Flight Safety Review Checklist

- **Membership validity** – check that the flyer is wearing a current wristband.
- **Flight Card** – check that **all** required fields are completed and legible. Check that the "Member no." is the TRA number, and the "Name" is that of the member.
- **Airframe** – structurally intact, sturdy, and undamaged.
- **Launch Lug/s or rail buttons** – securely affixed & clear of obstructions. Size appropriate for the weight and thrust of the rocket. Aligned with direction of flight.
- **Nose** – not too tight or too loose. Nose should not fall off when rocket is inverted.
- **Recovery System** –Secure attachment points, chute or streamer and shock cords in good order, packed appropriately, and protected from ejection gases and particles. Shock cord strong enough to handle the ejection charge as well as a high-speed parachute deployment.
  The size of the parachute must be appropriate for the rocket.
- **Fins** - securely mounted to the airframe and aligned with direction of flight (unless spinning is part of the design).
- **Motor**
  - No chipped or cracked nozzles, damaged ejection caps, distortions in the casing.
  - Unless it is a research motor, the motor must be certified, commercially-made and comply with site restrictions. The flyer must be certified to use the motor (unless attempting certification).
  - Research motors may only be used by flyers certified to at least L2
  - For a composite motor, the flyer must present the motor packaging/label to show the propellant type.
  - Is the motor a "sparky"? Site conditions may prevent their use. Extra precautions to be taken. Refer to "Sparky Motor Protocols" document.
  - CTI motors with Vmax propellant are not allowed unless using electronic deployment.
  - Motors with propellant weight >62.5g can only be used if a licensed pyrotechnician is present and SafeWork NSW has been notified.
  - If ejection is provided by the motor, check that black powder been loaded.
- **Motor mount –** The motor should not move when gently pushed or pulled (unless part of the recovery design).
- **Delay correct** – Ejection should occur as close as possible to apogee – not too early or too late.
- **Stability** – Scratch-built rockets and any modified rockets need to be checked for stability. CG should be at least one calibre forward of the rocket's CP. A swing test can be used for smaller rockets.
- **Thrust to weight ratio** – Should be at least 5 to 1 (multiply the average thrust of the motor by 20 to give the maximum weight in grams).
- **High power rockets** – must have the position of the CP marked on the rocket (or at least known), and should not have the igniter installed until on the launch pad.
- **Altitude prediction** – Altitude attained by the rocket must not exceed that allowed at the site.