

ACHIEVEMENTS OF THE OFFICE OF THE SURVEYOR GENERAL OF THE FEDERATION IN PRESIDENT MUHAMMADU BUHARI'S FIRST TENURE)

1.0 INTRODUCTION

The Office of the Surveyor General of the Federation (OSGoF) is an extra-ministerial, Career, Pooling and Self Accounting office supervised by the Honourable Minister of Power, Works and Housing. In Nigeria, the Office of the Surveyor-General of the Federation is the nation's apex authority in surveying and mapping and their related matters. The Surveyor-General of the Federation (SGoF) is the Accounting Officer and Chief Executive Officer of the Office.

The achievements of OSGOF during the first tenure of President Muhammadu Buhari's administration would have been impossible without budgetary allocations and releases.

The primary responsibilities of the Office are the provision of requisite geospatial information needs of the country in all ramifications for sustainable national development, the co-ordination of all Surveying and Mapping and their related activities in the country and the implementation of the survey co-ordination act of 1962 and its subsequent amendments.

The staff strength of the office is Six Hundred and Ninety-Four (694) with an approved Establishment staff strength of One Thousand and Seventy Four (1,074).

The Office has been restructured and expanded into fifteen (15) departments comprising twelve (12) technical departments, three (3) service departments, nine (9) units, Eight (8) OSGoF Units in Federal ministries six (6) Zonal Directorates and Thirty- Six (36) State field offices.

2.0 CONSTITUTIONAL AND STATUTORY ROLES OF THE OFFICE

2.1 CONSTITUTIONAL ROLES

These are as encapsulated in the second schedule, Part II, Section 4, Item K, Paragraph 25 of the Nigerian Constitution.

The Office is set up to perform these Constitutional roles and include:

- Trigonometrical,
- Cadastral and
- Topographical Surveys

2.2 STATUTORY ROLE OF THE OFFICE

It is the implementation of the "Survey Co-ordination Act of 1962" and its subsequent amendments.

3.0 ACTIVITIES

The constitutional and statutory roles of OSGoF give rise to the following activities amongst others:

- Establishment of National geodetic Infrastructure including National GIS;
- Definition of all international and internal boundaries of the country;
- Provision of all geospatial Information products such as administrative maps, topographical maps, electronic national atlas, gazetteer of geographical place names, road maps and other thematic maps;
- To execute vital National and Peculiar surveys in collaboration with relevant Ministries Departments and Agencies (MDAs) of government. These peculiar surveys include time-

lapse mapping of exploration and exploitation of solid minerals, oil and gas, forestry, other national resources and ecologically impacted areas such as desertification, coastal erosion, gully erosion, land degradation and sea encroachment.

- Provision of Magnetic, Gravity, Right Of Way surveys, Geo-hazard and other special surveys for monitoring, guidance and decision making;
- Provision of Cadastral/Legal Surveys of all Federal lands & properties;
- Provision of Training, supervision and research in Surveying & Mapping in collaboration with the academic institutions;
- Provision of Consultancy services to all Government MDA's on Surveying & Mapping on their themes;
- Serving as National Repository of all Geospatial data and information including Metadata in the country.
- Pooling of Surveyors in the Federal Civil Service (FCS).
- Preparation and production of charts for all inland, coastal and offshore waters in the country in collaboration with other stakeholders;
- Maintenance of Zero, First and Second Order Controls on the inland water areas of the country to enhance navigation and other maritime activities;
- Bathymetric Survey of inland coastal and offshore waters in collaboration with other stakeholders

4.0 INSTITUTIONS CO-ORDINATED BY OSGoF

- Federal School of Surveying Oyo, which the SGoF is the Chairman of the governing council.
- The African Regional Institute for Geospatial Information Science and Technology (AFRIGIST) formerly Regional Centre for Training in Aerospace Surveys (RECTAS), established by the United Nations Economic Commission for Africa (UNECA). It is an inter-governmental institution with eleven (11) participating countries so far. Nigeria is the host country and the Nigerian government is being represented by the SGoF on the governing council.
- Surveyors Council of Nigeria (SURCON), the body that controls and regulates the practice of Surveying and Mapping in all ramifications in the country.
AFRIGIST and Federal School of Surveying, Oyo are Regional and National surveying and mapping training institutions respectively.

