



Regional training on hydrography and marine cartography

November 19th – December 1st, 2012
ARSTM – Abidjan – Côte d'Ivoire

Context-Preparation

- *IHO/IMO **common** programme on Capacity Building*
- *Includes **training actions** in hydrography, cartography and maritime safety.*
- *For the **benefit of African countries***
 - UKHO in April 2011 (EN, Accra)
 - SHOM in November 2012 (FR, Abidjan)
- ***IMO funded** courses*



Participants - Content

Trainees:

22 participants from 11 countries

Instructors: (SHOM)

2 cat.B hydrographers,

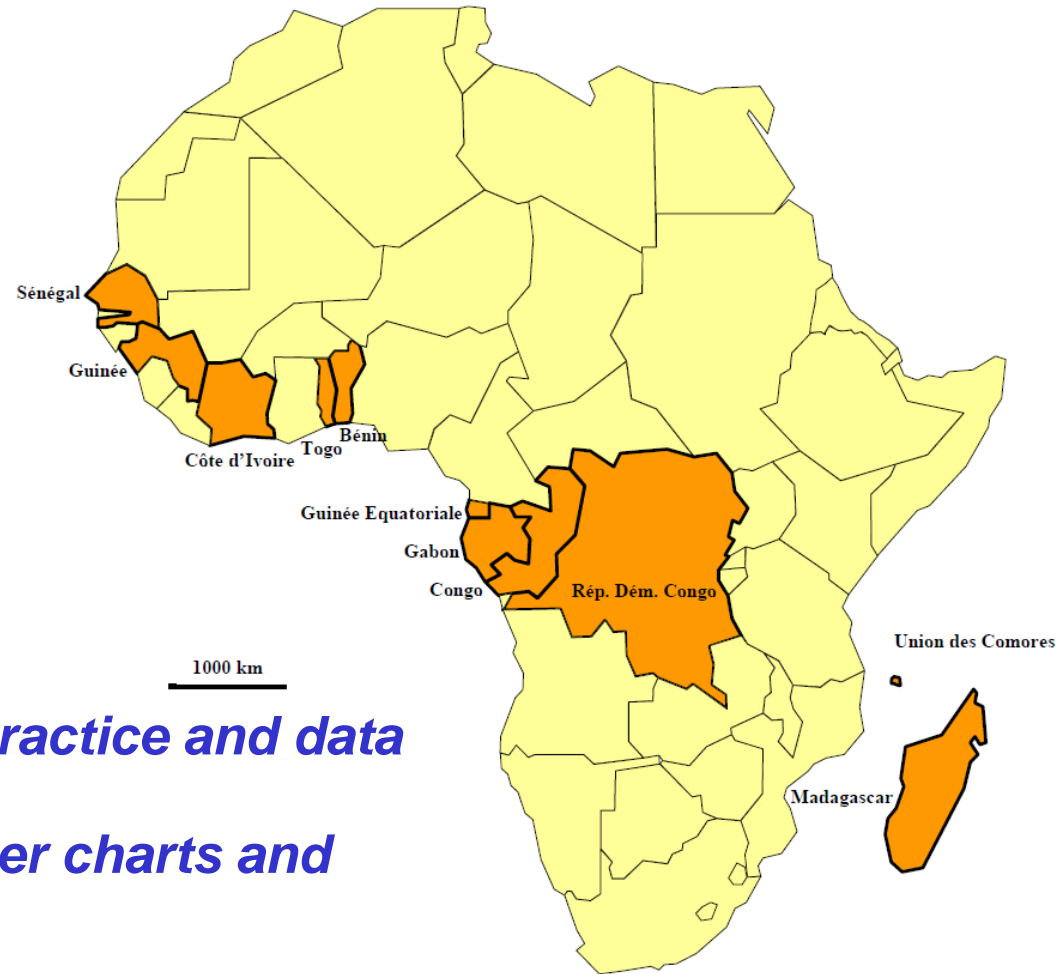
1 cat.B cartographer.

