

The reality of the film "your name." : Asteroid and comet collision as a natural disaster and disaster prevention

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If an asteroid or a comet collides to the Earth, the damage will be incomparably larger than that caused by usual natural disasters. The issues of asteroid or comet collision to the Earth have been considered as "spaceguard" from 1990's, and now as "planetary defense". NEOs (Near Earth Objects) are objects that have possibility to collide to the Earth. About 18,000 NEOs have been found up to now, and a lot of NEOs are discovered in each year recently. The issues of planetary defense have been discussed in Committee on the Peaceful Uses of Outer Space (COPUOS) of the United Nations and international groups such as IAWN (International Asteroid Warning Network) and SMPAG (Space Missions Planning Advisory Group) are working now. In addition to these, an activity called "Asteroid Day" becomes popular in the world. The purpose of this activity is to make people know about these issues. Under such circumstances, an animation film called "your name." was released in Japan and it became very popular. In this film, the collision to the Earth by a comet is an important incident. In this presentation, we compare the descriptions related comet collision in this film with the situations supposed to happen in actual Earth collision by asteroids or comets. The purpose of this comparison is not to verify this film in science point of views but to make people know correctly about the collision of asteroids or comets by using this film. In fact, the film "your name." describes following things, which is related to the planetary defense: the orbit of celestial bodies that collide to the Earth, the physical damage at collisions, what we should do at collisions (evacuation and communication). These things are actually the items of discussion for the real collision to the Earth. In this presentation, we discuss the disaster prevention education for the collision of celestial bodies to the Earth by using films related to this issue such as "your name." and others.

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