MEDITERRANEAN AND BLACK SEAS HYDROGRAPHIC COMMISSION

XVIII CONFERENCE

CONTRIBITION BY MALTA

Istanbul, Turkey
25-27 September 2013

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 l-Ghassara ta' l-Gheneb,
Marsa HMR 1917
Malta

Item 2 **Surveys**

The Hydrographic Office is equipped with a 15m survey boat to survey the ports and harbours. The Hydrographic Office is 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.

2.2) A LIDAR and multibeam survey around the Maltese Islands has been carried out between June 2012 and August 2013. An area of 1 Nautical Mile offset from the baseline was covered. The LIDAR survey covered the area up to the 15m contour however since the water was very clear most of the survey covered up to 40m depth. All this data is now being evaluated.

2.3) Through a bilateral agreement with the French Hydrographic Office (SHOM) two areas (north west to west of Malta and West to south - southeast of Malta) were surveyed with multibeam by the SHOM survey vessel Laperouse.(See annex 1).

Item 3 **New Charts and Updates**

Through the EUMEDIS, MEDChartNet project the hydrographic office was supplied with 11 ENCs. These charts are being used by our VTS. The Hydrographic office is maintaining these charts but they have not been released for distribution.

Through a bilateral agreement the UKHO at present produce the Maltese paper charts. This year 2 Charts have been updated that is BA 177 and BA 211. T
There is also an agreement 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.

Item 4 **Publications**

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.

The NAVTEX area has been modified as per chart attached (Annex 2):

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 re-location 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

A digital tide gauge records sea level data. This data is transmitted to the office by VHF in real time. This data is forwarded to the PMSL laboratory and to the UKHO. An old mechanical tide gauge has been installed in the south port, which is 8 Nautical Miles away. The same datum was transferred to this port. No tide difference was observed during the years of operation.

The Physical Oceanography Unit (PO-Unit) –
This is an independent research unit at the University of Malta

Projects

CALYPSO

CALYPSO is a 2-year project partly financed by the EU under the Operational Programme Italia-Malta 2007-2013, and co-ordinated by Prof. Aldo Drago from the Physical Oceanography Unit of the University of Malta. It brings together 3 other partners from Malta – namely Transport Malta, Civil Protection Department and Armed Forces of Malta – and 4 partners from Sicily – ARPA Sicilia, IAMC-CNR Capo Granitola, Università degli Studi di Palermo (UNIPA) and Università di Catania (CUTGANA). The consortium consists of research entities and also public entities with responsibilities for civil and environmental protection, surveillance, security and response to hazards.

The main project deliverable is the setting up of a permanent and fully operational HF radar observing system, capable of recording (in real-time with hourly updates) surface currents in the Malta Channel. The system consists of HF radar installations on the northern Malta and southern Sicilian shores at selected sites and combines stations to elaborate and publish data to users.

Collected data, combined to numerical models, are intended to primarily support applications to optimise intervention in case of oil spill response as well as endow tools for search and rescue, security, safer navigation, improved metro-marine forecasts, monitoring of sea conditions in critical areas such as proximity to ports, and better management of the marine space between Malta and Sicily.

Project website can be found here.

Mediterranean Decision Support System for Marine Safety (MEDESS-4MS)

Mediterranean Decision Support System for Marine Safety (MEDESS-4MS) is dedicated to the strengthening of maritime safety by mitigating the risks and impacts associated to oil spills. MEDESS-4MS capitalizes on existing pan-European frameworks and embraces recent advances and important developments in oceanography in the Mediterranean area. MEDESS-4MS aims to deliver an integrated operational multi model oil spill system in the Mediterranean by gathering and analyzing met-ocean data as well as data related to ship traffic, ship operations and sensitivity mapping. This data will be provided to well established oil spill monitoring and forecasting systems, thus, providing an invaluable tool regarding the early detection and efficient control of the oil spill at early stages.

Therefore, MEDESS-4MS aims to offer a comprehensive and integrated multi-model approach regarding our response to oil spills at sea; an approach that takes into account all three important aspects related to marine pollution, that is, Prevention, Detection and Control. The beneficiary countries of MEDESS-4MS are Cyprus, France, Greece, Italy, Malta, Montenegro and Spain.

