

## United Nations Commission on Science and Technology for Development

Sponsors: Kingdom of Sweden

Signatories: Republic of Austria, Republic of Finland, Republic of France, Kingdom of Norway, Republic of India, Democratic People's Republic of Korea, United States of America

Topic: Challenges on Space Debris

*The United Nations Commission in Science and Technology for Development,*

*Recalling* the previous treaties on Outer Space Treaty 1967, Declaration of Legal Principles Governing the Activities of States in the Exploration and Use of Outer Space, and Convention On International Liability for Damage Caused by Space Objects,

*Acknowledging* the incredible efforts made by various Space Agencies in addressing space debris in recent years,

*Deeply concerning* the challenges and issues in addressing space debris,

*Affirming* the importance of international cooperation to regulate space activities as an effort to mitigate the spread of space debris,

1. Recommends member states to do a Categorical Identification of each Space Infrastructure with their capacity in producing space debris, in accordance with the ASAT (Anti-Satellite Weapon, according to a document of the United Nations Institute for Disarmament Research), with these classifications:
  - a. *No Debris*: if an actor wishes to test ASAT capabilities, they should not create debris,
  - b. *Low Debris*: if an actor must create debris during an ASAT test, the test should be carried out at an altitude sufficiently low that the debris will not be long-lived and,
  - c. *Notification*: actors testing ASATs should notify others of their activities to avoid misperceptions or misinterpretations,
2. Establishes a new parameter of peaceful purposes to guide the types of space infrastructures allowed to be deployed to the outer space, in accordance to the Committee on Peaceful Uses of Outer Space of the United Nations in 1969, 1970, 1971 and 1972:
  - a. Prohibition of any establishment of military bases and fortifications,
  - b. Prohibitions on the carrying out of military maneuvers,
  - c. Testing of any type of weapons;

3. Emphasizes the urgency of the Kessler Effect or the Kessler Domino, and the recommendations to address it:
  - a. Reducing the amount of mass in orbit instead of reducing the number of objects,
  - b. Detecting space debris that will come out of each and specific type of space infrastructure;
4. Recommends the launching small satellites or constellations in the Low-Earth protected region (up to 2,000 km) to naturally break up in Earth's atmosphere;
5. Encourages the creation an international space sustainability rating and developing technologies to automate collision avoidance and reduce the impact on our environment from space missions in accordance with the UN committee on the Peaceful Uses of Outer Space;
6. Establishes a new set of guidelines in addressing the complex problems and challenges of space debris:
  - a. Characterizing the orbital debris environment,
  - b. Protecting missions, spacecraft, and crews,
  - c. Limiting and preventing the generation of orbital debris,
  - d. Coordinating and communicating with federal agencies, commercial entities, and international stakeholders;
7. Advises all Member States to submit routinely reports on major space events such as reentries and on spacefarers' adherence in the mitigation of debris, both via formal channels, such as to the UN Committee on the Peaceful Uses of Outer Space and Inter-Agency Debris Coordination Committee;
8. Recommends to develop an International industrial forum to conduct in-orbit servicing by flying a first-of-its-kind debris-removal mission;
9. Encourages all member states to use relatively low cost micro and small satellites to carry out various of tasks, which were previously available only through much more expensive space project;
10. Decides to remain actively seized on the matter.