Course programme:

- **Hydrography** > theory, survey practice and data processing
- **Cartography** > principles of paper charts and electronic charts processing

Course objective:

Teaching sufficient knowledge and general overview to be able to understand development issues and to specify work done by contractors.



L'Académie Régionale des Sciences et Techniques de la Mer (ARSTM) of Abidjan, Cote d'Ivoire

- *Regional institution for maritime instruction for 15 francophone countries of western & central africa*
- *Incorporates two schools*
 - Superior school of Navigation
 - Superior school of Maritime transport
- *Celebrated its 25th anniversary in 2012*



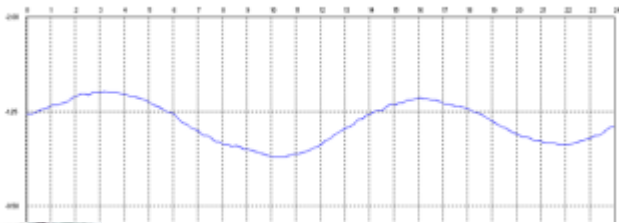
Hydrographic theory



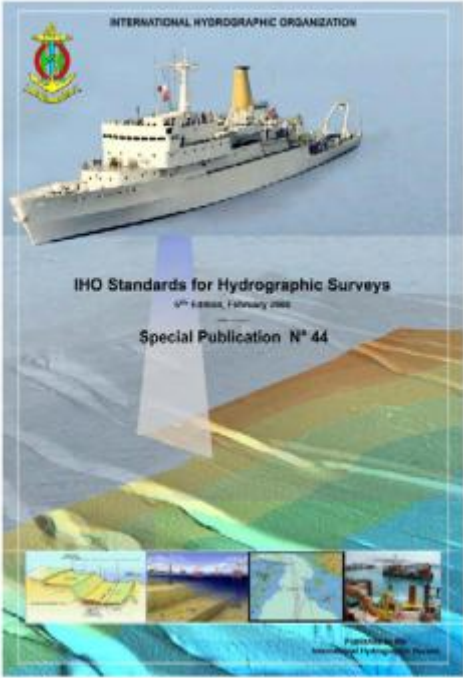
Methodology / Survey planning



Geodetic / GPS measurements

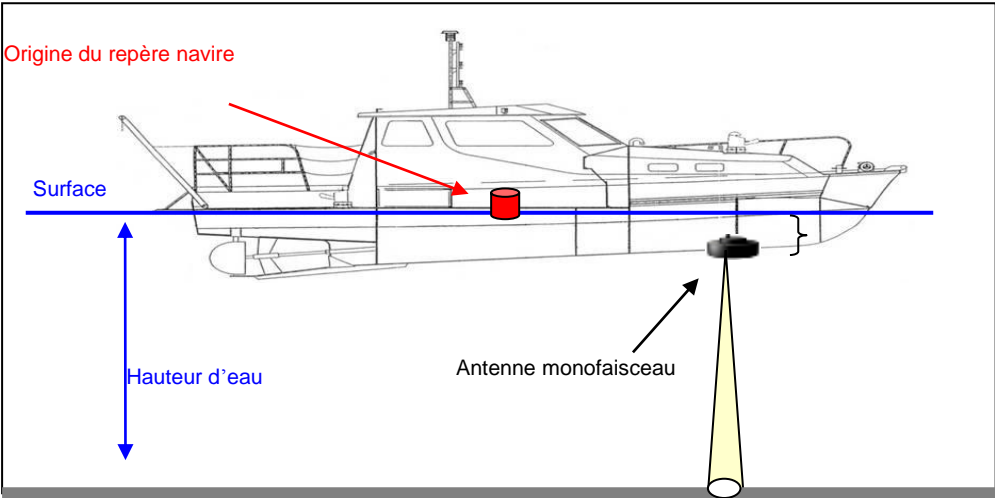


Tide



S-44 Standards

Tangage nu.



