

AFRICAN REGIONAL INSTITUTE FOR GEOSPATIAL INFORMATION SCIENCE AND TECHNOLOGY (AFRIGIST)

Under the Auspices of United Nations Economic Commission for Africa (UNECA)
Off Road 1, PMB 5545, OAU Campus, Ile-Ife, Nigeria

AFRIGIST: Background, Relevance and Impact

Fifth meeting of the Working Group on Geospatial information of the IAEG-SDGs
5 & 8 December 2018, Nairobi, Kenya



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www.afrigisrt.org



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Overview

- **Introduction**
- **Geospatial Information Science and Technology Capacity Building in Africa**
- **AFRIGIST: The Institute, Objectives, Activities and Achievements**
- **AFRIGIST FOCUS: Education, Research and Capacity Building**
- **Consultancy Activities: RECTAS Consult**
- **Innovative Collaborations and Partnerships**



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Introduction: Societal Challenges in Africa



Desertification and Land degradation



Climate change - flood



Soil erosion



Food security



Refugee camp



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Societal Challenges in Africa Contd.: Suicide attack on the UN building in Abuja, Nigeria on Friday 26 August 2011



Photograph: Henry Chukwuedo/AFP/Getty Images (<http://www.guardian.co.uk/world/2011/aug/26/nigeria-attack-islamists-claim-responsibility>)



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UN's Deputy Sec-Gen Asha-Rose Migiro visits victims of the blast in Abuja: August 28, 2011



REUTERS/Rebecca Blackwell/Pool

<http://af.reuters.com/article/newsOne/idAFTRE77R1AD20110828?sp=true>



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Introduction Contd.

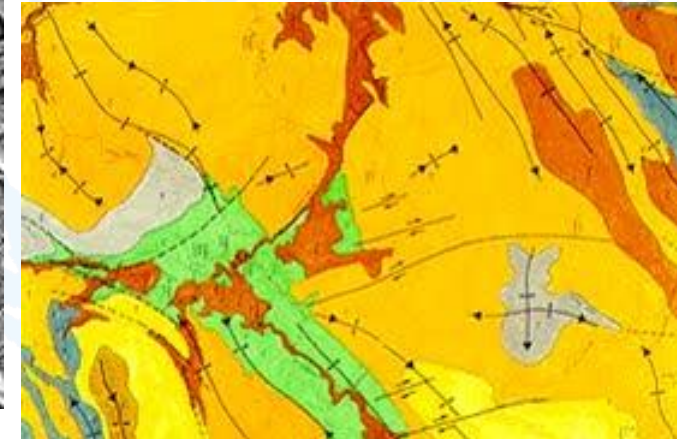
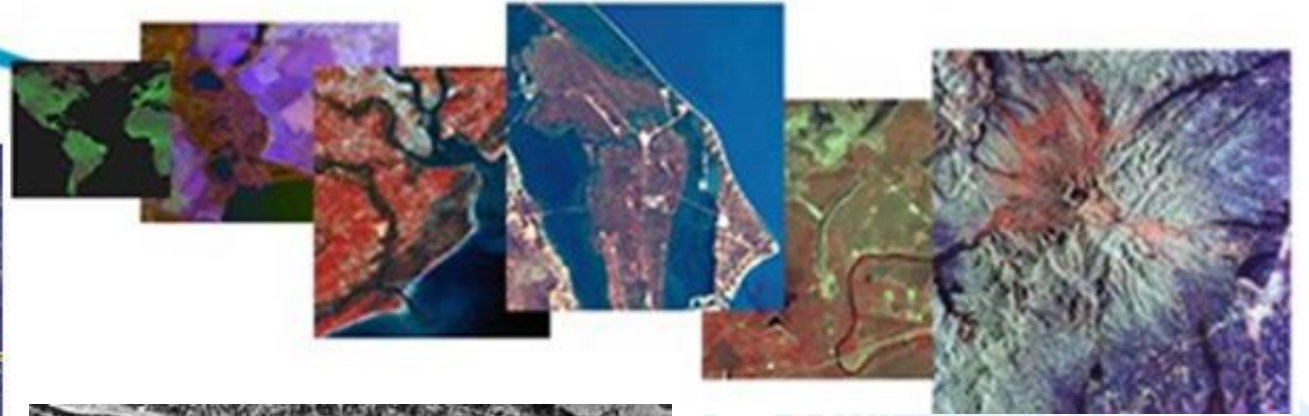
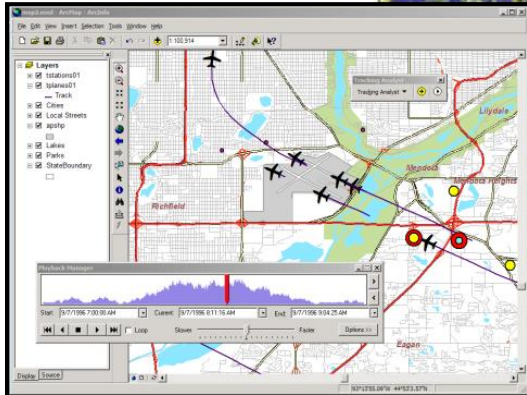
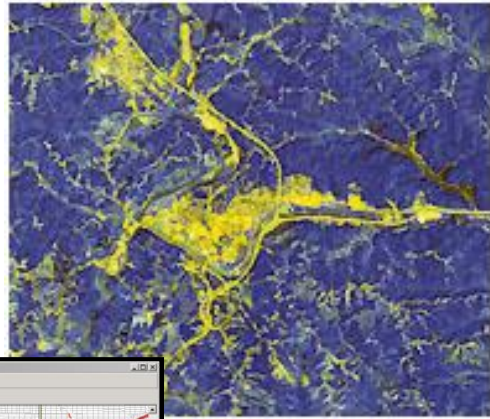
➤ *Geospatial solution*

