



THE INTERNATIONAL HYDROGRAPHIC ORGANIZATION

WWNWS-SC and WWMIWS Meeting
Wellington, New Zealand
19 August 2014



IHO Introduction

- Background and History
- Current Structure
- Programmes
- Key Technical Initiatives
- Capacity Building and Cooperation Effort



Background and History



International Hydrographic Bureau

- 1899** International cooperation in the field of hydrography began with a **Conference held in Washington**
- 1908** International Congress of Navigation, St Petersburg
- 1912** International Maritime Conference, St Petersburg
- 1919** International Hydrographic Conference, London
- 1921** The IHB was established by 24 nations and tasked to support Safety of Navigation and the Protection of the Marine Environment.

At the invitation of HSH Prince Albert 1st, a noted marine scientist, it was headquartered in Monaco where it remains today.



Internationale

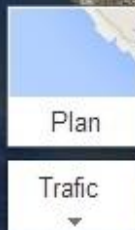


Image © 2014 DigitalGlobe
Image © 2014 TerraMetrics

Imagery Date: 10/8/2006 43°44'02.80" N

signaler un problème

What is the International Hydrographic Organization ?

- **intergovernmental** consultative and technical organization
 - established in **1921**
 - to support **safety of navigation** and the **protection of the marine environment**
-

The Mission of the IHO is;

- ... to facilitate the provision of **adequate and timely hydrographic information**
- ... for world-wide **marine navigation** and other purposes
- ... through the co-ordination of the endeavors of **national hydrographic offices**



IHO – The Objectives of the IHO are:

- a) To promote the use of hydrography and to raise global awareness of its importance;
- b) To improve global coverage;
- c) To improve global hydrographic capability and capacity;
- d) To establish international standards and to achieve uniformity in the use of these standards;



The Provision of Hydrographic Services

- ... is an International Obligation under Treaty Law
- ... affecting ALL SOLAS contracting governments.



Governmental Obligations

SOLAS V/9 – Requires each State to ensure:

- the provision of Maritime Safety Information (MSI)
- surveying and data collection
- the production of charts and nautical publications
- chart maintenance and updating services



Current Structure



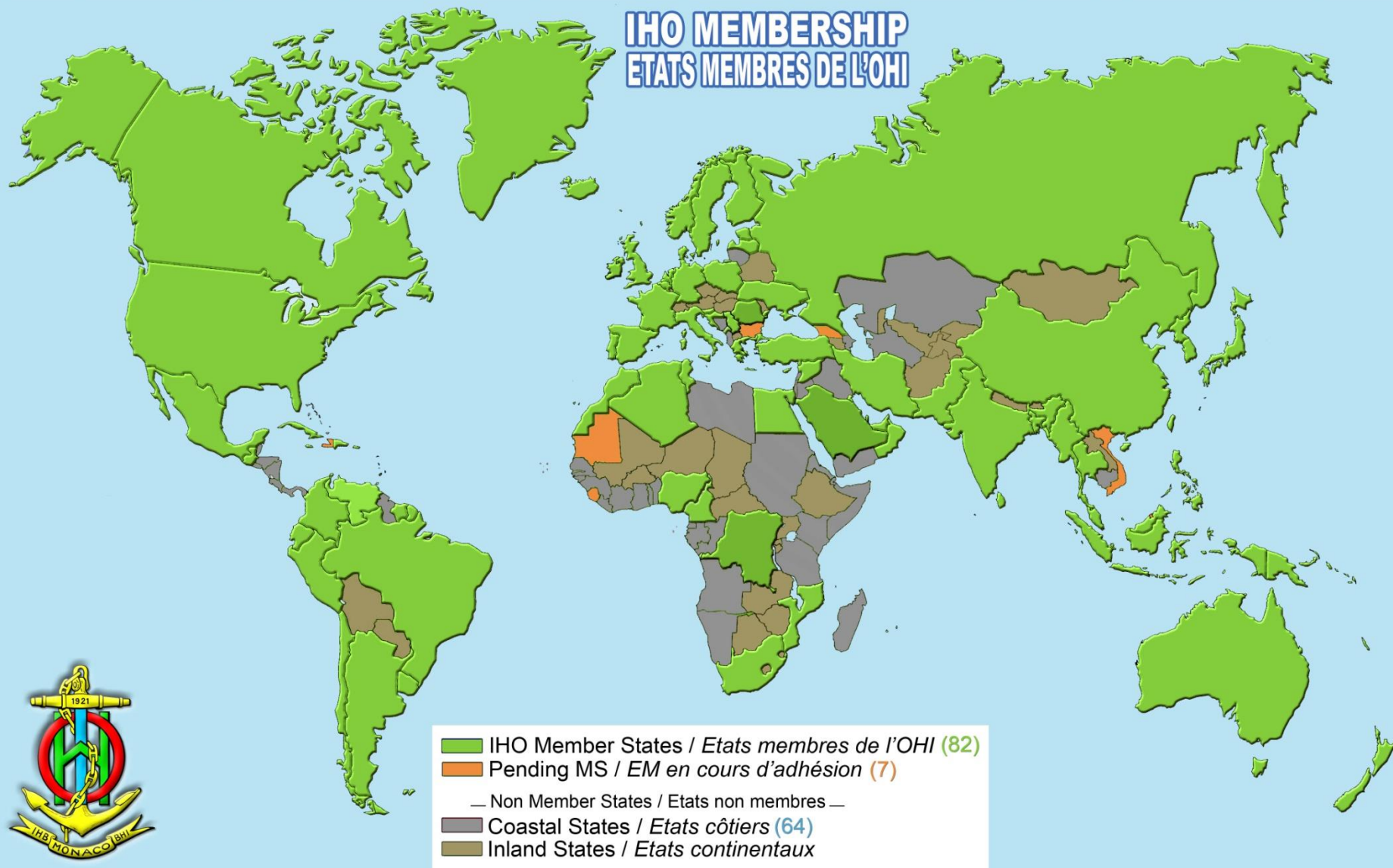
International Hydrographic Organization

1970 – An International Convention changed the name and legal status.

