



ITALIAN METEOROLOGICAL SERVICE

General Office for Air Space and Meteorology

(USAM)



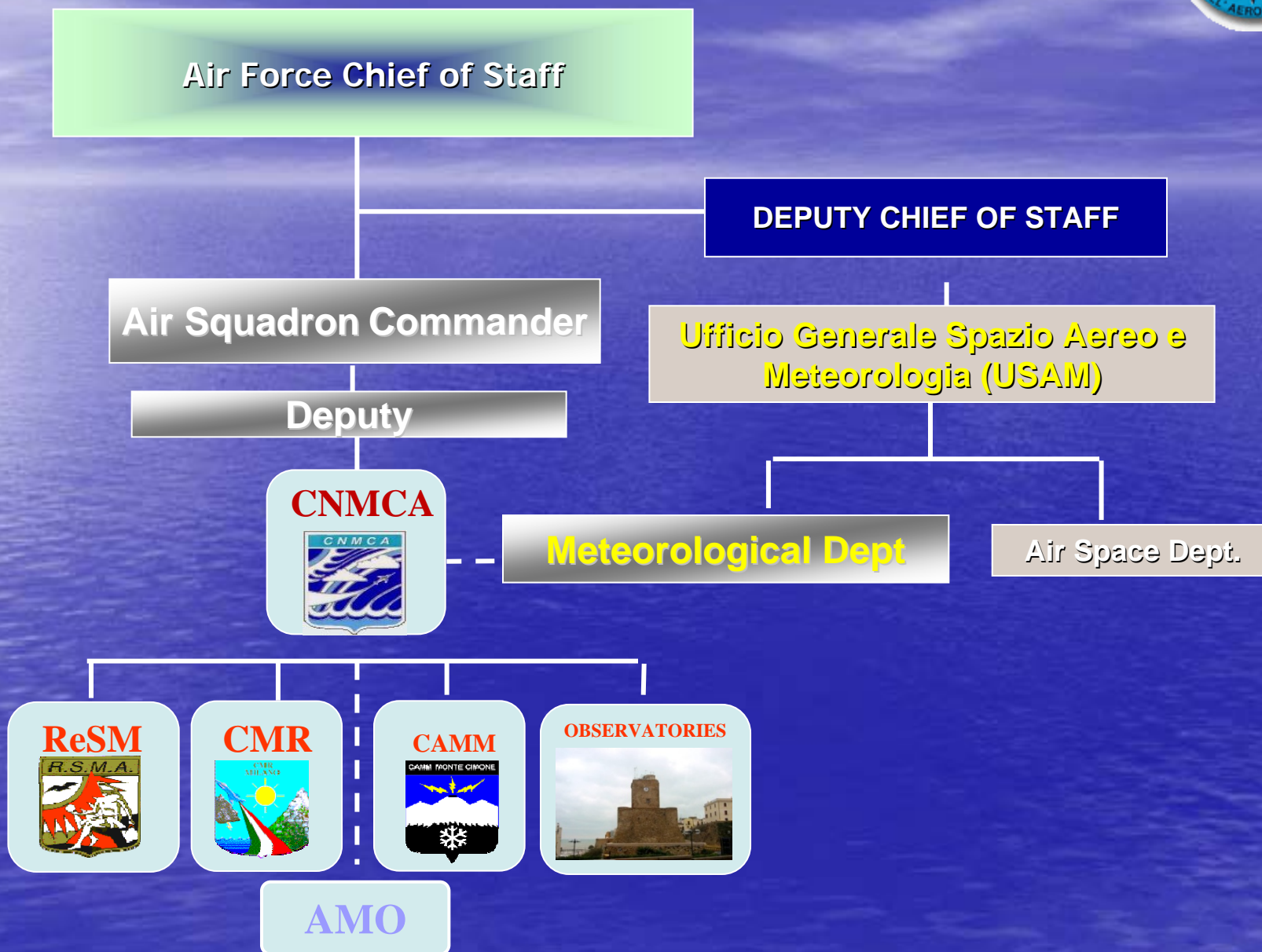
Training Workshop on MHEWS

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Organization chart





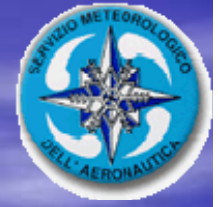
Previous Legal Framework

Civil Protection Department operational structure includes a permanent met unit (a maximum of 6 Weather Forecasters but 5 actually) provided by the National Met Service in the framework of the Ministry of Defence/Air Force support to the Civil Protection activities. The unit is active 24 hours/365 day per year.



