



Fly Rockets!



Have you ever wanted to build and launch your own rockets?

Rocketry creates challenges and is a creative outlet for innovators, thinkers and makers.

The NSW Rocketry Association Inc. (NSWRA) was formed in June 1997 and is a not-for-profit incorporated association whose charter is to promote safe model rocketry in NSW.

NSWRA membership is open to anyone who has an interest in rocketry. We have members of all ages and experience. Junior members (under 18) must be supervised by a responsible adult.

Those new to rocketry are encouraged to seek advice from experienced rocketeers.

For full information on NSWRA membership, please refer to the website: www.nswrocketry.org.au

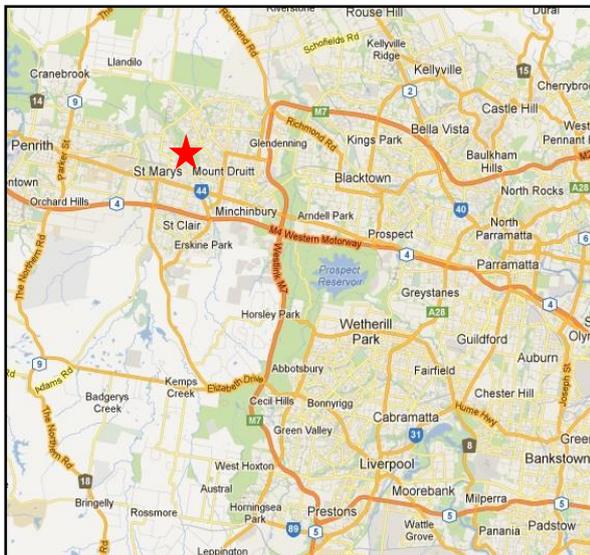
Spectators are most welcome to come to watch and ask any questions.

NSWRA is a Prefecture of the Tripoli Rocketry Association Inc (TRA) - an international rocketry body based in USA. TRA provides affiliated clubs and their members with support and insurance.

Model Rocketry has an excellent safety record and everyone would like to see it stay that way. Follow the Model Rocket Safety Code and you will find model rocketry to be an enjoyable and safe hobby/sport for everyone.

Where do we launch?

NSWRA has access to several launch sites, one in western Sydney, and others in rural NSW. The Sydney site is at the southern end of Whalan Reserve, where we typically launch once a month. Launching starts around 9am, and finishes around 1pm. No launches are held in strong wind, rain, or in a fire ban. High power rockets can be launched at our rural sites. Launch weekends are typically held 2 – 3 times each year. Check the NSWRA website for detailed directions to the launch sites, scheduled launch days and last-minute updates.



Model Rocketry FAQ

What are model rockets made of?

The nose, body, and fins of model rockets use lightweight, non-metal parts. Materials used are typically plastic, cardboard and balsa wood.

How does a typical rocket work?

Model rockets use commercially available, authorised and certified solid fuel motors. The total power of the motor is designated by a letter. Each letter has up to twice the power of the preceding letter. Eg a “C” motor is twice as powerful as a “B” motor, which is twice as powerful as an “A” motor.

When the motor is ignited, the rocket is pushed forward until all the propellant is burnt. After a few seconds delay, a small ejection charge in the motor pushes off the nose, allowing the recovery device (such as a parachute) to deploy. The rocket descends slowly back to the ground, ready to be prepared to launch again.

How high do they go? How fast?

Depending on the rocket and the motor, model rockets can achieve altitudes of more than 300m at speeds up to 500kph. Unless launching with a club, it is advisable that you use the smaller motors recommended for the rocket - unless you don't want to see it again.

Can anyone buy rockets?

Essentially anyone can buy a rocket. The regulations regarding the sale and use of model rocket motors varies between states. In most cases you are able to purchase the smaller motors. In NSW you must be a member of a recognised model rocket club to buy and use motors larger than “C” class.

Where can I launch rockets?

The most important aspect is to not create a hazard to an aircraft, person or property.

You need a large cleared area free of trees, power lines, buildings, dry bush and dry grass, and have permission from the landowner.

Small model rockets (weigh less than 500 grams and use nothing larger than a “D” motor) should be launched at a site at least as large as that shown in the table below, provided it is not in a movement area or runway of an aerodrome, and it is not in the approach or a departure path of a runway.

Large model rockets cannot be launched to higher than 400 feet (122 metres) in controlled airspace, and not within 8km of an aerodrome, unless authorised by CASA and air traffic control.



Motor Class	Minimum Site Dimension (metres)*
¼A - ½A	15
A	30
B	60
C	120
D	150
E	300
F	300
G	300



*Minimum site dimension is the length of the shortest side of a rectangular field, or the shortest diameter of an oval

What do I need to launch a rocket?

You will need a launch pad with rod and a launch controller with cables at least 5m long. You will have these items if you purchase a “starter set”. You will need batteries for the controller, a packet of motors with igniters (do not try to ignite motors with anything other than the supplied igniters), and recovery wadding. Another option is to join a club and use their launch equipment – then you just need motors (with igniters) and wadding.

Is it dangerous?

Model rocketry has an outstanding safety record. The Model Rocket Safety Code is a set of rules that ensure this good safety record is maintained. A copy of the code is included with packets of motors. There may also be a copy with your rocket. Follow the Model Rocket Safety Code and you will find model rocketry to be an enjoyable and safe hobby/sport for everyone.

Where can I get more information?

Attend a local rocketry club launch day. Introduce yourself and ask questions.

The NSW Rocketry Association Inc. (www.nswrocketry.org.au) launches regularly in the western suburbs of Sydney.