Committee on the Peaceful Uses of Outer Space
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Japan

Japan Item 11– "Near-Earth Objects"

Mr. Chair, Distinguished Delegates,

Japan recognizes the importance of the exploration of asteroids. Even though the probability of a Near-Earth Object (NEO) collision with the Earth is low, it is important to understand the fundamental characteristics of NEOs by exploring them to avoid such a collision.

The Asteroid Explorer Hayabusa2 collected underground samples from the C-type asteroid Ryugu and brought them back to Earth in 2020. Through the initial analysis of samples, the existence of water and organic matter was reported. Samples were also distributed to various research institutes around the world, and further scientific results are expected. Currently, Hayabusa2 spacecraft is on its way to explore another small and fast rotating asteroid known as 1998 KY26 and is expected to arrive there in 2031.

Itokawa and Ryugu, the target asteroids of Hayabusa and Hayabusa2, are objects that travel near the Earth. Detailed data on these NEOs is valuable to investigate ways and means to avoid a NEO collision with Earth. In the realm of NEO observation, JAXA has developed an image analysis method to find fast-moving celestial bodies. So far, JAXA has spotted 11 fast-moving celestial bodies moving towards Earth by using 20cm telescopes located at a remote observation site at the Siding Spring observatory in Australia. Here, the image analysis method will be applied to "Tomo-e Gozen", which is a huge CMOS camera that will be developed by the University of Tokyo in the near future.

Another contribution that addresses the risks of NEOs is the Hera mission led by the European Space Agency (ESA), which JAXA plans to take part in by providing a thermal imager and scientific expertise. This is a planetary defense mission investigating near-Earth binary asteroids called "Didymos" and "Dimorphos" to demonstrate planetary defense technology.

JAXA is a member of the Space Mission Planning Advisory Group (SMPAG)

and an observer of the International Asteroid Warning Network (IAWN). Japan would like to continue contributing to their activities with its observation facilities.

Mr. Chair,

Japan will continue to conduct research missions to deepen our understanding of the basic features of NEOs in order to better assess the probability of a NEO collision with Earth. To conclude this statement, I would like to reiterate the importance of international cooperation on NEOs and Japan's commitment to continue contributing to this important issue.

Thank you for your attention.