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MFSTEP: the results

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The main elements of the Mediterranean Forecasting System (EuroGOOS Publication No. 11, 1998) are now upgraded and developed by the EU project "Mediterranean ocean Forecasting System: Toward Environmental Predictions" (MFSTEP, V-FP contract number: EVK3-CT-2002-00075) that started March 1, 2003 and will end in February 2006.

The Mediterranean Forecasting System that has been developed, demonstrated and made operational is composed of: a) the Near Real Time Observing system; b) a numerical forecasting system at basin scale and with downscaling in sub-regional and shelf areas; c) a product dissemination/exploitation system. The MFSTEP Targeted Operational Period-TOP started in September 2004 and ended in march 2005, collecting a large amount of data for assimilation and model verification. Part of the deployed observing platforms are still active and observations will continue to be collected for the next years to come.

During TOP, eight forecasting centres have started to produce in real time forecasts at the basin scale (6.5 km of resolution), at four sub-regional areas with resolution up to 3 km and in four shelf areas with resolution of 1.5 km. Forecasts are produced daily at the basin scale for 10 days and once a week at the sub-regional scale for 5 days, using Limited Area Model-LAM high resolution weather forecasts.

MFSTEP has organised also a downloading and viewing service, i.e., data are displayed operationally through a Web service and products are also downloadable by the interested community by ftp with password. The end-user community is composed of governmental and military agencies, private companies, environmental protection agencies and research institutes.

MFSTEP has also developed a new biochemical model (so-called BFM) that is con-

structed to be easily interfaced with operational hydrodynamic models for future predictions of algal blooms in different shelf areas.

End-users applications involve oil spill forecasting, contaminant dispersion in coastal areas, real time observing and modelling system for fish management coupled to ocean forecasting, search and rescue forecasts and Rapid Environmental Assessment modelling. Finally the study of the forecast economic value and impact is being carried out.

The operational functioning of the MFS is demonstrated through the MFSTEP web site: http://www.bo.ingv.it/mfstep .