**The IHO comprises an
International Hydrographic Conference
and the
International Hydrographic Bureau**



IHO Member States – 2014



IHO Member States – 2014

ALGERIA
ARGENTINA
AUSTRALIA
BAHRAIN
BANGLADESH
BELGIUM
BRAZIL
CAMEROON
CANADA
CHILE
CHINA
COLOMBIA
CROATIA
CUBA
CYPRUS
DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA
DEMOCRATIC REPUBLIC OF THE CONGO
DENMARK
DOMINICAN REPUBLIC
ECUADOR
EGYPT
ESTONIA
FIJI
FINLAND
FRANCE
GERMANY
GREECE
GUATEMALA
ICELAND

INDIA
INDONESIA
IRAN (ISLAMIC REPUBLIC OF)
IRELAND
ITALY
JAMAICA
JAPAN
KUWAIT
LATVIA
MALAYSIA
MAURITIUS
MEXICO
MONACO
MOROCCO
MONTENEGRO
MOZAMBIQUE
MYANMAR
NETHERLANDS
NEW ZEALAND
NIGERIA
NORWAY
OMAN
PAKISTAN
PAPUA NEW GUINEA
PERU
PHILIPPINES
POLAND
PORTUGAL
QATAR

REPUBLIC OF KOREA
ROMANIA
RUSSIAN FEDERATION
SAUDI ARABIA
SERBIA
SINGAPORE
SLOVENIA
SOUTH AFRICA
SPAIN
SRI LANKA
SURINAME
SWEDEN
SYRIAN ARAB REPUBLIC
THAILAND
TONGA
TRINIDAD AND TOBAGO
TUNISIA
TURKEY
UKRAINE
UNITED ARAB EMIRATES
UNITED KINGDOM OF GREAT
BRITAIN AND NORTHERN
IRELAND
URUGUAY
UNITED STATES OF AMERICA
[VENEZUELA (BOLIVARIAN
REPUBLIC OF)

Awaiting Approval:
BULGARIA
HAITI
MAURITANIA
SIERRA LEONE
BRUNEI DARUSSALAM
GEORGIA
VIET NAM

Note: ~150 coastal States

IMO: 170 MS

IOC: 145 MS

IHO: 82 MS



International Hydrographic Bureau

IHO Secretariat:

19 Personnel

- 3 Directors
- 5 Assistant Directors
- 3 Translators
- 8 Supporting Staff



International Hydrographic Organization

2005 Protocol of Amendments to the IHO
Convention

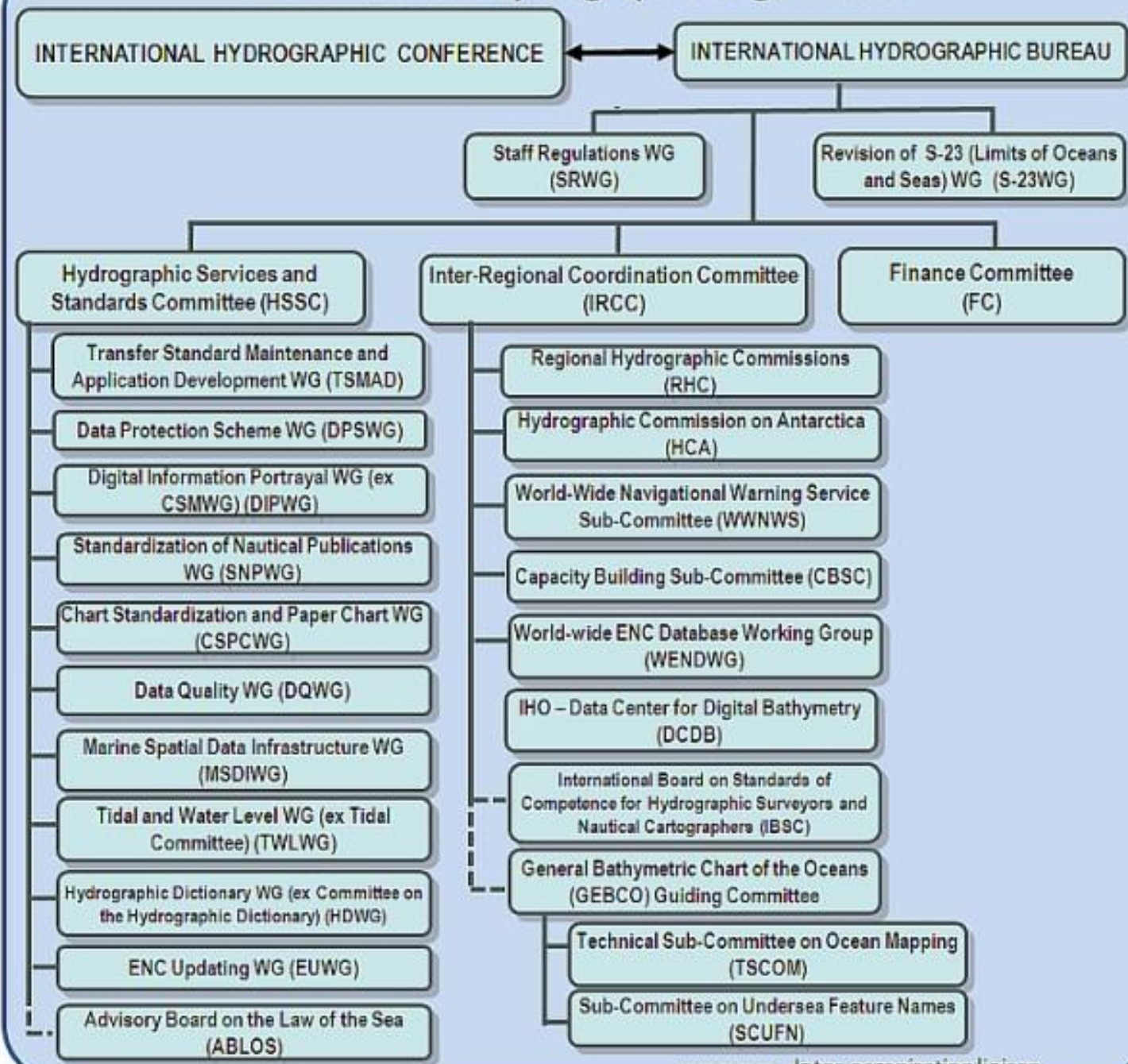
2014 ... awaiting majority of Member
States' approval to amendments



