Committee: UNOOSA-ICAO

Topics: The Environment and Space Activity, The Militarization of Space and International Law & Space Commercialization

Country: South Africa

South Africa is a republican state located in the southernmost part of Africa. The population consists of approximately 55,000,000 people across approximately 1,200,000 km2. South Africa is led by President Jacob Zuma, who has been in power since 2009, following 6 years serving as the Deputy President from the years of 1999-2005. Although officially considered as a developing country due to the various poor regions, there are many areas that are very developed as well. Furthermore, it is included in the top 10 developed nations in Africa. South Africa is also an active member state of the United Nations, including the ICAO and UNOOSA committees. South Africa is a council member state of the ICAO, and has been an important member since the creation in 1947. Although South Africa was not a member when UNOOSA was created in 1962, it has been an active member since 1994. Only 17 African countries are current members of the UNOOSA. The main focus of the joint UNOOSA-ICAO committee is with regards to Space, and South Africa’s space activity is continuously increasing with time. The South African National Space Agency (SANSA) was formed in 2009. As of now, SANSA has not sent any humans into Space, however currently has 4 satellites in orbit and continues to work hard in order to develop South Africa’s space activity. There are many important issues that the UNOOSA-ICAO must address, which are vital to space affairs as a whole. These include the environment and space activity, the militarization of space and international law and space commercialization.

With the development of space exploration and the advancements of technology come many positives, both scientifically and socially, however this has also created a huge problem, causing threats to the environment in space. One may argue that the positives that are given back to the Earth (such as new methods of power generation, recycling, waste management and energy storage) outweigh the cons, yet the pollution of outer space is definitely not something that can be taken lightly. There are two main concerns with the pollution of outer space, which are space debris and black carbon. Furthermore, it is necessary that we (as a committee) find a way in which we can expand space exploration at the same time as ensuring there is no further pollution of the environment. All of this must be done at the same time as following existing international agreements and laws. There are currently over 500,000 pieces of debris currently orbiting the Earth. NASA’s chief scientist of orbital debris stated that, “The greatest risk to space missions comes from non-trackable debris”. The delegation of South Africa understands the risks of space debris and realizes that this must be addressed. South Africa believes that nations should be responsible for a certain amount of cleanup, factoring in variables including, but not limited to, the number of launches of space machinery a country has had in the past and the amount of satellites that they have had, and still currently obtain in orbit. It is essential that nations take responsibility for their share of this issue, even though it is not always necessarily their fault. South Africa also believes that the cooperation between nations is vital, and we must collectively produce funds in order to support clean-up missions. Space debris’ largest impact remains in outer space, however black carbon on the other hand affects life on Earth. The “soot” produced by rockets during takeoff seeps into the atmosphere and is a very significant contributor to climate change. Black carbon takes second place, only to carbon dioxide, with regards to increasing the heat of the atmosphere. If we continue at this rate, the carbon produced by rocket launches can single handedly make a huge contribution towards climate change on Earth. The delegation of South Africa urges nations to follow the regulations (with regards to carbon emissions) set by the Kyoto Protocol (1997), as it essential for not allowing climate change to spiral even more out of control. Although South Africa is not obligated by the Kyoto Protocol to follow an emission cap, the delegation is willing to make attempts in order to cut carbon emissions, if other nations are willing to co-operate as well. It is also necessary that an environmentally-friendly rocket is created in the near future, in order to allow for space exploration, without affecting climate change. For this to happen, South Africa would like to remind other countries that all member states must contribute, whether it involves volunteering scientists, donating money, building testing centers/labs, etc. It is crucial that ways are discovered in order for further space exploration to happen, yet not damage the environment at the same time.

Another major issue that has raised much concern surrounding space activity is the militarization of space. Militarization, by definition, is “the broad process of organizing an environment, process, or group in such a way to enable military conflict” … in this case, outer space. Without the addition of strict laws and regulations regarding conflict, military actions would be very unpredictable in outer space. Militarization includes many things, ranging from simple peaceful communication satellites to the something very large, such as a possible implementation of military bases in space, per say. The closest thing to militarization currently in space, is the threat of anti-satellite technologies. This threat has been posed to China and Russia. The delegation of South Africa suggests the ban of anti-satellite technologies at this time, as it is not needed and can cause unnecessary conflict. Another large problem is the advancement in technologies of some countries, while other countries fail to keep up. It is necessary that a regulation is created, outlawing the implementation of new technology by member states in outer space, that other nations have not had the chance to create, in order to avoid a major power imbalance. The delegation of South Africa believes that not allowing a single member state to pull a substantial amount (an amount that must be specifically stated) ahead of other member states (with regards to implementing military technology in space) is the easiest way to prevent an arms race, as it will prevent nations racing to see who can implement these technologies the fastest. Another issue that must be kept in mind is that even more dangerous space debris would be created with the militarization and weaponization of space. South Africa still supports the Prevention of an Outer Space Arms race, which the delegation voted in favor of in 2000. If militarization occurs, there needs to be laws, therefore it is essential that the International Humanitarian Law (or IHL) expands in order to include outer space.

Lastly, an important topic that the UNOOSA-ICAO committee must discuss is space commercialization. As technology has advanced and it is much easier to travel into outer space, commercialization is a topic of much importance, as it can be a huge benefit to the economy. The commercialization of space provides new business opportunities, research initiatives and the ability to develop a space tourism industry. First and foremost, the commercialization of space will require a greater demand of aerospace production and services. The on pour of civilians wanting to travel to space would be a massive number, furthermore, there must be enough safe spaceships in order to meet these demands. The delegation of South Africa, however, believes that the travelling of civilians to space should not begin until an environmentally-friendly rocket ship has been constructed. Tying this topic into the issue of climate change, South Africa believes that the sustainability and well-being of the Earth is much more crucial than the economic benefits of space commercialization. Once there is a way to efficiently send civilians to space without damaging the environment, then space should begin to be commercialized. Many legal regulations also need to be created in order to develop this industry. Another issue that must be addressed is the mining of asteroids and use of planetary resources. The exploitation of these resources is directly against what was signed in the Outer Space Treaty in 1967. South Africa believes that an amendment must be made to this treaty in order to allow the use of asteroids in order to produce power energy on Earth. The USA has already implemented a law stating that it is not illegal to own and sell extra-terrestrial resources (although this violates the OST). South Africa believes that this is wrong, since the OST is the foundation of everything that has to do with space, therefore it should be followed. Nevertheless, updates are needed with regards to various topics, including the use of extra-terrestrial resources. There are many things that must be sorted out before space commercialization can occur, however once the committee discusses ways in which this can be possible, it has the potential to grow into a billion-dollar industry.

The environment and space activity, the militarization of space and international law and space commercialization are just 3 of the many topics that must be addressed regarding outer space. Due to the advancements of technology, the use of outer space (both positively and negatively) is very possible and realistic, therefore it is important that the surrounding issues have been resolved and a “plan of attack” is put in place. The delegation of South Africa, as a nation who is currently growing in their involvement with space affairs, realizes the importance of thoughtful and realistic solutions that will provide the member states with the best opportunities to expand their space activity.