



NATIONAL STATEMENT

BY THE

REPUBLIC OF SOUTH AFRICA

DELIVERED BY

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ON AGENDA ITEM 4:

GENERAL EXCHANGE OF VIEWS

57TH SESSION OF THE SCIENTIFIC AND TECHNICAL SUB-COMMITTEE

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UNITED NATIONS COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

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Madam Chair,

Having delivered the Africa Group Statement, it is with great pleasure to deliver the South African National Statement. South Africa would like to thank the Committee for the confidence it had entrusted on the former Chair, Ms. Pontsho Maruping a hard working and diligent S.A. patriot. We would also like to welcome and pledge our support to you Madam **Natalia Archinard** as the new Chairperson of this session.

Similarly, we would also like to recognize the continued excellent work and dedication by the Director of the Office of Outer Space Affairs, Ms. Simonetta Di Pippo and her professional staff, for the successful preparations for this STSC.

Madam Chair,

South Africa notes with pride that UNCOPUOS continues to grow and is now up to 95 members, and accordingly we welcome the Dominican Republic, the Republic of Rwanda and the Republic of Singapore as new UNCOPUOS member states, as well as other organisations and observers that have come on board since we last met in February 2019.

Madam Chair,

Since the last STSC meeting in 2019, South Africa has made significant strides in driving its Space Science and Technology agenda and in this regard, we are proud to highlight ongoing developments within the space sector.

This relates to the Marine Domain Awareness constellation (M.D.A. Sat) at the Cape Peninsula University of Technology (CPUT). M.D.A.Sat is a constellation of nanosatellites that will provide international maritime communications services, which will include Automatic Identification System (AIS) standard (in MDASat-1) followed by the evolving VHF Data Exchange Service standard (MDASat-2). The MDASat constellation will provide South Africa with sovereign control over its AIS and VDES

maritime data with associated improved control over data cost and access. In addition, with its flexible communications platform, MDASat will also enable various other satellite-based services for South Africa and the greater continent. The first phase of the constellation, M.D.A. Sat-1, will consist of three 2U form factor cubesat nanosatellites, each carrying a Software Defined Radio payload based on the same hardware as that in ZACUBE-2 which was launched in December 2018, but with upgraded firmware to support more of the AIS services in the VHF maritime radio frequency band.

The South African delegation is pleased to report that progress on M.D.A. Sat has passed its Preliminary Design Review with the Critical Design Review being planned in the coming months, and the launch expected to take place in January 2021.

Madam Chair,

Last year we reported that the MeerKAT telescope was successfully launched. We are pleased to indicate that this telescope has already started producing some ground breaking science. An article published in 2018 in the Astrophysical Journal presented the study of a magnetar – a star that is one of the most magnetic objects known in the universe – that awoke in 2017 from a 3-year slumber. Radio observations that could only be made with MeerKAT, an SKA precursor telescope being built in the Northern Cape province of South Africa, triggered observations with NASA X-ray telescopes orbiting the Earth. This first publication in the scientific literature of astronomical discoveries requiring the use of MeerKAT heralds its arrival into the stable of world-class research instruments.

In addition to the above, in a paper published in Nature in September 2019 – an international team of astronomers using South Africa's MeerKAT radio telescope discovered enormous balloon-like structures that tower hundreds of light-years above and below the centre of our galaxy. This impressive MeerKAT image is likely to be the first of many that will permit new insights into the workings of the cosmos. We look forward, with excitement, at the value that this instrument will bring to the scientific community globally.

Madam Chair,

Another development worth highlighting is on space weather. South Africa is proud to report that the South African National Space Agency (SANSA) has responded to the designation as an International Civil Aviation Organisation (ICAO) Regional Centre for the provision of space weather information to international air traffic by embarking on a three-year plan to expand its operational capability in space weather to address the needs of the aviation sector in Africa. We further believe that the expansion of critical capability in this important field will be useful to other sectors as we move into the fourth industrial revolution.

Our international designation is indicative of the confidence the international community has in our ability to be a global player in the space weather field. We appreciate this confidence and will utilize the designations to ensure compliant space weather information is available to our nation, our continent and our partners.

Madam Chair, distinguished delegates

My delegation is pleased to announce that we are in the process of recruiting a Research Chair in Space Weather, as part of the National Research Foundation's South African Research Chair Initiative, whose main goal is to strengthen and improve the research and innovation capacity of public universities for producing high quality postgraduate students and research and innovation outputs.

Madam Chair,

My delegation believes that initiating a national Innovation Agenda demands large capital investments, and with proper incubation and market access intentions to stimulate the economy by the creation of an ecosystem of industries that compete with various other technology-based sectors, locally and abroad. Space infrastructure supporting the Space Programme will provide such an impetus to the ecosystem of

tech-based industries in South Africa. In this light, the South African government has secured funding for the full upgrade of the national Assembly, Integration and Testing (AIT) facility. While some upgrades have been done in recent years, the additional funding injection will ensure full refurbishment of the AIT facility; will see the upgrades done to the vibration test facility, the thermal vacuum chamber, AIT clean rooms, the vibration test facility and the electromagnetic test facility; to mention a few.

Once fully refurbished, the facility will provide resources to support industry development, for use by multiple industries and not limited to the space industry. The aim is for the AIT facilities to be certified to international standards, which will allow the industry to develop technologies that can advance South Africa's national space programme.

Madam Chair, distinguished delegates

In closing, I would like to bring to the Subcommittee's attention the space science and technology events that will be hosted in South Africa in the coming year. SpaceOps 2020 will take place in Cape Town from the 18th to 22nd May 2020, and the GEO Plenary will take place in Port Elizabeth from the 2nd to the 6th of November 2020. My delegation looks forward to welcoming you all in South Africa for both these events.

I thank you