5.0 OUR GOALS AND TARGETS

These amongst others include:

- Effective co-ordination of surveying and mapping activities in the country
- Proper documentation of all available Geo-spatial information in OSGoF
- Acquisition of current, high-resolution imagery covering the country for sustainable decision making.
- Articulation and formulation of survey and mapping policy for the country
- Timely delineation, demarcation, maintenance and administration of the country's boundaries
- Production of base maps, charts and fundamental geo-data set for all sectors of the economy

- To have a workforce that is up-to-date in Surveying and Mapping technologies including emerging technologies.
- To acquire state-of-the-art Surveying and Mapping equipment.
- To undertake all vital national Surveying and Mapping exercises including but not limited to:
 - Providing geospatial information/ support to national defence and security
 - Acquisition, processing and execution of relevant geo-information needs of various Ministries, Departments and Agencies
 - Mapping of the whole country at appropriate scales and format;
 - Making appropriate policies that will enhance the practice of surveying and mapping
- Increased participation in Surveying and Mapping activities in the United Nations (UN), The African Union (AU) and the Economic Community of West African States (ECOWAS).

6.0 OUR STRATEGIES

Our strategies amongst others include:

- The Provision of Government and the public with relevant map products and alternatives through User Requirement Analysis;
- Capacity building to establish best practices in geospatial data management by collaborating with development partners;
- Making appropriate policies that will be in consonance with the changing roles of Surveying and Mapping;
- Creating and maintaining a National Repository of Metadata of all trigonometrical, cadastral, topographical, hydrographical and geodetic data in the Federation;
- Creating and maintaining Survey Units in relevant Federal MDAs;
- Supporting MDAs in the provision of geo-spatial information.

7.0 ACHIEVEMENTS OF OSGoF FROM APRIL 2015 TO DATE

These achievements span different areas ranging from Organisational Structure, Policy, Products, Services, to Manpower Development and Capacity Building. They include but are not limited to the following:

7.1 ORGANISATIONAL STRUCTURE AND POLICY

- Expansion of OSGoF from six to twelve Technical Departments by the approval of the Office of the Head of Civil Service of the Federation (OHCSF);
- At present, OSGoF has Survey and Mapping Units in eight (8) Ministries where it pooled Eight(8) Resident Surveyors;
- National policy on five--year periodic As-built survey of any Landed Property for proper Land Inventory and Planning in Nigeria;
- National policy on the need for companies using Photogrammetry and, Remote Sensing Techniques to obtain permission from OSGoF before Acquisition/Dissemination of survey and mapping data;(National Council on Communication Technology in 2016).
- Memorandum on the need for the Office of the Surveyor General of the Federation to co-ordinate the As-built and As-laid surveys of submarine telecommunication (National

Council on Communication Technology in 2016). Council advised OSGoF to carry out its duties in collaboration with Nigeria Communications Commission.

