## MEDITERRANEAN AND BLACK SEAS HYDROGRAPHIC COMMISSION

**XVIII CONFERENCE** 

CONTRIBITION BY MALTA

# tm

Transport Malta

Butami, Georgia 30 June - 2 July 2015

#### Item 1 Hydrographic Office

Transport Malta is responsible for all transport and maritime sectors. The Hydrographic Office forms part of the Ports and Yachting Directorate under the Marine Department. The Chief Officer, Capt David Bugeja is responsible for this Directorate.

The Hydrographic Office is responsible for safety to navigation incorporating updates of navigational charts, navigational aids, notices to mariners and navigational warnings.

Transport Malta head office is located at the Malta Transport Centre

Ports and Yachting Directorate Malta Transport Centre Xatt I-Ghassara ta' I-Gheneb, Marsa HMR 1917 Malta

The Maltese Hydrographic office has officially applied for membership to the International Hydrographic Organisation by presenting the letter of request to accede to the convention on the International Hydrographic Organisation to the Embassy of the Principality of Monaco.

#### Item 2 Surveys

The Hydrographic Office is equipped with a 15m survey boat to survey the ports and harbours. Surveys are carried out with a single beam echo sounder ELAC HYDROSTAR and GPS Trimble DSM 12 for positioning. These are portable and so can be mounted on a smaller boat so as to survey very shallow areas.

2.1)Regular surveys have been carried out in ports and harbours to maintain British Admiralty Charts of Maltese waters.

#### Item 3 New Charts and Updates

Through a bilateral agreement, the UKHO at present produce the Maltese paper charts. This year 1 Chart has been updated that is BA 36. This chart has been reproduced at a scale of 1:25000 thus including the approaches to the harbour.

There is also an agreement with UKHO for the production of ENC's of the Maltese waters.

The UKHO produce 6 ENCs corresponding to paper charts BA 194, BA 2537, and 2538, BA 177, BA 211 and BA 36 Thus having all the ENCs required to navigate in the Maltese Waters.

There are no Maltese publications but information is sent to the UKHO where the Mediterranean Pilot Sailing Directions NP 45, List of Lights and fog signals NP 78, Admiralty list of Radio Signals NP 286(3) and Maritime Communications NP 289, are being updated with the latest Maltese information.

Notices to mariners are issued as they come in. These are promulgated through the Maltese Government Gazette. Notices to Mariners and Navigational warnings are sent to NavArea 3 Coordinator (Spain), Italy, Russia and the UKHO.

- Item 5 MSI
- **NAVTEX** This service is operated by the military service (Armed Forces of Malta) that is also responsible for the search and rescue operations.

For the past two years the NAVTEX area has been reassigned to cover the west coast of Tunisia and the coast of Libya as agreed with the Navarea III Coordinator

- **GMDSS** Master Plan has been implemented and is operational in A1 and A2. A fully compliant coast radio system has been incorporated into the new existing VTS. This includes a NAVTEX transmitter with a complete relocation of all transmitters and antennae.
- Item 6 S-55 Latest Update no update
- Item 7 Capacity Building None

#### Item 8 Oceanographic Activities

#### **Tide Gauge Network**

Two new digital tide gauges have been purchased this year and are expected to be operational within the month of July 2015. They will cover the two main harbours of Valletta and Marsaxlokk. Another tide gauge is set up by the Physical Oceanography Unit which is set up at PortoMaso.

#### The Physical Oceanography Unit (PO-Unit) -

This is an independent research unit at the University of Malta

The Physical Oceanography Unit (PO Unit) was established in the early 90's under the Malta Council for Science and Technology. It now forms part of the Faculty of Science within the University of Malta.

Activities:

- Research in coastal meteorology and physical oceanography.
- Gathers, processes, analysis and manages high quality ocean observations including real time monitoring systems.
- Specialise in ocean and atmospheric numerical modelling.

- National oceanographic data management centre.
- Collaborates with international research institutions in Europe and Mediterranean.
- Provides services and technical assistance to public/private entities.

