STATEMENT BY

THE REPUBLIC OF SOUTH AFRICA

THE SCIENTIFIC AND TECHNICAL SUB-COMMITTEE OF THE COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

AGENDA ITEM 16: Geostationary Orbit

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Madam Chair,

It is with great pleasure that the South African delegation participates in this the 58th

Session of the Scientific and Technical Sub-committee (STSC) of the UNCOPUOS. We would also like to make use of this opportunity to reaffirm our support to you and we look forward to actively contributing to the successful realisation of the Agenda before us over the next two weeks.

My delegation also wishes to express our sincerest appreciation for the work carried out by the Office for Outer Space Affairs, and its Director Ms Simonetta Di Pippo and of course to the Secretariat for their dedicated work, in preparing for, and servicing this 58th Session of the STSC under these difficult and challenging circumstances.

Madam Chair,

South Africa places great importance on the development of mechanisms to regulate the peaceful use, exploration and utilisation of Outer Space. In this regard, South Africa places great importance to the development of space science and technology. This is informed by the important role space technology can play in the socio-economic development of our country and our continent in pursuit of a better world for all.

Since we last met, the South Africa National Space Agency (SANSA) has made significant progress after having responded to the International Civil Aviation Organisation (ICAO) designation; and today South Africa is proud to report that the construction of a 24-hour, state of the art regional space weather centre to expand its operational capacity has commenced for completion in October 2022. We believe that the enhanced capability will position our country amongst global experts whilst offering world-class space weather solutions to the African continent.

Furthermore, South Africa continues to find ways and means to address ease of access to satellite data and in this regard is commissioning a platform known as Digital Earth South Africa (DESA) through its agencies SANSA and the South African Radio Astronomy Observatory (SARAO). DESA is a data cube for ingesting analysis-ready satellite imagery from the national satellite archive, which will facilitate the development of earth observation products and services.

Madam Chair,

During this challenging time of a global pandemic, which is resulting in a financial recession, the South African government has mobilised public and private sector funding to prioritise infrastructure development to support economic growth and job creation through our government's Sustainable Infrastructure Development Symposium (SIDS) initiative. The SIDS initiative has ranked space infrastructure investment as a high priority due to ever-increasing dependency on technological systems, which rely on space infrastructure. SANSA has therefore been awarded R4.47 billion, the equivalent of approximately 329 million US dollars, in additional funding over the next three years, to develop a Space Infrastructure Hub as part of the SIDS initiative. The project will include various satellite builds (Earth observation and space science missions), a new ground station, an expanded data segment and a new data visualisation centre, activation of the satellite-based augmentation system over Southern Africa, the development of products and services for use across all spheres of government, and human capital development and training.

South Africa recognizes the monitoring of space weather as being of great importance, not only from a technological but also from an industrial development perspective. To contribute in this global endeavour, South Africa established a Regional Warning Centre for Space Weather in Africa under the International Space Environment Service (ISES). South Africa through its Space Agency is making strides in putting up the necessary infrastructure to fulfil this function. Various research and application development projects are underway to establish a capability to predict and forecast the regional impact of space weather over thee African region. South Africa's interest lies in the technological impacts of space weather, particularly within the communication, navigation, aviation and energy sectors. We appreciate the international collaboration that has been extended to South Africa and look forward to being a global player in this arena.

Madam Chair,

The increase of space debris is also a matter of concern for South Africa due to the risk that it poses to space systems, and a consequent risk of disruption of the many space-based services on which we all rely. In this regard, we are honouredpleased with the to facilitation work undertaken by South Africans, note the progress on the re-establishment of the new working group with its bureau to lead and take further discussion on of the Working Group on the outstanding Guidelines on the Long – Term Sustainability of Outer Space activities. South Africa acknowledges with appreciation the excellent work of the many experts that participated in this Working Group leading to the UNGA approval. South Africa implores on all delegations to employ the spirit of compromise and stride to reach a solution during this session of the STSC as the opposite is not delaying the impending great work ahead but also

delays implementation of the approved guidelines. South Africa thus looks forward to critical discussion adopting of the remaining Guidelines of the Long-Term Sustainability of Outer Space as soon as the Bureau for the Working Group is established.

Madam Chair,

South Africa values the importance of international cooperation and collaboration for the development of space science and technology . South Africa has put its signature on the international treaty establishing the Square Kilometre Array Observatory (SKAO) as an intergovernmental organisation tasked with building and operating the world's most powerful radio astronomy telescope. Seven countries including South Africa, Australia, China, Italy, the Netherlands, Portugal and the United Kingdom signed the SKA treaty. The new Observatory, known as SKAO is headquartered in the UK with astronomy sites in Australia and South Africa. A vital part of the effort towards building the full SKA on the African continents is the African Very Long Baseline Interferometry (VLBI) Network (AVN). The SKA AVN partners of South Africa include Botswana, Ghana, Kenya, Madagascar, Mauritius, Mozambique, Namibia and Zambia. The AVN is a network of VLBI capable radio telescopes on the African continent, which will strengthen the science that the international VLBI community can do.

