

# SPACE BRIEF

## ROUND THE SPACE-WORLD IN TIME

2 June 2015

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Dear readers,

In the last edition of Space Brief, we reported that a Russian chemist received a patent for a method of making Planet Mars conducive for human life. In this edition, we note that the US House of Representatives has passed a bill that permits the mining of asteroids. Observable trends indicate that the international principles guiding the exploration of the 'common heritage of mankind' will change in the nearest future. Africa will not be left out of this frontier as the AU Space Working Group is finalizing the African Space Policy and Strategy. These documents are the first in a series of instruments that will formalize the African Space Programme. Similarly, in the Common African Position on the Post-2015 Development Agenda, Africa commits to the "optimal utilization of space and geospatial technologies." Efforts are on to harmonise and coordinate space programmes within the continent and in building the capacity of future space experts. Happy reading.

### SPACE POLICY AND LAW

#### AU advances Africa Space Policy and Strategy

The 6th Session of the AU Space Working Group (SWG) was held from 21-22 May, 2015, in Pretoria, South Africa. The SWG was established by the African Ministerial Conference on Science and Technology (AMCOST) to develop the African Space Policy and Strategy as the first in a series of instruments for establishing the African Space Programme.

The SWG concluded on the draft African Space Policy and Strategy documents, and began deliberation on a governance framework. The draft documents will be submitted to the AU Summit of Heads of States and Governments in January 2016 for adoption.



Participants at the end of the AU SWG meeting

Members of the SWG are space experts drawn from member-states, United Nations Economic Commission for Africa (UNECA) and space-based professional bodies. The delegation of the AUC comprised of staff from the Department of Human Resources, Science and Technology (HRST); Department of Rural Economy and Agriculture (DREA); Department of Infrastructure and Energy (DIE); Department of Peace and Security (P&S); Pan-African University (PAU); Scientific, Technical and Research Council

(STRC); New Partnership for Africa's Development (NEPAD) and the AU Office in Geneva.

#### African students participate in Space Moot competition

As part of its objective of developing, sharing and strengthening national and international space law, the International Institute of Space Law (IISL) established the Manfred Lachs Space Law Moot Court Competition in 1992. The objective of the competition is to create a platform for debate, exchange and co-operation between students, academics and space law professionals on matters of international space law. It presents a unique opportunity for African students to engage in matters of public international law of contemporary relevance to outer space, develop their legal advocacy skills, and for cultural exchange.

The 4th African Regional Round was held from 14-15 May, 2015, in Pretoria, South Africa. The 2015 competition is based on a hypothetical space law dispute before the International Court of Justice; a "Case Concerning Planetary Defense" between the Sovereign Peoples Independent Democratic Republic (applicant) and the United Republic of Adventura (respondent). The Moot Problem presents issues relating to the response to a threat to the Earth posed by the risk of collision with a Near Earth Objects (NEOs). The problem also addresses the utilization of natural resources of the celestial object, and liability for damages occasioned by the NEO.

The participating teams were from the University of Pretoria, South Africa; Mount Kenya University, Kenya; Niger Delta University, Nigeria; Obafemi Awolowo University, Nigeria; University Of Juba, South Sudan; and Makerere University, Uganda. University of Pretoria and the Obafemi Awolowo University competed at the finals, with Obafemi Awolowo University emerging as overall winner. The team also won the Best Memorial. Ms. Kaitlin Morris of the University of Pretoria won the Best Oralist.

The team from the Obafemi Awolowo University will represent Africa at the World Final scheduled to take place from 12-16 October, 2015, during the International Astronautical Congress, in Jerusalem, Israel. The team will compete with the regional winners from Asia Pacific, Europe, and North America. The World Final of the Lachs Competition has the unique tradition of being judged by three sitting members of the International Court of Justice.



Group picture with the winning team from the Obafemi Awolowo University, Ile-Ife, Nigeria displaying their trophy. From left to right: 1. Ms. Nomfuneko Majaja – Chief Director: Advanced Manufacturing, CSIR; 2. Mr. Odey John – Team Member; 3. Mr. Amuda Toheeb – Team Member; 4. Adv. (Ms.) Lulu Makapela - Regional Organizer, Africa Manfred Lach's Space Law Moot Court Competition; 5. Ms. Onashile Peace – Team Member; 6. Dr. Orifowomo, Odunola Akinwale – Team Coach/Faculty Advisor.

### US legislates for property rights in Space

The United States' House of Representatives passed a bill on 19 March, 2015, which will grant property ownership to US space companies that mine minerals from asteroids. An asteroid is an object in space which orbits the Sun but does not show the properties of known Planets. Asteroids contain rare Earth minerals which are often used for nuclear purposes. Some asteroids also contain minerals and gases that could be used to sustain human life in space.



Asteroid 243 Ida is over 53 km long. Its moon, Dactyl on the right. (Credit: Wikipedia)

The bill seeks to “promote the development of a United States commercial space resource exploration and utilization industry and to increase the exploration and utilization of resources in outer space.” It states that: “Any asteroid resources obtained in outer space are the property of the entity that obtained such resources, which shall be entitled to all property rights thereto, consistent with applicable provisions of Federal law.” The bill also empowers the US President to “promote the right of United States commercial entities to explore outer space and utilize space resources, in accordance with the existing international obligations of the United States, free from harmful interference, and to transfer or sell such resources.”

Earlier in the year, the US government had given

license to a private company called Bigelow Aerospace, which will give the company exclusive rights to a territory on the moon. Currently, the United Nations Outer Space Treaty prohibits appropriation of Outer Space, celestial bodies, and the natural resources found in them.

### AVIATION

#### Europe drives increased use of EGNOS in Africa

Delegates from the Mediterranean region in Africa and Europe met on 19 May, 2015, in Tunis, Tunisia, to explore ways of utilizing the European Geostationary Navigation Overlay Service (EGNOS) and Galileo, for the development of Intelligent Transportation Systems



(ITSs). EGNOS is a satellite system that was developed by Europe to improve the performance of the Global Positioning System (GPS), owned by the US. The primary coverage of EGNOS is Europe, but efforts are underway to extend to North Africa, and then to sub-Saharan Africa. Galileo is Europe's worldwide satellite positioning and navigation system, which has been designed to be interoperable and compatible with GPS. ITS integrates Information and Communication Technology (ICT) and the Global Navigation Satellite System (GNSS) to enable an integrated, safe, fast and comfortable transportation system.

The 1-day event with the theme: ‘Exploiting the potential of E-GNSS in non-EU countries for road regulated applications’, took place under the framework of the Euro-Mediterranean (EUROMED) partnership. Within the partnership, the EUROMED aviation project seeks to “support the cooperation between the various Mediterranean countries in the field of air transport in order to bring about a unified Euro-Mediterranean airspace over the long term.” The project is managed by the Galileo EuroMed Cooperation Office (GEMCO) in Tunis, Tunisia. African countries participating in the partnership are Algeria, Egypt, Libya, Morocco and Tunisia.

A similar programme called SAFIR (Satellite navigation services for African Region) project seeks to enhance capacity building in sub-Saharan Africa for the future expansion of EGNOS to the region. This is managed by the EGNOS Joint Programme Office (JPO), in Dakar, Senegal. Efforts are on within the African Union Commission (AUC) to coordinate space-related programmes in the continent.

### Upcoming activity

#### 58<sup>th</sup> Session of Committee on the Peaceful Uses of Outer Space (COPUOS)

11-20 June, 2015

United Nations Office at Vienna, Vienna International Center, Vienna, Austria.