The Lack of Hydrographic Data

- Crowd-Sourced Bathymetry -
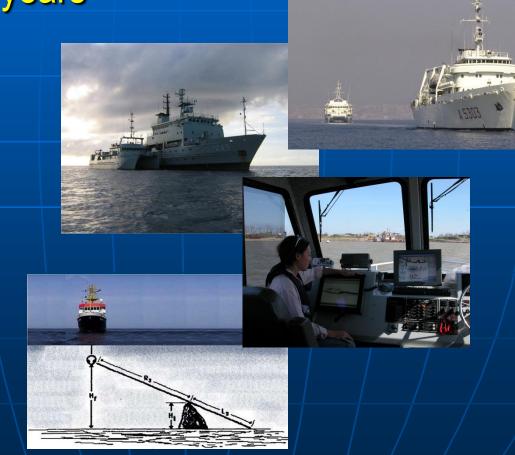
Survey and charting status 2013

Unsurveyed or **requires better data** (0-200m deep)

- SW Pacific >95%
- Polar regions > 95%
- Caribbean >80%
- W. Africa >80%
- Australia ~ 65%
- Greece ~ 65%
- USA ~ 40%
- UK ~ 30%
- France ~ 19%

Global surveying capacity

- 35% <u>reduction</u> in government fleet in 25 years

So, what can we do ?

- Raise Awareness
  - States
  - Public
  - Mariners
- More hydrographic capacity building – technical cooperation – IHO-IMO-IALA

- Encourage increased data collection
  - Holistic government survey and data gathering programmes
    - Infomar (Ireland)
    - Mareano (Norway)
    - EMODNET (EU)
    - …..

    "Gathering data for the common good"

- *Crowd-sourcing* programmes using mariners
- Satellite derived bathymetry

IHO Crowd-Sourced Bathymetry (CSB)

- Low cost – high impact

- Commercial programmes exist

- Non commercial
  - IHO (IHB) - led
  - community based

IHO Crowd-Sourced Bathymetry (CSB)

Issues to overcome

- HO exposure to liability for unassessed data

- Commercial exploitation of volunteered data

- Long turnaround times

- Third party "cleaning"

IHO Crowd-Sourced Bathymetry (CSB)

- IHO (IHB) / PYA initiative

- Proof of Concept trials starting 2014

- Aim: a logger in every professionally crewed ship

- Mariners' self-help programme

- Not new

- Not a replacement for surveys

- More Issues:

  - Liability ?
    - gatherers
    - managers
  - Quality and reliability ?
    - assessment
    - depiction

- Is some data better than no data ?
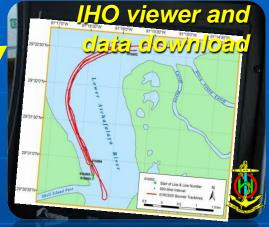
- What are the alternatives ?!

Crowd-sourced data

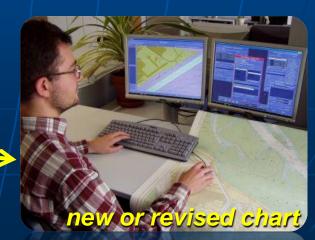data uploaded at mariners' convenience

near real-time update, view or download

IHO viewer and data download

NOTICE TO MARINERS

(if required)

normal chart updating cycle

IHO Data Centre for Digital Bathymetry

new or revised chart

CSB: Issues to be addressed

- assessing CSB data quality for use in charts

- portraying CSB data in charts

- exposure to liability
  - observers
  - publishers

Higher resolution maps of the Moon and Mars ….

So, doing nothing is not an option