MEDITERRANEAN CLIMATE OUTLOOK FORUM
MEDCOF-4 MEETING

MONITORING SUMMARY FOR MEDCOF-4
Last update: 14 May 2015

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The following MedCOF monitoring summary report is based on

- climate monitoring working reports from RA I NA RCC-CM, RA VI RCC-CM and RA VI RCC-LRF

The **oceanic analysis** shows an increase of the Niño3.4 index of around +0.8ºC in April consistent with the increase of indices over other areas. In the Pacific Ocean appears along the equatorial waveguide a positive SST anomaly, especially around the International Date Line (IDL) and near Peru. A clear dipole pattern between the western (cool) and the Eastern (warm) parts in the subsurface analysis allows identifying the crossing of a Kelvin wave between March and April. In the Atlantic Ocean, the equatorial waveguide is still in neutral condition with persistent warm anomaly from Gulf of Mexico to the Sargasso Sea and a strong negative anomaly (cold horseshoe pattern) from Newfoundland to the British coast and off West Africa coast. SST were in April mostly slightly above normal (0-1°C) in most of the Mediterranean and the Black Sea.

The **general atmospheric circulation analysis** shows in April over the equatorial Pacific Ocean persistent significant upward motion anomaly close to IDL, linked with the SST. This anomaly extends eastward, along the whole equatorial Pacific Ocean. Another upward motion anomaly -explained by MJO- appears in the Indian Ocean in the first week of April, A strong downward motion anomaly appears over the Atlantic and over Africa, up to the western part of the Indian Ocean. Geopotential height at 500 hPa shows blocking situation over the Northern Atlantic Ocean and over Europe, with a positive pole over Western Europe and a negative pole over Western Russia. Good projection of this anomaly field on the negative phase of Scandinavian mode (SCAND=-1.5) for Western Europe and on the positive phase of East Atlantic/West Russia for Eastern Europe. The sea level pressure shows that the impact of NAO was decreasing compared to the preceding months. The positive NAO mode persisted for many months, but weakened from winter 2014/15 to spring 2015, resulting in a still positive, but smaller NAO index of 0.6.

Temperature anomalies in April 2015 within the MedCOF region were positive especially in western parts of the MedCOF region reaching the highest values in West Algeria and East Morocco. Much of the central and eastern Mediterranean was colder than normal reaching the lowest values in Southern Libya and Egypt. The temperature anomaly distribution reflects the high pressure conditions over western and south-western Europe, whereas cold air moved frequently over Eastern Europe to eastern parts of the MedCOF region.

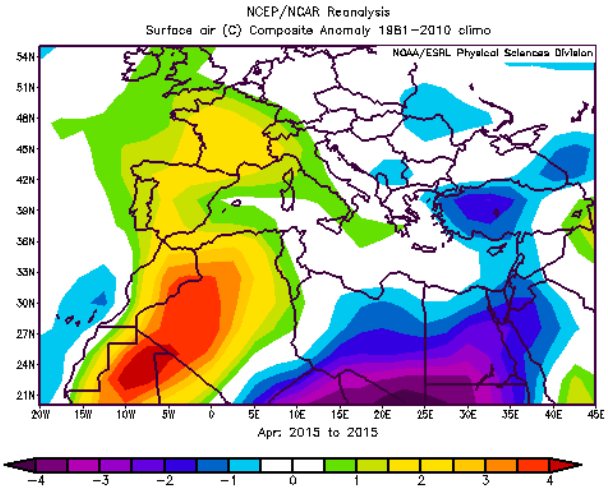

Figure 1.- Anomaly (1981-2010 reference) of temperature in the MedCOF region (data from NCEP/NCAR reanalysis, http://www.esrl.noaa.gov/)

Most of the European MedCOF region was drier than normal in April 2015 in terms of **anomalies of precipitation**, but in a few places especially in the Iberian Peninsula, France, around the Black Sea and in the Middle East, precipitation was well above normal due to some heavy precipitation events. Most of the African MedCOF countries –except Northern Egypt- were drier than normal with values less than 50% of the long term means (1981-2010).

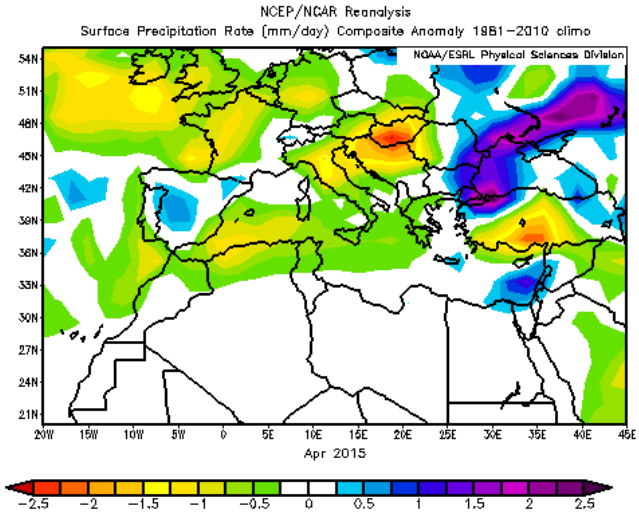

Figure 2.- Anomaly (1981-2010 reference) of precipitation rate (mm/day) in the MedCOF region (data from NCEP/NCAR reanalysis, http://www.esrl.noaa.gov/)