



QUALIFICATIONS FOR AAUS DIRECTORS

1. A willingness to contribute to furthering the advancement of unmanned systems in Australia.

I have longstanding track record of contributing to the advancement of unmanned systems in Australia and internationally, and stand ready to continue doing so as a board member of AAUS. Evidence of my contribution in this space is detailed below.

Contribution to AAUS

- a) Over the last five years I have given numerous speeches at a variety of AAUS events and internally agitated for Nova to sponsor AAUS events .

Contributions to UAV related Regulatory and Policy Bodies

- a) Industry Co-Chair of Dept of Infrastructure, Transport, Regional Development and Communications UTM working group and member of the National Emerging Aviation Technology (NEAT) consultancy committee
- b) JARUS (2017-present)
 - a. Member of JARUS Working Group 6 (SORA) and Working Group 4 (DAA) since 2016
 - b. Original Member of the sub-working groups within WG-6 examining both UTM and cyber requirements
 - c. Current lead for JARUS Quantitative Methods Group, examining Air and Ground Risk requirements in the SORA
- c) **CASA** (2015-Dec 2017): First a member (2015), then Industry Co-Chair (June 2015 - Dec 2017) of the CASA UAS Standards Subcommittee initiating several working groups spanning airworthiness, airspace integration and operations, training and Risk Management.
- d) **RTCA SC-228** Detect and Avoid Working Group
- e) **NATO** (2018-Dec 2019): Australian Representative for NATO AVT 278 Working Panel identifying issues and challenges for Harmonisation of UAS Regulations for Common NATO Operating approvals
- f) Member of ASTM UTM Working Group
- g) Swiss U-Space Implementation: Invited SME to SuSI

Industry

- a. Chief Technology for Skyy Network, an Australian UTM and UAV startup
- b. Nova Applied Research Lead and International UTM lead
- c. Project Director for a consortium (Nova, AGI, Scout Aerial, M1, Rohde and Schwarz, Intel and Amazon) developing a UTM for the Singaporean metropolitan environment
- d. Project Director for LGIS trials in Queensland: In conjunction with Queensland Local Government, Nova conducted a suite of UTM trials, assessing the operational capabilities of several UTM providers (Aimap, AGI, PrecisionHawk and Siam) with support for 3 RPAS operators (Scout Aerial, Little Ripper and VTOL)

Academic (2013- Present):

- a) Adjunct Professor at Queensland University of Technology and University of South Australia. Research interests included UTM, UAV Separation, Detect and Avoid and UAV Safety Risk Management. Supervised PhD and Masters students. Reviewer for a number of other UAV PhD/Master's Thesis



Defence: Conducted raft of high level studies in the following areas:

- e. RPDE (2013) ARH Mid-life Upgrade options analysis incorporating assessment of Manned Unmanned Teaming
- f. RPDE (2015): Sea 129 UAV Options analysis for Navy purchase of autonomous vehicles for Offshore patrol Vessels and Major Surface Combatants
- g. Army (2012): Configuration Role and Environment Assessment for Shadow to Support Airworthiness Board
- h. RAAF: Support to Triton Project Office on Airspace Integration and SORA
- i. Australian Representative for NATO AVT 278 (as above)

Miscellaneous

- Engineers Australia: 30 Most Innovative Engineers 2018-2019 for UAV related R&D
- Invited Researcher 2015 NASA Ames looking at UTM
- Invited Researcher DLR Germany (2017), examining UAV Detect And Avoid
- Program Chair International Conference on UAS 2017
- Held free UAV/UTM Workshops at ICUAS 2015-2017
- Invited SME to NuAir Workshop on UTM Airspace Integration, Sept 2019

2. Ongoing interest and previous experience in unmanned systems activities.

As detailed in the previous section, I have extensive experience in Australian and international UAV use: at the regulatory level but also at the practical level, having been a military aerospace engineer and aviator, and in more recent times as the Project Director of a UTM consortium conducting a variety of UTM related R&D and T&E in Singapore. This effort spanned the design of a UTM network for Singapore conditions, and examining the key aspects of Communication, Navigation and Surveillance that will need to be better understood for UTM to progress.

I am currently the Chief Technology Officer for Skyy Network.

3. Governance experience, particularly on the Board or Committee of a voluntary organisation or club or of a publicly listed company.