Acoustic / Depth Soundings



March 5-6th, 2014

Hydrographic practice

On board (12 hrs)



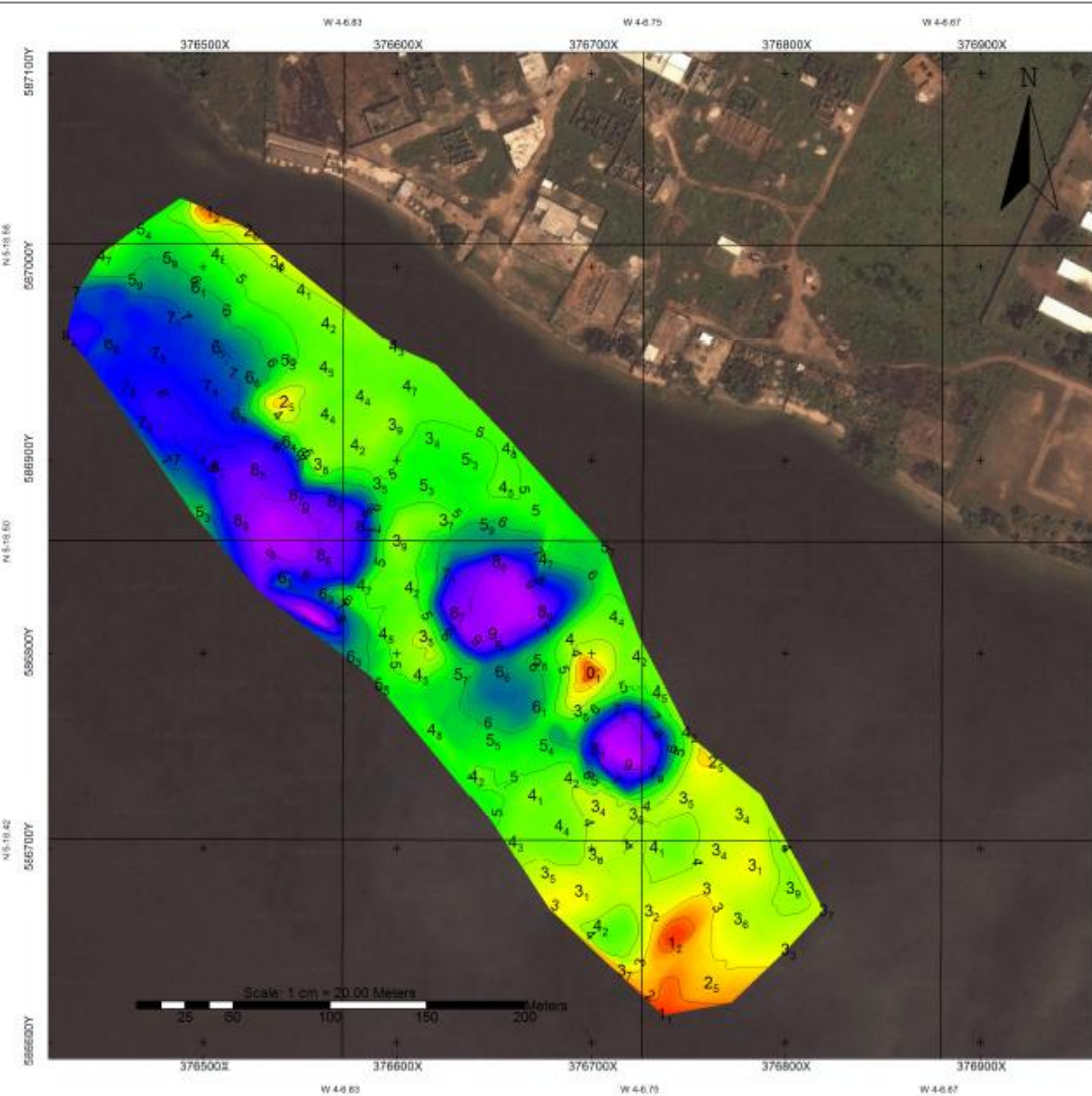
Survey Equipment

Data Processing



Data Acquisition





B2¹

ACADEMIE DE LA MER

REPUBLIQUE DE COTE D'IVOIRE

**LAGUNE EBRIE
BAIE DE LOKOUA**

26 novembre 2012

Echelle: 1:2000

Levé exécuté dans le cadre de la formation CBSC 2012

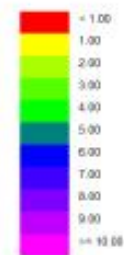
Système géodésique : WGS84

Ellipsoïde : WGS84

Projection : UTM 30 Nord

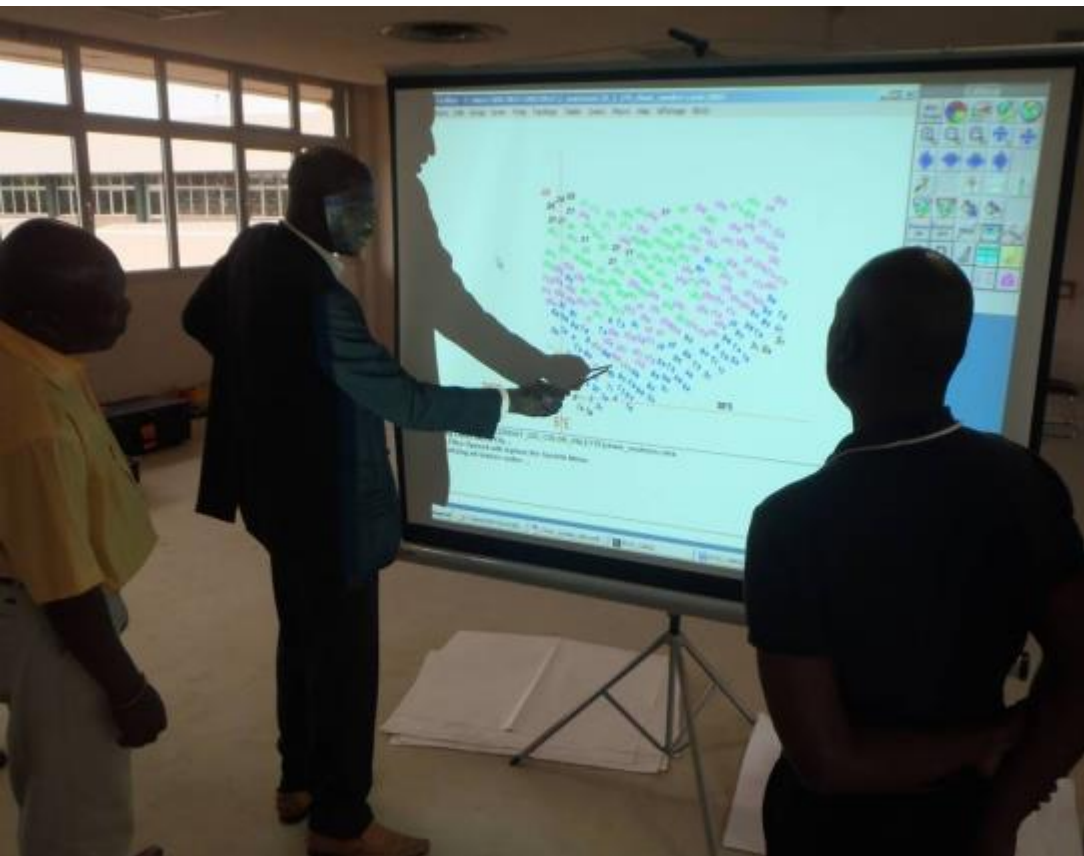
Les sondes sont réelles

Les sondes sont réduites de la marée observée au port d'Abidjan



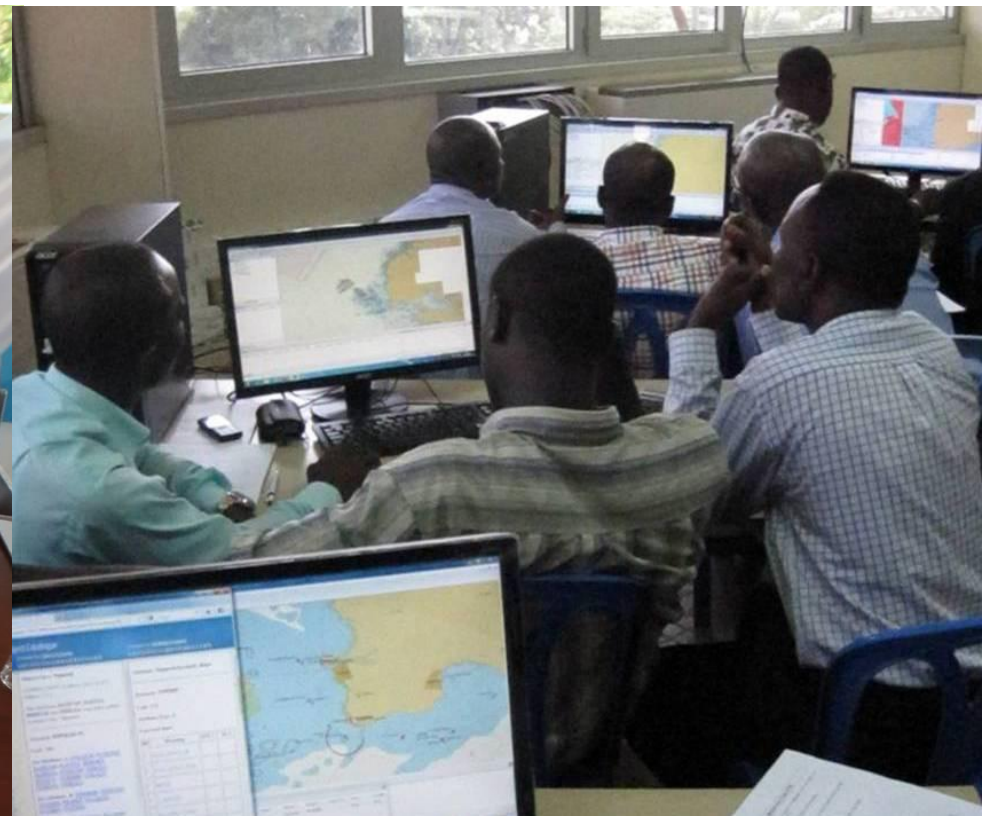
Marine cartographic course: Paper charts

- *Introduction to paper charts + chart reading exercise*