The Radio Astronomy and Optical Astronomy telescopes hosted in South Africa are national landmarks and icons for science and technology in the Republic and Africa, and are an example of how international cooperation and collaboration can advance science and technology. The republic hosts the mid-frequency component of the Square Kilometre Array (SKA) telescope and Southern African Largest Telescope (SALT). The SKA is very sensitive to Radio Frequency Interference (RFI) and needs protection from surrounding radio frequency emissions (terrestrial and satellite transmissions). SALT is very sensitive to dust and light pollutions and needs protection from surrounding activities capable of producing dust and light pollutions.

To protect the astronomy observation and scientific activities, a strong legal and regulatory framework has been developed and put in place to……. in South Africa. The SALT and SKA are protected at the national level from ground-based RFI, dust and light pollution. The legislation and regulations developed at the National level are not applicable to outer space activities, which continue to cause significant interference and have negatively impact on the highly sensitive observations of the SKA and SALT.

In particular, the newly planned satellite mega-constellations in Low Earth Orbit (LEO),) will cause a significant increase in the light pollution and RFI, affecting the telescope observations in certain portions of the radio spectrum. As such, South Africa supports the conference room paper on the Recommendations to Keep Dark and Quiet Skies for Science and Technology, as presented by the International Astronomical Union. The concerns raised in the paper further emphasise the urgency of the Working Group of Long Term Sustainability of Outer Space Activities and the work before it, which South Africa has always had a keen interest on.

Madam Chair,

In response to GEO, at a national level, South Africa established the National Earth Observation and Space Secretariat- NEOSS. This body was established to enhance collaboration between all Earth observation stakeholders and promote GEO's data - sharing principles. This has demonstrated how national organizations can save costs on projects that could be shared and can discourage working in silos. To date South Africa has managed to bring together government, the private sector, academia and research institutions under one roof to assist policy makers in shaping the future of Earth observation nationally.

Madam Chair,

South Africa has in recent years made intentional investments in the development of space technology and capacity at its higher education institutions. The cubesat programme at the Cape Peninsula University of Technology (CPUT) has produced in excess of 60 Masters Graduates, and has launched two nanosatellites that are still active in space. My delegation is pleased to announce that the institution has recently completed the development of a 3-satellite constellation of cubesats that will monitor the country's exclusive economic zone. In a first for the African continent, the constellation will be launched later this year.

In another first for the continent, researchers and students at the University of KwaZulu-Natal's Aerospace Systems Research Group successfully launched two hybrid rockets as part of the Phoenix Hybrid Sounding Rocket Program. The successful launch saw one of the test rockets travel 17.9 km into the air achieving a new African hybrid rocket altitude record, a significantly huge success for South African engineering and the development of African satellite rocket launch capability. In this regard, the country requires to adopt a careful balancing act to take in consideration the preservation of the night skies.

In the EU-South Africa Space Dialogue two thematic areas, Earth Observation and Navigation were chosen as priority areas for cooperation. To this end, South Africa is also playing a leadership role in advancing the implementation of the Global Monitoring of Environment and Security (GMES) and Africa initiative, also known as the Bridging Actions for GMES (BRAGMA).

Madam Chair,

South Africa is pleased to note progress is being made towards the adoption of the remaining Guidelines on the Long-Term Sustainability of Outer Space, non-binding guidelines to promote safety, sustainability and security of activities in Outer Space. South Africa also firmly believes that the multilateral approach, within the United Nations system, to develop these guidelines is the only way forward. With this in mind, South Africa calls on all countries to actively and positively participate in the inter-sessional meetings that will take place toward the main UNCOPUOS meeting later this year.

Madam Chair,

South Africa continues to break new ground in exploring the best possible ways to ensure that space activities are conducted in accordance and in compliance with existing rules of international space law. In this respect, South Africa continues to believe that space activities should be beneficial to all humankind and contribute to prosperity and sustainable development of all nations. These activities should be governed by the rule of transparent law and the progressive development of space law to ensure a supportive and tthe peaceful use of space to the benefit of all should be ensured. In this regard, South-Africa is in process of taking its reviewed legislation through the process of government approval.

South Africa is working with the ITU BR in the implementation of the resolution R559 of WRC-19, which is to give priority in the newly opened GSO arcs to eligible administrations to replace their degraded assignments in Regions 1 and 3 Plan. The degraded assignments refer to the BSS orbital slots that their equivalent downlink protection margin (EPM) is equal to or below -10dB. We are pleased to report that our identified replacement assignment encourages us to work closely with esteemed members of this Scientific and Technical Sub-Committee of the UNCOPOUS, other space faring nations and more importantly to coordinate with affected and affecting administrations of the ITU for our mutual existence in space operations which are free from harmful interference to satellite network systems.

Madam Chair,

In closing allow me to reiterate the view that the exploration and use of Outer Space is the domain of all countries, both the established spacefaring nations, as well as the currently emerging space nations, and this principle should be one of the overarching principles that guides all the activities of the STSC and UNCOPUOS

Thank You.