Programmes



International Hydrographic Organization





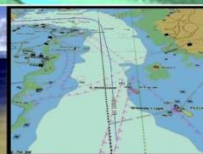
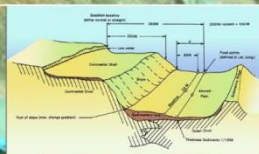
INTERNATIONAL HYDROGRAPHIC ORGANIZATION



IHO Standards for Hydrographic Surveys

5th Edition, February 2008

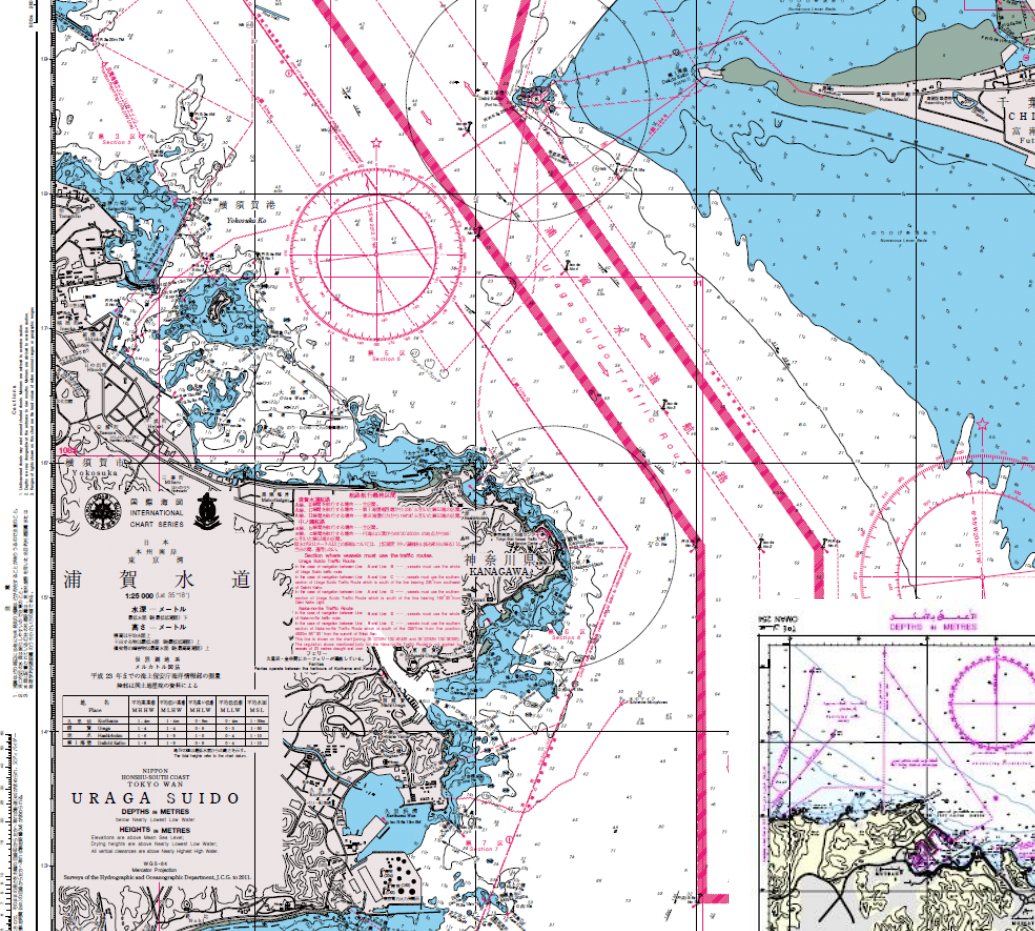
Special Publication N° 44



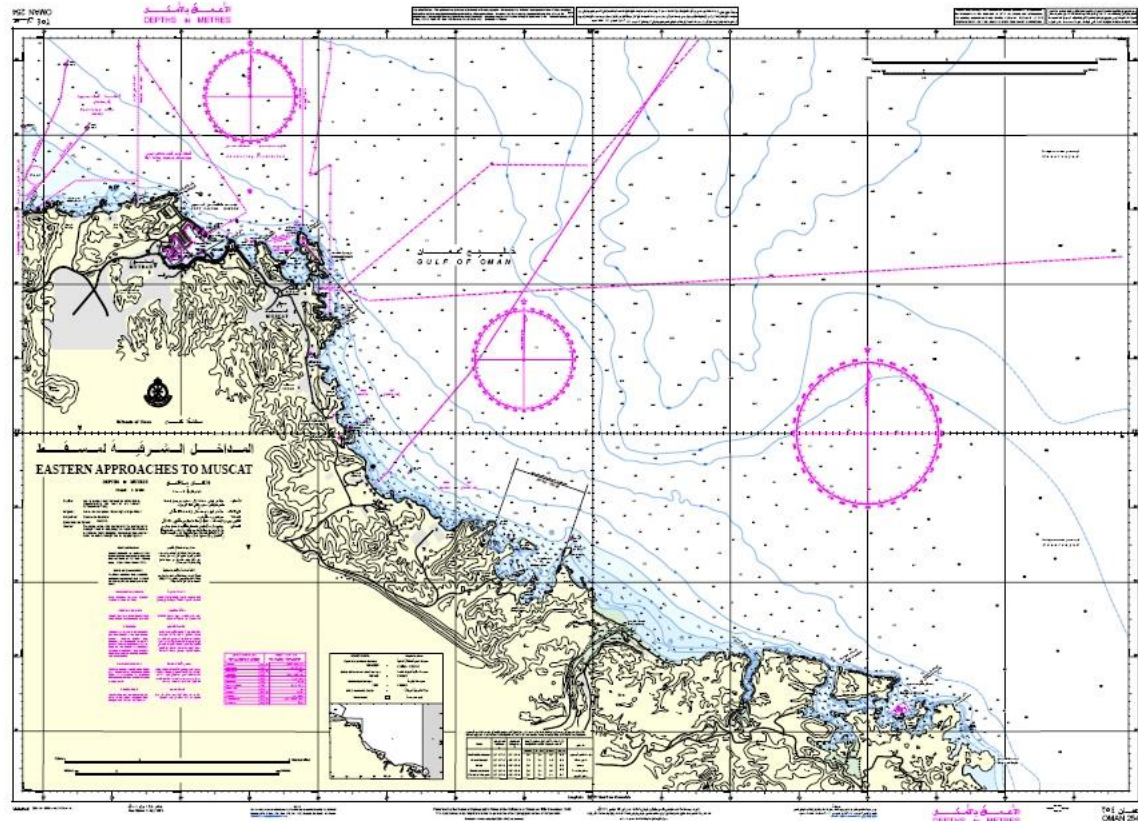
Published by the
International Hydrographic Bureau

