

IGRGEA

International Geophysical Research Group /Europe-Africa
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At the end of the IEEY, in 1995, IGRGEA (International Geophysical Research Group Europe Africa) has been organized to follow the research work initiated during IEEY (International Equatorial Electrojet Year), in 1992. Since January 2003 IGRGEA is developing at the Institute of Geophysics in Hanoi.

BURKINA FASO

Dr Pétronille Kafando from Ouagadougou University has an exchange research grant from the French Foreign Affairs Ministry to study the atmospheric easterly waves triggering the African monsoon. She will travel to University of La Réunion (Indian Ocean Island) to work with Dr Chane Ming, and to the French CETP to work with Dr Monique Petitdidier. Petronille Kafando's PhD is part of the AMMA project. Dr Frédéric Ouattara from Koudougou University started his PhD on the ionospheric trends of the equatorial F2 plasma fountain related to solar processes. His study is part of the IHY Project (International Heliophysical Year).

The French Brittany Superior National School of Telecommunication (ENST) will set up a GPS receiver at Koudougou next year. A formal agreement of scientific cooperation is being elaborated between both groups and IGRGEA.

IVORY COAST

Two instruments will be setup in Ivory-Coast for the IHY :

- a japanese magnetometer (from Professor Yumoto Kyushu University-Fukuoka) in Abidjan
- the previous Korhogo optical interferometer graciously offered to IGRGEA in 1993 by Professor David Rees (University of UTAH) now being renovated by the team of Daves Anderson -NCAR (National Center for Atmospheric Research) .

GPS NETWORK in AFRICA / IHY-AMMA-IGRGEA

A network of 14 GPS receivers will operate in Africa in addition to the permanent network :

- 1) 6 AMMA network of GPS receivers : Dr Olivier Bock (LMD/France)
- 2) 7 IHY network of GPS receivers : Dr Keith Groves (USA)
- 3) 1 ENST GPS receiver : Professor P. Lassudrie-Duchesne (ENST-Bretagne /France)

GPS receivers network in AFRICA Dr Tim Fuller-Rowell (NOAA) – IGRGEA

Country	GPS receiver	Geographic Coordinates	Project
Bénin	Djougou operating	09°41'31.5" N 01° 39' 41.9" E	AMMA
Niger	Niamey operating	13° 28' 45.3" N 02° 10' 59.5" E	AMMA
Mali	Gao operating	16° 15' 07" N 0° 0' 21" E	AMMA
Ghana	Tamale operating	09° 33' 15.32" N - 00° 51' 42.21" E	AMMA
Mali	Tombouctou operating	16° 43' 50.32" N -2° 59' 50.82" E	AMMA
Burkina Faso	Ouagadougou operating	12° 21' 11.52" N -1° 30' 44.712 E	AMMA
Cape Verde	planned	16.8° N 23.5° W	IHY
Nigeria	planned	8.5°N 1.6°E	IHY
Gabon	planned	2.5°N 10°E	IHY
Chad	planned	17.5° N 19°E	IHY
Eritrea	planned	15.4°N 40°E	IHY
Djibouti	planned	11°N 45.7°E	IHY
Kenya	planned	1°N 38°E	IHY
Burkina Faso	Koudougou planned	To be defined	IGRGEA

ECLIPSE

The study of the 29 March total solar eclipse across West Africa is in progress..

It has been remarkably well observed by the PIS42 ionosonde especially revised at Tamanrasset (Algeria 25°N, 5.5° E geographic latitudes).

The TEC disturbances were observed by the GPS receivers of Niamey (Niger) and Djougou (North Benin). The magnetic field eclipse effect has been observed by the San and Sikasso magnetometers (see preceding letter), and the permanent magnetometers in Africa (Bangui-RCA, M'bour-Senegal, Tamanrasset-Algeria). We have not been able to install the Berranger ionosonde in Benin as we announced in the last letter.

VIETNAM

The 3 GPS receivers network, set up during 2005, allows a detailed study of magnetic storm signature from TEC changes.