

# REPORT ON THE 2014 AFRICAN GEOPHYSICAL SOCIETY CONFERENCE,

# DATE: 2<sup>nd</sup> -6<sup>th</sup> of JUNE, 2014

National Space Research and Development Agency, Abuja, Nigeria

www.afgps.org

# Hosted By:

The Centre for Atmospheric Research, National Space Research and Development Agency, Federal Ministry of Science and Technology, Anyigba, Nigeria

# Supported by

<text>

Group photograph of a section of the participants taken after the award of fellowship on day 2

of AGS 2 - 4 June 2014 Abuja, Nigeria

#### **BACKGROUND INFORMATION**

African scientists working in the fields of relevance to Earth, Planetary and Space Sciences have come together to establish a continental wide Society known as African Geophysical Society AGS. The Society is a dynamic, innovative, and interdisciplinary scientific association committed to the pursuit of understanding of Earth and Space for the benefit of mankind. Establishment of AGS demonstrates that scientific research and administration can be effectively carried out by Africans within the region, in cooperation with other sister regional bodies, in order to achieve sustainable manpower development and effective utilization of human resources towards scientific development of the region.

The first congress of the African Geophysical Society took place on Thursday 15<sup>th</sup> November 2012 during the first Chapman Conference on Space Weather in Africa organized by the American Geophysical Union AGU which held at Addis Ababa, Ethiopia. The fundamental objectives of AGS are to: (i) Promote the study of the Earth, other planets and Space; and their environments in Africa, (ii) Promote cooperation between scientists and among scientific organizations involved in geophysics and related disciplines, (iii) Initiate and participate in research programs in Earth sciences, space science and related disciplines, (iv) Advance the various relevant disciplines through scientific discussion, publication, and dissemination of information and (v) Encourage programmes and research in geophysics, space science and other related disciplines that will advance economy development and sustainable growth in the African region.

This 1<sup>st</sup> Annual Conference of AGS was hosted by the Centre for Atmospheric Research of the National Space Research and Development Agency whose office is located in Anyigba, Central Nigeria. The Conference benefited from support of the Japan Society for the Promotion of Science, Solar-Terrestrial Environment Laboratory, Nagoya University, Japan, Scientific Committee on Solar Terrestrial Physics SCOSTEP; and SCOSTEP's Variability of the Sun and Its Terrestrial Impact VarSITI program.

#### **VENUE AND DATES**

The conference held between 2<sup>nd</sup> and 6<sup>th</sup> June 2014 at the Senator Robert Ajayi Boroffice Multipurpose Conference Centre, National Space Research and Development Agency, Km 17 Umaru Musa Y'ardua Expressway, ABUJA, NIGERIA. Opening programme and all technical sessions including poster session took place within various halls/rooms reserved within the Multipurpose Conference Centre.

### **ARRIVAL AND REGISTRATION:**

Participants started arriving at the conference venue on Monday, 2nd June 2014 and registration commenced promptly as participants arrived.

#### THE PROGRAMME

The program started at 09:00 am on Tuesday, 3<sup>rd</sup> June of 2014 [see Appendix 1]. The conference commenced with an opening ceremony featuring the citation of the Nigerian national anthem. The Chairperson of the opening session, Professor A. Y, B. Anifowose, gave

the opening remark; which was followed by the welcome address delivered by Professor S. O. Mohammed, Director General / CEO of the Nigerian National Space Research and Development Agency NASRDA who also double as the chief host of the 2014 AGS conference [see Appendix 2]. Professor Babatunde Rabiu read the presidential address where he gave the chronology of the AGS and details of the achievement recorded so far [see Appendix 3]. Goodwill messages were delivered by Professor Jacob Adeniyi (Nigeria), Professor Paul Baki (Kenya), Prof I. A. Fuwape (Nigeria, by Professor A. Y. B. Anifowose), Anifowose and representatives of the Nigerian Chief of Air Staff of the Nigerian Air Force, Defence Headquarters who happened to be the Chief Guest of honour.

