part in search parties to find downed models
- If you want to run an IC engine up and tune it, take the plane away from the pit area so as not to become a noise nuisance.
- Fly high when others are taking off or landing
- Don't distract other pilots with idle chatter
- Offer to act as an observer
- Fly safe
- Keep the runway clear – don't leave a landed plane in the middle of the runway when others are flying
- Obey the club flying rules
- Please do not fly when someone is doing their wings test – they don't need the distraction.
- Participate in airfield maintenance activities

Interesting Links – possibly related to Aviation

- Spectacular – but is it legal ? <https://youtu.be/c5ui55dCaeU>
- Some like them big - and complicated. I can't envisage starting 12 motors together and having them run reliably <https://www.facebook.com/modelarstwoklasyczne/videos/1755493647891597/UzpfSTcyNzA0MTk5NzoxMzI4NTM2MzIzOTQ0MDU3/>
- Living the dream in miniature <https://www.facebook.com/groups/1624105887802763/permalink/1865625366984146/>
- The future of Futaba https://www.rcgroups.com/forums/showthread.php?3102701-Nick-Maxwell-Futaba-USA-Interview&utm_source=newsletter&utm_medium=email&utm_content=Read%20Jim%20T.%20Graham%27s%20Interview%20with%20Futaba%20USA.&utm_campaign=7%2010%2018
- Interested in old engines? This web site gives a comprehensive list of engine tests and reviews, and is being added to frequently. <http://sceptreflight.com/Model%20Engine%20Tests/Index.html>
- Looping a Hercules – yes it can be done - <https://youtu.be/HTuL2-ND-68>
- Mitsubishi Zero aerodynamics - <https://www.youtube.com/watch?v=3d6shqk88I>

Search and Rescue Exercise

Martin Campbell is active with Youth Search and Rescue and is involved in an exercise on 4th-5th August in TECT Park. They would like to add the realism of having specific targets to find such as downed aircraft. The committee has identified some 6 planes MIA in the jungle but there could easily be more. Please let Dave or Roger know if you have any missing models that could form the basis of a search.

General Stuff

- New members – in the last 3 months we have added 10 new members to our ranks. Do you remember the days when you first joined the club? Please get to know these new guys and make them welcome. Help them to get to know other members and please offer your services as a buddy to help them on the path to “Wings”. We want to avoid the experience of early failures and disappointments which could turn them away from the hobby. Remember how long it took you to be comfortable with control reversal and landings?
- One of our new members made a comment after the last club night suggesting that we all wear name badges so that he could remember the many introductions he has made at the club night and at the flying field. With club night attendance being typically 25-30 it is a daunting exercise to keep track of who is who. Name tags are a good idea and to be encouraged. Rather than getting a sticky label every time you attend a club night it is suggested that you wear your wings badge (or your “green card”).
- Welcome to new member Jon Blunn. Jon is a recent arrival from the UK and flies 4 stroke methanol planes. He has an interest in scale and possibly indoor. His work means that his flying will be constrained to weekends so please look out for him and help him get established.



Caleb Day with his “Eindecker” ↑

- Did you know ? - that if you look at the 10 day forecast on our weather station site, then click on the day, it will open up to give an hour by hour forecast of windspeed. Ideal for planning your flying.
- Rumour has it that Tony Christianson is developing a flight of large scale warbirds. He has been flying his Westland Lysander for some time and has now added an iconic model from the other team. Hoping for a photo next month.
- For those struggling with the wings test questions – go to this link :- http://www.modelflyingnz.org/magazine/web_feb_16.pdf Some of these answers are site or model specific so you will need to do some research to find out what applies to your situation, and the basis for the answer. The introduction states that the answers are deliberately cryptic to encourage you to do some research on background to the answer. If you want a more comprehensive set of model answers, send me an email.
- A release date has been set for the film “Hurricane” of August 17th. This is about Polish squadron 303 during the battle of Britain. Initial reports are that it is very realistic with dramatic flying sequences.
- **Wanted to purchase** – does anyone have a traditional high wing trainer they would be prepared to sell?. Wanted for one of our new members to learn on. Please contact Dave on the club email address.

That’s all for this month. May all your landings be on the runway centreline.



Dave Marriott
Editor