

# STATEMENT BY THE REPUBLIC OF SOUTH AFRICA

62<sup>nd</sup> SESSION OF THE SCIENTIFIC & TECHNICAL SUB-COMMITTEE OF THE

UNITED NATIONS COMMITTEE ON THE PEACEFUL USES OF OUTER SPACE

TO BE DELIVERED BY

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AGENDA ITEM 3

GENERAL EXCHANGE OF VIEWS

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Am/pm tbc

# Chairperson,

On behalf of the South African Government, I am honoured to address this 62<sup>nd</sup> Session of the Scientific and Technical Sub-Committee (STSC) Allow me, to, congratulate, Ms Ulpia-Elena Botezatu of Romania on chairing this meeting. We are confident that under your able leadership we will achieve a successful outcome in our deliberations.

# Chairperson,

We would also like to recognize the continued commitment by the Director of the Office of Outer Space Affairs, Aarti Holla-Maini and the Secretariat for the successful preparations for this STSC.

South Africa recognises the STSC as an essential forum for the exchange of views and sharing of best practices on scientific and technical issues of outer space activities; and remains committed to international cooperation for mutually beneficial and peaceful uses of outer space.

### Chairperson

South Africa continues to make great strides in driving its Space Science and Technology agenda and we are proud to highlight ongoing developments at the University of KwaZulu-Natal's Aerospace Systems Research Group on rocket propulsion. The Aerospace Systems Research Institute (ASRI) develops hybrid rockets and liquid propellant engines, as well as on-orbit satellite thrusters.

ASRI currently holds the African altitude record for hybrid rockets, set in 2021, and is developing the South African First Integrated Rocket Engine (SAFFIRE) liquid propellant rocket engine to power an indigenous satellite launch vehicle.

On 3 December 2024, South Africa unveiled a world-class suborbital sounding rocket launch facility at the Denel Overberg Test Range (OTR) in the Western Cape.

This facility is designed to enable suborbital sounding rocket missions into high altitudes, and beyond, into low earth orbit. This gantry is a national asset that will be used to launch sub-orbital rockets built by the Aerospace Systems Research Institute (ASRI) but can also accommodate much larger solid-propellant vehicles of the type operated by space fairing nations, including other potential international clients on the continent and worldwide.

The unveiling of the National Sounding Rocket Facility is a significant step forward in realizing South Africa's vision of a vibrant and sustainable space ecosystem. This will no doubt elevate South Africa's position in global space research and inspire the next generation of space scientists, engineers, and innovators.

#### Chairperson

The University of KwaZulu-Natal (UKZN) and the University of Glasgow have initiated a new research partnership for the development of space propulsion technologies. The collaboration will improve metal additive manufacturing techniques, also called 3D printing, for rocket engine components. Both institutions have experience in designing, building and testing rocket propulsion systems.

### Chairperson

South Africa is proud to report that the Space Weather Regional Centre hosted by the South African National Space Agency (SANSA) continues to run a 24/7 operational Space Weather Centre not only issuing space weather warnings to end users but also providing space weather skills development that enable risk mitigation, empower decision- making, drive the knowledge economy, and contribute towards the development of regional capability in critical skills that improve the domestic and regional know-how while enabling a safe space and environment sustainability.

### Chairperson

My delegation believes that initiating a national Innovation Agenda demands large capital investments, and with proper incubation and market access.

Space infrastructure supporting the Space Programme will provide such an impetus to the ecosystem of tech-based industries in South Africa. For this reason, the South African government has secured funding for the full upgrade of of both the existing and new space infrastructure through the Space Infrastructure Hub (SIH).

### Chairperson

In light of the growing devastating consequences of fire disasters, South Africa has been developing a technology demonstrator mission for the detection of forest fires from low-earth orbit to provide accurate and timely early warning fire information. The envisioned operational system is achieved with a constellation of nanosatellites at low Earth Orbit, equipped with K-line camera payload to sense, detect, and report on locations of wildfires as these intensify.

The programme is working with an Unmanned Aerial Vehicle operator and will be conducting high altitude tests for the application of the technology. With regard to technology, the programme is developing payload, satellite bus and ground-based infrastructure.

### Chairperson,

South Africa emphasizes the need to ensure the long-term sustainability of outer space activities, including the safety of space operations. The LTS guidelines should

not create barriers for developing nations in conducting their own outer space activities; but rather mitigate any unintended risks through adequate capacity building as an integral part of the guidelines. We hope that the agreement on guidelines and their implementation will provide the required assurances that future generations will continue to enjoy the benefits of outer space.

In ensuring that outer space remains safe and usable for all countries, South Africa remains concerned with the increasing deliberate creation of space debris and reiterates that there should be greater responsibility of decongesting outer space through remediation. South Africa encourages countries to take common but differentiated responsibilities for the congestion. Actors responsible for creating space debris should play an active role in removal activities. They should also avail their scientific and legal expertise through cooperation agreements to countries with lower levels of space development.

South Africa recognizes the increasing significance of space applications for sustainable development and supports the convening of the UNISPACE IV Conference. This conference provides a valuable platform for addressing the evolving challenges and opportunities in space exploration, sustainability, and governance through collaboration in the rapidly expanding realm of outer space.

### Chairperson, Distinguished Delegates

In conclusion, let me reiterate our delegation's full support in ensuring the productive outcome of this session.

I thank you.