The sole Plenary paper titled "Planetary ionospheres and its effects on radio-propagation", was delivered by Professor Sandro.M. Radicella of the Abdus Salam International Centre for Theoretical Physics, Trieste, Italy. The Co-chair of the program committee, Dr E.O. Falayi, highlighted the program logistics. The program was brought to a close with a Closing remark from the chairperson and a closing prayer.

The activities executed in the conference followed the structured program in Appendix 4. These activities featured oral technical and poster sessions as well as Annual general Meeting of AGS. Comprehensive reports of the day-to-day activities, plenary sessions and technical sessions are detailed in the rapporteur's report tagged Appendix 5.

Annual general Meeting of AGS took place in the afternoon on the first day. One of the fall outs of the meeting was the adoption of the reviewed version of the AGS Constitution, after much comprehensive deliberation coordinated by the chairperson of the Constitution Review Committee, Professor Paul Baki.

Specifically, Day 2 of the conference started with a presentation of the award of fellowship which is the highest honour of AGS to the following six distinguished scientists in recognition of their great contributions to the development of earth and Space Science in Africa:

- 1. Prof. Cyril A. Onwumechili (Nigeria) University of Ibadan, University of Ile-Ife and University of Nigeria, Nsukka, NIGERIA
- 2. Prof. Sandro M. Radicella (Argentina/Italy) Abdus Salam International Centre for Theoretical Physics, Trieste, Italy
- 3. Prof. Kiyohumi Yumoto (Japan) International Centre for Space Weather Science and Education, Kyushu University, Fukuoka, Japan
- 4. Prof. Ousseini Fambitakoye (France, Post Humus), Laboratoire de Géophysique, ORSTOM, Bondy Cedex, France
- 5. Prof. Patricia H. Doherty (USA) Institute for Scientific Research, Boston College, USA
- 6. Dr. Endawoke Yizengaw (Ethiopia/USA) Institute for Scientific Research, Boston College, USA.

The last day of the conference witnessed presentation of certificates to participants by combination of Professors Paul Baki (Kenya), Olivier Obrou (Cote d'Ivoire) and Babatunde Rabiu (Nigeria). A sample of the certificate is attached as Appendix 6. The conference was brought to a close with a dinner on Thursday 5<sup>th</sup> June, 2014

### CLASSIFICATION OF TECHNICAL SESSIONS

A001: Ionospheric Dynamics, Equatorial ionosphere and Near Equatorial Orbits A002: GNSS, Space Weather and VarSITI A003: Ocean & Solid Earth Sciences A004: Atmospheric Science

A005: Solar and Terrestrial Physics

A006: Coupled Solar Wind - Magnetosphere - Ionosphere - Thermosphere System

### PLENARY SPEAKERS

- i. Professor Sandro. M. Radicella Planetary ionospheres and its effects on radio-propagation
- ii. Professor Babatunde Rabiu Space Weather Science in Africa: Peculiarities, Observations and Scientific Results 2006-2014
- iii. Dr Akimasa Yoshikawa- Research and capacity building activities at the International Centre for Space Weather Science and Education
- iv. Professor O. K. Obrou Fundamentals of Equatorial Ionosphere
- v. Dr Elijah O. Oyeyemi African Contributions to the Development of IRI: Implication for African Space Science
- vi. Dr Olawale S. Bolaji Interplay between the equatorial electrojet and the dynamics of the equatorial ionospheric anomaly: Call for intensive collaborative research
- vii. Dr Shaba Halilu Space Science Collaboration: A case of remote sensing in Nigeria.

# **SUMMARY OF PARTICIPATION:**

Eighty two (82) of the 121 invited participants attended the 1<sup>st</sup> AGS conference from 11 African Countries, UK, Japan, and India. 68 papers were presented as follows: 7 plenary papers; 37 orals and 24 posters.