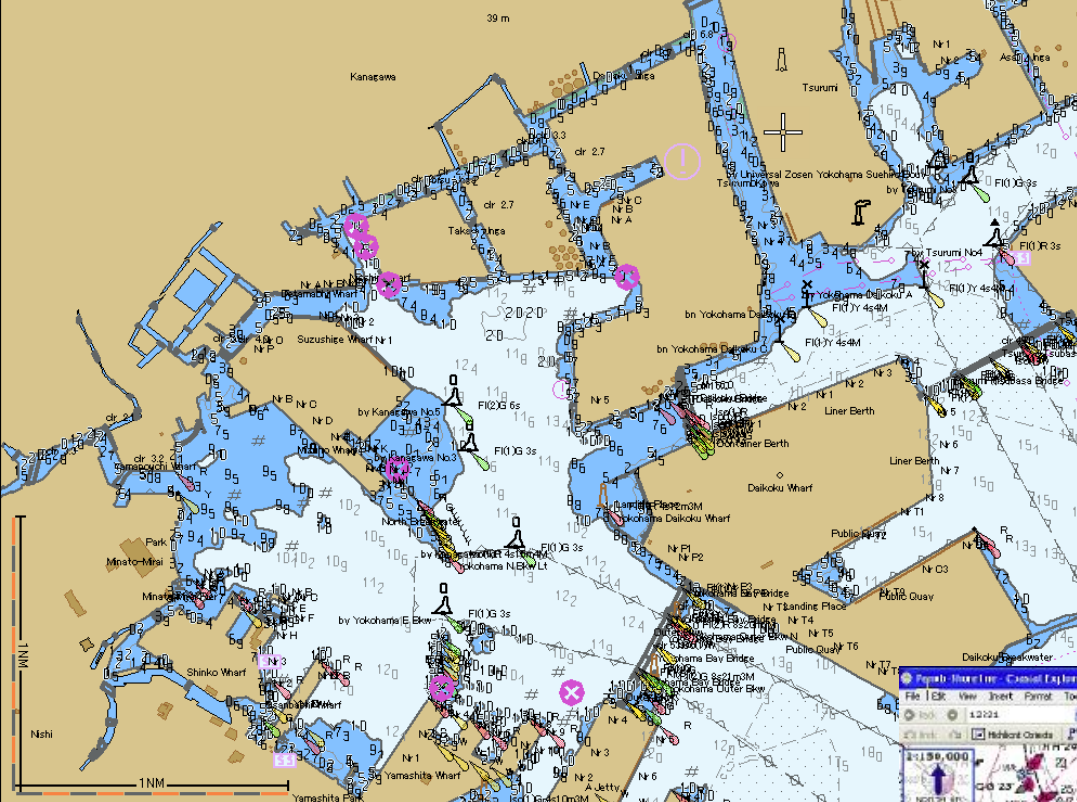


Uruga strait - the entrance to Tokyo Bay



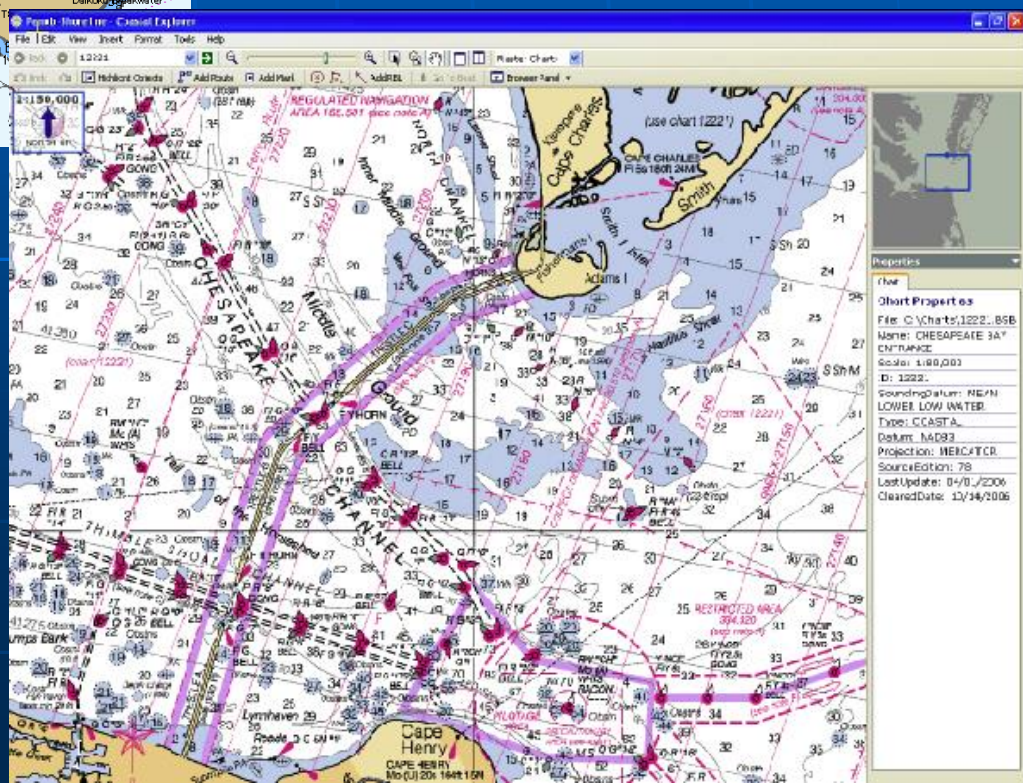
Eastern Approaches to Muscat

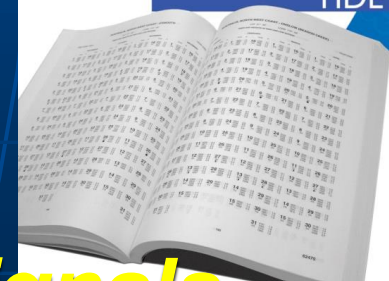
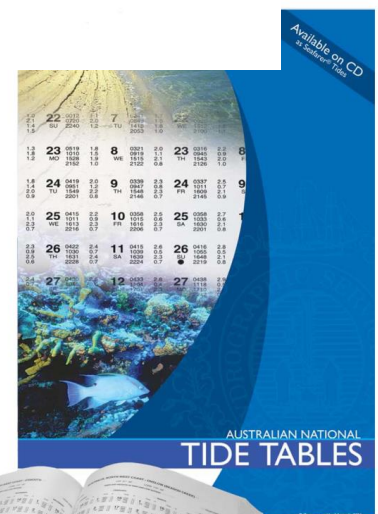




