

INTERNATIONAL EQUATORIAL ELECTROJET NEWS

AIM OF THE LETTER

The aim of this letter is to report on the progress and the operations during the equatorial electrojet year in the African-European sector.

REMINDER OF THE PROJECT

In the African sector the instruments deployment will combine :

- An ionosonde network : Dakar (Senegal), Ouagadougou (Burkina Faso), Ilorin (Nigeria), Korhogo (Ivory Coast) and Tamanrasset (Algeria).
- A magneto telluric network with 10 sites across south Algeria, Mali and Ivory Coast.
- Two multifrequency HF radars at Korhogo and Lamto (Ivory Coast).
- An optical interferometer (630 nm) at Korhogo.
- An HF transmission link between Abidjan (near Lamto, Ivory Coast) and Dakar (Senegal).
- A magneto telluric network across Nigeria.

TEACHING

Operation CAMPUS

M. Menvielle, Paris Sud Université/Orsay
A. Achy-Seka, Abidjan University

The Universities twinning between Paris Sud/Orsay and Abidjan includes a 6 weeks scientific course attended by five Ivoirian Assistant-students from April 13 to May 28 1992 :

M. Boka Kouadio
M. Doumouya Vafi
M. Houngninou Bodoun Etienne
M. Kakou Kandé
M. Koba Arsène

This course is being delivered in France by the graduating director's laboratories :

1. CRPE
2. IPGP
3. Université Paris Sud (LETTI, laboratoire de géophysique)
4. Centre du CNET/GARCHY
5. Centre de Géophysique CNRS/GARCHY
6. CEA, Bruyères le Chatel

Operation ionosonde network

A technical training course has been attended at CNET LANNION by M. Kone Nahegan Emile (from Abidjan), from April 6 to May 6 1992. M. Kone will be in charge of maintenance and operations of the Korhogo ionosonde (IPS 42).

GROUND NETWORK MISSIONS

Exploratory and Technical surveys

Ionosondes : J. Henry et R. Hanbaba

April 1991 : CNET SPI visits at OUAGADOUGOU (Burkina Faso) and Dakar (Senegal). The ionosondes are functioning well.

June 16 to 26 1991 : CNET mission at Tamanrasset (Algeria).

January 9 to 25 1992 : CNET visits at Korhogo Lamto (Ivory Coast) and at Ilorin (Nigeria). The Korhogo ionosonde should be operating early July 1992.

Magnetometers : J. Vassal

From February 23 to 29 1992 : a mission took place at Bamako. The SIKASSO, KOTIALA, SAN and MOPTI sites could be set up easily. The Timbuctu station is accessible by air links only.

Four stations remain to be set up in Ivory Coast. One IPGP magnetometer will be started at Tamanrasset before June 1992 ; a magnetometer from the Kyushu University was set up in January 1992 by Hiroshi Tashihara.

FINANCING

Total cost of the project as expected by our French IEEY Committee : 11 MF

*** We have presently been budgeted for 5.8 MF.**

This allowed financing the two extended network magnetotelluric and ionosonde instruments.

* Funding institutions

Cooperation Ministry	
Research Department :	1 MF
INSU/CNRS :	0.3 MF
Ministry for Research and Technology:	0.2 MF
France Telecom/CNET :	1.2 MF
ORSTOM (Overseas Research Center) :	1.6 MF
CEA (Nuclear Research Center) :	1.1 MF
LETTI :	0.4 MF

Ministry of foreign affairs : missions

Funding presently negotiated :	3,1 MF
Funds left to be accepted :	2,3 MF

GROUND NETWORK OPERATIONS

* Instruments presently operating :

- Magnetometers at Tamanrasset (Algeria)
- Ionosonde at Dakar (Senegal) and Ouagadougou (Burkina Faso)
- Magnetometers at Bangui (Senegal) and M'Bour (Republic of Center Africa)
- One magneto-telluric station in Nigeria

* Networks

The ionosonde network must be in operation at the end of July 1992

The magnetotelluric network extending across Algeria, Mali and Ivory Coast will be first operating at the end November 1992..

An application for the Ilorin ionosonde extra budgeting is being presented to the French Ministry for external affairs. The start time of the Nigerian magneto telluric chain is not yet defined.