# **COUNTRIES OF PARTICIPANTS:**

- 1. Ghana
- 2. Uganda
- 3. Kenya
- 4. Ethiopia
- 5. Nigeria
- 6. Cote d'Ivoire
- 7. United Kingdom
- 8. Japan
- 9. India

### SPONSORSHIP

Japan Society for the Promotion of Science, Solar-Terrestrial Environment Laboratory, Variability of the Sun and Its Terrestrial Impact VarSITI and Scientific Committee on Solar Terrestrial Physics SCOSTEP provided full travel funds for some Africans from their resident countries to Nigeria. The Centre for Atmospheric Research of the Nigerian National Space Research and Development Agency NASRDA hosted the meeting and provided accommodation, feeding, and took care of all the logistics for the meeting. CAR was also responsible for the provision of the conference materials. NASRDA thus provided the bulk of the support for this meeting.

#### **DEPARTURE:**

Participants departed to their various destinations on 6<sup>th</sup> June, 2014.

#### **PROGRAM COMMITTEE**

Professor Olivier Obrou (Cote d'Ivoire) Dr. Elijah O. Falayi (Nigeria) Gbenga Ogunmodimu (UK) Dr. Olawale S. Bolaji (Nigeria) Ms Ronke Obafaye (Nigeria) Professor Babatunde Rabiu (Nigeria)

#### LIST OF APPENDICES

Appendix 1: Program Appendix 2: Chief host address Appendix 3: Presidential address Appendix 4: Schedule of Activities Appendix 5: A copy of the certificate of participation Appendix 6: Photo Speaks





2014 African Geophysical Society Conference



www.afgps.org

- Date: 2 6 June 2014
- Venue: Senator Robert Ajayi Boroffice Multipurpose Conference Centre, National Space Research and Development Agency, Km 17 Umaru **Musa Y'ardua Expressway, ABUJA,** NIGERIA



# 1. <u>Summary of Activities</u>

2<sup>nd</sup> June 2014: Arrival/Registration 3-5<sup>th</sup> June 2014: 8:30-17:00 daily; Plenary, technical and poster viewing sessions; sectional meetings and AGM

6<sup>th</sup> June 2014: Departure

# 2. <u>Session Classifications</u>

A001: Ionospheric Dynamics, Equatorial ionosphere and Near Equatorial Orbits

A002: GNSS, Space Weather and VarSITI

A003: Ocean & Solid Earth Sciences

A004: Atmospheric Science

A005: Solar and Terrestrial Physics

A006: Coupled Solar Wind – Magnetosphere – Ionosphere - Thermosphere System

# 3. Announcement

- i. Registration is compulsory for participation in the conference. Participants with registration fee waivers need not pay at the desk, but should complete other registration formalities. However, participants without prior support should pay registration fees at the desk. Registration Fees shall cover provision of conference items as well as soft snacks and refreshments during break sessions. Kindly adhere with this requirement.
- ii. Orals presentation are assigned 15 minutes with 5 minutes question time inclusive.
- Posters are to be displayed throughout the day starting from 8:30 am to 5:00 pm at designated billboards within the conference arena. Any poster not removed by 8:30 am the following day will be considered good enough for trash can. Participants are to stand by their posters during break time and special designated time allotted for poster viewing.
- iv. Be polite enough to wear your Conference tag throughout the meeting

# 4. Book of abstracts

Download the e-copy of the book of abstracts at www.afgps.org

# 5. <u>Plenary Speakers</u>

2014-PP-001: Professor Sandro. M. Radicella - Planetary ionospheres and its effects on radio-propagation 2014-PP-002: Professor Babatunde Rabiu - Space Weather Science in Africa: Peculiarities, Observations and Scientific Results 2006-2014

- 2014-PP-003: Dr Akimasa Yoshikawa- Research and capacity building activities at the International Centre for Space Weather Science and Education
- 2014-PP-004: Professor O. K. Obrou Fundamentals of Equatorial Ionosphere

- 2014-PP-005: Dr Elijah O. Oyeyemi African Contributions to the Development of IRI: Implication for African Space Science
- 2014-PP-006: Dr Olawale S. Bolaji Interplay between the equatorial electrojet and the dynamics of the equatorial ionospheric anomaly: Call for intensive collaborative research
- 2014-PP-007: Dr Shaba Halilu Space Science Collaboration: A case of remote sensing in Nigeria.

