

Models from INGV used in the SEPRISE demonstration

Institution	National Institute of Geophysics and Volcanology, INGV
Model Name	MFS_sys1_daily
Characteristics	<p>The oceanographic general circulation model (OGCM) of the Mediterranean Forecasting System (MFS) is based on the free surface version of the OPA8.1 model. (Madec, Delecluse et al. 1999). The OGCM solves prognostic primitive equations of the ocean fields of temperature, salinity, horizontal velocity and surface elevation.</p> <p>The diagnostic equations compute the vertical velocity, the density, the heat and momentum surface fluxes and the surface waterflux.</p> <p>The model applies the hydrostatic, Boussinesq and incompressibility assumptions.</p>
Area Covered	Mediterranean Sea:
Variables Predicted	<p>3D: potential temperature, salinity, zonal velocity, meridional velocity.</p> <p>2D: Sea Surface Height, net downward heatflux, downshortwave radiation, net upward waterflux, meridional windstress, zonal windstress</p>
Operational / Pre-operational	Operational
Source of Atmospheric Forcing	ECMWF 6hourly fields, analyses and forecasts
Length of Forecast	10 days
How many forecast cycles per day, i.e. how often is the model run?	One forecast cycle every day

Additional Information		
Numerical basis of the model	Model Area	Lon 18.125W Lat30.25N Lon 36.25E Lat 46.0N
	Number of grid points in X-Y axis	871, 253
	Number of vertical levels	72
Resolution (° or km)	1/16° x 1/16°	

Computer used	NEC			
Validation method	<p>MFS routinely provides on the web pages its forecast evaluation (rms misfit for SLA, weekly rms of analyses and forecasts of temperature, rms of salinity misfit with ARGO...).</p> <p>Each month the MFS Monthly Bulletin shows monthly means and anomalies with respect to the NCEP/NCAR climatologies recomputing for our system. The data used are the MFS analyses.</p>			
Use of model	X	Research	X	Public
		Governmental	X	Commercial
		Private		