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Uses of Outer Space**
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Long-term sustainability of outer space activities

**United States views on the “Proposal for a draft report and
a preliminary set of draft guidelines of the Working Group
on Long-Term Sustainability of Space Activities”
(A/AC.105/C.1/L.339)**

Note by the Secretariat

The present document contains a copy of the United States views on the “Proposal for a draft report and a preliminary set of draft guidelines of the Working Group on the Long-term Sustainability of Outer Space Activities”, contained in document A/AC.105/C.1/L.339, as received by the Secretariat on 10 February 2014.



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United States Views on the “Proposal for a draft report and a preliminary set of draft guidelines of the Working Group on Long-Term Sustainability of Space Activities” (A/AC.105/C.1/L.339).

Preamble

1. The United States continues to support the Working Group on the Long-Term Sustainability of Outer Space Activities, established by the Committee on the Peaceful Uses of Outer Space at its forty-seventh session in 2010.
2. Since adopting its terms of reference and methods of work in 2011, the Working Group established four expert groups to consider sets of closely related topics.
3. The United States applauds the work of expert groups in producing draft guidelines, as compiled for consideration by the Working Group in “Compilation of draft guidelines proposed by expert groups A to D for consideration by the Working Group on the Long-term Sustainability of Outer Space Activities, as at the fifty-sixth session of the Committee on the Peaceful Uses of Outer Space” (A/AC.105/1041/Rev.1), 23 July 2013.
4. The United States also welcomes the working paper by the Chair of the Working Group on the Long-Term Sustainability of Outer Space Activities, “Proposal for a draft report and a preliminary set of draft guidelines of the Working Group on Long-Term Sustainability of Space Activities” (A/AC.105/C.1/L.339), 1 November 2013.

General Comments on the Chair’s Working Paper

5. The United States is pleased that the draft guidelines in the Chair’s working paper address best practices, procedures, and policies for safe and sustainable space operations, from pre-launch through end-of-life activities.
6. The United States notes the Chair’s working paper incorporates contributions of Member States, international intergovernmental organizations, commercial space operators, and commercial space service providers on their best practices, procedures, and policies associated with safe space operations and mitigating potential sources of harmful interference. The United States hopes feedback from a range of stakeholders will be fully considered by the Working Group as well as in any informal consultations facilitated by the Working Group Chair.
7. The United States also notes that the Working Group report should
 - a. take into consideration current policies, principles, procedures, regulations, standard practices, and guidelines and, where appropriate, seek to harmonize areas of difference;
 - b. make clear that the guidelines are voluntary;
 - c. not include language that suggests that States could be penalized failing to follow the guidelines;

- d. ensure that each proposed guideline maintains or improves the safety of spaceflight operations and protects the space environment without imposing unacceptable or unreasonable costs; and,
 - e. be consistent with, but not duplicate or reopen, the activities and recommendations of other working groups of the Scientific and Technical Subcommittee and the Inter-Agency Debris Coordination Committee.
8. The United States also suggests that the Working Group recommendations utilize similar language as contained in the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space (A/62/20, Annex): “Member States and international organizations should voluntarily take measures, through national mechanisms or their own applicable mechanisms, to ensure that these guidelines are implemented, to the greatest extent feasible.” This language will provide Member States with flexibility to implement the resulting guidelines on appropriate national timelines and according to their level of technical capacity.

Suggestions to Reduce Duplication

9. In reviewing the Chair’s Working Paper, the United States notes that some duplication exists between the candidate guidelines produced by the four independent expert groups.
10. As the Working Group and any subsidiary Task Forces seek to harmonize the draft guidelines, the United States suggests that it focus on those topics identified in the consensus Terms of Reference with an emphasis on topics that fall in the “near-term” and “mid-term” timescales for measureable action within UNCOPUOS (see “Long-Term Sustainability of Space Activities” (A/AC.105/C.1/2011/CRP.17), 7 February 2011).
11. In this regard, the United States suggests that three guidelines should be incorporated directly in the Working Group’s final recommendations:
- a. *Guideline 20* – Provide appropriate contact information (B.6)
 - b. *Guideline 25* – Perform conjunction assessment during orbital phases of controlled flight (B.5)
 - c. *Guideline 26* – Promote use of standards when sharing orbital information on space objects (B.7)
12. The United States suggests that some other candidate guidelines could be combined or further harmonized to create a more focused set of final voluntary guidelines. Suggested combinations are included in Table 1.
13. The United States further suggests that, following consolidation of the candidate guidelines, the Working Group should consider how to reduce the explanatory text accompanying each guideline to match the format of the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space. Further descriptive language can be included in the final Working Group report to capture the context within which the guidelines were developed.