# 6. 2014 Fellows of the African Geophysical Society FAGS

- i. Prof. Cyril A. Onwumechili (Nigeria) University of Ibadan, University of Ile-Ife and University of Nigeria, Nsukka, NIGERIA
- ii. Prof. Sandro M. Radicella (Argentina/Italy) Abdus Salam International Centre for Theoretical Physics, Trieste, Italy
- iii. Prof. Kiyohumi Yumoto (Japan) International Centre for Space Weather Science and Education, Kyushu University, Fukuoka, Japan
- iv. Prof. Ousseini Fambitakoye (France, Post Humus), Laboratoire de Géophysique, ORSTOM, Bondy Cedex, France
- v. Prof. Patricia H. Doherty (USA) Institute for Scientific Research, Boston College, USA
- vi. Dr. Endawoke Yizengaw (Ethiopia/USA) Institute for Scientific Research, Boston College, USA.

# 7. Opening Program

Opening Session 9:00 – 10:30 am

- (i) Opening Prayer
- (ii) National Anthem
- (iii) Opening Remarks by Chairman
- (iv) Welcome Address by the Chief Host, Director General NASRDA
- (v) Presidential Address
- (vi) Goodwill messages
- (vii) Plenary Papers 1 & 2
- (viii) Logistics by Chair, Program Committee
- (ix) Closing Remarks
- (x) Vote of Thanks
- (xi) Closing Prayer
- (xii) National Anthem
- (xiii) Group Photograph
- (xiv) Coffee Break

### APPENDIX 2: WELCOME ADDRESS BY PROF. SEIDU ONAILO MOHAMMED, DIRECTOR-GENERAL, NATIONAL SPACE RESEARCH AND DEVELOPMENT AGENCY (NASRDA), AT THE OPENING CEREMONY OF THE 1st AFRICAN GEOPHYSICAL SOCIETY CONFERENCE (AGS) TUESDAY, 3RD JUNE, 2014 AT THE NATIONAL SPACE RESEARCH AND DEVELOPMENT AGENCY HEADQUARTERS, ABUJA, NIGERIA.

# Protocols

It is with great delight that I welcome you all to the Maiden edition of the African Geophysical Society's Conference starting from today 3rd June 2014 at NASRDA Headquarters Abuja, Nigeria. We are indeed very proud to have played host to you colleagues from around our continent and beyond.

This event could not have come at any better time than this and has underscore our readiness to keep taking giant strides in ensuring that we build a more robust society that could only evolve by the application of science. With respect to Space science and its application, it is heart-warming to see the successes that we have made as a continent especially in the last decade. We have moved from technology transfer from the west to developing major innovative strategies.

Nigerian Government through NASRDA is prepared to ensure that resolutions reached at this conference are implemented worldwide. Nigeria for instance, is presently pursuing implementation of a pragmatic space agenda which has so far resulted into the launch of its first Earth Observation micro-satellite NigeriaSat-1 in September 2003, the first pan African Communication Satellite NIGCOMSAT-1 in May, 2007 and its orbiting 2 Earth Observation High Resolution Satellites, NigeriaSat-2 and NigeriaSat-X

Distinguished Ladies and Gentlemen, I welcome you once again to Abuja and I hope you would take out time to enjoy her unique African hospitality. I wish you fruitful deliberations.

Thank you for your attention.



# TEXT OF PRESIDENTIAL ADDRESS DELIVERED BY PROFESSOR BABATUNDE RABIU AT THE OPENING OF THE 1<sup>st</sup> ANNUAL CONFERENCE OF THE AFRICAN GEOPHYSICAL SOCIETY, ABUJA, 3<sup>RD</sup> JUNE 2014

# Protocols

**It's** with great delight that I welcome everyone to this maiden annual conference of the African Geophysical Society. **It's a new dawn in Africa as we gather** here in the beautiful city of Abuja, Nigeria, in this historic conference that marks another giant stride in our collective quest to establishing a sustainable Continental-wide Society. The Society is a dynamic, innovative, and interdisciplinary scientific association committed to the pursuit of understanding of Earth and Space for the benefit of mankind. The Society seeks to forge international cooperation among its members working in fields of relevance to Earth and Space Sciences in order to achieve sustainable manpower development and effective utilization of human resources towards scientific development of the region.