- National policy on the need for Telecommunication Regulators and Service Providers to collaborate with the Office of the Surveyor General of the Federation in carrying out As-built survey of sub-surface Telecommunication facilities for safety and proper documentation. (National Council on Communication Technology in 2016).
- Memorandum on the establishment of a National Hydrographic Office (NHO). (National Council on Works in 2016). Council urged the Federal Government to establish an NHO
- National policy on the use of Photogrammetry and Remote Sensing survey techniques for a five-year periodic monitoring of cities and towns in Nigeria for the determination of urban growth and other related matters (National Council on Works in 2016).
- Memorandum on the need to carry out As-built survey of sub-surface utilities and infrastructure within 10meters depth of sites of projects aimed at acquisition/dissemination of geospatial data relating to Nigeria (National Council on Works, National Council on Communication Technology in 2016). Council urged all relevant stakeholders to collaborate in populating OSGoF in building database of As-built survey of sub-surface utilities within 10metres of project sites.
- Memorandum on the inclusion of Topographic Data in the survey plan (Title Deed Plan) before Plan Approval on submarine telecommunication facilities (National Council on Lands, Housing and Urban Development 2016). Council urged all tiers of government to approve the inclusion of topographic data on the survey plan for government projects before approval of building plans
- Memorandum on the award of the survey contents of Road Infrastructures to Registered Surveyors was re-presented with modification to conform with the theme of the meeting tagged “Adequate Traffic Signage – An Essential Key to Highways Infrastructure, Safety and Comfort” (National Council on Works in 2017). Council noted:
 - (i) The need for use of Geospatial information to create database for national signage for emplacement, furniture and infrastructure
 - (ii) The use of survey techniques of RADAR and LIDAR in monitoring traffic signage, checking vehicular movement and recording traffic offences such as flouting the speed limits, beating of traffic lights, failure to respect traffic signages like zebra crossing amongst others.
 - (iii) The survey techniques are used to demarcate, survey and ensure compliance with the Right of Way As-built Surveys.
- National policy on the use of geospatial information technology in ICT infrastructure inventory and management (National Council on Communication Technology in 2017).
- National policy on the engagement of registered surveyors in the selling out task of various building elements and its corresponding verification (National Council on Lands, Housing and Urban Development 2018)
- National policy on nation-wide implementation of attachment of cadastral surveying plans rather than sketch plans to applications for building plan approval as practiced in some states of the federation.

- National policy on the mandatory submission of all utility survey plans to OSGoF and State Surveyors General by all institutions mandated to provide infrastructure.(National Council on Lands, Housing and Urban Development 2018)
- National policy on the mandatory request by contractors in construction industry, for information on utilities/infrastructure within their coverage areas from OSGoF before embarking on any construction work. (National Council on Lands, Housing and Urban Development 2018)
- National policy that Government at all levels should employ geospatial data and other parameters provided by surveyors to determine well ahead of time, failure on roads by use of instrumentation.(National Council on works 2018)
- National policy on the use of the Adopted 7 Transformation Parameters (for the Seamless Migration of Data between the two co-ordinate systems- the World Geodetic Systems (WGS 84) and the Minna Datum (Clark 1880 Modified) National Council of Works 2014) in the solid minerals sector for precise location of solid minerals. (National Council on Mines and Mineral Resources Development 2018)
- National policy on the submission of Geospatial information derived from mining and mineral activities in compliance with the survey Co-ordination Act of 1962 and its subsequent amendments. (National Council on Mines and Mineral Resources Development 2018)
- Amendment to the Schemes of Service for Surveyors, Survey Technologists, Survey Technicians and Craftsmen in the Federal Civil Service (National Council on Establishment, 2018). The Schemes of Service is revised to conform to international best practices of Surveying and Mapping profession.

7.2 Products and Services

- Collaboration with various MDAs, in the provision of geospatial information for their activities;
- Establishment and maintenance of more Continuously Operating Reference Stations (CORS) in various parts of the country
- Setting up Committee of Experts to articulate policy guidelines for development, implementation and management of the Continuously Operating Reference Stations (CORS) in Nigeria;
- Establishment of a High Performance Data Centre in the Office for the purpose of big data storage and sharing (ongoing);
- Submission of input to the public hearing of the SURCON Act to the House of Representative Committee on Works in 2017.
- Organisation of a 2-day retreat for OSGoF professional departments on Internally Generated Revenue in 2017.
- Organisation of the 42nd Survey Co-ordination and Advisory Board on Survey Training Conferencetagged National Conference on Surveying and Mapping in 2017
- Monitoring and Supervision of projects via counter-notices issued to various companies.
- Collaboration with Security Agencies on matters regarding Surveying and the Security of the nation.
- Entering into and review of memoranda of understanding (MoU) with other MDAs for better performance and collaboration in order to achieve the individual mandates as well

as to identify where functions overlap and synergize for optimal performance. For example MoU with Independent Electoral Commission, and Federal Ministry of Agriculture.