- Trend and continued advances in space-based and related technologies.
- Need for integrated multidisciplinary approaches, including the use of Earth Observation data and Geospatial Technology
 - reliable, accurate and relevant information and services when and where needed.
- Thus the need to build the capacity of African professionals in space-based technologies and geospatial information science and technology to address the societal challenges.



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Geospatial Solutions





Geospatial Capacity Building in Africa: AFRIGIST's Mandate

- The capacity of African professionals in the use of Geospatial data and information has remained very low for a long time.
- In order to fill the geospatial capacity building gaps, the African Regional Institute for Geospatial Information Science and Technology (AFRIGIST) is well poised to “**position geospatial information science and technology to address societal challenges in Africa**”.



AFRICAN REGIONAL INSTITUTE FOR GEOSPATIAL INFORMATION SCIENCE AND TECHNOLOGY (AFRIGIST)

**Formerly Regional Centre for Training in Aerospace Surveys (RECTAS)
Established in October 1972**





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The Institute

- **The institution's name The Regional Centre for Training in Aerospace Surveys (RECTAS) was changed in July 2016 to African Regional Institute for Geospatial Information Science and Technology (AFRIGIST) by the Governing Council .**
- **The Institute is located within the campus of Obafemi Awolowo University, Ile-Ife, Osun State, Nigeria. It is bilingual (English and French).**



