



SPACE GENERATION
ADVISORY COUNCIL

Towards an Intergenerational Pact for Space Sustainability: What Does It Mean for International Space Traffic Management?

UNCOPUOS Legal Subcommittee
Technical Presentation

Item 12: General exchange of views on
the legal aspects of space traffic management

April 23, 2024

Introduction



- SGAC is the largest network of students and young professionals in the space sector, with over 28,000 members from 165+ countries, and a Permanent Observer to UNCOPUOS since 2001
- In February 2023, SGAC presented to STSC an innovative proposal for an Intergenerational Pact for Space Sustainability (IPASS)
- This position, deals with issues inextricably linked to space sustainability, such as:
 - Space debris
 - Space Traffic Management
 - SSA Data Transparency
 - Global Sustainability Standards
- A summary of IPASS Recommendations has also been made available as Conference Room Paper nr.27

IPASS Objectives



- Create an intergenerational pact that will promote space sustainability
- Advocate for the implementation of guidelines and policies that enhance the long-term sustainability of space activities
- Bring various stakeholders together to find a shared vision
- Give voice to the viewpoints of the space youth and voice their opinions
- Facilitate global educational and advocacy programs on intergenerational space sustainability

IPASS Recommendations



- Recommendations on the three topics
 - Baseline: delineate an Intergenerational Pact for Space Sustainability (IPASS)
 - **On Debris:** binding rules on prevention, investments for reusability & removal
 - **On STM:** global framework for information sharing and collision avoidance
 - **On Resources:** foundational principles for intergenerational sustainability
- Recommendations for meaningful youth participation
 - Include IPASS in Pact for the Future and Declaration on Future Generations
 - Establish youth advisory board at UNOOSA (like the ITU)
 - Incorporate youth delegates in all COPUOS delegations
 - Invest in youth-led organizations and activities through:
 - paid internships at UNOOSA
 - educational programs
 - events/scholarships

STM Status Quo



- **Rising Space Traffic:** increasing deployments of mega-constellations in LEO amplifies collision risks, highlighting the pressing need for effective STM to ensure sustainability of space activities
- **Lack of Comprehensive Regulation:** rapid expansion of operations outpaces the establishment of regulatory frameworks, posing a threat to maintaining orbital safety and sustainability
- **Enhanced Information Sharing:** stakeholders have identified the need for improved data exchange on orbital events to support SSA and collision avoidance efforts
- **Need for International Collaboration:** consensus on the urgency of establishing shared standards to prevent the generation of space debris
- **Future Framework Development:** the community acknowledges the necessity of working towards an International STM framework

IPASS STM Recommendations



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- **Implement Shared Standards:** advocate for a global adoption of shared practices for satellite operations that minimise collision risk and enhance space traffic coordination
- **Promote Data Transparency:** support open access to data related to trajectories and debris tracking, fostering safer space navigation
- **Advance STM Frameworks:** promote the development of an international space traffic management framework that integrates the LTS Guidelines
- **Enhance Regulatory Compliance:** urge the development of enforceable regulations that compel adherence to STM protocols and debris mitigation
- **Facilitate Technological Innovation:** invest in R&D of technologies that improve SSA and enable proactive measures for collision avoidance

Next Steps



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- **Global Advocacy:** SGAC will further engage with international bodies, conducting dialogues on intergenerational sustainability during the UN/Portugal Conference in May and the UNCOPUOS Plenary in June
- **Partnership Development:** SGAC will strengthen collaborations with space agencies, industry stakeholders and academia to promote initiatives that support practical application of STM guidelines
- **Outreach Efforts:** SGAC will support comprehensive campaigns and initiatives that aim to raise awareness on STM and Space Sustainability issues, among the youth, policy makers and the general public

THANK YOU

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