- The office achieved a major demarcation work carried out in collaboration with the National Boundary Commission (NBC), in compliance with the International Court of Justice (ICJ) judgment which was delivered on the 10th of October 2002. The boundary line between Cameroon and Nigeria is currently estimated to be 2100km of land border stretching from Lake Chad in the North, to the maritime boundary in the Atlantic Ocean.

The contract was awarded to Beam Systems Limited, supervised from both Nigeria, Cameroon and the United Nations team of experts monitoring the pillar construction project, as awarded by the United Nations Procurement Department, funded from the Trust Fund which Nigeria is a contributor, including Cameroon and the European Union. A total of 231 pillars were constructed along the boundary. The areas covered stretched from the South of Gotel Mountains (WuroJaroUmaro village) in Cameroon in the North end to Bang 3 Corner Village, Nigeria and GaladimaWandere village, Cameroon on the South end of an overall length of approximately 140km. The area lies within Lat 6° 59' 34N Long 11 39' 34' B in the North End and Lat 6° 32' 15N, Long 11° 11' 52" E in the south End).

In 2016, the total number of pillars constructed along the Nigeria – Cameroon boundary for Lot 4 were 88 out of 163, due to the attack of January 31st of 2017 when five (5) experts were murdered in the field. In 2017, two meetings of sub Commission on Demarcation were held in Geneva to deliberate and resolve the issue of Areas of Disagreement along the boundary of Nigeria and Cameroon. No further major activity occurred along Nigeria/Niger and Nigeria/Chad borders during the period of report.

- The office carried out its mandate in maintaining and servicing of office property while managing the movement of staff and office goods through its vehicular fleet without fault or bad report.
- Although external to OSGOF budget, the following projects were executed by the office:
 - Perimeter and Topographic Survey of Solar Power project in Jigawa.
 - Production of National Economic Atlas.
 - Establishment of Transnational Border market at Okereke Saki West LGA, Oyo State.
- Successful installation of Navigational Aids (buoys) in River Nun, Bayelsa State.
- Successful acquisition of a new survey boat for hydrographic survey operations.
- Harvest and analysis of Tidal Data.
- Establishment & GNSS observation on 15No Pillars (Borno state) & 15No Pillars (Adamawa state) (2016).
- Establishment of 16 No 1st order primary pillars within Yobe state (north-east) to aid infrastructure development
- Establishment of 16No Primary pillars in South West. Ondo 3, Oyo 3, Ogun 3, Osun 3, Lagos 4 (2016).

- Reconnaissance and observation of eighteen (18No.) Trigonometric stations within North-East, South-South & South-West zones for determination of transformation parameters within the zones (2016).
- Topographical mapping of standard sheet No 134 at scale 1:25,000 covering some areas in Borno and Adamawa states.1/12/2016
- Topographical mapping of standard sheet No 278A at scale. 1:25,000 covering Badagry area, Lagos State.1/12/2016
- Topographical mapping of standard sheet No 278 at scale 1: 25,000 covering Idogo Area, Ogun State. 1/12/2016
- Ground truthing and determination of geographic place and names for map sheets 52, Anka area of Zamfara State.28/12/2016
- Ground truthing and determination of geographic place and names for topographical mapping at scale 1:25,000 covering map sheets 84, Azare area Bauchi State.25/12/2016
- Ground truthing and determination of geographic place and names for topographical mapping at scale 1:25,000 covering map sheets 241, Oyo, Oyo State.25/12/2016
- Ground truthing and determination of geographic place and names for topographical mapping at scale 1:25,000 covering map sheet 161, Fashe Area of Niger State.25/12/2016
- Ground truthing and determination of geographic place and names for topographical mapping at scale 1:25,000 covering map sheet 201, Igbeti, Kwara and Oyo States.25/12/2016
- Ground truthing and determination of geographic place and names for topographical mapping at scale 1:25,000 covering map sheets 225, Isablu area Kogi and Kwara State.25/12/2016
- Topographical mapping of standard sheet No 186 at scale 1:25,000 covering Abuja areaof the FCT.25/12/2016
- Topographical mapping of standard sheet No 205 at scale 1:25,000 covering Baro area of Niger and Kogi States.25/12/2016
- Topographical mapping of standard sheet No 148 at scale 1:25,000 Toro area of Bauchi state.25/12/2016
- Topographical mapping of standard sheet No 291 at scale 1:25,000 covering Obudu area of Cross River State. 25/12/2016
- Upgrading of jet 1 large format digital printing machine with 13 No print heads.15/12/2016
- Mapping of Isoko North/South Federal Constituency of Delta State. 18/12/2016
- Dam monitoring base line data, Shiroro Dam (2017).
- Reconnaissance and observation of control points within the states (Bauchi, Gombe&Yobe) (2017).
- Reconnaissance and observation of control points within the states (Lagos, Ogun&Ondo) (2017).
- Construction of monitoring controls and observations around the towns of Kwoi, Kaduna and Ijebu-Ode, Ogun state for Geo-hazard (Earth Tremor) Survey (2017).
- Construction of monitoring controls and observations on the Murtala Muhammad Bridge, Lokoja for Geodetic monitoring of bridges (2017).

