

# AUSTRALIAN UNIVERSITIES ROCKET COMPETITION DIRECTOR

# INFORMATION PACKAGE

THE AUSTRALIAN YOUTH AEROSPACE ASSOCIATION

AYAA

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## ABOUT THE AYAA



The Australian Youth Aerospace Association (AYAA) is a not-for-profit organisation run by and for students and young professionals. Together we strive to promote education, awareness and involvement in the Australian aerospace industry and greater STEM community. The AYAA engages with people across Australia, launching connections between industry and the growing youth STEM community. Igniting the passion of the Australian youth STEM community is done through National scale events including the Aerospace Futures conference, the Australian Youth Aerospace Forum, and the Australian Universities Rocket Competition. These events are complemented through the frequent running of local state events.

#### Mission Statement

The Australian Youth Aerospace Association helps shape the future of the aerospace industry by bringing together passionate individuals that inspire and engage through a mutual sense of community and comradery – united in our goals and interests. Together we strive for growth and create opportunities, uphold our values, and work towards shared success. Through our mission statement, the following values are drawn out:

Diversity	We promote diversity in the Aerospace community – through our people, ideas, events, and cultures.
Community	We uphold a strong sense of professional and personal community in everything we do.
Opportunity	We are committed to providing diverse opportunities for growth – whether it be personal, social, or professional – for anyone at any stage of their life and career.
Integrity	We act with integrity, professionalism, and with commitment to our values.

#### Igniting passion. Launching connections. Mission accomplished.



## National Events

#### Aerospace Futures (AF)

The AF conference covers a wide range of topics from civil aviation, engineering and astronomy to geospatial intelligence, space science and law. To date the events has been an immense success with a total of 1500 student delegates and 80 organisations involved. In the past, the event has been hosted across six Australian state capitals proudly sponsored by the respective state governments, as well as national and international players.

In 2021, Aerospace Futures returns to Adelaide where it has previously been highly successful in engaging both the current and future generations of aerospace forerunners. Targeting a substantial 400 delegates, the event is focused towards undergraduate and postgraduate students, and young professionals from across Australia and New Zealand and it is for this reason that event is held during the university winter break.

#### Australian Youth Aerospace Forum (AYAF)

The AYAF is a five-day forum that grants senior secondary students the opportunity to investigate further studies and careers in the aerospace industry. During the forum, students hear from a range or aerospace leaders and technical experts and tour several aerospace facilities. Students will also gain exposure to various aviation and aerospace related courses that will be available to them upon completing secondary school.

Students are encouraged to actively develop their aerospace industry skills through several practical activities such as the design and operation of a model rocket. AYAF is open to 60 students Australia wide, who are interested in a potential career in aerospace.



## National Competitions & Programs

# Australian Universities Rocket Competition (AURC)

The AURC is Australia's first tertiary competition for student rocketry teams from around the world. Teams are required to design, build, and launch a solid-propellant sounding rocket to either 10000ft or 30000ft while carrying a cube-sat payload.

The event engages Australia's best and brightest university students, challenging them to show industry partners and government alike exactly what the next generation has in store. Projects are assessed throughout their design cycle, from project management approaches, FMEA, simulations and modelling through to manufacturing decisions, industry, and community engagement to testing, launch and recovery success.

#### Astra Program

The Astra Program is an initiative developed by student and young professional volunteers to promote transdisciplinary collaboration to meet real, aerospace industry-based scenarios. The program is a unique take on the traditional concept of working groups. Our working groups, or teams, will be presented with multi-faceted scenarios in the aerospace domain, and will engage one another and our partners in discussions to address industry-based issues while portraying a character, or profile, within the aerospace domain.

Our teams will consist of undergraduate, postgraduate, and young professionals from a diverse range of disciplines. The Astra Program aims to attract participants with all sorts of backgrounds from STEM to fields such as law, geopolitics, and the humanities. We hope to provide an expensive perspective of the issues that professionals within the space industry are confronted with.



## State Events

The AYAA has chapters in NSW, QLD, VIC, WA, ACT, and SA. Each chapter has a sub-committee which is run by a State Representative. State committees are comprised of primarily university students who volunteer their time to organise and host events. Chapters are not university-specific and there are no entry requirements – the AYAA welcomes a diverse range of members.