Project website can be found here.

BLUE OCEAN ENERGY

The BLUE OCEAN ENERGY® (BOE) project aims to adapt and test the feasibility of the DEXAWAVE converter as a means of extracting energy from sea waves in the Maltese coastal sea areas. The converter is based on a technology developed by Dexawave Energy ApS and promises to be an innovative, simple, cost-effective and competitive source of electrical power.

The PO-Unit will be utilising its experience and expertise in wave modelling and analysis. It will be using high resolution wave models and data to define a wave climatology around the Maltese Islands. The analysis of such a climatology will serve as a basis to identify and map the wave energy resource. The PO-Unit will be also monitoring and analysing the wave conditions at the location of the converter.

Project website can be found here.

SeaDataNet

SeaDataNet is an EU-funded FP6 project targeting to develop an efficient pan-European infrastructure for ocean and marine data management.

The predecessor of SeaDataNet, the Sea-Search project, led to the development of databases which store meta-data marine records held by European organisations, information about marine projects within Europe, and reports about research cruises organised by European institutions. These databases can be found here.

In SeaDataNet these databases are being continued, updated and harmonised. The main objective of SeaDataNet is to construct a standardized system for managing the large and diverse data sets collected by the oceanographic fleets and the new automatic observation systems. The objective is to network and enhance the currently existing infrastructures, which are the national oceanographic data centres and satellite data centres of 35 countries, active in data collection. The networking of these professional data centres, in a unique virtual data management system will provide integrated integrated data sets of standardized quality on-line.

The PO-Unit is responsible for the archival and management of oceanographic data relating to the Maltese Islands. In SeaDataNet, IOI-MOC forms part of this European virtual ocean data system, and will continue to maintain the local oceanographic databases, and update their structure to make them compatible with the central databases. These local databases can be currently accessed online through the Malta Blue Pages.

SeaDataNet is also preparing added-value products developed from data in the European regional seas. IOI-MOC will assist in the development of such user products for the Mediterranean region.

More information about SeaDataNet can be found here.

MyOcean

MyOcean is a European Network to monitor, analyse and forecast the Oceans. Its main objective is the implementation of the GMES (Global Monitoring for the Environment & Security) Marine Core Service, whose aim it is to deploy the first concerted and integrated pan-European capacity for Ocean Monitoring and Forecasting.

By virtue of its track record in operational oceanography, and its involvement in European research networks, the PO-Unit is engaged as the Maltese partner in MyOcean. Its main role in the project is to act as a local broker to promote the application of the MyOcean Marine Core Service (MCS) to the benefit of Maltese users, as well as to make use and transform marine regional scale data into added value products and services at the local scale.

The PO-Unit is directly involved in the project implementation in relation to Calibration/Validation and Quality evaluation of Mediterranean Monitoring and Forecasting Systems, as well as in the assessment of MyOcean products and services to provide/update requirements for Maltese local users in the main areas of benefit identified by the MCS.

More information about the MyOcean project can be found here.

Item 9 **Other activities**

(a) Monitoring dredging operations in the development of a Freeport Harbour and around Malta.

(b) Assisting the Harbour Master in decision making for the berthing of vessels and safe passage 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 able to maintain the Maltese Navigation Charts and contributes highly to safety of navigation in Maltese waters by issuing Notices to Mariners and Navigational Warnings.

Annex 1

C. Scalambri

C.Passero

OIL AND GAS ACTIVITY

(see Note)

MALTA CHANNEL

(196) Ghawdex

(Gozo)

MALTA

VALLETTA

35 Hurd Bank

(195) I. di Linosa

ISOLE PELAGIE

Scog. Lampione (40)

