

NSWRA Newsletter



New South Wales Rocketry Association Inc.

May-June 2016

Membership Renewals Now Overdue

By now, all members should have renewed their memberships for 2016-17.

If you have not already done so, please renew as soon as possible, rather than wait until you attend your next launch. This is to help allow us to satisfy our insurance obligations.

Payments may be made by direct deposit. Send us an email at nswra@nswrocketry.org.au for payment details.

Please supply a completed membership application form, available on the website, with your payment: www.nswrocketry.org.au/Documents/NSWRA_Membership_Application.pdf

The membership fee is \$150 (senior rate), with the junior rate (under 18, restricted to low power) at \$90.

Macquarie University Astronomy Open Night



The Astronomy Open Night on Saturday 14th May was well attended, and the NSWRA stand was again very popular, thanks to the efforts of George, Tim, David C and Scott (member of TRA). Peter Berg had a prior commitment, but was able to show up later to also help out.

A number of those present expressed interest in attending our next launch. This happened to be our competition day, at which we unfortunately experienced some quite heavy rain which may have deterred some people. As a result of our display, we have also been invited to be involved with STEAM Education Australia, in their July school holiday programs.

Launch day at Yass – Sunday 7th August

We have been invited by the Canberra Rocketry Group to join them for their launch on Sunday 7th August.

This will replace our Sunday launch at Whalan Reserve (scheduled for 14/8).

The launch will be held at the Manton Rd site near Yass.

Directions are on our website: www.nswrocketry.org.au/PublicPages/Public_LaunchSites.html.

For those that may be unaware, this site is owned by CRG. As this will be a CRG launch, we need to abide by their rules and procedures - which aren't very different to ours. Check out their website: www.canberrarocketry.no-ip.org

The size of the property is approximately 780x800m. Maximum altitude is 4000 ft.

It is a "model rocket site", like Whalan, so: maximum rocket weight (with motors) of 1500g, any motors up to and including "G", with less than 125g of propellant and 320Ns total impulse.

CRG usually start launching around 8:30am, but to cater for our visit, are likely to delay the start time to around 10:30.

We hope you can make it. This will be a good experience to catch up with another group of like-minded, friendly rocketeers at a different launch site. As a courtesy, we should let them know of approximate numbers, so if you plan on attending, please let the NSWRA committee know nswra@nswrocketry.org.au

NSWRA at the Western Sydney Model Show Day

We were invited by NSW Sport and Recreation to have a rocketry display at the Western Sydney Model Show Day, held at Sydney International Regatta Centre at Penrith on Sunday 12th June.

As this coincided with a Whalan launch day, George graciously offered to run the launch, allowing Tim and David C to set up the display, with David H and Kevin able to get to Penrith around noon to help out.

Around 1750 people attended a great day, and we believe that it would be very worthwhile participating in this event again next year.



Tim & Ariana setting up

Launch weekend at Mullaley in September

We can confirm that the next launch weekend at Mullaley will be held on 10th-11th September (not the October long weekend as previously indicated).

This will replace our scheduled Sunday launch in September at Whalan Reserve.

See our website for general directions: www.nswrocketry.org.au/PublicPages/Public_LaunchSites.html

More detailed information will be provided to those planning to attend, so please let us know.

Trial of Flight Cards

NSWRA is a somewhat atypical rocket club in that we have not required flyers to submit flight cards for their rockets. Up until now, we relied solely on a logbook. This has made it difficult for the RSO to perform the required checks on every rocket prior to its launch. It also created a messy situation for high power rocket flights, where it was required to fill in a flight card in addition to entering details in the logbook.

Flight cards are a great tool for owners to check and report various aspects of their rockets, adding to the experience, and it is a good practice to have flyers prepare for HPR, where flight cards are already a requirement.

The flight cards we are in the process of trialling are intended to cover the key aspects and not be too complicated.

Once we have agreed on the final design, members, if they so desire, can print off the cards (four per A4 sheet), and fill in just the general information for their rocket beforehand. Final checks will need to be done on the day of the launch.

You need to fill in the card legibly and completely (not the shaded sections). A lot of the information required on the card is simply "Y/N" or check-boxes, so for these sections you just need to circle or cross out an option, or tick a box.

The critical step is to submit your rocket and flight card to the RSO for approval **before** placing the rocket on the pad.



