

# NSWRA Newsletter



New South Wales Rocketry Association Inc 1<sup>st</sup> June 2009

## Launch report: 28<sup>th</sup> March 2009

Conditions: Very windy, peaks of 20kph, high cloud, warm

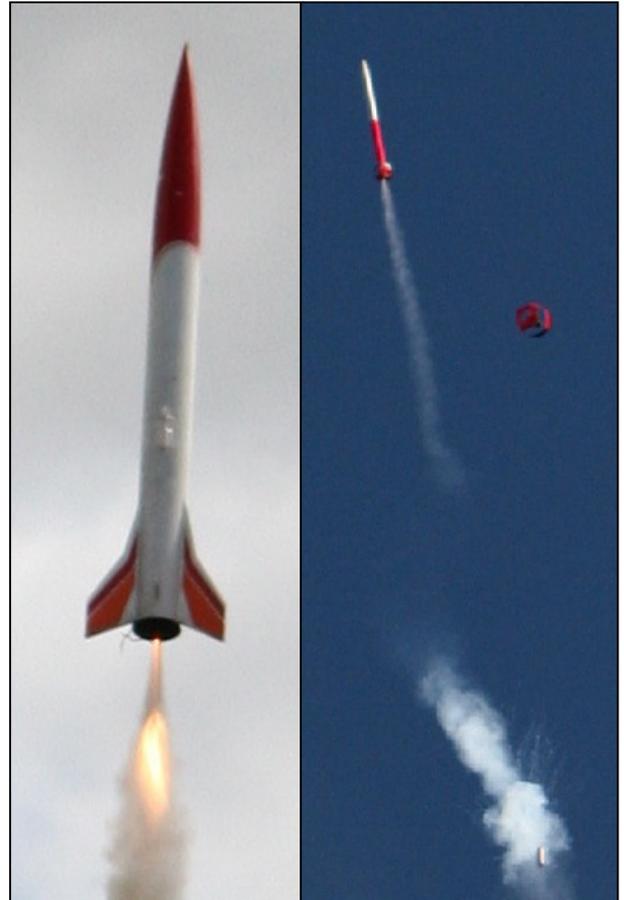
Total launches:	26
No ignition:	1
Shred:	1
Tree landing:	1
Lost rockets:	3

It was not a good day for launching rockets with strong wind causing many issues. Unfortunately, we did lose some rockets

Some photos of the day can be viewed on the following website in addition to those on the NSWRA website:

<http://s278.photobucket.com/albums/kk99/elta100/NSWRA%20Apr09/>

If you want a full resolution image please email me with the filename and the album (directory) name.



## HPR theory class

The theory class was held on the 16<sup>th</sup> May. We had a reasonable turnout and I hope all of those who attended did find the session worthwhile.