I have served on two key-board positions of note:

- j. RPDE: Board Director (2016-2017) Department of Defence Rapid Prototyping Development and Evaluation, which was chaired by the current Chief of Air Force: Mel Hupfield
- k. Simulation Australia (2018)

This gave me extensive insight into the governance required for a Board with significant budget (RPDE) as well as a board required to operate with a much more frugal budget. When combined with the variety of experience picked up with the committees that I have served in a variety of leadership roles, I am well versed in compliance and navigation of governance.

4. A basic understanding of the roles and duties of Directors of Incorporated Associations (this will be augmented by an AAUS induction process and documentation).

As a previous board member of SIMAUST, I am familiar with the duties and compliance requirements. Previous experience with the FMAR, with the variety of compliance expectations as a CTO and Project

Director means I will be able to take the induction advice from AAUS and work proactively with the Board. I am also committed to acting in good faith and to ensuring that my roles in every day life do not present any conflicts for board operations.

5. Sufficient time available to:

- a. Participate in face-to-face Board meetings where Interstate travel may be required (held Quarterly usually in conjunction with major events such as Avalon Airshow).**

I can accommodate this request.

- b. Respond to issues circulated between meetings**

I am happy to do this, and much more.

- c. Attend and represent AAUS at one or more major events per season (Conferences, seminars, trade shows, etc)**

I can definitely support this and have a history of doing so in any case

- d. Serve on at least one specialised subcommittee (Advocacy, Communications, Events or Membership)**

I already am a member of both the UTM and SORA WG, but at present feel with my role at DITRDC and abroad, I am best served to support AAUS in an advocacy role

6. Demonstrable experience in at least one of the following areas vital to the ongoing activities of the AAUS Board:

- a. Remotely Piloted Aircraft System Industry**

Section 1 summarised my experience across the regulatory, military and academic sector, accumulated across a 34 year career first in aerospace. This experience includes:

- *9 years in the RAAF and 14 in the Army, working in a variety of engineering and aviator roles on an extensive array of fixed and rotary wing platforms: manned and unmanned*
- *Significant Regulatory and policy engagement serving as*
 - *Industry Co-Chair of the UTM Working Group for Dept of Infrastructure, Transport, Regional Development and Communications*
 - *Lead for the JARUS Working Group 6 Quantitative Methods group, defining the regime for assessing Air and Ground Risk*
 - *Industry Co-Chair of the CASA Standards Subcommittee*
 - *Team Member of NATO Standards committee writing STANAGS for military UAVs*
 - *Member of the ASTM working group defining UTM standards*
- *Significant aircraft, ATM and UTM related safety and certification experience*
 - *In a variety of positions in RAAF and Army*
 - *As an Engineering manager at Airservices Australia*
 - *As part of JARUS, NATO, ASTM and CASA*



b. Maritime Autonomous System Industry

In 2015, I conducted a review for the Dept of Defence-Navy, examining the Fundamental inputs to Capability elements and risk considerations in acquiring UAVs capabilities for the Navy's Offshore Patrol Vessels and Major Surface Combatants under SEA 129.

c. Land-based Autonomous System Industry: N/A

d. Government liaison & advocacy

As highlighted, I have been asked by the Dept of Industry, Transport Regional Development and Communications to serve as the Industry Co-Chair to the newly formed UTM working group, and serve as a member of the National Emerging Aviation Technology Consultative Committee. This involvement will provide an opportunity to put forward the views of AAUS.

Separately, in my previous role as the CASA Industry Co-Chair, I have had ample time to develop relationships with key stakeholders in government. When combined with 3 years at Airservices Australia as the Engineering Integrity Manager, I have a strong understanding for legislative basis of government policy and the key contributions that bodies such as CASA, Airservices and ACMA) make to UAV and UTM progress. My international connections into JARUS and ASTM will also assist in ensuring I put forward a balanced view of regulatory harmonization and what Australia is likely to be able to influence.

e. Media and communications: N/A

f. Membership development: N/A

g. Event Management: N/A

h. Sponsorship and fundraising: N/A

7. Be an individual member of AAUS or a nominee of a corporate member.

I am an individual member of AAUS.

Signature:

A handwritten signature in blue ink, appearing to read 'T. Martin', written over a light blue horizontal line.

Name: Dr Terrence Martin

Date: 26/10/2020