



Fly Rockets!



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) exists to provide a focus for all rocketry activities in the state, and is open to all interested individuals and organisations.

NSWRA was formed in June 1997 and is a not-for-profit incorporated association whose charter is to promote safe model rocketry in NSW. It provides access to insurance, air clearance, organised events, and launching areas.

NSWRA membership is open to anyone who has an interest in rocketry. Junior members (under 18) must be supervised by a responsible adult. People of all ages are welcome to come and watch and ask questions.

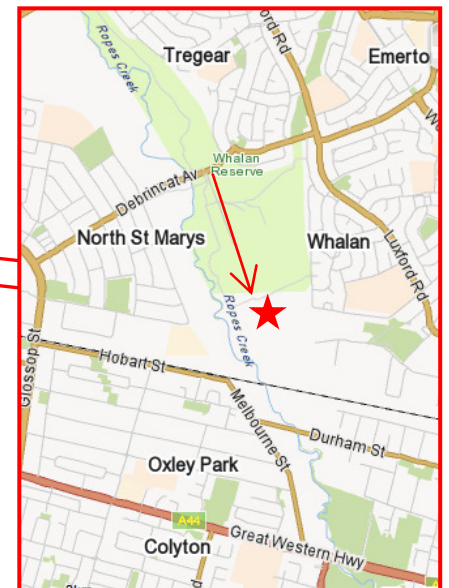
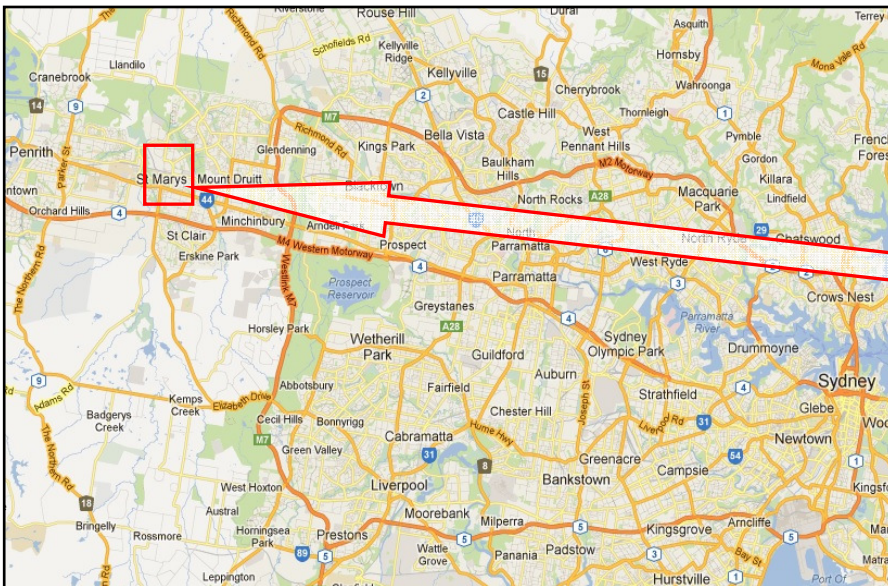
Those new to rocketry are encouraged to ask for advice from experienced rocketeers. You may also use the club equipment for your first rocket launches, for a nominal fee. To fly rockets regularly you will need to become a member.

Fee for full membership as at 1st July 2014 is \$150 per year

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 a number of launch sites. Our launch site in western Sydney is at the southern end of Whalan Reserve, off Debrincat Ave. Map coordinates -33.757494, 150.79585. Launches at this site are typically held once or twice a month, on a Saturday or Sunday. Launching starts around 9am, and finishes around 1pm. No launches are held in strong wind, rain, or in a fire ban. Check the NSWRA website for scheduled launch days and last-minute updates.



Please feel free to contact us by email: nswra@nswrocketry.org.au

www.nswrocketry.org.au

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?

Virtually anyone can buy a rocket. However, the purchase of motors is controlled. You must be over 18 to purchase motors with a propellant mass no greater than 15g (ie 'C' class). In NSW you must also be a member of a recognised model rocket club to buy and use larger motors.

Where can I launch rockets?

Model rockets can be launched to a maximum altitude of 122m (400ft) in controlled airspace, provided it is not a movement area or runway of an aerodrome, and it is not the approach or a departure path of a runway of an aerodrome.

You must not launch a rocket in a way that creates 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.

Motor Class	Minimum Site Dimension (metres)*	
1/4A - 1/2A	15	
A	30	
B	60	
C	120	
D	150	In NSW, these motors and larger are only legally available to members of a recognised model rocket club
E	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 Rocketry Safety Code is a set of rules that ensure this good safety record is maintained. A copy of the code is included with the pack 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 (www.nswrocketry.org.au) launches regularly in the western suburbs of Sydney.