The PO Unit acts as a national oceanographic data centre and promotes the IOC/IODE (IOC Committee on the International Oceanographic Data and Information Exchange) products and oceanographic data management activities in Malta. It provides support to local entities involved in marine research and monitoring, to collect and maintain oceanographic data according to international standards. The PO Unit plays the role of keeping track of ocean observations made in the vicinity of the Maltese Islands. Data collected by individual scientists, local agencies and governmental departments is primarily kept under the respective sources, and under different, often incompatible formats. The PO Unit aims to identify these data holdings and to bring the data under one database with standardized formats.

Below is the link to this Physical Oceanographic Unit



## **Marine Forecast**

- Bulletin is issued daily.
- Consists of 3-hourly averaged forecast fields.
- For 3 and a half days.
- Temperature, Salinity and Velocity output at various depths.



#### 1/96° Forecast for 01/08/2013 - 04/08/2013



# **Atmospheric Forecast**

- Bulletin is issued daily.
- Consists of 6-hourly forecast fields.
- For 72 hours.
- Air Temperature, Wind Vector, Precipitation and Air Pressure.



Go to the Mediterranean Basin Scale Forecast

#### **Central Mediterranean Regional Scale Forecast**

#### 02/08/2013 - 03/08/2013

Atmospheric Forecast from 02/08/2013 at 00:00 GMT to 03/08/2013 at 12:00 GMT.	Select Parameter :	Air Temperature V
Forecast fields are plotted every 3 hrs and are centred at 00h, 03h, 06h, 09h, 12h, 15h, 18h and 21h	Select Date:	02/08/2013 🗸
Local Winter time = GMT + 1h Local Summer time = GMT + 2h	Get Plot	

Model run by Svetlana Music; Automated system by Joel Azzopardi; Web Development by Martin Galea De Giovanni

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Website maintained by the Physical Oceanography Unit at the IOI-Malta Operational Centre, University of Malta, clo 43, Flat 1, Valley Road, B'Kara, Malta

### **Realtime Observations**



## **Realtime Observations [Sea Level]**



#### CALYPSO HF Radar Data

• HF Radar Monitoring System and Response against Marine Oil Spills in the Malta Channel.

## **CALYPSO HF Radar Data**

- User friendly web interfaces for the display of data in real-time are being developed. These will provide information in the form of maps for 2D display as well as time series at selected points in the area of coverage.
- The Public Interface is aimed for the general public. It will provide plots and statistics for 9 different regions in the Malta-Sicily channel.
- The Professional Interface targets experts. This will show quick view plots and make possible the downloading of data, the extraction of data sub-sets and also handle special data requests. Access to the Calypso Professional Data Interface is restricted to registered users. New users can register on the Calypso portal.



#### **MEDESS-4MS**

The MEDESS-4MS service is intended to aid the prevention of maritime risks, improve safety at sea and the ecosystem protection in the Mediterranean area.

- It will provide support to the response agencies for improving their contingency plans and for identifying ship-source pollution.
- The service is specifically designed to serve the needs of the Member and non-Member States response agencies.
- **21 partners** from across the Mediterranean.

- · An integrated real time multi-model oil spill prediction system will be implemented.
- An interconnected network of data repositories that will archive and provide in an operational way the access to all available environmental data.
- A unique access web portal with different service scenarios, multi-model data access and interactive capabilities will be implemented.



**Courses offered by the Physical Oceanography Unit (PO-Unit)** 

1)

#### Master of Science in Applied Oceanography



## www.um.edu.mt/science/pounit

- 2) IOI MA in Ocean Governance: <u>https://www.um.edu.mt/icp/ocean-governance</u>
- 3) IOI 5-week course: http://oceania.research.um.edu.mt/cms/ioicourse/

#### Item 9 Other activities

- (a) Monitoring dredging operations in the development of a Freeport Harbour and around Malta.
- b) Assisting the Chief Officer and Harbour Master in decision making for the berthing of vessels and safe passage around Malta and in Ports and Harbours.
- c) Monitoring Navigational Aids and issue Notices to Mariners and Navigational warnings.
- d) Provide charts in connection with mooring areas in the Maltese coastal waters.

#### Item 10 **Conclusions**

The Maltese Hydrographic Office now comprises of two qualified Hydrographic surveyors and another officer has been enrolled to cover Electronic Charting. In its limited functions, it is maintaining the Maltese Navigation Charts and contributes highly to safety of navigation in Maltese waters by keeping up to date Nautical Charts issues Notices to Mariners and Navigational Warnings.