- *Sounding selection techniques & methods*
- *Production – Update (NtM) Process*
- *International cooperation*



Marine cartographic course: ENC's

- **Introduction** of Electronic Navigational Charts
- **Production – Update process**
- **E-navigation – S100 standard**



Graduation Ceremony

- *In the presence of **National & International Authorities***
 - Ministry of transport's Chief of Staff
 - IMO Western Africa representative
 - Maritime Affairs General Director
 - ARSTM General Director
- ***National TV (TVI) and Press** covering this event*



Potential issues & Improvement ways

- **Heavy Custom procedure** for the equipment (17 offices);
- Training contents **daily adaptation**;
- Participants selection **widened to maritime community**;
- **Low Internet débit (5ko max)**;
- **Violent storms**;
- **Few Electricity blackouts**;
- **Security context.**



Positive aspects

- *High quality of support provided by ARSTM;*
- *Points of contacts gathered from involved countries;*
- *Enthusiasm and involvement from participants, who expressed a real interest to that field and its development issues.*



Lessons learnt & Recommendations

- **More accurate** participant selection;
 - **Flexible/Evolutive** learning resources;
 - Individual training is **not self-sufficient**;
 - **Need to complete it with a support structure to sustain the benefit of those courses**;
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- **Providing deployable** survey equipment ?
 - **Use of distant-learning** resources?