* Radars and Interferometer

Financing is actively requested for these instruments. It is of great importance that these advanced experiments be in operation by the end of 1992 for the middle Atmosphere Program.

A CEA campaign at Korhogo is planned for January and February 1993, to be followed by the regular operation at Lamto.

Financial support are still missing for the interferometer.

DATA BASE

World data bases

In the framework of the International Equatorial Electrojet Year (IEEY), regional data centers will be developed.

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situation will be discussed at the next IEEY workshop, to be held at Sao Jose dos Campos (Brazil, October 20-23, 1992).

INDIAN SECTOR INFORMATION

Campaign intervals

7 to 22 January 1992,

3 to 18 Juli 1992,

15 to 30 September 1992,

13 to 30 January 1993,

20 March to 7 April 1993.

Coordinatoor : B.R. Arora

Indian Institute of Geomagnetism

PARTICIPATING IN THE AFRICA/EUROPE LONGITUDE SECTOR

Participants dans le secteur de longitude Afrique/ Europe

AFRICA

Algeria

* Haut Commissariat à la Recherche, CRAAG (Centre de Recherche en Astronomie Astrophysique et Géophysique), B.P. 63, Bouzareah, Alger.

Senegal

* Université Cheikh Anta Diop, ITNA (Institut de Technologie Nucléaire Avancée) département de physique, Dakar-Fann, Sénégal.

* ORSTOM (Institut français de Recherche Scientifique pour le développement en Coopération), Centre de Dakar, B.P. 1386, Dakar, Sénégal.

* Station CNET, Dakar-Cambérène, Sénégal.

Ivory Coast

* Faculté des Sciences d'Abidjan, Département de Physique, B.P. 582, Abidjan 22, Côte d'Ivoire.

* Station géophysique de Lamto (A.D.E.GE.C.I.), 01 B.P. 398 Abidjan 01, B.P. 31, N'DOUCI, Côte d'Ivoire.

Nigeria

* University of Ilorin, Faculty of Science, Department of physics, Ilorin, Nigeria.

* University Obafemi Awolowo, Ile-Ife, Nigéria.

* University of Calabar, P.M.B. 1115 Calabar, Nigéria.

Burkina Faso

* Station CNET, Ouagadougou, Burkina Fasso.

Mali

* ORSTOM, Centre de Bamako, B.P. 2528, Mali.

EUROPE

France

* IGP (Institut de Physique du Globe de Paris), 4, Place Jussieu, Tour 24-25, 2ème étage, 75252 Paris cedex 05, France.

* ORSTOM (Institut français de Recherche Scientifique pour le développement en Coopération), Centre de Bondy, 70-74, route d'Aulnay, 93143 Bondy, France.

* CEA (Commissariat à l'Energie Atomique), Centre de Bruyères le Châtel, B.P. 12, 91680 Bruyères le Châtel, France

* CNET (Centre National d'Etude des Télécommunications)

* LAB/PTI, Route de Trégastel-B.P. 40, 22301 Lannion, France.

* CNRS/CRPE (Centre de Recherche en Physique de l'Environnement), 4, avenue de Neptune, 94170 Saint-Maur des Fossés, France.

* Université Paris Sud (UPS)

* LETTI (Laboratoire d'Etude des Transmissions Ionosphériques), Université Paris Sud, Bât. 214, 91405, ORSAY cédex, France

* Laboratoire de physique de la Terre et des Planètes, Bât. 304, Université Paris Sud, 91405, ORSAY cédex, France.

Germany

* Institut für Geophysik der Universität Göttingen, Herzberger Landstrasse 180, Postfach 2341, D-3400 Göttingen, RFA.

England

* UCL (University College of London), Atmospheric Physics Laboratory, 67-73 Riding House Street, London W1P 7PP, UK.

Spain

* Observatorio de l'Ebre, 43520 Roquetes, Tarragona, Espana

CHINA

* Academy of Art of China, Section of Art and Technology, Beijing China.

USA

* NCAR (National Center for Atmospheric Research), HAO, P.O. Box 3000, Boulder Colorado 80307, USA.

INSU : Institut National des Sciences de l'Univers

CNRS : Centre National de la Recherche Scientifique.

MRT : Ministère de la Recherche et de la Technologie.

CNET : Centre National d'Etude des Télécommunications