Table 1. Suggested combination of candidate guidelines

Proposed combined guideline A:	
Compile and disseminate among relevant space actors experiences, expertise, and other information related to the long-term sustainability of outer space activities.	
1	Share experiences and expertise relating to the long-term sustainability of outer space activities (D.2)
2	Develop and adopt procedures to facilitate the compilation and effective dissemination of information that will enhance the long-term sustainability of space activities, among the relevant space actors (D.3)
14	Communicate within and among competent authorities to facilitate efficient and effective measures for the long-term sustainability of space activities (D.7)
Proposed combined guideline B:	
Promote institutional and public awareness of space activities and applications through appropriate mechanisms such as targeted outreach, education, capacity-building, and stakeholder engagement.	
7	Promote institutional and public awareness of space activities and applications for sustainable development on Earth, disaster risk reduction, early warning of potential disasters, disaster management, and disaster relief (A.2)
8	Encourage and promote activities of non-governmental activities that will enhance the long-term sustainability of outer space activities, such as engaging stakeholders, developing consensus standards and common practices, and increasing international cooperation (D.5)
15	Consider appropriately targeted outreach, capacity-building, and education on regulations and best practices relevant to long-term sustainability in view of the increasing number and diversity of existing and potential space actors (D.4)
Proposed combined guideline C:	
Promote research and development to enhance the sustainable use of outer space, including through the development of sustainable space technologies, processes, and services.	
3	Promote the development of studies and other initiatives for the sustainable use of outer space, including celestial bodies (A.6)
5	Promote and support research into and the development of sustainable space technologies, processes, and services (A.7)
Proposed combined guideline D:	
Implement through national mechanisms existing treaties, principles, guidelines, and other instruments relevant to the long-term sustainability of outer space activities.	
6	Provide registration information to assist in the identification of space objects (B.8)
22	Implement space debris mitigation measures (B.2)

Proposed combined guideline E: When developing, refining, adopting, and implementing national regulatory frameworks governing space activities, consider the long-term sustainability of outer space activities. Encourage advisory input from affected national stakeholders, weigh the costs, benefits, disadvantages, and risks of a range of alternatives, and consider the potential benefits of using existing international technical standards and definitions.	
10	Encourage advisory input from affected national stakeholders in the process of developing, refining, and implementing national regulatory frameworks governing space activities (D.8)
12	When adopting or implementing national regulatory frameworks, consider the long-term sustainability of outer space activities (D.6)
13	Weigh the costs, benefits, disadvantages, and risks of a range of alternatives in developing regulatory measures applicable to the long-term sustainability of outer space activities and consider the potential benefits of using existing international technical standards and definitions (D.9)
32	Entities that conduct outer space activities should ensure that they have the means to comply with relevant governmental and intergovernmental regulatory frameworks, requirements, policies, and processes that promote the long-term sustainability of outer space activities (Chair's guideline)
Proposed combined guideline F: Through both technical means and regulatory mechanisms, limit the risk to people, property, public health, and the environment associated with the launch, in-orbit operation, and re-entry of space objects.	
11	Address risks to people, property, public health, and the environment associated with the launch, in-orbit operation, and re-entry of space objects in the development of national regulatory frameworks and international standards (D.11)
23	Limit the risk to people and property from controlled re-entries (B.3)
Proposed combined guideline G: Promote international cooperation, on a mutually acceptable basis, for education, training, and capacity-building in support of the long-term sustainability of outer space activities.	
17	Support and promote international cooperation for capacity-building and data accessibility, on a mutually acceptable basis, through the sharing of data, derived information, and associated tools, taking into account the needs and interests of developing countries (A.3)
18	Promote international cooperation on a mutually acceptable basis, to support the growing interests of many countries in establishing national capacities for outer space activities through capacity-building and transfer of technology, without infringing intellectual property rights, and in accordance with non-proliferation norms and principles, taking into account the requirement of long-term sustainability of those activities (A.4)
31	Promote the education, training, and capacity-building required for a sustainable global space weather capability (C.5)
33	Entities that conduct outer space activities should ensure that they have the appropriate systems and organizational culture in place to promote the long-term sustainability of outer space activities (Chair's guideline)

Proposed combined guideline H: Promote the collection and dissemination of accurate space debris monitoring information relevant to the safety of on-orbit operations.	
21	Promote the collection, sharing, and dissemination of space debris monitoring information (B.1)
24	Promote techniques to improve the accuracy of orbital data for the safety of on-orbit operations (B.4)
Proposed combined guideline I: Promote the coordinated collection, intercalibration, dissemination, and archiving of critical space weather data, space weather model outputs and forecasts, and, on a voluntary basis, best practices for mitigating the effects of space weather on terrestrial and space-based systems.	
27	Support and promote the collection, archiving, sharing, intercalibration, and dissemination of critical space weather data (C.1)
29	Support and promote the coordinated sharing and dissemination of space weather model outputs and forecasts (C.3)
30	Support and promote the collection, sharing, and dissemination of and access to information relating to best practices for mitigating the effects of space weather on terrestrial and space-based systems and related risks assessments (C.4)
No combination proposed:	
4	Promote, in accordance with the Radio Regulations and recommendations of the International Telecommunication Union, that Member States consider, in their use of electromagnetic spectrum, the requirements of Earth observation systems and space-based services (A.1)
9	Adopt national regulatory frameworks suitable for space activities that provide clear guidance to actors under the jurisdiction and control of each State (D.10)
16	Promote and facilitate international cooperation in the peaceful uses of outer space as a means of enhancing the long-term sustainability of outer space activities (D.1)
19	Promote international cooperation to assist countries in gathering human resources and achieving technical and legal capabilities and standards compatible with the relevant regulatory frameworks, especially countries that are beginning to develop their capacities in outer space applications and activities (A.5)
20	Provide appropriate contact information (B.6)*
25	Perform conjunction assessment during orbital phases of controlled flight (B.5)*
26	Promote use of standards when sharing orbital information on space objects (B.7)*
28	Support and promote further coordinated development of advanced space weather models and forecasting tools in support of user needs (C.2)

*Should be incorporated directly into final set of Working Group recommendations.