

FORUM: Disarmament Commission

QUESTION OF: Resolving Dangers of Space Debris

MAIN SUBMITTER: People's Republic of China

CO-SUBMITTER: United States of America, Islamic Republic of Afghanistan

THE DISARMAMENT COMMISSION,

Recognizing the dangers of space debris, which enter the low earth orbit (LEO) and pose massive dangers to passing spacecraft, even if debris is as small as 5cm in diameter,

Alarmed by the exponential increase of micrometeors and orbital debris (MMOD), since the more collisions that occur in space will result in more space debris, and this can pose serious dangers to spaceships as well as everyone on earth,

Noting that space debris that are in the universe are tracked by the Department of Defense's global Space Surveillance Network (SSN) sensors,

Deeply concerned that despite achievements such as the U.S. Space Surveillance Network, there are still millions of undetected MMOD that are not being tracked, which could potentially threaten human lives,

Aware that if the situation surrounding space debris continues to escalate, then satellites used for everyday things such as GPS tracking, internet, and television, could be destroyed and irreplaceable,

Realizing that the superpower nations that possess strong space industries are responsible for most of the space debris that exist,

Noting that the existence of space debris can cause collision within orbit due to the Kessler Syndrome,

1. Calls upon all member states to deescalate the current issue at hand through the identification and tracking of all Micrometeoroids and Orbital Debris MMOD in the LEO, so that the number of MMOD and the danger they pose to human life can be better understood, through ways such as but not limited to:
 - a. implementing systems that regulate the amount of space debris that exists by:
 - i. reinforcing the system of Space Surveillance Network (SSN) that can track the amount of space debris and increase the number of the system with cooperating with different space companies,
 - ii. creating smaller sizes of satellites for space exploration rather than big sized satellites which may create larger amounts of space debris,
 - b. increasing funding for space programs to build more infrastructure to track MMOD, including space programs such as but not limited to:
 - i. national Aeronautics Space Association (NASA),
 - ii. inter-Agency Space Debris Coordination Committee,

- iii. Europeans Space Agency (ESA),
 - c. collectively creating new technologies or improving existing technologies to better deal with MMOD that are considered serious threats, including but not limited to:
 - i. designing satellites to be more resistant to collisions, and limit the number of break-up phases during launching,
 - ii. space debris evasion technologies,
 - iii. more expansive and accurate MMOD tracking technologies,
 - iv. building more radar stations to track a wider range of MMOD,
 - d. limiting the number of debris added in space as well as the creation of more space debris through the demolition of satellites, through ways such as but not limited to:
 - i. limiting the number of launches allowed for each space program through legally binding treaties,
 - ii. improving the transfer of garbage satellites into graveyard orbits so that the amount of debris in the LEO is limited,
 - iii. regulating graveyard orbits so that collisions can be avoided,
 - iv. imposing fiscal consequences and fines to space programs that inhibit the efforts to clean up space debris,
 - v. removing space programs that go against the actions of the collective space program from the collective group of space programs;
- 2. Requests nations to create an international law about protecting space and reducing the amount of space debris in such ways but not limited to:
 - a. creating international law with the help of the United Nations Committee on the Peaceful Use of Outer Space (UNCOPUOS) that mandates that nations are allowed to launch objects at most two times in a month:
 - i. request nation members to participate in creating the international law,
 - ii. require that the international law be signed by all member states,
 - b. requesting United Nation Space Improve Organization Meeting (UNSIOM) to create an annual meeting with nations that are involved in USDA, where scientists from each nation meet together in order to share their ideas and progress in such ways but not limited to:
 - i. provide an annual meeting with nations and share ideas towards reducing space debris and develop systems they think will help in improving the problem,
 - ii. provide nations that have clear plans, such as MEDCs, to share resources with other nations, such as LEDCs, to provide aid that can help LEDCs improve debris removal programs,
 - iii. provide suggestions to different nations in how to develop their plans or thoughts towards the development,
 - c. including disadvantages towards the nations who go against the law in such ways but not limited to:
 - i. encouraging nations to abide by the international law by stopping the provision of aid that is needed in creating objects such as funds, materials, and experts for one year,

- ii. prevent them from participating in future meetings with UNSIOM and from USDA so that they are gets less aid from the organizations,
 - iii. in serious circumstances where efforts to remove space debris are prohibited, authorizing sanctions against the offending member states,
 - d. firing ICBMs annually to reduce the amount of space debris from nations such as:
 - i. United States,
 - ii. Russian Federation,
 - iii. People’s Republic of China,
 - iv. Republic of India;
- 4. Recommends member states to provide education to the students who are trying to work in space engineering in ways such as, but not limited to:
 - a. requesting cooperation between organizations to send out several experts in the field in order to educate the students in ways such as:
 - i. creating an annual program where students can participate and get educated by the experts about methods to reduce the amount of space debris,
 - ii. creating a public domain available to anyone on developments and areas for research in space debris removal,
 - b. establishing a central organization that handles the issue of space debris in a more organized way, providing benefits such as but not limited to:
 - i. students who join the center can get the benefits such as getting a certificate that can be used when they are trying to go in a company related to space,
 - ii. provide education to students specifically related to reducing space debris to students that are in the center,
 - c. holding meetings annually with national experts in the space engineering field in such ways but not limited to:
 - i. encouraging all member states to share their knowledge about reducing the space debris technology and their efforts to educate students,
 - ii. creating plans for the future about which countries need education for students concerning space debris, creating organizations with which a nation’s experts will be involved in proceeding with the education program;
- 5. Urges the active removal of MMOD, by both member states and third-party states or organizations, to both prevent the continual escalation of the situation and remove the threat to society, through ways such as but not limited to:
 - a. improving space debris removal through ways such as but not limited to:
 - i. sending a greater number of space debris removal satellites into space,
 - ii. developing better space debris removal satellites,
 - iii. minimizing the risk of sending satellites to clean up debris through better tracking software,
 - iv. focusing efforts to remove large space debris, which have the potential to collide and create more debris,

- v. including training for all space operations to include a mandatory space clean-up as part of the operation,
 - b. reminding all member states that they are responsible for space debris that they have created or have the potential to create, taking actions such as but not limited to:
 - i. reminding space launching states that they should exercise caution when launching objects into space that have a high chance of increasing the amount of space debris,
 - ii. requiring that all space programs keep records and register all space debris that they are responsible for,
 - iii. asking that all member states who are responsible for their respective space debris be willing to take actions to remove the debris,
 - iv. mandating that member states or independent space programs must have appropriately developed space programs that are able to deal with the problem of space debris before they are allowed to launch things into space,
 - v. encouraging smaller and less developed space programs to group together to utilize resources to advance space debris tracking and clean-up;
- 6. Encourage the nations to organize the United Space Developing Area (USDA) that involves well-developed nations in space-based engineering fields such as United States, Russia, China, France, India, United Kingdom, Japan, South Korea, Iran, Israel, Canada, Germany, and Luxembourg in order to create new technologies that can reduce the space debris in such ways but no limited to:
 - a. require the nations that are involved in USDA to provide technologies to further develop and improve technologies that already exist,
 - b. request nations that are in the organization to provide aid in form of but not limited to:
 - i. providing annual funds that can help in maintaining the organization,
 - ii. request the nations that are involved in the organization to provide experts in creating new technologies,
 - iii. request nations to provide materials that are being used in their own nations so that USDA can create better technologies that can reduce the space debris;
- 7. Encourage the nations to come up with more plausible solutions so that those nations can solve the increasingly dangerous issue of space debris.