

# IAA/UT Space Traffic Management Conference

26-27 January 2021

The University of Texas at Austin

Austin TX, USA

## Call For Papers

**The International Academy of Astronautics (IAA)**

**The University of Texas (UT)**

The Space Security and Safety (SSS) Program at The University of Texas at Austin's (UT) Strauss Center and the Cockrell School of Engineering, in partnership with the International Academy of Astronautics (IAA), will hold the 7th annual Space Traffic Management conference, "Trust, But Verify: Incentivizing Compliance." The conference will take place virtually via Zoom webinar on Tuesday, January 26, 2021, and Wednesday, January 27, hosted at The University of Texas at Austin, USA. Experts from all over the world will gather virtually to discuss and exchange on Space Traffic Management. Technical sessions will be devoted to several topics like Range Management, Airspace/Orbital Space Integration, Space Safety and Sustainability, Security, Space Environment Effects and Impacts and Related Issues.

*This year's conference, held virtually from 8 – 11 am CT, will begin with a 45-minute keynote and be followed by three 45-minute moderated panels with a Q&A.*

Papers are solicited, aligned with this year's theme, in the areas listed below:

### **1. Range Management**

- a. Commercial, Civil, and Military Range Safety Continuity
- b. Security issues including cyber
- c. Range Technology Modernization

### **2. Airspace/Orbital Space Integration**

- a. High Altitude Balloon impact upon the Airspace
- b. Impacts of Microsatellites upon the Airspace
- c. Integration of Air Traffic and Space Traffic Control Systems
- d. Communication Standards for Space Traffic

### **3. Space Safety and Sustainability**

- a. Anthropogenic Space Object Taxonomy and Classification to Aid Regulation and Space Traffic Management
- b. Space debris remediation, mitigation, and SSA technologies
- c. Unique Anthropogenic Space Object Identification and how to achieve it
- d. Space Object and Event Data Curation, Sharing, and Exploitation
- e. Multi-Source Information Fusion, Artificial Intelligence, and Machine/Deep Learning
- f. Spacecraft Anomalies, Mission Assurance, and Causal Relationships
- g. Impacts upon spectrum management and Radio Frequency Interference (RFI)
- h. Monitoring Space Object and Event Behaviors (including assessing compliance)
- i. Decision-making with incomplete and biased information
- j. International initiatives

#### 4. Security

- a. UN Prevention of an Arms Race in Outer Space (PAROS) and the Conference on Disarmament
- b. Military Uses of Outer Space
- c. Dual-Use and Multi-Use Technology Challenges
- d. Commercialisation of military space services
- e. Defining “attack” or “use of force” in space
- f. Counterspace capabilities
- g. Verification in space
- h. Anti-satellite testing and demonstrations
- i. Electronic warfare in space
- j. Cyber and space security challenges
- k. Dedicated military space agencies (space force, space corps)
- l. International initiatives
- m. National space defence policies
- n. International humanitarian law in space

#### 5. Space Environment Effects and Impacts

- a. Resultant Anthropogenic Space Object Behavior and Discovering These from Big Data
- b. Launch and Space Flight Meteorology
- c. Space Weather forecasting

#### 6. Related Issues

- a. Role of human factors in STM
- b. Industry’s role
- c. Industry requirements
- d. International initiatives and concerns
- e. Standards inflection points and development

#### **ABSTRACT SUBMITTAL:**

Abstracts of up to 250 words are invited to apply and must include the precise title of the paper, the topic area of interest, the author’s full name and affiliation, and complete contact information including an email address. The language of the conference is English. Technical paper abstracts in the areas described above or related to Space Traffic Management will be accepted electronically through the conference email [iaastm@iaamail.org](mailto:iaastm@iaamail.org) beginning November 2nd, 2020. Please be sure to designate the topic area your paper addresses (see topics listed above). **The deadline for receipt of abstracts is December 15, 2020.** The abstract template is available here.

#### **FINALIST REQUIREMENTS:**

For those whose abstracts are selected, there will be two types of presentations: (a) sessions and (b) panels. **Session presenters** should be available to do the following: (1) Submit a draft paper by the below deadline (2) Pre-record a max 15-minute video on their paper which will be due before the conference (3) Be available for a live Q&A panel one of the days of the conference (45-minute max) and (4) Finalize papers as applicable. **Panelists** will need to (1) Submit a max 700 word op-ed on the topic of their panel due before the conference and (2) Be available for a live Q&A panel one of the days of the conference (45-minutes).

#### **VENUE:**

This year’s conference will be held virtually via a Zoom webinar. **Please note that you must use the Zoom account with the email address you registered with on the IAA website to be able to log in to this webinar.**

**KEY DATES:**

October 30, 2020: Call for Papers  
December 15, 2020: Abstract submission deadline  
December 18, 2020: Registration opens  
December 28, 2020: Final abstracts selected and invitations extended  
January 15, 2021: Preliminary program available  
January 18, 2021: Draft papers due and published to IAA's website  
January 26-27, 2021: Conference

**CONFERENCE WEBSITE:**

For more detailed information, please visit the IAA website at:

<https://iaaspace.org/event/7th-annual-space-traffic-management-conference/> or contact Ali Prince at [ali.prince@austin.utexas.edu](mailto:ali.prince@austin.utexas.edu)