



通过负责任行为准则、规则和原则

减少空间威胁不限成员名额工作组

2022 年 5 月 9 日至 13 日，日内瓦

议程项目 5

一般性交换意见

关于通过负责任行为准则、规则和原则减少空间威胁 不限成员名额工作组的工作

大韩民国提交

一. 导言

1. 随着行为体的增多、利用机会的增加和依赖性的提高，空间的拥挤程度、争议性和竞争性也在与日俱增。此外，由于大多数空间系统具有两用特征，很难区分每个空间系统的目的和特定行动背后的意图。这也增加了沟通失误和判断失误的风险。涉及外层空间的行动可导致毁坏、损坏、否认、干扰或贬抑国家空间系统。这些对空间安全的威胁有别于空间风险或危害，因此需要重点关注。
2. 因此，所有国家，无论在空间方面的技术地位如何，都有一个明确和紧迫的需求，即减少这种威胁，以确保一个安全、有保障和可持续的空间环境，因为世界越来越依赖空间系统和服务。如果对空间安全准则、原则和条例方面的真空不管不顾，将不可避免地导致所有人受害。

二. 通过负责任行为准则、规则和原则减少空间威胁

3. 现有的国际法律文书，包括五项外层空间条约，对外层空间的危害和风险作了一些规定，但是无法充分地应对当前和潜在的空间安全威胁。事实上，对什么是空间威胁和应对这些威胁的负责任行为，国际社会缺乏共识。
4. 因此，大韩民国认为，在应对外层空间威胁的工作中，以基于行为的方法为中心开始国际讨论和合作，是及时、务实、现实和适当的。因此，大韩民国作为共同提案国提出了联合国大会关于通过负责任行为准则、规则和原则减少空间威胁的决议(A/RES/75/36、A/RES/76/231)，并就联合国第 75/36 号决议向秘书长提交了一份国家报告。



5. 大韩民国在本文件所附的国家意见中表示，空间威胁的界定应基于行动和行为的意图而非能力本身，并且需要考虑到外层空间的性质，采取整体和全面的方法。如果不能妥善界定我们所面临的挑战，将不可避免地导致应对失败。
6. 例如，《关于防止在外层空间部署武器以及防止威胁使用或使用武力攻击外层空间物体的条约》草案没有涵盖所有相关威胁。仅有保证也不能为国际空间安全提供保障。为确保有效应对与空间安全有关的挑战，我们认为需要更全面地制定范围和定义，以及核查机制。

三. 对不限成员名额工作组的期望和大韩民国的承诺

7. 遵循联合国大会的两项决议并按照其中规定的任务，我们所处的阶段是要查明有哪些空间威胁和领域需要负责任的行为准则、规则和原则。我们为这一任务作出的集体努力将有助于在联合国会员国之间形成共识。这些努力也将证明成为一个有意义的起点，以促进空间安全，并推动在这一关键领域最终建立起一个有法律约束力的制度。
8. 大韩民国认为，除其他外，行之有效的方法应包括一套适当的透明度和建立信任措施、行为准则和政治承诺。我们认为，对与空间安全有关的行为进行活动前或行动前的多边通知，能在透明度和建立信任方面起到效果，因此我们提议在不限成员名额工作组进程今后的某一阶段讨论这一机制的细节和可行性。
9. 大韩民国非常期待不限成员名额工作组的第一次会议，这是合乎逻辑的下一步骤，并非常期待与所有会员国和相关利益攸关方交流意见，确保人人共享安全、有保障和可持续的空间。此外，联合国不限成员名额工作组进程本身就是一项透明度和建立信任措施，能增加不同行为体之间的相互理解和沟通。
10. 大韩民国还期待立足于此次第一届会议的成果，特别是通过与联合国裁军研究所和安全世界基金会于 2022 年 5 月 23 日至 24 日共同主办虚拟空间安全研讨会，进一步推动我们与东盟伙伴在区域一级的讨论。
11. 大韩民国谨借此机会，表示坚定承诺将与伙伴国家一道为此目的发挥应有的作用，并将继续建设性地参与相关论坛。

Annex

[English only]

Republic of Korea's National Report on the United Nations General Assembly Resolution A/RES/75/36

I. Why Space Matters

1. As the sphere of human activities in terms of economic, scientific and security expands beyond the earth toward space, it has become more important to **maintain safety, security, and sustainability** in space. Due to wide-ranging applications from telecommunications to navigation and weather forecasting with data collected, transferred and transmitted through satellites and communication devices, the world is increasingly dependent on space-based services and the broader space domain **in daily lives**.

2. In terms of **national defense**, at the same time, the future warfare is highly dependent on space: satellite information, ISR (Intelligence, Surveillance and Reconnaissance) capabilities, Command and Control (C2) system, radar, missiles and missile defense systems, and other high-tech military capabilities are all inseparable from space activities, which become **the concerns in terms of arms control**.

3. As a space-faring nation, the Republic of Korea (ROK) believes that activities in space is imperative for **both prosperity and security**. For instance, in the ROK's *Space Development Promotion Act*, Article 1 states that its purpose: to facilitate the peaceful use and scientific exploration of outer space and to contribute to national security, the sound growth of the national economy, and the betterment of citizen's lives by systemically promoting the development of outer space and by efficiently using and managing space objects. This epitomizes the ROK's view *vis-a-vis* space.