John Katz (on the left) receiving First Prize

Competition Results

Despite some rain early in the morning, we were able to hold the altitude duration contest on Saturday 28th May.

See the launch day report for more details.

Point scores were determined by taking the difference between the recorded maximum altitude of the rocket from the target of 400 ft, and subtracting this number from the flight duration (in seconds)

Results:

1st John Katz, 31 points

2nd Kevin Burchell, 24.3 points

3rd David Cumming, 15.7 points

John's "Dust Devil" achieved an altitude of 386 ft, with a flight duration of 45 seconds, earning him first prize of a Powerbank. Congratulations, John!

Upcoming Events

All launches are at Whalan Reserve unless otherwise noted

July

10 Launch Day

30 Launch Day

August

7 Canberra Rocketry Group invitational launch at Yass

27 Launch Day

September

10-11 Mullaley launch weekend

24 Launch Day

Launch Day 8th May

Number of launches: 12

Not many members at today's launch, due to it being Mother's Day.

We had a visitor launching his "Thunderbird 6" three times on A8 motors, then using a B4 motor for its fourth flight.

Paul launched the "Dust Devil" twice and "Pod 2", also twice, on C6 motors.

Tim's "Weasel" had a successful flight on an E28, and then tried again with an F40. This motor must have been a little suspect, failing to ignite after 3 attempts. The rocket finally left the pad on its fourth attempt, only to have the forward closure let go.



Launch Day 28th May

Number of launches: 29



Paddle pop sticks attached to the fins!

It wasn't a promising start to the day, with rain falling just as we arrived at the site. However, it eventually eased, allowing us to start launching and hold the altitude duration competition (see separate report)

There were so many great flights, including Jason's "Mercury Redstone" on a C6 motor, David H's "Zephyrette" on an F15, "XV3" on an E31, and "Big Red" saucer on a G80. Adrian used a cluster of three B6 motors in his "Ranger", and his brother Jonathan had a cluster of two C6 motors in his "Red 2".

Even Mark launched rockets today (!) – "Eliminator" on D12 motors. In an attempt to increase the drag and reduce the altitude of the rocket to get closer to the competition target of 400ft, Mark temporarily added paddle pop sticks to the fins, with varying degrees of success.

Kevin used B6 motors in his "Magnum Load", "Hijinks" and "Rascal" rockets.

Andrew's large "R13 Red Rocket" flew well on an F39 motor.

We had a new member join us today – welcome Rob Mawston!

Rob successfully launched and recovered his "Vector Force" rocket on 3 occasions.

Another new face, flying as a visitor today, was Derek, who had a successful flight of his "Flash" rocket on a C6. Unfortunately the chute failed to deploy on his "Bumble Bee", despite everyone willing the chute to come out.

Gorge had perfect flights of his "Axion" and "Axion II" water rockets, but it was his son, John, that took centre stage, winning the competition

Launch Day 12th June

Number of launches: 3

This is the first time that we've held a launch day at Whalan on the June holiday weekend, as this is when the Doonside Aeromodellers usually hold a state competition.

Instead, there was a large football Gala Day taking place, so it was decided to call a halt after just 3 launches.

George launched the "Dust Devil" on a C6 motor, and Spencer launched his "Sparrow" on a C6 and then a D12.

Additionally, this was the date of the Western Sydney Model Show Day at Penrith (see Page 1), which we will most likely attend again next year.

Launch Day 25th June

Number of launches: 18

Two new members joined us today – Derek Waterman and Mitchell Husen. Welcome! Derek's rebuilt "Bumble Bee" was extensively scrutinised and some ad hoc modifications were made to ensure that it would have a stable flight – which it did, only to have the nose fail to pop off again, resulting in another lawn dart (we feel your pain, Derek!). The damage was only minor, so after a bit more adjustment, was ready to launch again – and recovered successfully this time! His "Yellow Crayon" had 3 good flights on B6 motors

Mitchell launched his "Payload One" twice on A8 motors, and his "V2" (nice!) on a B4 motor, for 3 good flights.

Spencer's "STM D12" rocket has seen better days, and had a squirrely flight on a D12 motor. His "Nike Smoke" unusually also had an unstable flight on a C6, but his "Intruder" flew nicely on a C6.

David C's "Toblerone" rocket had a nominal flight on an A6 motor, and George flew his "Axion II" at 100psi for 6 perfect flights.



"Bumble Bee II" on a C11