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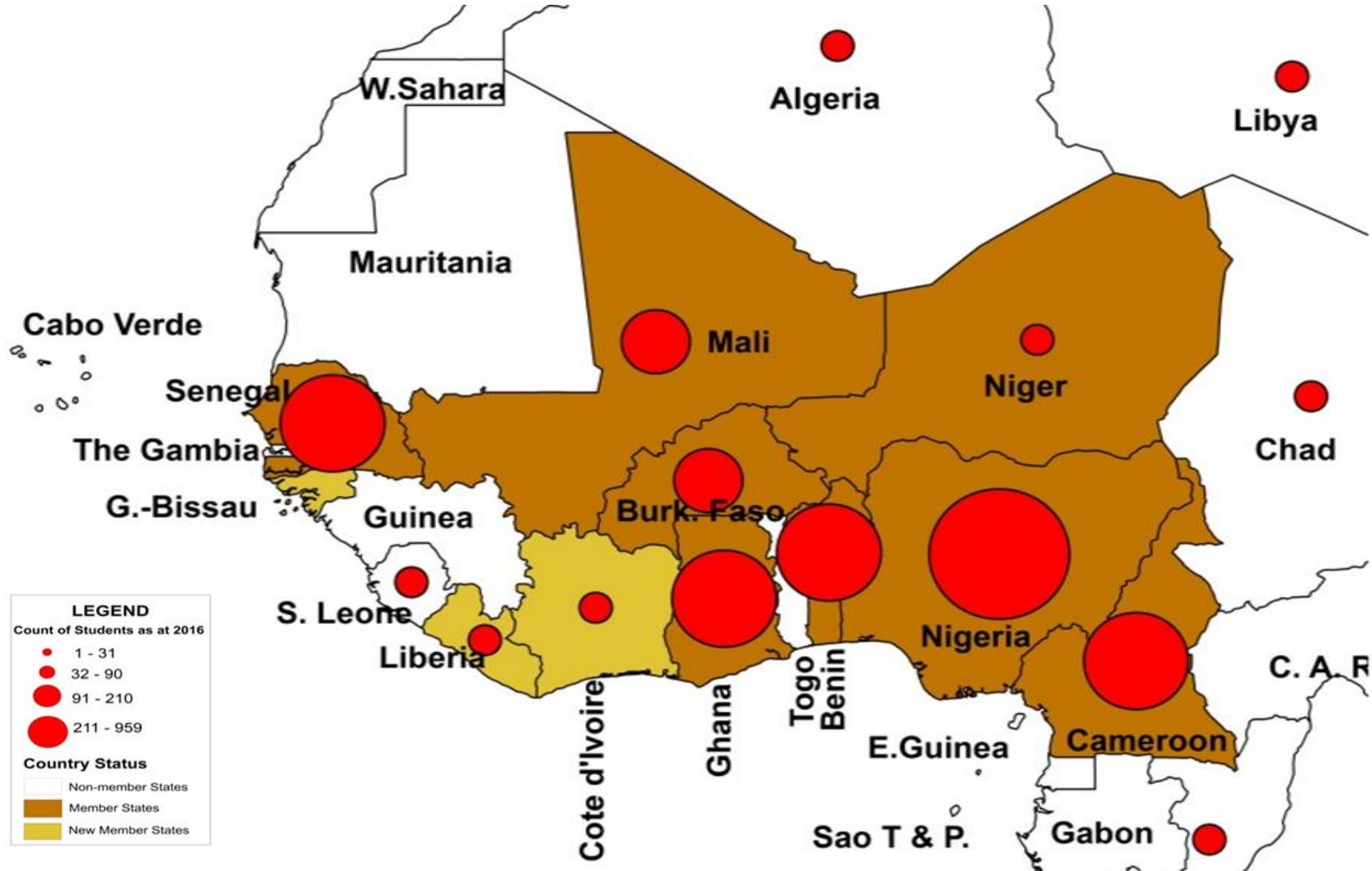
The Institute Contd.

- **The participating countries at the moment are eight (8) namely: Benin Republic, Burkina Faso, Cameroon, Ghana, Mali, Niger, Nigeria (Host Country) and Senegal.**
- **Three new countries (Cote-d'Ivoire, Guinea Bissau and Liberia) recently showed interest to join the Institute as member states. The three countries were represented at the 49th Governing Council meeting of the Institute in July 2017.**



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Member States



BENIN



BURKINA



CAMEROON



COTE-D'IVOIRE



GHANA



GUINEA-BISSAU



LIBERIA



MALI



NIGER



NIGERIA



SENEGAL



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Vision of AFRIGIST

To be a leading *Institution of Excellence* providing one-stop solution for quality geospatial information science and technology training, education and research to generate critical capacity for sustainable development in Africa.



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Mission of AFRIGIST

To contribute to rapid development of member states in particular and Africa in general, through capacity building for timely delivery and responsible use of appropriate geospatial information.





Objectives of the Institute

- (i) provide theoretical and practical **education, research and training** in the field of Geospatial Information Science and Technology including in particular photogrammetry, remote sensing, cartography and geographic information systems and their applications.
- (ii) conduct **conferences, seminars, workshops, refresher courses and short term courses.**
- (iii) carry out **studies and research** in the field of Geospatial Information Science and Technology
- (iv) provide **consultancy and advisory** services in geospatial data and information production, management and dissemination.



