

The Australian Universities Rocket Competition



AUSTRALIAN YOUTH AEROSPACE ASSOCIATION

Who We Are

- NFP managed by student volunteers
- Promote education and awareness of the Australian aerospace industry
- We service high school students, university students and young professionals



Aerospace Futures (AF)

- Three day conference for undergraduates and YP's
- Delivers exposure and networking opportunities
- Cycles cities, in Adelaide last year, Canberra this year



Australian Youth Aerospace Forum (AYAF)

- A 5 day live-in conference for students in Year 11 and 12
- Hosted at the University of Queensland
- A variety of activities:
 - Presentations from industry and academia
 - Industry Tours
 - Engineering Activities (rocket launches)



Undergraduate Space Week

- A live in camp for undergraduate students
- Currently held at UNSW Canberra Space
- Builds hands-on, technical skills used to build satellites



AYAA Rocket Project

- High school students design and build rockets
- Short sessions consisting of a briefing and construction
- Can be run at the schools or in a central location, like a university



Rocket Competition - How It Started

- Discussed with industry about what skills they wanted graduates to have
- There was a significant lack in practical opportunities relating to aerospace



Rocket Competition - The Driving Force



Conor MacDonald



Nathaniel Shearer

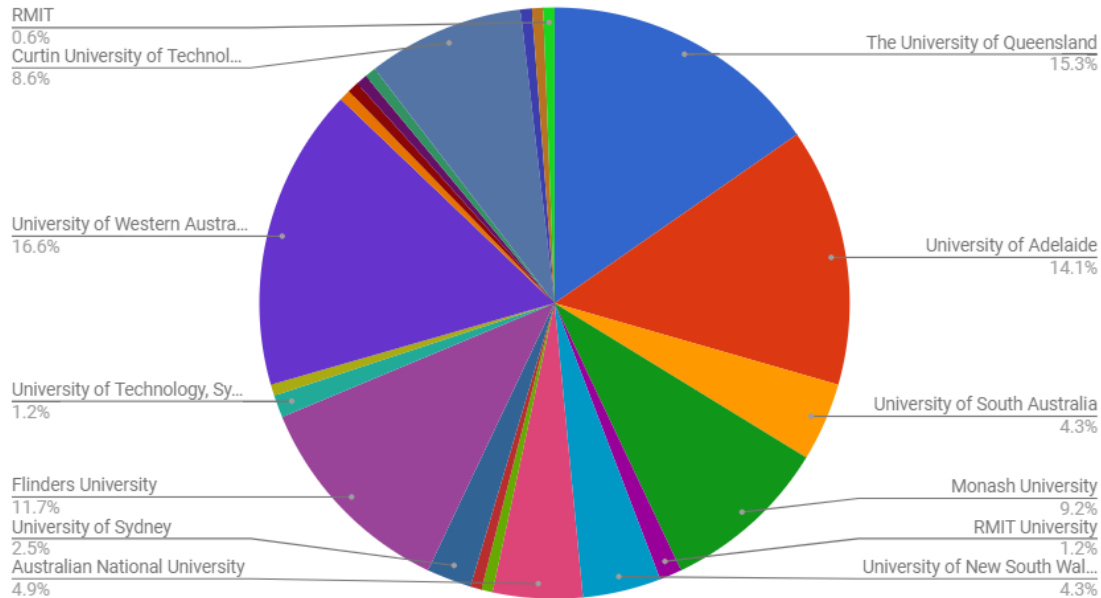


Tristan Perkins



Rocket Competition - Students Feedback

Count of University enrolled for 2018



Australian Universities Rocket Competition



AURC - Competition Director



Lewis McCluskey
Mechanical Engineering Student
(UofA)



AURC - Launch Location and Time



- Joining Thunda Down Under
 - Queensland Launch Site
 - April 2019
- Future of AURC is in South Australia



AURC - Competition Categories



10,000ft Target Altitude

COTS Solid Rocket Motor

[QUT UWA]

30,000ft Target Altitude

COTS Solid Rocket Motor

[QUT UTS Curtin Monash UC{NZ}]

Payload Utilization Challenges

4kg Payload



AURC - The Future



Year	Uni Level	Challenge	Notes
2018/ 2019	10,000ft & 30,000ft COTS Solid Motor	Target altitude & Payload Challenge	Multiple teams per university allowed
2019/ 2020	10,000ft & 30,000ft COTS & SRAD Hybrid or Liquid Motors	Active landing	One team per division per university
2020/ 2021	No Change		International Unis
2021/ 2022	Multi-Stage		
2022/ 2023	Transfer Ownership Nationally		

“If you can afford air planes and war machines, you can certainly spend something to fulfil the dreams of young people.”

Yash Pal, former chairman of India's University Grants Commission





Australian Government

Department of Defence
Science and Technology