Establishing a continental society of this nature had been an age-long dream as several generations of our senior scientists had attempted to get this done. They had one time or the other tried to bring Africans together in a forum like this. Unfortunately, they were limited in space and connectivity was not as efficient as it is nowadays. Thanks to the labours of our past scientific heroes and inventors, modern technology has made us overcome the barriers; and here we are today meeting for the second time as continental body fostering common cause in Earth and Space sciences. The effort that gave birth to the present AGS started building up in 2008. The Steering Committee that brought the Society through the formative period consisted of Professors Babatunde Rabiu (Nigeria), Baylie Damtie (Ethiopia), Victor Chukwuma (Nigeria) and Olivier Obrou (Cote-**d'I**voire). The electoral committee that saw to the successful conduct of the election during the first congress was made up of two members: Prof. Jacob O. Adeniyi (Nigeria) and Dr. Endawoke Yizengaw (Ethiopia)

The first congress of the African Geophysical Society took place during the first Chapman Conference on Space Weather in Africa organized by the American Geophysical Union AGU which held between 12<sup>th</sup> and 16<sup>th</sup> November 2012 at Addis Ababa, Ethiopia. The venue of the maiden Chapman conference on Space weather was the Conference Center of the United Nations Economic Commission for Africa (ECA), Addis Ababa, Ethiopia. The first congress of AGS took place on Thursday 15<sup>th</sup> November 2012 and the following officers were elected to lead the continental Society: *Treasurer - Professor Olivier Obrou (Cote d'Ivoire), Assistant Treasurer – Dr. Florence D'Ujanga (Uganda), Secretary General . Dr. Solomon Belay (Ethiopia), Assistant Secretary General - Dr. Mbane Cesar (Cameroon), Vice President - Professor Ayman Mahrous (Egypt), President – Professor Babatunde Rabiu (Nigeria)* 

The fundamental objectives of AGS are to: (i) Promote the study of the Earth, other planets and Space; and their environments in Africa, (ii) Promote cooperation between scientists and among scientific organizations involved in geophysics and related disciplines, (iii) Initiate and participate in research programs in Earth sciences, space science and related disciplines, (iv) Advance the various relevant disciplines through scientific discussion, publication, and dissemination of information and (v) Encourage programmes and research in geophysics, space science and other related disciplines that will advance economy development and sustainable growth in the African region.

AGS has many sections which reflect the fields of relevance to the Society, viz: Solid Earth geophysics, geochemistry, biogeosciences; *Science* (geology, geodesy, Atmospheric Science (Small scale and local wind systems, air pollution, mesoscale processes, global wind systems, cyclones, weather forecasting, atmospheric chemistry, global climate and its change, meteorology); Ocean Science (Estuarine and costal oceanography, ocean circulation, marine biogeochemistry, paleoceanography, marine geology, and atmosphere-ocean coupling; Astronomy and Planetary Science (interior, surface, magnetosphere, ionosphere, and upper atmosphere of solar system bodies other than earth, cosmology); Solar and Terrestrial Science (Sun, interplanetary medium, heliosphere, the magnetosphere, ionosphere, and upper atmosphere of planet earth, space weather) Hydrological Science (Hydrometeorology, Surface Water Hydrology, Ground Water Hydrology, Water Resources Planning and Management, Hydroinformatics).

AGS is at present forging strong partnership with other regional and academic societies of equivalent objectives viz: American Geophysical Union AGU, Asia-Oceania Geosciences Society AOGS, European Geosciences Union EGU, International Union of Geodesy and Geomagnetism IUGG, Royal Astronomical Society, URSI, WMO, Japan Geosciences Union JpGU, etc. Our plight as African Scientists living in Africa is receiving attention of established groups like AGU. For instance at the 2013 fall AGU meeting in San Francisco, Prof Sunanda Basu of Boston University sought for the establishment of an Early Career award for Africans and some other incentives were considered to encourage participation of African-based scientists in meetings of AGU. Also, recently, the AGU granted open-access status to all her journal publications such as JGR, GRL etc

