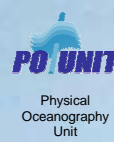


# ATMOSPHERIC ALERT SYSTEM FOR THE MALTESE ISLANDS AND THE CENTRAL MEDITERRANEAN

[ioi.projects.um.edu.mt:8080/riskmed/](http://ioi.projects.um.edu.mt:8080/riskmed/)



This project was partly financed by the European Regional Development Funds (ERDF) through the Interreg III Community Initiative, which forms part of the Structural Funds Programme for Malta (2004 – 2006)

## INTRODUCTION

Extreme weather events have adverse impacts to humans and to a large number of social and economic activities. At sea, extreme meteorological situations trigger harsh sea conditions that are dangerous for navigation both to crew and cargoes. The Mediterranean is an area notorious for severe weather events, mainly due to the formation of Mediterranean storms, especially in autumn and winter, with associated strong winds, sea waves or precipitation, and for the occurrence of heat waves during summer.

## THE PROJECT

The prediction of adverse weather events in advance, and the dissemination of warnings to the relevant authorities, mariners, end-users and to the public is a demanding task that RISKMED (Weather Risk Reduction in the Central and Eastern Mediterranean) has embarked to provide through a dedicated web service. This is partly financed by the European Regional Development Fund (ERDF) through the Interreg III Community Initiative, which forms part of the Structural Funds Programme for Malta (2004-2006). The project brings together a consortium of eight partners from Greece, Cyprus, Italy and Malta with interests and expertise in the subject. For the part of Malta, this project was coordinated by Dr. Aldo Drago, the Director of the IOI-Malta Operational Centre and Head of the Physical Oceanography Unit (PO-Unit) of the University of Malta.

## HOW TO ACCESS THE ALERTS

The atmospheric warnings can be accessed by linking to the dedicated webpage and clicking on the 'RISK MAP' button on the left margin of the page. This will load the alert interface which is divided into three regions: the 'Map Area', the 'Alert Description Legend' and the 'Time Selection' buttons. The map region shows the nine geographical sub-areas. Blue sub-areas are those for which there is no alert. Coloured sub-areas indicate the level of alert. The type of alert is indicated by the respective icon. Clicking on an area will make it active and will allow specific details such as the area ID, the duration and the type of alert to be displayed in the legend. Successive alerts can be viewed by the time selection buttons. Detailed information on how one can use the interface can be obtained through the 'Interface Help' button. The 'Alert Ranges' button displays the thresholds defined for each sub-area. The general web address [www.riskmed.net](http://www.riskmed.net) provides links to the regional alert systems developed by the other RISKMED partners.

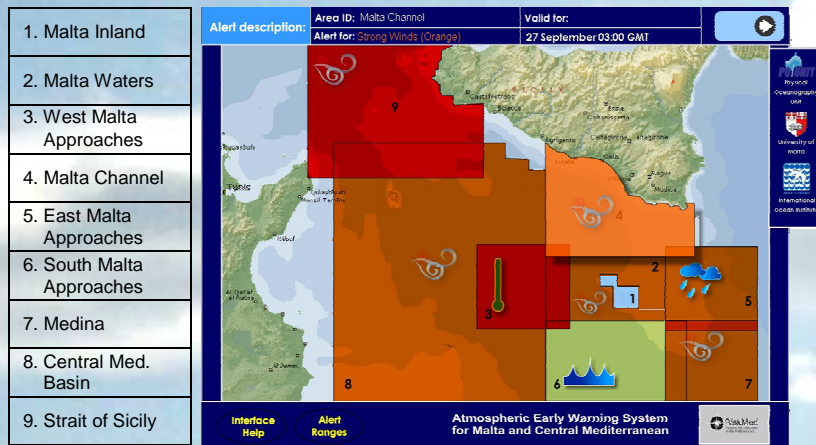


Figure 1: Alert web interface showing a fictitious combination of alerts

## WHAT IT IS

The system issues alerts of adverse meteo-marine conditions for nine sub-areas in the Central Mediterranean region, as shown in Figure 1, including the Maltese Islands. The alerts are issued at three levels (yellow, orange or red) according to the degree of severity, and are provided operationally on a daily basis at 6 hour intervals spanning a period of 3 days. The alerts are prepared on the basis of high resolution meteorological forecast fields by the MARIA/Eta Atmospheric Model, and the wave WAM model developed and run operationally at the PO-Unit.

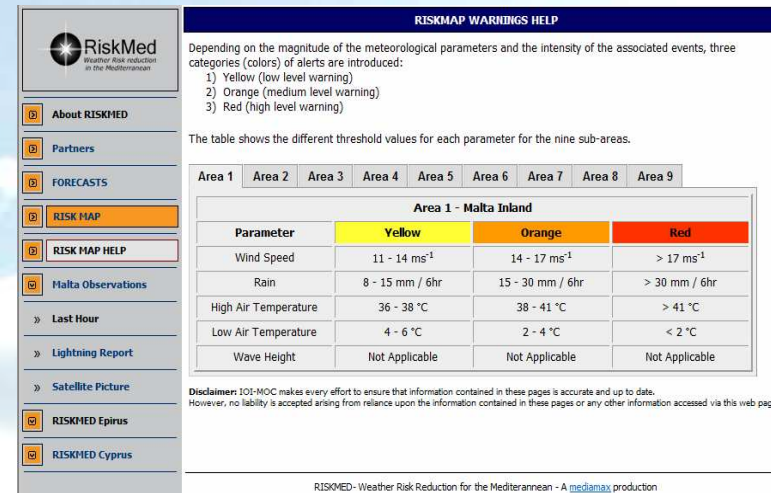
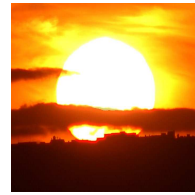


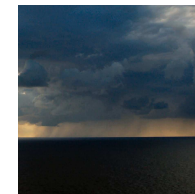
Figure 2: Snapshot from the dedicated website showing the threshold table used for the Maltese Islands

The Physical Oceanography Unit (PO-Unit) is the local entity engaged in research covering coastal meteorology, hydrography and physical oceanography with a main emphasis on the study of the hydrodynamics of the sea in the vicinity of the Maltese Islands. Apart from promoting activities in operational oceanography by the installation and maintenance of permanent meteo-marine monitoring systems, the PO-Unit also maintains atmospheric and marine forecasts which can be accessed through the CapeMalta website ([www.capemalta.net](http://www.capemalta.net)). The PO-Unit also specialises in data management and analysis, and participates in international cooperative marine research ventures.

**Disclaimer:** IOI-MOC and the PO Unit is not officially responsible to issue warnings and this free service is conducted on a best effort basis. We give no warranty, express or implied, as to the accuracy, reliability, utility or completeness of this information. Alerts are issued by an online automated system on the basis of forecasts generated by numerical models. Alerts should only be considered as indicative of meteo-marine events; interpretation and analysis is left completely in the hands of the user. The user of this system assumes all responsibility and risk for the use of any information and data from this service.



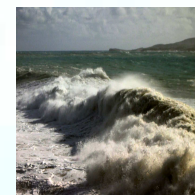
extreme temperatures



heavy precipitation



high wind speeds



strong waves