Yokohama

Chesapeake Channel

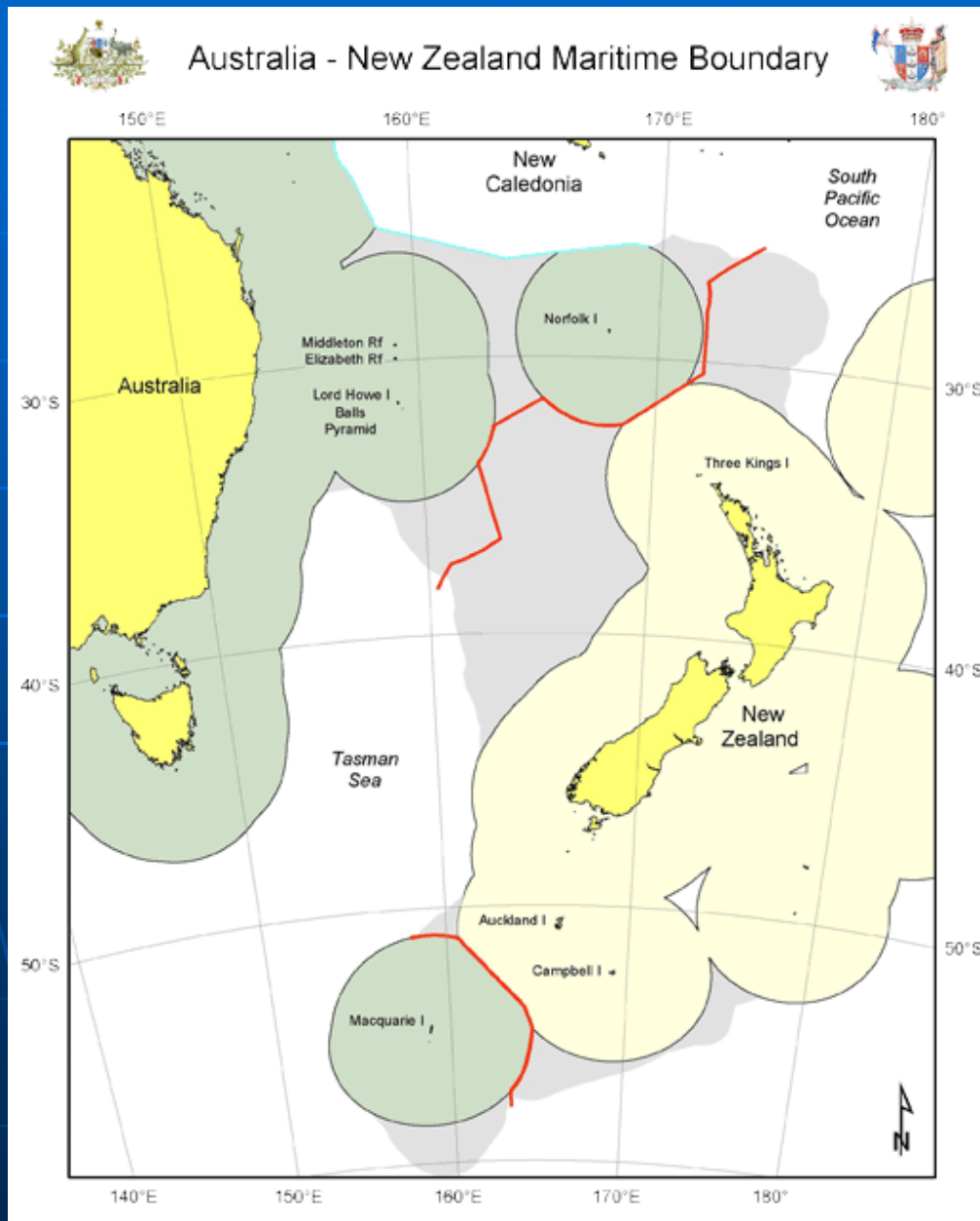




- ***tide tables***
- ***sailing directions***
- ***lists of lights and radio signals***