II. Risks/Hazards and Threats

4. With the advent of New Space era, space is becoming **increasingly congested, contested, and competed** by a number of actors and objects. Even non-state actors are actively participating in space activities. The cross-cutting nature of space technology means that the challenges we are facing require responses which include **both civilian and military aspects**. Most of the space activities have **dual-use characteristics**, it is therefore, hard to distinguish the purpose or intention in advance. Some benign technologies or activities in space, unless used in such purpose, might become serious concern to one's security. Due to such nature **with limited capabilities to verify, combined with lack of transparency**, a certain move, action or activity in space could constitute threat or perception of threat to other countries. Against such backdrop, the ROK government's preliminary view on the concept of "risks/hazards" and "threats" are as follows:

Space Risks/Hazards

5. The ROK government views the concept of space hazards include consequences **not caused by deliberate actions**. In ROK's domestic law, we already have the definition of space hazards. In the abovementioned ROK's *Act*, Article 2 defines the term "space hazards" as risks of crash, collision of space objects in outer space. In the *1st National Basic Plan for Space Hazards (2014~2023)*, which is an official plan established on the basis of the *Act*, "space hazards" are defined as any risks caused by crash or collision of natural space objects and/or artificial space objects or solar storm which could give damage, injury or harm to people's safety and space assets.

6. The hazards in outer space include any risks or/and dangers causing damage, injury or harm to life and property in space or on ground caused by any space objects or/and phenomena emerged naturally or/and artificially, which include both natural space objects

such as asteroid, meteoroid, and any other object formed naturally in space and artificial space objects designed and manufactured for use in outer space including space launch vehicles, artificial satellites, spaceships, and the components thereof.

Threats, and Impacts of Space Threats

7. The arms race in space will continue to spiral under the circumstances that states do not certain about the intention of others' activities. With lack of understanding on the intentions behind any given activities and lack of transparency, more countries will rely on counter-space measures for defense and this will make the **spiral of cyclical escalation of tensions** towards **potential weaponization of space** and even **aggressive actions**. Thus, the space threat and perception of those threat, no matter how we define, will impact international security.

8. The ROK could find that some tries to define space threats based on the *capability itself* such as kinetic, non-kinetic, electronic and cyber capabilities. Use, demonstration or testing of those capabilities could threaten others. On the other hand, threats could be defined based on the *intention* of certain action or activities to the space system and people, and the ROK government preliminarily sees threat in that point of view. The ROK government sees that any activities **intended to destroy, damage, deny, disturb or degrade** space assets of other States should be deemed as a threat.

9. The ROK government believes that existing international legal instruments, including hard law documents such as the five Outer Space treaties, as well as soft law mechanisms such as the LTS Guidelines or Space Debris Guidelines provide some regulation of hazards and risks in outer space. On the other hand, the ROK government believes that there is no international legal regime specifically dealing with the deliberate threats of States to space assets or activities of other States. This may be partly attributed to the fact that the focus has been on regulating weapons or capabilities themselves,

10. This lack of progress, as well as the difficulty in identifying intent behind certain space activities of States, suggest that an approach based on observable behaviour is appropriate in regulating "threats" in outer space. Such an approach should focus on regulating deliberate threats of States, as well as mitigating the possibility of misperceptions of threats that may provoke unnecessary tensions between States.

III. Responsible versus Irresponsible behaviour

11. Since **verifying intention in space is almost difficult and challenging** without official declaration from a space object's operator, we could only judge in light of what we can observe. In this context we should **encourage space actors to behave transparently and responsibly** and discourage **irresponsible behaviour**.

12. In this sense, the ROK government views that responsible behavior includes measures to **increase transparency and build confidence**.

13. Already put in place in the final report of the United Nations Group of Governmental Experts on Space TCBMs, we could refer from the specified measures to build trust in space, including : *information exchange on national space policy and goals, and exchange of information on military space expenditures; information exchange on activities in outer space, including orbital parameters, possible conjunctions, natural space hazards, and planned launches; notifications on risk reductions such as scheduled maneuvers, uncontrolled high risk re-entries, emergency situations, intentional orbital breakups; and voluntary visits to launch sites and command and control centers, and demonstrations of space and rocket technologies*. Also in this context, the ROK government sees that **space situational awareness (SSA)** is imperative. In order to increase visibility and predictability in space, sharing information gathered through states' SSA is what is more necessary.

14. On the other hand, the ROK government believes that irresponsible behaviour could include the very concept of "space threat" mentioned in this report, particularly the types of behaviour that constitute a violation of the United Nations Charter or key principles of

international humanitarian law. One example would be deliberately, in an armed conflict, hampering the functions of a satellite predominantly used for civilian purposes.

15. Irresponsible behaviour could also include activities that are not themselves threats, but those that have the objective possibility of provoking miscalculation or misperception of threats among States. One specific example of that kind would be the testing or use of Direct Ascent Anti-Satellite weapons in a way that creates long-lived space debris without appropriate international consultations with potentially affected States.

IV. Way forward

16. Due to differences in space capabilities among states, difficulties in reaching agreement in core concepts such as space weapons, and verification issues, it is premature to formulate a legally-binding treaty in the field of space security. However, leaving the vacuum of norm, principles, and regulations unattended, and letting the actors exercise free hands in the outer space would be detrimental in light of the ever increasing use of space.

17. The ROK government views that this resolution is not prescriptive nor exhaustive in our joint search of legally-binding norms in prevention of arms race in outer space, which would be desirable as an ultimate goal. In the meantime, we believe that our collective efforts towards defining threats and responsible behaviours will serve as meaningful stepping-stones toward a creation a legally-binding norms in the area of space security. These efforts may also help clarify the content of international legal norms so as to illuminate their scope of application to space security issues, and facilitate their application in light of rapid changes in space technology.