- Construction and Installation of Continuously Operating Reference Station (CORS) in coastal states (Lagos, Bayelsa and Calabar) for active control, monitoring, prediction etc (2017).
- Purchase and installation of 2No High performance servers for archiving and streaming of CORS data at the Office of the Surveyor General of the Federation (OSGoF HQ) (2017).
- Acquisition of Alternative Power Supply (Solar Panel) For Centre of Control and Analysis (NIGNET CCA), Internet Facilities and Subscription with ADSL For Server (2017).
- Acquisition of an unmanned aircraft system (UAS) with LIDAR for Surveying & Mapping Operations consisting of propellers, a high Definition camera, batteries, onboard storage disks and controller including necessary Software& Training (2017).
- Remotely sensed data of cities and towns for urban growth analysis of Abuja Municipal in Abuja, Jalingo in Taraba State and Jos Municipal in Plateau State.. 18/12/2017
- Topographic Mapping of Standard sheets No 91 Mafabawa and No 92 Gulumba at scale 1:25,000 in Borno State. 6/9/2018
- Survey and Mapping of Edo North Senatorial District, Edo State. 17/12/2018
- Densification of control points for mapping of Edo North Senatorial District in Edo State. 17/12/2018
- Mapping of Greater Awgu/Aninri/Oji River Federal Constituency, Enugu State. 17/12/2018
- Survey and Mapping of water bodies in Anambra State. 21/12/2018 (on-going)
- Topographic Mapping of Standard sheets No 241 Oyo and No 279 Ilaro at scale 1:25,000 in Oyo/Lagos/Ogun States. 3/09/2018
- Topographic Mapping of standard sheets 327 Oloibiri and 328 Degema at scale 1:25,000 in Rivers/Bayelsa 4/2/2019
- Other Maps produced include University maps (2016), Aviation map (2017), and Road maps (2017).
- Technical meeting of officials on the Kebbi/Zamfara interstate boundary to review the delineation exercise, preparatory to the fieldwork 21-22/3/2016. The Surveyor General of the Federation and his relevant officers as well as other stakeholders also attended a flagging-off ceremony in Birnin- Kebbi. 11/4/2016
- Technical Meeting of Officials held to carry out the plotting/charting of forest reserves as well as the Ethiope River Axis on the Delta/Edo interstate boundary, preparatory to the recommended additional fieldwork on the grey sectors of this boundary. 6/4/2016
- Joint Meeting of Officials on the Benue/Ebonyi interstate boundary to constitute a Joint Peace Committee on Agila/Ngbo and Ulayi, Ijigban and Ekele/Ishieke disputed sectors of the boundary. 17/5/2016 The Federal Government further resolved to continue with the demarcation exercise on this boundary as soon as peace is guaranteed in the affected communities.
- Joint Meeting of Officials on the FCT/Nasarawa interstate boundary. 14/6/2016 It was resolved that the team would return to the field to re-establish the boundary line in the

densely populated sector, i.e. from main pillar BP11 – BP15 and identify all the structures on the boundary line.