Membership of AGS, which is not restricted to individuals of African origin, consists of persons who are professionally engaged in or associated with studies of Earth and Space sciences. Interested scientists can visit <u>www.afgps.org</u> to complete available free online membership form. Interested persons could also contact: <u>membership@afgps.org</u>

In this maiden conference, 6 distinguished scientists have been selected for the award of fellowship which is the highest honour of our budding society for their great contributions to the development of earth and Space Science in Africa. They are:

1. Prof. Cyril A. Onwumechili (Nigeria) – University of Ibadan, University of Ile-Ife and University of Nigeria, Nsukka, NIGERIA

- 2. Prof. Sandro M. Radicella (Argentina/Italy) Abdus Salam International Centre for Theoretical Physics, Trieste, Italy
- 3. Prof. Kiyohumi Yumoto (Japan) International Centre for Space Weather Science and Education, Kyushu University, Fukuoka, Japan
- 4. Prof. Ousseini Fambitakoye (France, Post Humus), Laboratoire de Géophysique, ORSTOM, Bondy Cedex, France
- 5. Prof. Patricia H. Doherty (USA) Institute for Scientific Research, Boston College, USA
- 6. Dr. Endawoke Yizengaw (Ethiopia/USA) Institute for Scientific Research, Boston College, USA.

Incidentally, our cream of foundation fellows have come from the major continents of the world. Asia, Americas, Europe and Africa. They have one thing in common; each has made tremendous impact on Africans through their scientific research, activities and conducts.

This Conference witnessed overwhelming subscription from which only One hundred and twenty one applicants were invited. Our participants spread over 11 African Countries, UK, Japan, and India. Ninety Seven papers were accepted and classified as 43 orals, 46 posters and 8 plenary papers. Our participants include professors, graduate students, postdocs, undergraduates and professions.

This occasion provides unique forum as found in international meetings to share ideas, cross check notes and forge lasting collaboration capable of solving scientific problems that can advance the development of the Society as a whole. Earth and Space Sciences are dynamic sciences that provide unique opportunities to engage human curiosity by ways of intelligent research and rigorous academic discipline towards understanding and harnessing our earth-space environment for benefits of mankind. I therefore call on our speakers and fellow participants to express their minds with liberty of the academia and pass their submissions/recommendations with professional audacity. I admonish every speaker to freely share knowledge in this meeting and contribute to objects of discussion at every point in time with the sharing spirit of Africa.

I take liberty of this occasion to openly express gratitude to the Director-General and entire management of the Nigerian National Space Research and Development Agency for granting her Center for Atmospheric Research the privilege of hosting the International Secretariat of the AGS; and also this first annual conference.

Our major support for this meeting has come from the Centre for Atmospheric Research of the National Space Research and Development Agency located in Anyigba, Central Nigeria. The Japan Society for the Promotion of Science JSPS; Solar-Terrestrial Environment Laboratory, Nagoya University, Japan; the Scientific Committee on Solar Terrestrial Physics SCOSTEP; and the new SCOSTEP's program "Variability of the Sun and Its Terrestrial Impact VarSITI" took responsibility of buying air tickets for some international participants.

Once again, I welcome everyone to this great occasion and salute the courage of everyone for making it to Nigeria, the heart of Africa, and in particular this great City of Abuja, in spite of the prevailing negative incidences and news. I do hope you will be good ambassadors of peace after this conference.

I wish every one of us a fruitful conference and happy deliberations!