Maritime Boundaries



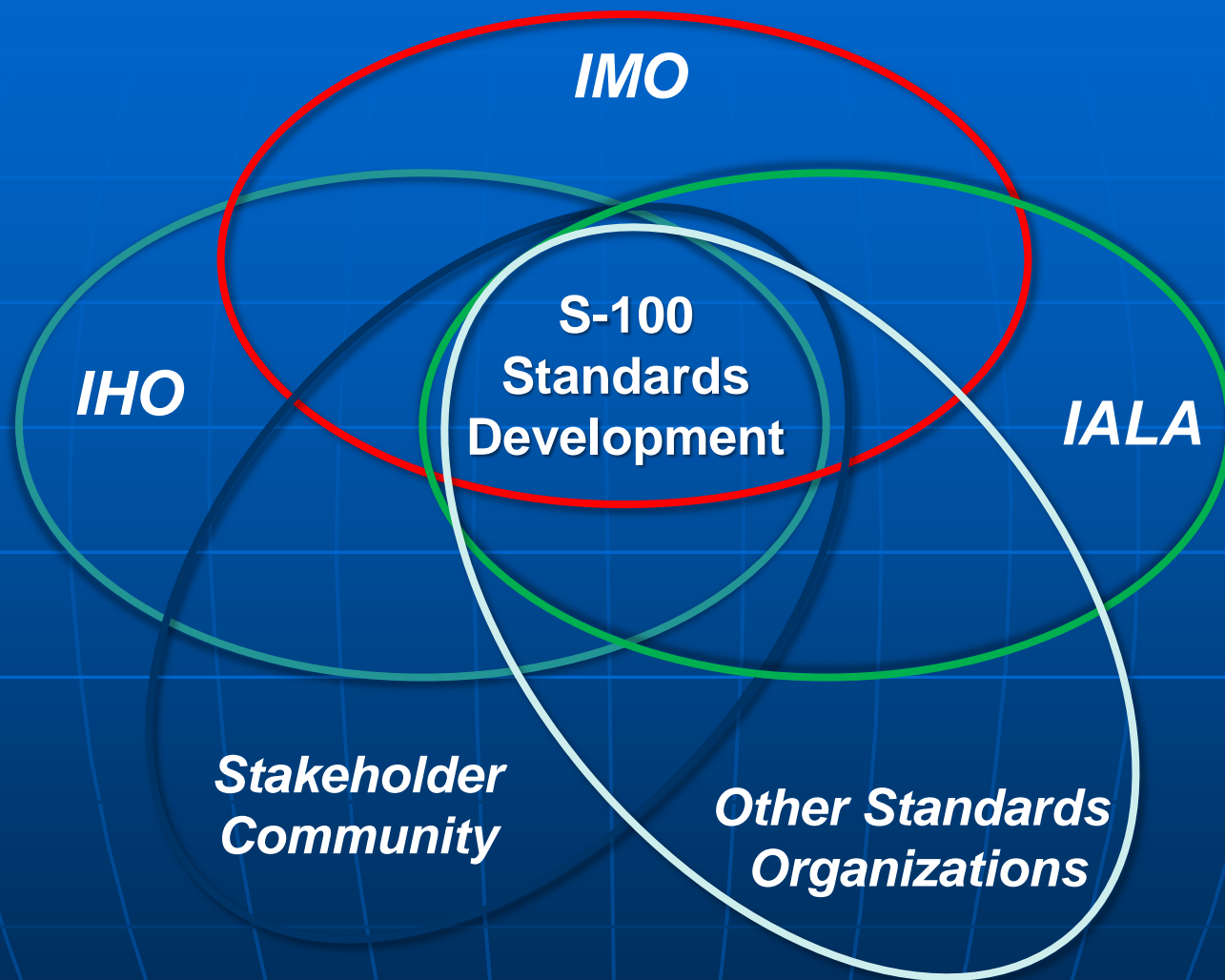
Key Technical Initiatives



S-100 IHO Universal Hydrographic Data Model



S100 – Relationship with other Organization



PRELIMINARY LIST OF S-100 BASED PRODUCT SPECIFICATIONS

- **IHO: S-101 to S-199**
 - IHO S-101 ENC
 - IHO S-102 Bathymetric Surface
 - IHO S-103 Sub-surface Navigation
 - IHO S-111 Surface currents
 - IHO S-121 Maritime limits and boundaries
 - IHO S-122 Marine Protected Areas;
 - IHO S-123 Radio Services
 - IHO S-124 Navigational warnings
 - IHO S-125 Navigational services
 - IHO S-126 Physical Environment
 - IHO S-127 Traffic Management
 - IHO S-1xx Marine Services
 - IHO S-1xx Digital Mariner Routeing Guide
 - IHO S-1xx Harbour Infrastructure
 - IHO S-1xx (Social/Political)
- **IALA: S-201 to S-299**
 - IALA S-201 Aid to Navigation Information
 - IALA S-20x Inter-VTS Exchange Format
 - IALA S-20x Application Specific Messages
 - IALA S-20x (Maritime Safety Information)
- **IOC: S-301 to S-399**
 - Various: S-401 to ...
 - IEHG S-401 Inland ENC
 - JCOMM S-411 Sea ice
 - JCOMM S-412 Met-ocean forecasts



Capacity Building and Cooperation Effort



Regional Coordination – Capacity Building

Objectives:

... **assess the status** of hydrographic surveying, nautical charting ... in developing regions ...

... **establish close relationships** with national agencies and international organizations, to identify funding and technical assistance

...

... **cooperate with** Regional Hydrographic Commissions ...

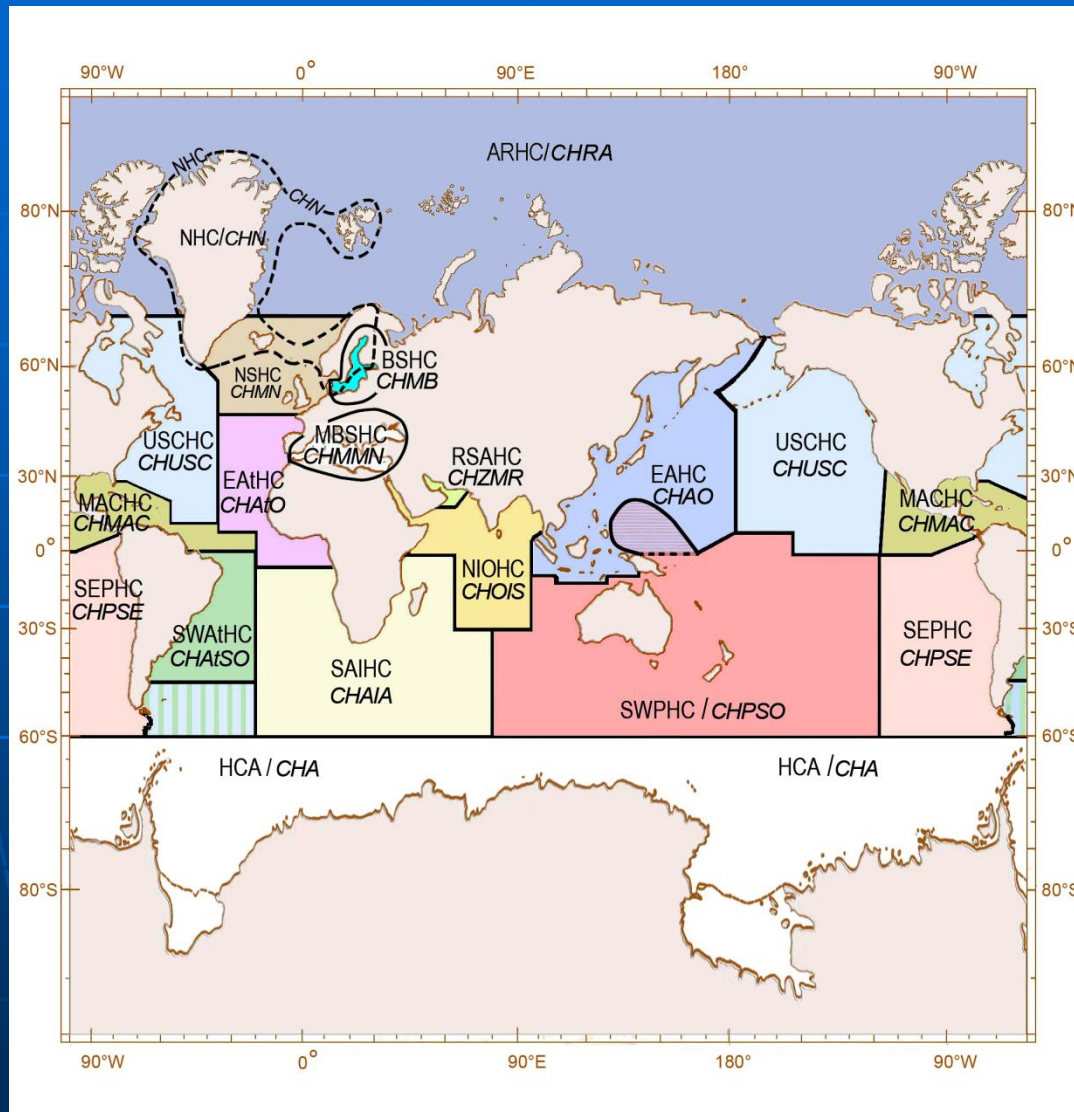
Fund supports:



Proposals submitted via Regional Hydrographic Commissions



Regional Hydrographic Commissions

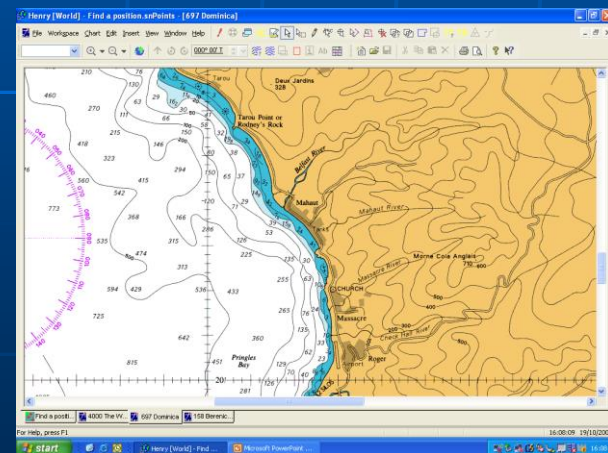
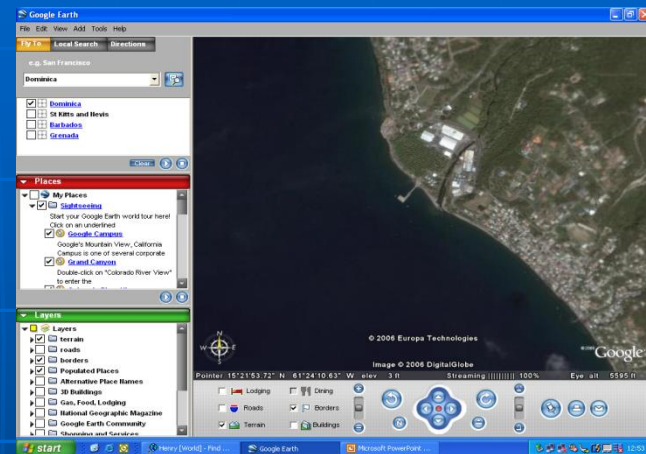


Governed by Statutes - NOT IHO regulations



What has the IHO found?

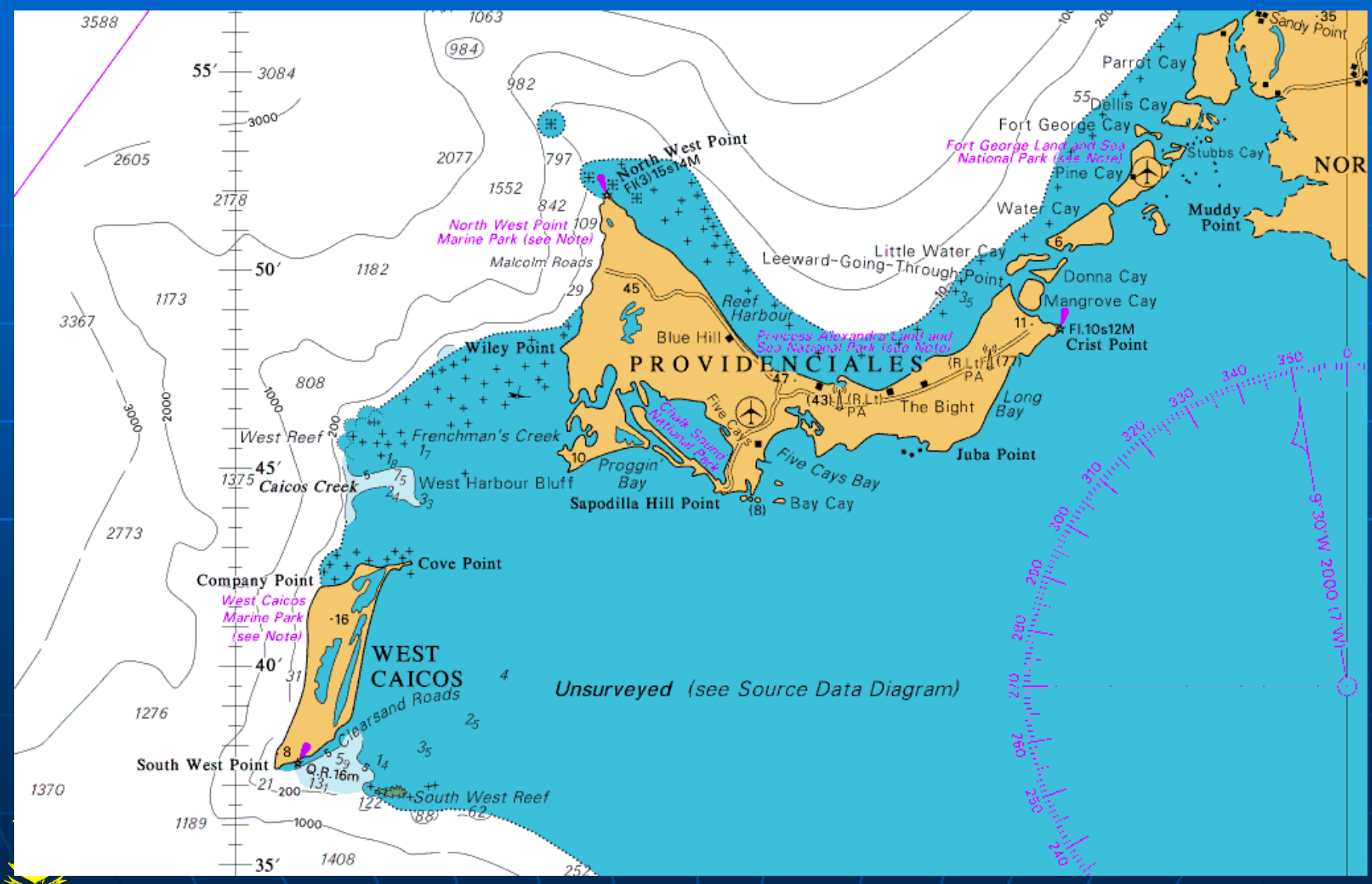
- New jetties and port installations, utilised by high risk vessels (LNG carriers; large passenger vessels), where surveys have not been conducted and information has not been passed to HOs for charting.