State-hosted events are focussed on connecting tertiary education students with industry, highlighting exciting aerospace and aviation career pathways and promoting STEM to the younger generation. Across each chapter, an average of two events occurs each semester. Such events are typically tailored to the current climate within the Aerospace industry, to ensure the AYAA Community is engaged with the latest developments. This offers the event participants the opportunity to within the aerospace industry, engage with industry representatives and discover the latest developments to thus become equipped with the skills and awareness required to be successful within the industry.

Events vary annually and depend on the state chapter. Events which have been run include:

- Networking Nights
- Mock Interviews
- Social Nights
- Presentations / Panel Discussions
- Site Tours
- AYAA Online Video Content



# POSITION DESCRIPTIONS

**Operations Portfolio** 

5.1 AURC Director



# AUSTRALIAN UNIVERSITIES5.1ROCKET COMPETITION DIRECTOR

#### Operations & Strategy Division Operations Portfolio

The AURC Director is responsible for the coordination and planning of the annual Australian Universities Rocket Competition. They act as the main point of contact and focal point of a committee, and are responsible for a myriad of crucial tasks.

#### Position Details

Resourcing	• 10-20 hours per week (Full-Time when deliverables are due) Applicants shall take heed that the Australian Universities Rocket Competition Director is required to put in as much time as necessary to fulfil their duties. While the competition is still in inception, the time dedication required is of minimum 10 hours a week, varying as new challenges are introduced and required to be solved. This responsibility should be taken into consideration before applying.
Requirements	<ul> <li>Strong organisational skills, enthusiastic, highly motivated with significant attention to detail</li> <li>Ability to lead a team of 6-10 people</li> <li>Ability to foresee potential challenges and address them appropriately, as well as overcome any unexpected roadblocks</li> <li>Ability to focus on immediate tasks whilst maintaining the event as a whole, and ensuring that all aspects are fused in time for launch.</li> <li>Team management, ability to delegate duties and responsibilities</li> </ul>

#### Maintain all rules and regulations for the AURC. Developing and maintaining a working budget, as well as managing finances and ensuring Competition that the event does not finish on a loss Development Sourcing sponsors, supporters, and competitors Provide overall vision for the future years of the competition such that required developments can commence in a timely manner • Recruit, select, train and lead the AURC Committee. Manage the timeline and create milestones to be achieved as part of organising the Program Competition. Management Communicates project and program risks, issues and lessons learnt to the Vice President (Operations), SLT, and the National Committee. Managing key stakeholders, and ensuring all teams are supported. Organisational Making decisions on program rules, team fees, and the competition running. Management Organising the marketing campaign and effectively using available media to advertise



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## AUSTRALIAN UNIVERSITIES ROCKET COMPETITION DIRECTOR

#### Portfolio & Division

Portfolio	Portfolio: Operations Portfolio Lead: Vice President of Operations Portfolio Members: • AURC Director • Astra Director
Division	<ul> <li>Division: Operations &amp; Strategy</li> <li>Division Members: <ul> <li>President</li> <li>Vice President of Strategy</li> <li>Vice President of Operations</li> <li>Legal Officer</li> <li>AURC Director</li> <li>Astra Director</li> </ul> </li> </ul>

#### Suggestion for committee

On selection as Director, it is recommended that you select an organising committee to help plan and execute the AURC, as this will lessen the load of management and organisational duties. Be wary of large committees, as this has the potential to dilute responsibility, but a range of committee members around the country can be beneficial to meet different teams in person.

The AURC 2020 was the second competition after the inaugural competition taking place over 2018/2019. Due to the impact of the COVID-19 Pandemic in 2020; the AURC 2020 transitioned to an online format. The competition did not conclude with a launch event, instead, teams were assessed on their engineering methodology and practices, systems engineering approach, manufacturing and testing (plans), modelling and simulation, as well as overall project approach and rocket design.

Due to the postponing of 2020 plans, the AURC 2021 launch event is to be held in October 2021 in Queensland. Teams will also be allowed to continue developing their rockets from the 2020 competition, although they cannot submit the same deliverables such as Progress Reports. As this role is still developing, it is expected that the responsibilities of the AURC Director will change throughout the year based on the needs of the competition and competitors. Those applying for the position should expect that the scope of their responsibilities will not be static. For more information about this position, please contact Myrthe Snoeks: myrthe.snoeks@ayaa.com.au

#### Administration

Approval 2 March 2017 – Senior Leadership Team

Last Updated Saturday, 7 November 2020 – Senior Leadership Team