- Joint Meeting of Officials on the FCT/Kogi interstate boundary. 15/6/2016 The Federal Government resolved to consider the emplacement of appropriate pillars along the boundary for better visibility on ground. Furthermore; image processing, enhancement and extraction of features such as roads, settlements, water boundaries were carried out on an area of 174sqkm Area of Interest (AOI) along the boundary to help in the identification and determination of the tripartite points relevant to FCT/Kogi and other affected interstate boundaries.
- Technical Committee meeting to discuss the outstanding grey sectors of the Kaduna/Plateau interstate boundary. 30/6/2016 It was recommended that fieldwork be undertaken by the team to provide data of settlement within the vicinity to aid boundary alignment in respect of the Sanga/Riyom/Barkin-Ladi sector. There was further image processing, enhancement and extraction of features covering 350sqkm Area of Interest (AOI) along the interstate boundary to help in resolving the boundary dispute.
- Joint Meeting of Officials on the Lagos/Ogun interstate boundary to deliberate on various sectors of the boundary. 20/10/2016 The resolution was to consider resumption of work on sector C after further technical meetings. Image processing, enhancement and extraction of features were carried out on 60sqkm Area of Interest (AOI) along the boundary to help in resolving the boundary disputes.
- A Joint Meeting of Officials on the Ogun/Ondo interstate boundary (21/10/2016) with image processing, enhancement and extraction of features carried out on 120sqkm Area of Interest (AOI) along the boundary to help in resolving disputes along the grey sector of the boundary.
- Joint Meeting of Officials on Anambra/Enugu interstate boundary. 10/11/2016 It was resolved that NBC carried out an ethnographic study of the boundary in the first quarter of 2017, and for a technical committee to be constituted to propose a boundary line between Anambra and Enugu state for consideration.
- Joint Meeting of Officials on the Anambra/Imo interstate boundary. 11/11/2016 The resolution was that the delineation of the boundary be carried out by the Federal team and Surveyors General of the two states and their technical teams, after which fieldwork would resume on the remaining sectors of the boundary.
- Joint Meeting of Officials on the Abia/Ebonyi interstate boundary. 24/12/2016 It was resolved that the joint field team resumed fieldwork to complete work on the grey sectors of the boundary.
- Field verification exercise on the Bakatari village sector of the Ogun/Oyo interstate boundary (12/2016), after a written request from the Nigerian Police Force, Oyo State command, to ascertain the current status of boundary pillars emplaced along this sector to enable them investigate a reported case of unlawful/wilful demolition of Federal Government pillar at this sector.
- Preliminary Investigation Survey (PIS) (12/2016) for the selection of points, preparatory to the densification of the boundary between the FCT and Kogi state by the Joint Field Team (JFT).

- Procurement of two double-cabin Innoson (2016) and one Toyota Hilux double-cabin pick-up vehicles (2017).
- An advocacy visit, with other stakeholders, to the Executive governors of AkwaIbom (12/6/2017) and Cross River (13/6/2017) states towards the peaceful resolution of the boundary dispute between the two states, including a joint sensitization and enlightenment campaign along the boundary corridor.
- An advocacy visit to the Executive Governors of Cross River (15/6/2017) and Ebonyi (16/6/2017) states and attended a co-ordinated elaborate joint sensitization and enlightenment campaign along the boundary corridor in July 2017..
- Additional fieldwork on grey sectors of Bauchi/Plateau interstate boundary with other stakeholders in March 2018.
- Establishment of the FCT/Nasarawa stateboundaryin the densely populated sectors – BP11 (Gurku) – BP15 (Buga) in February 2018..
- Field tracing and provisional demarcations of Bauchi/Yobe and Gombe/Yobe interstate boundaries in April 2018.
- Production of map of Nigeria showing the existing, ongoing and planned power transmission projects with Wayleave and legal issues.
- Deformation monitoring of large structures such as bridges (Niger Bridge, Lokoja) and buildings
- As-Built Survey of subsurface facilities such as telecommunication cables, pipelines and other underground infrastructures for informed planning and good governance.
- Selection of Site, Perimeter and Topographic Survey of Jigawa Solar Energy City, Gwiwa Local Government Area, Jigawa State.
- Right of Way Survey of Power Transmission lines, Federal roads and rail lines across the Country.

