



# FIG Working Week 2024

19-24 May

Accra, Ghana

Your World, Our World:  
Resilient Environment  
and Sustainable  
Resource Management  
for All

## The Applications of Sacredion Online GNSS Positioning Service (SOGPOS) for Real-Time Kinematic GNSS Correction in Asset Mapping Management (12563)

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## What is SOGPOS ?

**SOGPOS** is **S**acredion **O**nline **GNSS** **P**ositioning **S**ervice

It is a Continuously Operating Reference Station (CORS) platform established by Sacredion Limited in collaboration and partnership with the Nigerian Institution of Surveyors, the Association of Private Practicing Surveyors of Nigeria, and Tersus GNSS Incorporated.

The CORS network provides static GNSS data for post-processing and Real Time Kinematic Correction services.

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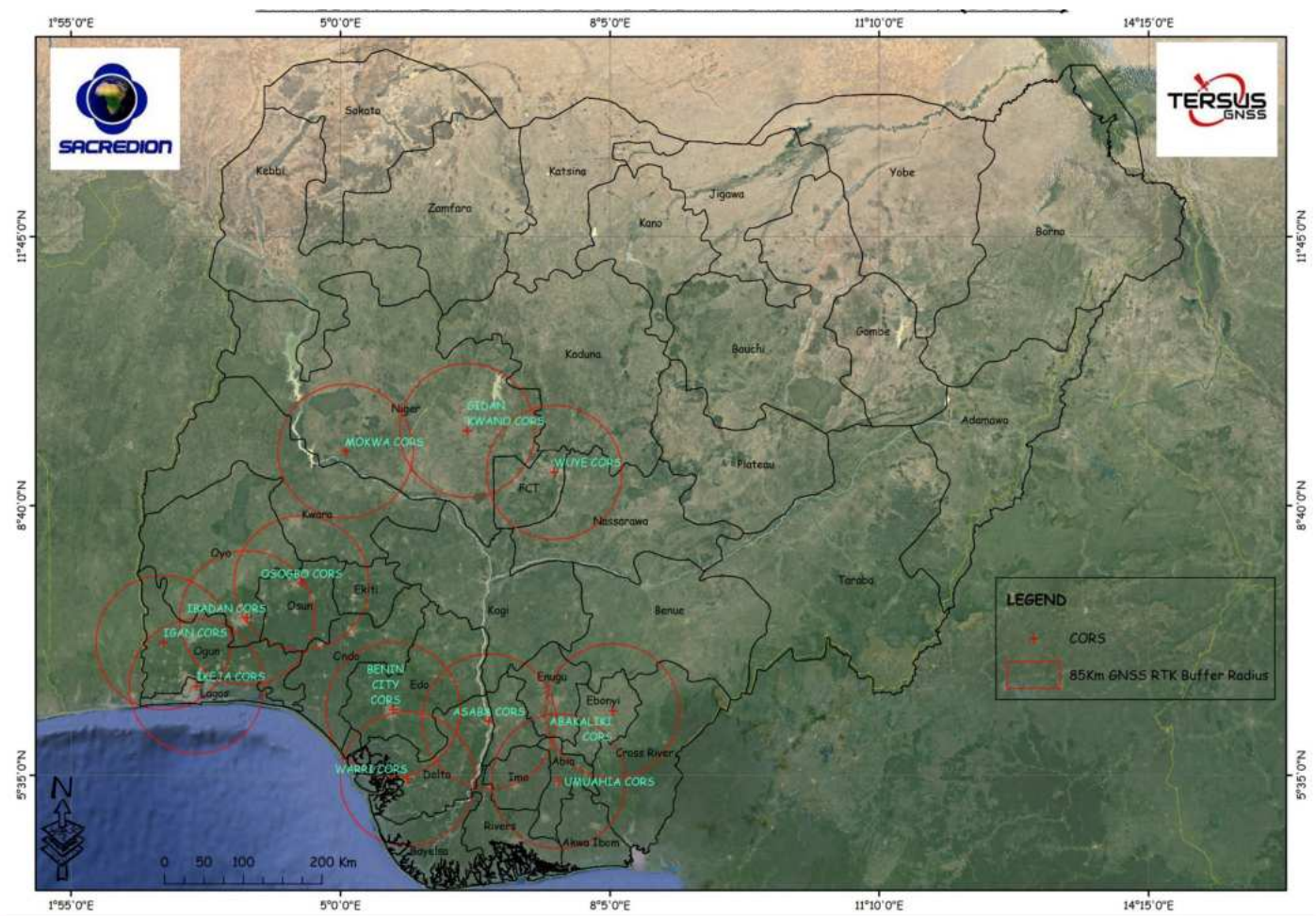
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## THE LOCATION OF SOGPOS CORS ACROSS NIGERIA?



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## THE SOGPOS CORS INSTALLATIONS?



SOGPOS Ibadan CORS (Roof Top Installation)



SOGPOS Abakaliki CORS (Monument Installation)

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## EASE IN MAPPING AND SURVEYING

Surveying and Mapping requires a consistent reference system

The conventional passive controls are sometimes destroyed and inaccessible

The SOGPOS platform provides a precise and accurate reference system that is consistent with the geodetic system of the state where the stations are located.

It provides ease to land surveying activities saving time and cost

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## POSITIONING CAPABILITIES OF SOGPOS PLATFORM

- SOGPOS transmits GNSS corrections in real-time from individual CORS and not VRS
- RTK transmission from the CORS is based on NTRIP (Networked Transport of RTCM via Internet Protocol)
- The RTK correction is transmitted up to 85km with an accuracy of 1-7cm.
- Post-Processing of GNSS data, provides an accuracy of 2-5mm depending on the duration of observation and baseline length

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## ACCESSING RTK CORRECTION

- The CORS administrator provides users with the following details
- IP Address:
- Username
- Password
- Port

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## ACCESSING GNSS STATIC DATA FROM SOGPOS

The GNSS log files can be accessed from:

[www.sacredioncors.com](http://www.sacredioncors.com)

Users sign up and download GNSS Data across SOGPOS CORS at the time required in RINEX format

The screenshot shows a web browser interface for sacredioncors.com. The URL is sacredioncors.com/cors/html/ltr/admin/lagos.php. The page has a search bar and filters for Category (05), Year (2024), and Date (18). It shows 10 entries in a table with columns for DATA NAME, DATE CREATED, and SIZE.

DATA NAME	DATE CREATED	SIZE
Sacr139C.24O	2024-05-18 07:07:07	2.56 mb
Sacr139C.24N	2024-05-18 07:06:57	0.53 mb
Sacr139B.24O	2024-05-18 05:05:43	1.84 mb
Sacr139B.24N	2024-05-18 05:05:37	0.86 mb
Sacr139A.24O	2024-05-18 03:05:24	3.47 mb
Sacr139A.24N	2024-05-18 03:05:18	0.88 mb





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## APPLICATION AREAS OF SOGPOS CORS

- City Development and Management
- Geological, Mining, and Exploration of Mineral Resources
- Deformation Monitoring of Dam, Bridges and Highrise Buildings
- Natural Disaster Monitoring, Prediction and Prevention
- Weather Forecasting

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GEOSA  
Geomatics Society of Ghana  
General Authority for Survey  
and Geospatial Information





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SUSTAINABLE DEVELOPMENT GOALS

International Federation of Surveyors supports the Sustainable Development Goals

## Commission 5

Positioning and Measurement

Serving Society for the Benefit of People and Planet



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# THANK YOU!

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