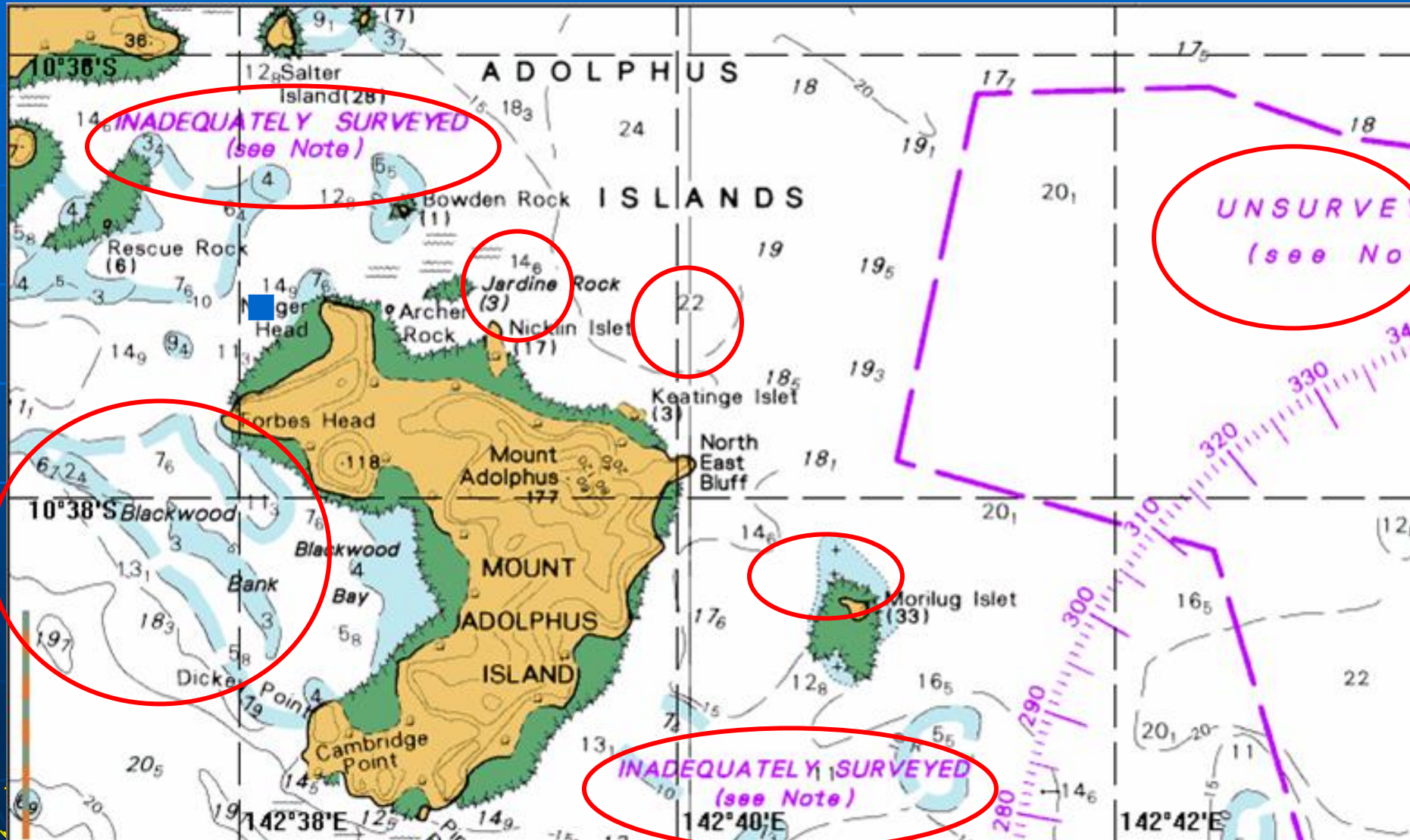
Example of an uncharted port: South Dock, Providenciales, Turks and Caicos Islands, where one grounding has already occurred on the unsurveyed bank depicted on the current approach chart (next slide).



BA Chart 3907 (1: 300,000): the only existing coverage of the area.



Status of surveying worldwide



Survey and charting status 2014

(source: IHO C-55)

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

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



Stages of Development of Hydrographic Surveying and Nautical charting capability

PHASE ONE

Builds on current capability by:

The collection and circulation of nautical information necessary to maintain existing charts and publications up to date



Stages of Development of Hydrographic Surveying and Nautical Charting Capability

PHASE TWO

Enhances current capability by:

The creation of a surveying capability to conduct coastal and offshore surveys



Stages of Development of Hydrographic Surveying and Nautical Charting Capability

PHASE THREE

Develops independent national capability by:

The independent production of charts
and
publications



International Hydrographic Organization

**International Hydrographic Bureau
4b, Quai Antoine 1^{er}**

B.P. 445

**MC 98011 MONACO CEDEX
Principauté de Monaco**

Telephone: +377 93 10 81 00

Fax: +377 93 10 81 40

e-mail: info@iho.int

WEB Site: <http://www.iho.int>





Thank You

