

AGENDA ITEM 10

SPACE WEATHER

FEDERAL REPUBLIC OF NIGERIA

STATEMENT

BY

National Space Research and Development Agency
NASRDA, Abuja, Nigeria

February, 2023

Mr Chair,

Thank you for the privilege extended to my delegation to contribute to this agenda item.

Mr. Chair and distinguished delegates, the teeming population of Nigerians have continued to enjoy the patronage of space-dependent technologies whose functionality and efficiency are prone to space weather hazards. The National Space Research and Development Agency of Nigeria, has become a regional hub for space weather education and research in Africa. We have continued to intensify our national participation in space weather research and training activities.

Mr. Chair, Distinguished Delegates,

Since the setting up of the Optical Observation facility in Abuja, Nigeria, at a location very close to the magnetic equator in 2015 in collaboration with our partners from Nagoya University, Japan, we have steadily maintained the unique optical observation in sub-Saharan Africa up till date. Our measurements have revealed some unique features of the space environment over equatorial Africa which has improved our understanding of equatorial ionosphere. In the past 2 years, we have pioneered the use of low cost GNSS receivers in Africa in probing the ionosphere from our facility in Abuja.

Mr. Chair and distinguished delegates, Nigeria in collaboration with the Network of Space-Earth Environmentalists (NSEE), African Geophysical Society and the Institute for Space-Earth Environmental Research (ISEE), Nagoya University, Japan set up for the 4th time, the annual international

colloquium on the equatorial and low-latitude ionosphere at our Institute for Space Science and Engineering, Abuja, Nigeria between 18th and 23rd September, 2022. The colloquium brought together young researchers and graduate-course students in ionospheric and space weather Physics and policy makers with interest in space-dependent technologies. Twenty-One (21) lecturers, from nine (9) countries (Nigeria, Japan, France, Italy, USA, Austria, Uganda, India, and Norway) covered different space weather topics. A total of 87 trainees drawn from over ten (10) countries including Nigeria, Ghana, Ivory Coast, Pakistan, Italy, Brazil, Egypt, Rwanda, Kenya as well as USA attended the colloquium.

Mr Chair, Nigeria is a major player in space weather research in equatorial region. In November 2022, the Vice President of our Federal Republic of Nigeria, inaugurated the Nigerian Bowen Equatorial Aeronomy Radar system 'NigerBEAR' at the Bowen University Campus, Iwo, Nigeria, This project is a tripod cooperation between the Virginia Tech, USA; our National Space Research and Development Agency and the Bowen University. At fruition, NigerBEAR is expected to be a global infrastructure for space weather science capable of improving our understanding of the ionosphere.

Mr Chair, we have continued to sustain and improve our space weather nowcast and forecast programmes in a bid to reach out to patrons of space dependent operations in our region. We freely made our forecasts available via our webpage "<https://arcsstee.org.ng/space-weather/>"

We use this opportunity to express deep appreciation to our international partners and hope for continued collaboration for better space weather research for the benefit of humanity.

Thank you