UNOOSA/ICAO
Vietnam
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Vietnam is a southeast asian nation bordered by Cambodia, Laos and China as well as the South China Sea. Vietnam is a one-party Communist state; however, much like China, Vietnam employs a very capitalist economy. Historically tied with China and the Soviet Union, Vietnam currently has strong relations with China despite the majority of Vietnamese harbouring a dislike for the nation, as well as ties with Russia and growing ties with the United States. Vietnam has shown increasing concerns about the environment, despite a poor record of pollution. Satellites launched by Vietnam are currently being used for telecommunications; however, they may be used for military purposes in the future as the program expands with the space education being promoted today. Vietnam has a relatively new space program with only 4 satellites in orbit.

Topic 1: The Environment and Space activity

Space debris is quickly and quietly becoming problematic. While the world rightfully focuses on the effects of climate change and how to combat it, the amount of space debris in orbit has received little notice. More than 500,000 pieces of wreckage orbit the Earth, travelling at speeds up to 17,500mph, fast enough for very small pieces of debris to cause immense damage to satellites or spacecrafts. The rising amount of remains poses a serious threat to all space vehicles, especially the International Space Station. This is an issue for the global community as it is much harder to develop space infrastructure in a safe and environmentally friendly manner.

The delegation of Vietnam believes that for future space programs to be developed without causing too much damage to the environment or the spacecrafts themselves, further research and funding must be committed to possible debris removal techniques, such as a

grappling technology that would be able to grapple onto pieces of space junk and throw them towards a part of outer space where they would end up simply burning up in the atmosphere. Cleaning up the space environment must be a priority in spatial development and be launched with satellites to ensure that any damage caused by the exploration, militarization or commercialization of space will not hinder exploration for future generations. Another effective way of cutting down on the amount of space junk there is requires the SpaceX technology of reusable rockets. Reliable development of this technology would significantly cut down the amount of debris there is orbiting the Earth, as there will no longer be the debris from the rocket floating in space.

Vietnam believes that Space exploration is vitally important but also recognizes the harm that rocket launches can do to the environment. Currently, rocket launches are infrequent enough that they do not do any significant damage to the environment; however, with the increasing commercialization of outer space the impact could eventually become significant. Vietnam does not believe that this issue is of very much importance and that the exploration of space is something we need to concentrate on and not worry about the effects on the environment that it causes, as there are many more pressing environmental issues than space travel.

Topic 2: The Militarization of Space and International Law

Vietnam currently relies on foreign satellites to gain access to photos from outer space. These photographs are generally used for surveillance and to track natural disasters. However, in 2013 the VNREDSat-1 was launched, a huge step for the Vietnamese space program. The satellite transmitted its first pictures to Earth just 2 days after launch, proving that Vietnam now has the capability to use their own technology for satellites. Currently, Vietnam is still reliant on foreign satellites; however, this reliance has been reduced by the success of VNREDSat-1. The satellite also has a clear military significance. Vietnam has had some disagreements recently

about territory in the South China Sea and this satellite is also used for surveillance of the area for defense and security purposes.

The Vietnam space agency has a clear plan set in place to launch more capable satellites. The VNREDSat-1 has a resolution of 2.5m; however, this is not quite the military grade satellite that Vietnam is searching for. Vietnam has plans for the launch of the 10kg NanoDragon, followed by the 50kg MicroDragon in 2018 and then the LOTUSat-2, a 500-600kg satellite capable of radar images with a resolution of up to 1m, in 2020. Vietnam believes that education about outer space and satellites is a great way to increase interest in a top-level space program and a way to increase funding from the government, who seems keen on acquiring the technology to be a force in the revamped space race.

Vietnam's primary reason for this increased interest in expansion to outer space is a concern over sovereignty. Despite close economic ties, Vietnam and China have a rocky relationship when it comes to territory, especially in recent years with China attempting to claim the international waters in the South China Sea. Vietnam has shown that they will not yield to China, and possesses a strong military force, ranked 17th in the Global Firepower rankings, just below Israel. Vietnam is aiming to close the military gap - China ranked 3rd - with an expansion into outer space much like other powerful nations have done. Vietnam does not wish to be left behind and is pushing towards a strong presence in outer space.

The very real possibility of a "space war" is a frightening one. There are a few ways to avoid such a war. One way is to have mutually assured destruction of satellites and other equipment between nations. Much like the Cold War, this may be the only way to prevent a space fight. However, this causes its own problems, such as an arms race in space for first strike capability, which is exactly what must be avoided. Another way is a less realistic idea involving countries coming together to sign an agreement saying that no weapons will be permitted in outer space, and satellites will be required to be left alone. Many satellites have both a civilian and military use and the destruction of these satellites would cause damage detrimental to our societal functioning. Not to mention the space debris that it would cause, rendering future space travel and exploration very challenging.

Currently, there is a major power imbalance in space, with Russia, the USA and China being much further ahead in space development than anyone else. Countries like Vietnam must work together to acquire the technology needed to narrow the gap. Cooperation is key to ensure that every nation is able to defend themselves in very real possibility of a space war.

Topic 3: Space Commercialization

Outer space has already started to be commercialized. Many satellites have been sent up for the purpose of internet connectivity, television signals, communications and imagery (for weather). Obviously, satellites and the commercialization of space is deeply engrained in the fabric of the global society. There are many plans set in place to increase the commercialization of space in the near future, such as asteroid mining, a moon base and the private company SpaceX.

SpaceX is a very forward thinking company with the ability to reuse rockets to cut down on space junk and cost. SpaceX has a main goal of colonizing Mars sometime in the future, a goal that is in the interest of the global population as the Earth is slowly becoming less habitable because of global warming.

Many companies are also looking to exploit asteroids for their resources. Something that would be extremely useful if efficiently tapped into. The main issue with this is the cost to the environment. However, with the reusable rocket technology being developed by SpaceX this cost can be considerably reduced.

Vietnam believes that the aerospace industry is of vital importance. Space exploration deserves to be funded by the governments of the world. As many countries face the scary effects of rising sea levels and other effects of climate change, the prospect of colonization becomes increasingly attractive. Vietnam also believes that private funding of space exploration can be of use as well, but that governments should take on that responsibility.

According to the Outer Space Treaty, outer space is the property of everyone on Earth, which means that no nation or person can claim any sovereignty over anything in outer space. This poses an issue for companies wishing to mine asteroids, and causes the question of who should profit if asteroid mining becomes mainstream to be asked. This is a very tough question and Vietnam believes that nobody should profit directly. In accordance with their communist values Vietnam believes that the profits should be distributed among the global community.

Vietnam believes that the increased commercialization of space is an exciting prospect for the future of the nation and the world and believes that the laws stymying the capitalist growth of some economies should be abolished.

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