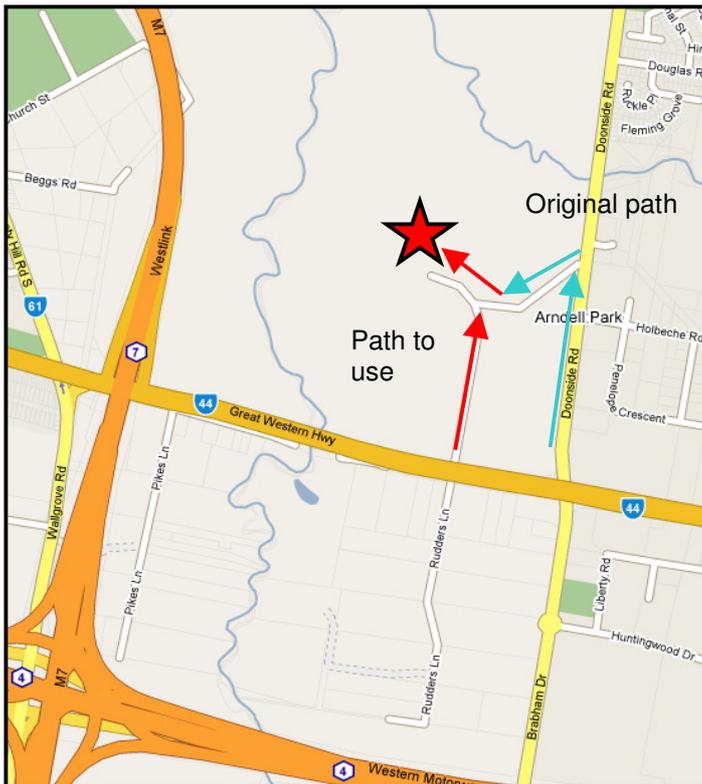
## Eggloft

We would like to keep people launching eggloft rockets and keep official times for them. At this stage, Jeff has the official NSWRA record at 53.18sec. However, if you would like to challenge this let the LCO know. The rocket must still comply with the original rules and you will need to supply your own 55g egg (well, until the next eggloft competition).



## Access to Doonside

Recently, construction has commenced on a walking track and a dog-off-leash area. The owners of the site have asked us to use the alternate entry while construction is in progress. Unfortunately, this path is muddier and this will cause some issues for us.



The ideal way to enter this new path is to travel easterly along the Great Western Highway. Turn into the driveway where the old gates are. About 10 metres to the right, there is a break in the fence and this is the entry point (yes, it is legal – I have the paperwork to prove it). Follow the path until it matches up with the original path and continue to the launch area.

It is also possible to enter travelling along the Great Western Highway in a westerly direction. There is a break in the island where it says 'No U-turn'. When you see the gates, don't do a u-turn (obviously) but turn right into the driveway. Just be mindful of any cars behind you.

## Raffle

Next launch day we will be commencing a raffle competition. The prize will be a Refit USS Atlantis kindly donated by Suburban Rocketry.



Full details are at the following website:  
<http://www.suburbanrocketry.com/Refit-USS.-Atlantis.html>

Tickets will be \$5 and the winner will be drawn during the July launch (assuming no further postponements).



## **This week's topic – Parachute sizing**

Following from the last launch day, which had significant wind, I have decided to discuss the issue of parachutes.

When the conditions are calm, rockets will pretty much land roughly at the launch pad. However, when winds are 20kph or more, a 300m altitude flight could find a rocket landing nearly 1km away. So I have created a parachute sizing chart to help everyone with this issue. This chart is at the end of the document. This is based on my experience and software simulations to provide an approximate decent rate of about 5m/sec. I am happy for anyone to correct me but I believe it to be a good starting point.

This is a guide only and every rocket needs to be considered separately. Things that you would need to consider:

- The ruggedness of the build – a more delicate rocket will need a slower recovery to help protect it. Also, be mindful that long grass acts as a cushion.
- The shape of the parachute – an obvious one, if there is a hole in the parachute it will perform like a smaller parachute. Simple area calculations may be a sufficient comparison for most cases.
- The 'density' of the rocket. A large but light rocket will be more affected by the wind than a small heavy rocket.
- A streamer may be a better solution for smaller rockets.

So what do I do if my parachute is too big?

- Tie off the chute at the top. Don't use an elastic band as it is likely to roll off when the chute fills with air. Use tape or something else that is less likely to slip off.
- Tie off the shroud lines
- Obtain the right size parachute.

If you need assistance ask the LCO, RSO, or any other experienced flyer.

## **Membership renewals - PLEASE**

A reminder that if your membership is due to forward the fees and a new membership form promptly. The NSWRA has ongoing expenses, primarily rental for Doonside, but our insurance bill will be due shortly and we need to build up the funds for it. Your membership card states when your membership expires.

## **Next launch**

Currently scheduled for the 6<sup>th</sup> June. We'll have to keep an eye on the weather and the condition of the pathways.

## **Suggestions**

Does anyone have any questions that they would like answered in the newsletter?

Andrew Eltobaji  
NSWRA President

# Parachute Sizing Guide

For Doonside launches at 200m (650ft) altitude or greater

