Delegation: Angola

Committee: United Nations Office for Outer Space Affairs and International Civil Aviation Organization

Delegate: Theo Eckert-Budis

Topic: Space Commercialization

Mining in outer space is a very important topic to discuss. The most promising objects to mine are near-Earth asteroids (NEAs). 15,100 NEAs are currently known to be found in Earth’s orbit, most of which are easier to access than the moon. Some of these asteroids contain an abundance of minerals such as iron, nickel, cobalt, and other platinum-group metals. By some of estimates, it is possible that a two-kilometer wide asteroid of the correct type could hold more ore than has been mined since the beginning of civilization. However, it would be very difficult, expensive, and dangerous to transport any ore to the Earth’s surface which limits its usefulness. One potential use is to extract the ores in space, and use those ores to built satellites or other space devices while in space. Another valuable resource within asteroids is water, which could potentiality be supplied to other objects or persons in space. Additionally, the water could be broken down into hydrogen and oxygen by using solar energy, and then could be transformed into rocket fuel. (Encyclopedia.com, 2002)

Angola is emerging as an African leader in space exploration. In 2009, Angola and Russia signed a $327 million satellite construction deal, and the project was started in 2012. The agreement covers the creation, launching, and operation of Angola’s first telecommunications satellite, known as the AngoSat 1. The project is being financed by Rosoboronexport, the intermediary agency for Russia’s defense-related export services, and is being built by RSC Energia. The satellite will be launched into orbit in early 2017, and after being commissioned the satellite will have an estimated lifetime of 15 years. During these 15 years the satellite will provide electronic telecommunication services, namely broadband and television services. (Balancing Act, 2009)

In order to prepare for the launching of the satellite, the Ministry of Telecommunications and Information Technology funded a staff training program in satellite engineering and space engineering systems. Of the students who received training, eight were in satellite engineering, nine in nano-satellite and pico-satellite training, ten in systems design, and ten in space missions. Additionally, a satellite mission control center was created in Luanda, Angola to receive data from the satellite. (Macauhub, 2015)

Topic: The Environment and Space Activity

One issue with space exploration is the proliferation of space debris. Space debris is the collection of nonfunctioning objects that are orbiting around the earth. There are three types of space debris: large debris, which is larger than 10 cm, medium debris, which is between 1 and 10 cm, and small debris, which is smaller than 1 cm. Currently, there 29,000 pieces of large debris, 670,000 pieces of medium debris, and over 170 million pieces of small debris. (ESA, 2013) The main source of space debris is from satellites and other space devices that previously were used, but are no longer are in use, and are still in orbit in outer space. Other causes of space debris include rocket boosters that reach orbital velocity, and lost equipment from astronauts. Angola believes that is essential that developed countries such as the United States with the largest space programs limit the amount of space debris they contribute. (NASA, 2016)

The AngoSat 1 has physical properties that are important to consider when thinking about its impact on the environment in outer space. The 1,550 kg satellite will be launched into GEO at the end of the first quarter of 2017. The satellite consists of 44 equivalent C- and Ku-band transponders and has a USP Bus configuration. It has 8 SPT-70 Stationary Plasma Thrusters and an Angara A5/Blok DM-03 rocket. The satellite has a projected lifetime of 15 years and has 2 deployable solar arrays which serve as batteries. (Gunter’s Space Page, n.d.)

Initially the AngoSat 1 was projected to be launched at the end of 2016 alongside the Energia 100 satellite. However, the annexation of the Crimea and the hostile relations between Ukraine and Russia made it questionable to use the planned Ukrainian launching site in Baikonur and Ukrainian Zenit rocket. Because of this, RSC Energia decided to launch the AngoSat 1 alongside the Angara A5/Blok DM-03 rocket at the Plesetsk LC-35/1 launch site. (Russian Space Web, 2016)

Topic: The Militarization of Space and International Law

It is essential to note the different between the militarization and weaponization of space. The militarization of space generally consists of the use of communication satellites that assist countries or militaries with aspects such as communication, monitoring, and early warning, and is considered a peaceful use of space. Another peaceful use of space is for communications such as internet, radio, telephone, television, and the weather. One harmful use of space is the weaponization of space, which refers to the placement of devices that have a destructive capability into outer space. While not technically considered part of the weaponization of space, the development of technologies that have the potential to destroy devices in the space from the ground, such as ballistic missile defense system are another threat. (Reaching Critical Will, n.d.)

Angola has had a large influence on international legislature regarding outer space. In 2005, Angola sponsored a resolution focused on the prevention of an outer space arms race which passed in a nearly unanimous vote. The resolution focused on the utilization of the UN Conference on Disarmament to prevent a potential outer space arms race, which Angola believes to be very important. Angola also believes that it is crucial to ensure that space is not weaponized, and that creating a definition of a weapon in outer space will be key to preventing the weaponization of space. However, Angola is in support of the militarization of space and believes that countries can benefit the most from sending telecommunication satellites into outer space (United Nations, 2005).

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