7.3 Manpower Development and Capacity Building.

- Employment of one hundred and sixty-one(161 Nos) Surveyors and ten (Nos) Information and Communications Technology personnel(2017 and 2018)
- Promotion of all qualified officers as at when due.
- The Honourable Minister of Power, Works and Housing in line with the Act establishing the Federal School of Surveying, Oyo, approved the appointment of Dr. Dupe Nihinlola Olayinka as the new Rector, Federal School of Surveying, Oyo. She is the first female as well as the first rector of the school indigenous to Oyo.

In the area of capacity building, various training programmes are ongoing internally and internationally to develop staff on new surveys and mapping techniques and most especially in compliance with the succession planning of the Federal Government in Public Service. Some of those undertaken during the period of report are:

- Attendance of the annual International Federation of Surveyors FIG working week
- Attendance of the combined Expert Group Meeting on the Strategy for the Integration of Geospatial Information and Statistical Information &

The United Nations Global Geospatial Information Management (UN-GGIM)Africa Expert Group Meeting, Abidjan, Cote D’Ivoire28/11-2/12/2016

Effective Land Administration in Africa held at the Regional Centre for Mapping of Resources for Development (RCMRD), Nairobi Kenya 20–24/6/2016.

- Attendance of the 14th Plenary Session of the Group on Earth Observation (GEO) Week 2017 as Expert Group members of UN-GGIM in Washington D.C United States of America–22-27/10/ 2017.
- The SGoF(twice) led combined staff of OSGoF, defense and other security agencies to the Defense Geospatial Intelligence conference in London, The United Kingdom.
- Geo-information and Management training– 16/11-2/12/2016
- 200m Isobath determination, Subsidence, Tidal observation and sounding training (2016).
- International Boundary training – 19 /11/2017
- Maritime Security training–11-13 /9/ 2018 –
- Some members of staff have been admitted to AFRIGIST on scholarship for various masters’ degree programmes.

8.0 CHALLENGES

In spite of the achievements the office has recorded in almost four years, there are challenges including the following:

- **Inadequate Funding:** The SGoF has many ideas that can impact greatly on the field of Surveying and Mapping but is constrained by funding. This is because, it is one thing to earmark funds, another to receive approval and a bigger challenge is for the exact sum approved to be released;
 - **Power Outage:** The power challenge is a great setback to productivity as much money is spent on fuelling and maintenance of the generator;
 - **Office Space:** The present office space is highly inadequate to accommodate staff and its open field is not spacious enough for equipment testing and other usage;
 - **Personnel:** There has been high depletion in staff strength especially directorate level as a result of exit of staff through retirement, resignation and other reasons over the years without replacements. The spate of depletion is very worrisome and requires urgent attention;
 - **Inadequate Training:** Surveying as a profession is highly dynamic and subject to technological advancements in the world. Hence, continuous training is necessary for staff to cope with continuous changes in survey methods and equipment.
 - **Inadequate field vehicles**

9.0 CONCLUSION

Experience over the years has shown that Surveying and Mapping is the bedrock of any physical development, and is ubiquitous hence more investments and additional operational departments are required for the Office to meet her constitutional and statutory roles in all ramifications for sustainable national development. This is even more apt now following the greater awareness and requests from the various MDAs on the use of geospatial (surveying and mapping) information in their sustainable planning and informed decision making.

The Office of the Surveyor General of the Federation is determined to achieve its mandate in order to contribute its indispensable quota towards sustainable national development of all sectors. The challenges faced by the Office, if addressed, would greatly enhance the achievements of this objective and easily move the country to the next level.