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ACTIVITIES & ACHIEVEMENTS





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Education and Training at AFRIGIST

The Academic innovations are being implemented as long term courses under 3 Academic departments

- ✎ - **Photogrammetry & Remote Sensing (PRS)**
- ✎ - **Geographic Information Science (GIS)**
- ✎ - **Cartography (CAR)**

Short term capacity building programmes are run under the **Consultancy Services Unit**



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Academic Programmes

Programme	Duration
• Technologist Diploma (TD) in Geo-information production and management. (French and English)	18 months
• Postgraduate Diploma (PGD) in Geo-information Production and Management (Specialisation: Remote Sensing, Photogrammetry, Geographic Information Science) (French and English)	12 months
• Professional Master (PM) in Geo-information Production and Management.(Specialization: Remote Sensing, Photogrammetry, Geographic Information Systems) (French and English)	12 months
• Master in Geo-information Technology (MGIT) in collaboration with Federal University of Technology, Akure (FUTA) (English)	18 months
• Master of Science in Geo-information Science (M Sc. GIS) in collaboration with University of Abomey Calavi. (French)	18 months
• Professional Masters in Geo-spatial information Science and Land Administration (French and English)	12 months
• Masters of Science (M. Sc.) in Geo-information production and management (English and French)	18 months
• PhD in Geospatial Information Science and Technology (French and English)	3 years



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AFRIGIST: Education and Capacity Building

- **AREAS OF APPLICATIONS**

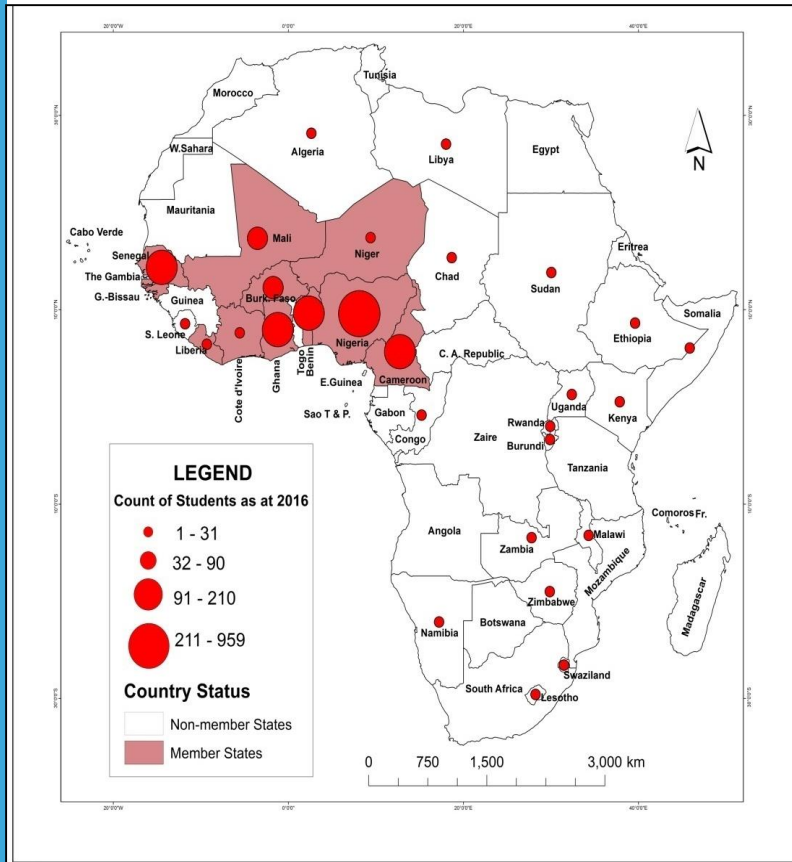
- Topographic mapping
- Land Administration and Land Resource Management
- Natural Resource and environmental management.
- Hydrology & Water Resource management
- Meteorology & Climate Change
- Soil Survey & Agricultural management.
- Health & Social Development
- Disaster management, Crime Mapping, Peace & Security
- Military intelligence
- Etc.





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Critical Capacity Building in Africa



Graduating Students



Handing over of AWARD by the Executive Director



Management Staff with the Governing Council Members



AFRIGIST-ITC Refresher course participants

- AFRIGIST has trained about 3,500 students from 28 African countries



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Major Strengths

- CAMES Accreditation
- Collaboration with Universities
- Support from governments of member states and UNECA
- Strong support by the government of the host country (Nigeria) , with diplomatic accreditation
- Bilingual Institute (English and French)
- Well trained and highly qualified staff members and adjunct professors
- Adequate and state-of-the art training facilities





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Research Focus

AFRIGIST has put in place research groups focusing on the following themes:

1. Governance and Land administration
2. Public health and Epidemiology
3. Environment and Climate change
4. Ecology and Biodiversity
5. Hydrology and Water Resources Management
6. Peace, Security and Disaster Management
7. Urban Planning and Management
8. Agriculture and Food Security





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The AFREF Initiative

- The African Geodetic Reference Frame (AFREF) is conceived as a unified geodetic reference frame for Africa.
- Fundamental basis for the national three-dimensional reference networks fully consistent and homogeneous with the International Terrestrial Reference Frame (ITRF).
- AFRIGIST is the secretariat for WAFREF (West Africa Reference Frame)

AFREF Station





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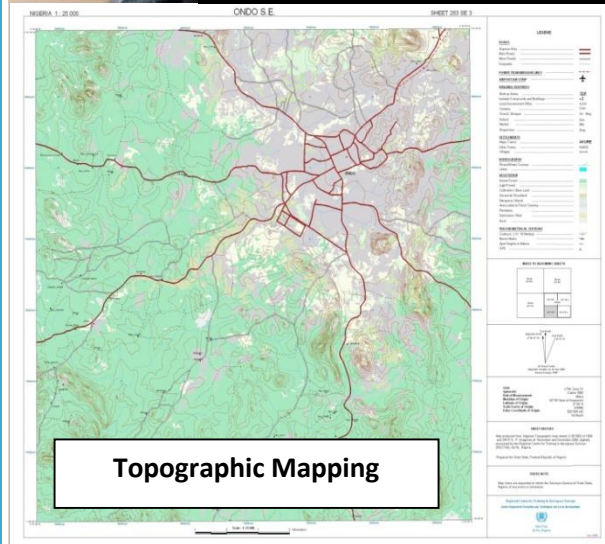
Consultancy Activities

AFRIGIST, through its consultancy outfit “**RECTAS Consult**” has executed various advisory and consulting services including:

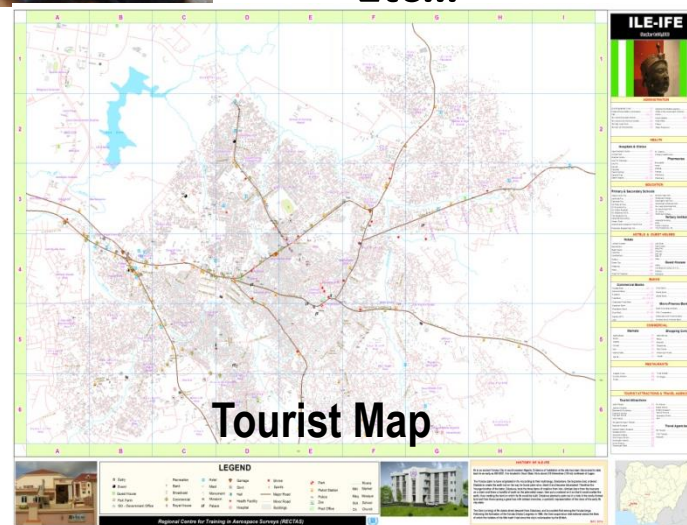
- **Short term courses**
- **Execution of various mapping related projects**
- **Supply, installation and maintenance of instruments/equipment**
- **Supply of satellites imageries**
- **Etc...**