Lessons learned

Technical Cooperation is necessary but is not enough



Specific Legislative Framework

Italian Prime Minister Directive (27 Feb. 2004):

“Operational Guidelines for the organizational and functional handling of the national and regional warning system on the hydro-geological and hydraulic risk for the purposes of the Civil Protection”. It defines:

- The **structure** (a **distributed network** of Centres for Forecasting and Surveillance of Effects –CFSE (“**Centri Funzionali**”)) and **the decision making process** of the Multihazard Early Warning System in Italy;
- The National Centre for Aeronautical Meteorology and Climatology (**CNMCA**) of the National Met Service as a **Centre of excellence for Technology and Scientific Services.**



The Italian **Early Warning System** is structured in three phases:

- “a forecasting phase” that includes the **support of a numerical weather model**;
- “a monitoring phase” that includes the **support of meteorological observations**;
- “a very short range forecasting phase” that includes **the support of meteorological nowcasting tools**.



Legal Framework

“Memorandum of Understanding” (2004 updated in 2009)

between the Department of Civil Protection belonging to the Presidency of the Council of Ministers and the Italian Air Force (which the Italian Met Service belongs to) for the implementation of the Directive above mentioned.

It defines the:

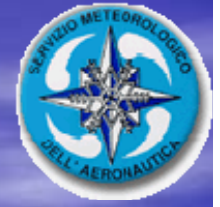
- different areas of meteorological support and cooperation;
- establishment of a **Coordination Group** for the implementation and improvement of the cooperation.



Legal Framework

The updated **Memorandum of Understanding** includes:

- synoptic support through **a daily teleconference with the National Forecasting Room of the CNMCA.**
- participation of **Civil Protection Department experts to the EUMETNET/EIG METEOALARM Program activities** in the framework of the purposes of the Directive;



24 hour around a clock production





Legal Framework

Implementation Agreements (2004 updated in 2009)

They define the specific and detailed type of support provided by the Italian NMS to the Civil Protection:

- **real time data/products** provision to the Department and, through the Department, to the regional network of “Centri Funzionali” for supporting their forecasting activities;
- **direct access to the EUMETSAT broadcast** by the network of CFSE + the National Environmental Institute (ISPRA);
- **joint operation of an high resolution numerical model called COSMO I7** together with Emilia Romagna and Piemonte Regional Environmental Agencies/Met Services



The Italian Met Service **will guarantee the relationship with the European Meteorological Agencies** and in particular will:

- **be responsible** of the distribution of the WMO, ECMWF and EUMETSAT data and products;
- **provide** meteorological fields at the synoptic scale and, if needed, at the local one both in numerical and graphical form;
- **participate** to the activities for the national radar mosaic;
- **represent** the country in the meteorological initiatives of the UE involving the Civilian Protection;
- **access** the hydrological data collected at Regional level and available for the Civilian Protection;
- **receive** a compensation for the effort in support of the Civil Protection.



Legal Framework

the updated **Implementation Agreement** includes:

- the **availability of National Met Service sites for the installation of meteorological radar of the Civil Protection;**
- CFSE (“Centri Funzionali”) access to the **PROMETEO graphic system** developed by the Italian Met Service, defined by the Department **as the standard platform in the network of “Centri Funzionali”**, for distribution and interactive support of met data/products;
- the **confirmation of the level of compensation.**



Decision making process of the meteorological Early Warning System (1)

According to the Directive:

a **“Technical Group”**, coordinated by the **Office for risk planning, assessment and prevention** of the Department of Civil Protection, and made of:

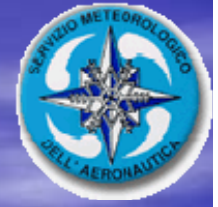
- a shift forecaster of the **Met Service of the Civil Protection Department (personnel detached from the Italian NMS)**;
- a shift forecaster of the **National Meteorological Service(CNMCA)** via teleconference;
- a shift forecaster of selected **Regional Meteorological Services**,



Decision making process for the meteorological early warning system (2)

is established with the task of:

- preparing and formally informing, every day before 12.00, the Head of the Civil Protection Department of the synoptic forecasts for the purposes of civil protection at 24, 48 and 72 forecast ranges, in order to allow the **Department to issue on a daily basis a “Bollettino di vigilanza meteo”** for the purposes of civil protection;
- allowing the Regional Met Services or met components of the “Centri Funzionali” to issue for the area of responsibility, if needed and according to their procedure, **local and mesoscale forecasts.**



Other Cooperations

between the National Met Service and the Civil Protection Dpt

- **H_SAF: EUMETSAT Software Application Facility for Hydrology** , a joint initiative both at national and international level;
- **deployment of the Met Mobile Unit (UMM)** in case of emergency (L'Aquila Earthquake) and/or major event(G8).



The Met Service for the **Emergency Services**





Lessons learned

Full Partnership formalized by law and agreements;

Decision making process respectful of the different institutional roles at central as far as at local level;

Financial Support by Civil Protection.



Questions ?

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