

61st SESSION OF THE SCIENTIFIC AND TECHNICAL COMMITTEE (STSC)

SOUTH AFRICA

AGENDA ITEM 7

SPACE SYSTEMS-BASED DISASTER MANAGEMENT SUPPORT

Madam Chair,

With the increase in natural and man-made disasters occurring in South Africa and the world at large over the years, space-based systems, have become significant for the management of these disasters. These space-based systems provide us with valuable earth observation data such as meteorological data, optical and Synthetic Aperture Radar (SAR) data, which we use to research and create tools that comply with South African user requirements and our National Geo-Spatial standards, further allowing us to respond much quicker to disaster management.

Madam Chair,

In South Africa, our National Space Agency, SANSA is government's primary source of earth observation data used for disaster management and supporting emergency responses. SANSA partners with other relevant government agencies, such as the South African Weather Services as well as the National Disaster Management Centre (NDMC) to undertake this ever-increasing task to save human lives. One key requirement from our users is the need for "point of flooding" warnings, indicating when and where flooding will occur and what (human settlements, infrastructure, industrial, agriculture etc.) will be flooded.

This requirement is essential as it enables better planning, decision making and disaster monitoring and management. South Africa is continuing its research to answer these questions, and to develop flood disaster early warning systems that meet our users' requirements. On the matter of fire and drought disasters, the South African Earth Observation industry has developed and operationalised fire and drought tools using space-based systems, providing alerts to users on a regular basis.

Madam Chair,

The Council for Scientific and Industrial Research (CSIR) together with the Cape Peninsula University of Technology (CPUT) will be developing a precursor fire-sat for fire disaster management. This will include the design, development and launch of a CubeSat to verify and validate fire detectability with potassium-emission-detection (K-Line) technology. This cube-sat is a precursor towards a constellation of fire-sats for near-real time fire detection and monitoring from space.

Madam Chair

South Africa appreciates programmes such as UNOOSA: UN-SPIDER, that provide us with satellite imagery and trainings on tools important for disaster management. One such tool is the Global Flood Awareness System (GLOFAS) providing hope that these space systems will enable us to reach accurate flood information-based decision-making and action.

I thank you.