I. di Lampedusa (133)

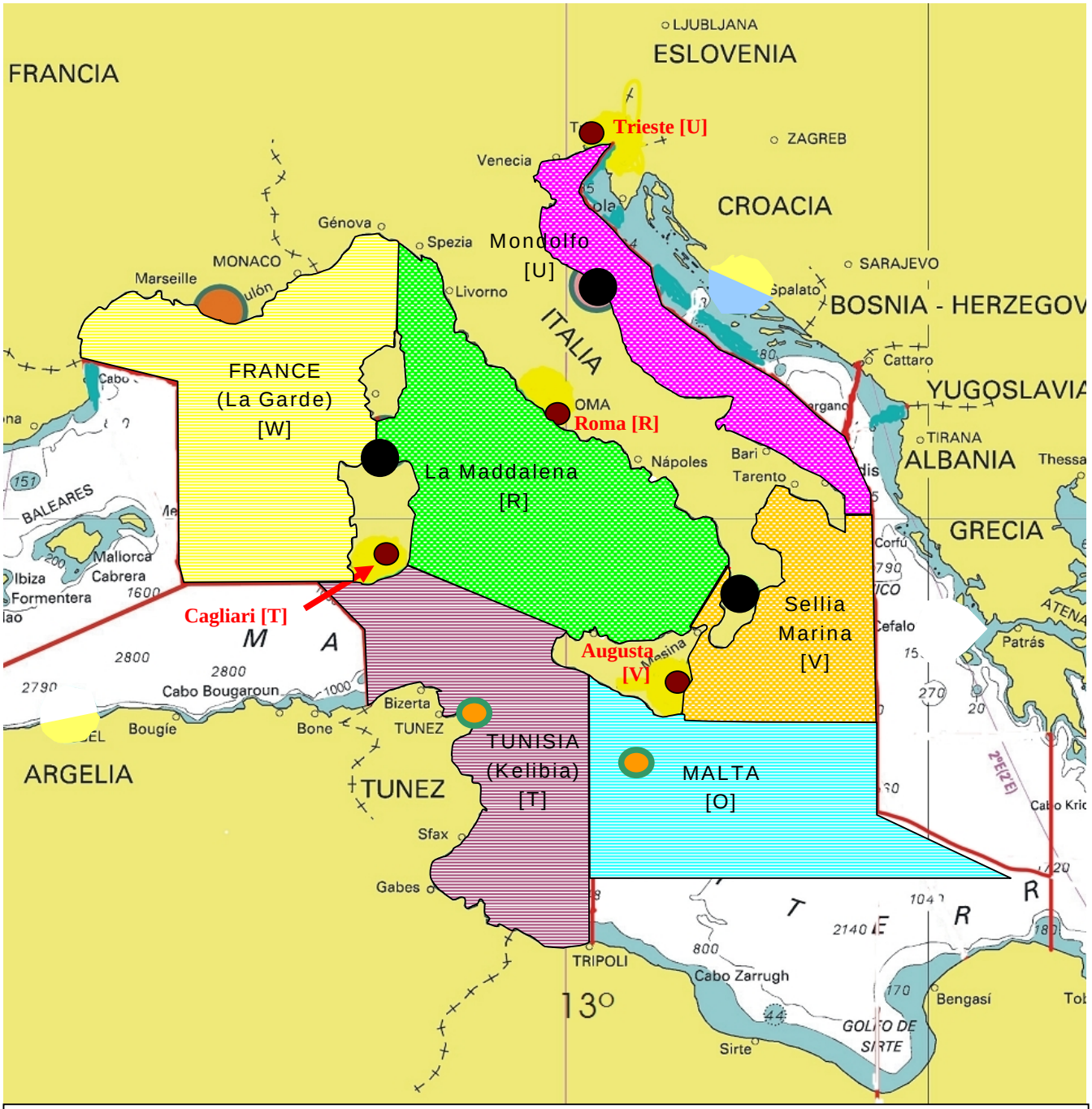
97 Bouri Bank

Malta Multibeam Survey 2012-2013

SHOM Multibeam Survey 2012-2013

SHOM Multibeam Survey 2013

Annex 2



KEY

- New Italian stations
- Old Italian station
- Other stations

La Maddalena Service Area	MALTA Service Area
Sellia Marina Service Area	TUNISIA (Kelibia) Service Area
Mondolfo Service Area	FRANCE (La Garde) Service Area