Karibu, O lale, Nno nu, Sannu daizuwa, bievenue, E kaabo o, ...... Welcome

# Thank you and wishing you all of God's blessings.

Professor Babatunde Rabiu President, African Geophysical Society, AGS Director & Chief Executive, Centre for Atmospheric Research, National Space Research & Development Agency, NASRDA, Federal Ministry of Science and Technology, Anyigba, Nigeria Email: tunderabiu2@gmail.com; tunderabiu@afgps.org; Tel: 08030705787 2014 African Geophysical Society Conference

2 - 6 June 2014, Abuja, Nigeria

# **Session Schedule**

DAY	8:30 – 9:00	9:00 – 10:30	10:30 – 11:00	11:00 -13:30	13:30 – 14:30	14:30-15:00	14:30-17:00
Monday 2 June 2014	Arrival and registration						
Tuesday 3rd June 2014	Registration / Poster fixing A001: Ionospheric Dynamics, Equatorial ionosphere and Near Equatorial Orbits A003: Ocean & Solid Earth Sciences	Opening ceremony / Plenary session 1	Technical Session 1 (Orals/Parallel) A001: Ionospheric Dynamics, Equatorial ionosphere and Near Equatorial Orbits & A003: Ocean & Solid Earth Sciences		Poster Session 1 A001 and A003	Annual General Meeting/Congress AGM	
Wednesday 4 <sup>th</sup> June 2014	Registration / Poster fixing A002: GNSS, Space Weather and VarSITI A005: Solar and Terrestrial Physics A006: Coupled Solar Wind – Magnetosphere – Ionosphere - Thermosphere System	Fellowship award Plenary session 2	ession 2	Technical Session 2 (Orals/Parallel) A002: GNSS, Space Weather and VarSITI & A005: Solar and Terrestrial Physics A006: Coupled Solar Wind – Magnetosphere – Ionosphere - Thermosphere System	lunch break	Poster Session 2/Exhibition) A002, A005, A0006	Plenary Session 3( 3 papers) / AGS Sectiona meetings
Thursday 5 <sup>th</sup> June 2014	Registration / Poster fixing A004: Atmospheric Science	Plenary Session 4 (2 papers)		Technical Session 3 A004: Atmospheric Science		Poster Session 3/Exhibition) A004	Plenary Session 5 /Communique/Award of Certificates/Closing
Friday 6 <sup>th</sup> June 2014	Departure						

# Prof. Babatunde Rabiu 4GS President · We participated in the 2014 African Geophysical Society African Geophysical Society ABRAHAM, Onugba On the 2<sup>nd</sup> ~ 6<sup>th</sup> June, 2014 STEL SOSTEP Certificate Conference Browe hou Prof. Oliver Obrou Program Chair

PHOTO SPEAKS ..... AT AGS 2014, 3rd-6th JUNE 2014, ABUJA, NIGERIA



R-L: Director-General DG NASRDA, Prof S O Mohammed; Chairperson of the opening session, Prof AYB Anifowose; AGS President, Prof Babatunde Rabiu (Nigeria); Prof Paul Baki (Kenya); and the representatives of the Chief of Army Staff, Grp Capt N. V. Aguiyi and Grp Capt Pwajok at the opening ceremony of the AGS Conference, 2014.

2.



Welcome Speech being delivered by the Chief Host, Professor S. O. Mohammed, Director-General and Chief Executive, National Space Research and Development Agency NASRDA, Nigeria



Prof Babatunde Rabiu (Nigeria) delivering the presidential address.



Rapt attention as participants listen to Prof Sandro Radicella (Abdus Salam ICTP, Trieste, Italy) (Inset) delivering the only plenary paper at the opening session.

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Dr Shuji Abe (International Center for Space Weather Science and Education, Kyushu University, Japan) making his presentation.



Cross section of participants at the workshop.

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Dr Shuji Abe (Japan) poses for the camera after receiving the AGS Fellowship Award on behalf of Prof Kiyohumi YUMOTO (Japan) from Prof Paul Baki (Kenya), while Prof Babatunde Rabiu (Nigeria) looks on.

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Slide showing pictures of Professor Cyril Agodi Onwumechili while his citation was being read for the award of Fellowship of AGS.