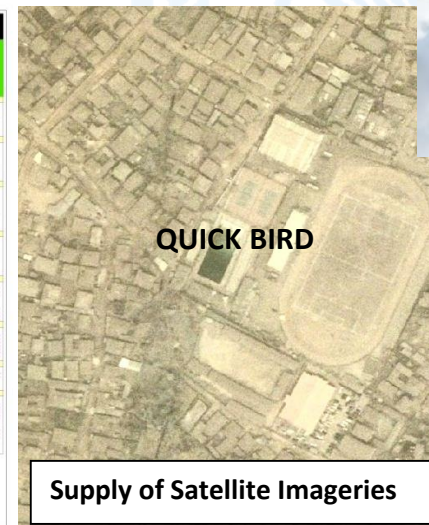
Short Term Course



Topographic Mapping

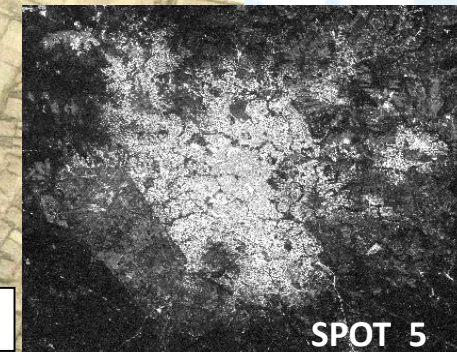


Tourist Map



QUICK BIRD

Supply of Satellite Imageries

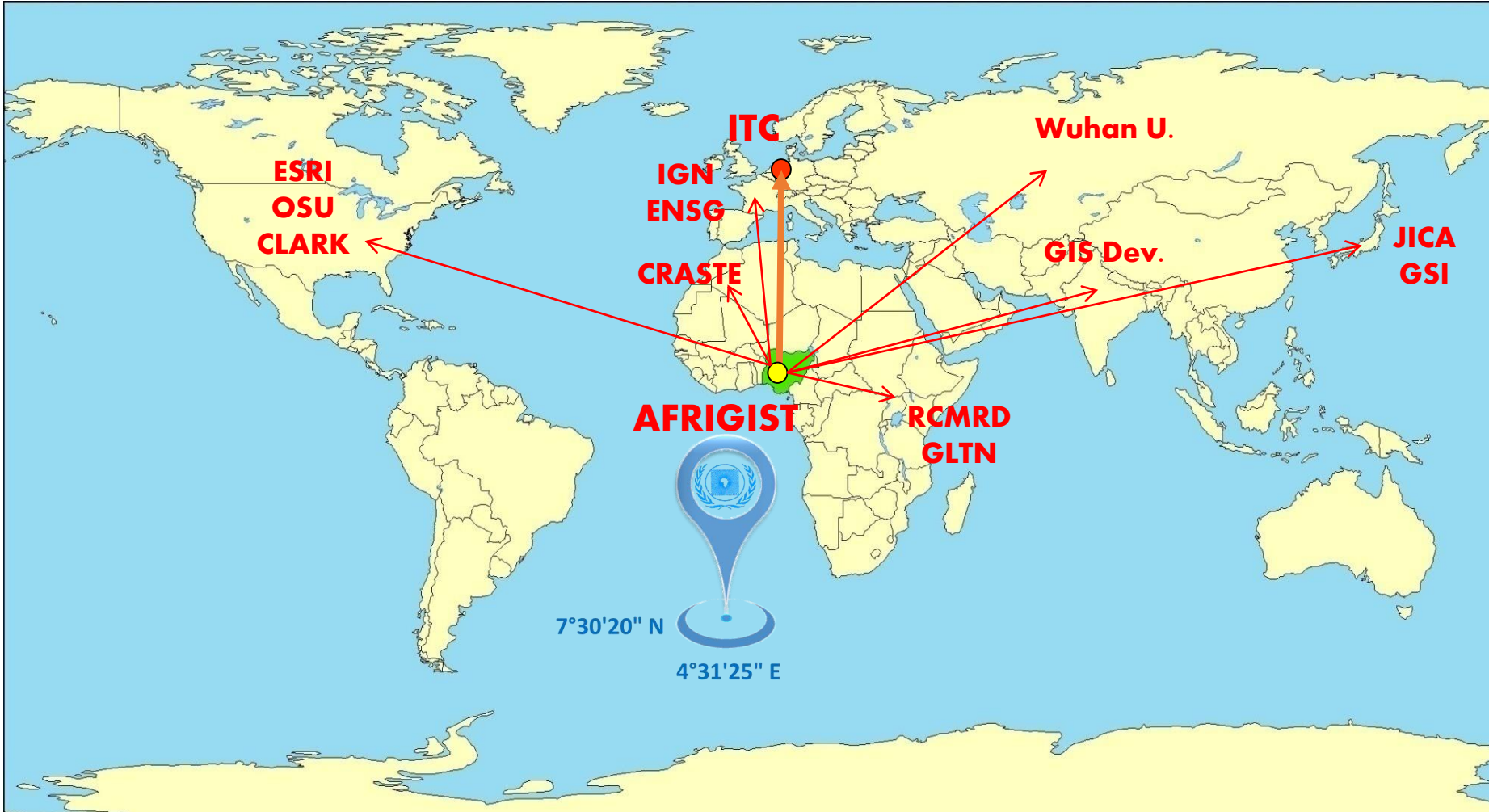


SPOT 5



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Collaborations and Partnership





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Contact



7°30'20" N

4°31'25" E

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THANK YOU

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