



3rd IAA African Regional Conference

(Space for Africa: Joint Participation, Knowledge Development and Sharing)

Sheraton Hotel Abuja, Nigeria, November 24-26, 2009



Communiqué

Preamble

The 3rd IAA African Regional Conference tagged “Space for Africa: Joint Participation, Knowledge Development and Sharing” was held at Sheraton Hotels and Towers, Abuja, Nigeria, November 24-26, 2009. Eighty-six (86) papers were presented orally while 21 posters were displayed.

1. We the participants at this 3rd IAA African Regional Conference on space science and technology noted that:

(i). The high cost and high risk associated with space activities provide a considerable barrier for nations that are aspiring to develop independent space systems. Thus, cooperation in space knowledge generation and sharing and skill development is now the norm rather than the exception for countries in a region that share mutual borders and face common challenges, as is the case here in Africa.

(ii). In the space age of today, countries that are able to help themselves, that invest in the generation of knowledge and can contribute to innovations are often enthusiastically welcomed to interact at the research and development level with their counterparts within the space-faring and space-capable communities of the world. By its very nature, knowledge sharing strictly connotes “*give and take*”

Resolutions

2. Accordingly, we hereby resolve that African governments should:

(i) Work together to develop necessary policy, legal and regulatory frameworks that will enhance their contributions to the space enterprise;

(ii) Focus on programmes that will nurture science and technology development in each African country;

(iii) Develop indigenous broad-based scientific and technological infrastructure with relevance to space science and technology (SST) as against the trends of

wholesale technology transfer. What Africa needs now and in the future is technology development that can be deployed to address its needs.

- (iv) Commit Africa and its peoples to innovation and knowledge generation, knowledge sharing and skill development. Mastery over new sciences and technologies requires high expertise in the relevant basic sciences. Accordingly, African nations should commit themselves to the development of enabling technologies – through the revitalisation of existing national research and development institutions as well as the establishment of new ones that can participate in world-class science. Such institutions should focus on building Africa's competences in such areas as microwave and antenna systems, space applications technology including satellite systems, radar and digital electronics including computers, microprocessors and information technologies. The United Nations Regional Centres for Space Science and Technology Education in Morocco and Nigeria should contribute to the building of these competences through their research and development activities in Basic Space Sciences, Earth Observation Sciences, Information and Communications Technologies, Satellite Meteorology and Atmospheric Sciences and Global Navigation Satellite System (GNSS)

3. In order to achieve rapid space technology development in Africa, the participants noted that African countries should first embark on an effective regional collaboration among themselves. The competencies developed in the process will enhance Africa's future collaboration with other space faring and space-capable nations of the world and should contribute to Africa's progress.

4. ***Use of Africa's talents:*** Progress, as a measure of advancement, is attained in all societies through inquiring and innovative minds. That Africa has such minds in abundance is no longer in doubt. In Europe, North America, the Caribbean and in Australasia, Africans have excelled and continue to demonstrate their capabilities and competences virtually in all areas of human endeavour. With their talents, these same Africans can and would be prepared to do the same for their motherland, and work, in an enabling environment, side by side, with their compatriots in Africa, if honestly and earnestly called upon to do so.

5. **Africa's space future:** The participants also noted that today, the African Leadership Conference on Space Science and Technology (ALC) is the vehicle that is driving Africa's collective participation in space. ALC has held two space-related conferences in Abuja (2005) and in South Africa (2007); the third will be held in Algeria in December (2009).

6. These three ALC host countries are also the same entities that are in the forefront of an African Resources Management Satellite (ARMS) constellation. The ARMS programme is open to other African countries that are interested in joining the venture in the future. The goals of ARMS consist of the following:

- Generate indigenous knowledge to develop and transfer satellite technology;
- -Develop Africa's human resources by means of joint participation and knowledge sharing; and
- Provide Africa with rapid, unrestricted and affordable access to satellite data thereby ensuring effective indigenous resource management in Africa by Africans.
- The conference also noted the science and technology goals of the New Partnership for Africa's Development (NEPAD) enunciated in Nov. 2003: i.e. Harness and apply science and technology to fight poverty, improve health status, achieve environmental sustainability and industrialize; and
- Contribute to global science and innovation *through frontline research*

7. **Global space future:** The conference participants noted that African countries would need to collectively develop these competences in order that Africa could effectively participate in the GLOBAL EXPLORATION STRATEGY (GES). Fourteen (14) space fairing and space-capable countries launched the GES initiative in January 2007. According to its proponents, GES is a voluntary mechanism and its international coordination process is open to new participants. Each country will bring its own perspectives and skills and, in return, will gain access to the common knowledge and experience.

8 Under GES, globally coordinated efforts in space will include:

- Solving global challenges, such as *climate change, sustainability of the outer space environment, management of risks and dangers posed by asteroids and space debris* in space and on Earth through innovative technologies;
- Permanently extending human presence into space;
- Economic expansion and new business opportunities;
- Creating global partnerships by sharing challenging and peaceful goals, on such issues as telemedicine programmes for rural health delivery and on research activities on mitigating the impact of space weather on satellites in space and physical utilities such as power lines and oil pipelines here on Earth.

9. The conference participants also noted that the IAA would host a one-day GES Summit Meeting of the Chief Executives of Space Agencies in Washington, D. C., USA in 2010. The focus of the meeting, which will include African space organizations, is how to foster cooperation amongst these space agencies in order to achieve the objectives of GES.

10. **Africa's contributions to initiatives from abroad:** The participants expressed their appreciation for the space-related initiatives that the representatives/entities/companies from China, France, India, Japan, United Kingdom, United States and the European Space Agency presented at the

conference. Africa welcomes initiatives that can contribute to the enhancement of its capacities and capabilities. However, the participants noted that a number of these initiatives have overlooked and are still to take cognizance of Africa's budding knowledge of space science and technology. In recent times, a number of African countries, including Algeria, Egypt, Nigeria and South Africa have demonstrated their interest in the space enterprise by investing in space hardware and are becoming active in the space field. Accordingly, the participants called on the proponents of these and similar future initiatives to ensure that African countries and their growing man-power in space-related disciplines are invited to contribute to the evolution, development and design of such initiatives. Africa's development interest will be better served not only as a beneficiary of such initiatives, but more importantly as a contributor to the knowledge and skills that will eventually fuel their development and implementation.

11. **African Space Agency:** The participants deliberated on the establishment an African Space Agency (ASA). They concluded that while a vibrant ASA is a desirable goal for the development and growth of Africa, they also recognized that African countries would need to establish a firmer foundation in space-related fields before embarking on a regional space entity.

12. The participants expressed their appreciation to the on-going and committed efforts of IAA in the development and growth of space science in Africa.

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