Prof Babatunde Rabiu (AGS President) reading the citation of Prof Onwumechili

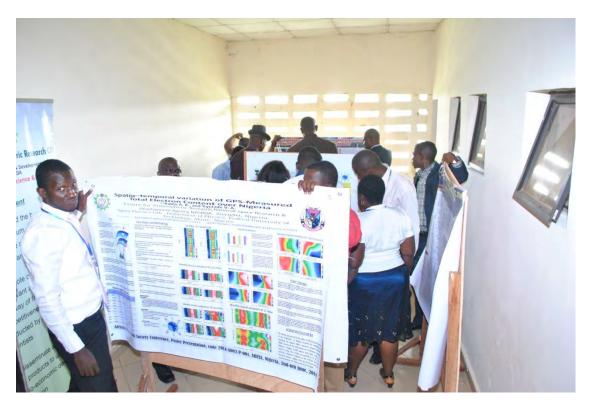


Individual participants/beneficiaries rising to stand in association with Prof Onwumechili as his Citation was being read



Dr Olukayode Falayi (Nigeria) chairing a sectional meeting of Solar Terrestrial Science during the conference

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Poster session



Poster session





Poster presentations......



Prof Obrou Olivier (Cote d'ivoire) making his presentation

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Prof Paul Baki (Kenya) giving his goodwill speech at the opening of the AGS 2014 Conference



#### AGS Conference Banner

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Prof Babatunde Rabiu making a presentation on ORCID Network

17.



Chief Sylvester E. Ogobor, Director of Admin and Finance, NASRDA making a remark at the Fellowship Award Presentation



Chief Sylvester E. Ogobor, Director of Admin and Finance, NASRDA making a remark at the Fellowship Award Presentation



Dr O. S. Bolaji (Nigeria) asking questions after a presentation



Mr Gereme Melessew Nigussie (Ethiopia) receives the AGS Fellowship Award on behalf of Dr Endawoke Yizengaw (Institute for scientific Research, Boston College, USA) from Chief Sylvester E. Ogobor, Director (Admin and Finance), Nigerian Space Agency NASRDA



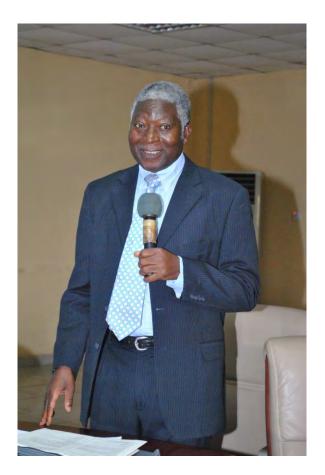
Dr Shuji Abe of International Centre for Space Weather Science and Education, Kyushu University, Fukuoka, Japan, receiving the AGS fellowship award, on behalf of Prof Yumoto, from Prof Paul Baki (Kenya)



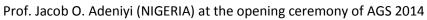
Dr Shuji Abe (Japan) reading an acceptance and goodwill message on behalf of Prof K. Yumoto







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AGS President, Prof Babatunde Rabiu granting an interview from the Nigerian Television Authority.



Akoba Rashida (Uganda) making her presentation



Dr Abe (Japan) posing with AGS banner



Cross section of Participants during the 2014 AGS Conference held in Abuja (4<sup>th</sup> June 2014). 26



Atmospheric Physics sectional meeting





Its tea break time .....



Prof. Olivier Obrou (Cote D'Ivoire) posing with AGS banner



Some participants at the Nigerian Space Agency's exhibition stand during tour of the Agency's facility



A section of the participants during the tour of the facility of the Nigerian Space Agency

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Daudi Emmanuel (Tanzania) posing with MAGDAS facility at ABUJA



Dr Shuji Abe posing with MAGDAS Facility at Abuja



Dr Abe posing with the exact size model of the NigerSat1 satellite at NASRDA



Dr T. Victor Omotosho (Covenant University, Nigeria) Making a presentation



Prof Olivier Obrou (Cote D'Ivore) granting press interview



Prof Paul baki (Kenya) granting press interview at AGS



#### **Mission Statement**

- To understand the behavior of the entire spectrum of the Earth's atmosphere and related physical biological, and social systems
- To promote capacity developmen in relevant atmospheric science as a way of facilitating international competitiveness in research being conducted by atmospheric scientists
- To disseminate atmospheric data and products to users towards socio-economic development of the Nation

www.carnasrda.com

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Dr Shuji Abe (Japan) posing with CAR's Banner



