Seasonal outlook for winter 2013/14 weather conditions over Greece

Seasonal forecasts provided by the Hellenic National Meteorological Service (HNMS) for the forthcoming winter 2013/14 are mainly archived from the European Centre for Medium-Range Weather Forecasts (ECMWF). This year the forecast products displayed are also from the Met Office global seasonal prediction system, version 5, referred to as 'GloSea5'. The seasonal climate outlook for winter 2013/14 regarding precipitation and temperature based on both systems, with reference to the 1981-2010 climatology for ECMWF (IFS model) and 1996-2009 UK Met Office (GloSea5) are presented in this report.

More specific mean 2m temperature anomaly as well as the probability to exceed the highest 20% of climatology extracted from ECMWF seasonal forecast (system 4) for December – January and February 2013/14 (DJF 2013/14) based on the November 2013 run are presented in Figures 1 and 2. Winter 2m temperature is likely to be slightly above normal. A small positive anomaly of the mean 2m temperature up to 0.5ºC over southern Greece is forecasted, while there is no evidence regarding the value of the parameter over north and central mainland of Greece as well as northern islands.

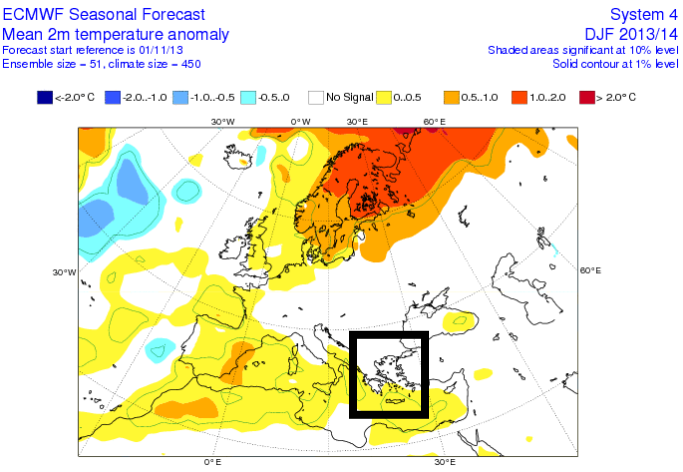

Figure 1. ECMWF seasonal forecast plots for winter 2013/14 for mean temperature anomalies, based on the November 2013 run.
Source:(http://www.ecmwf.int/products/forecasts/d/charts/seasonal/forecast/seasonal_range_forecast/)

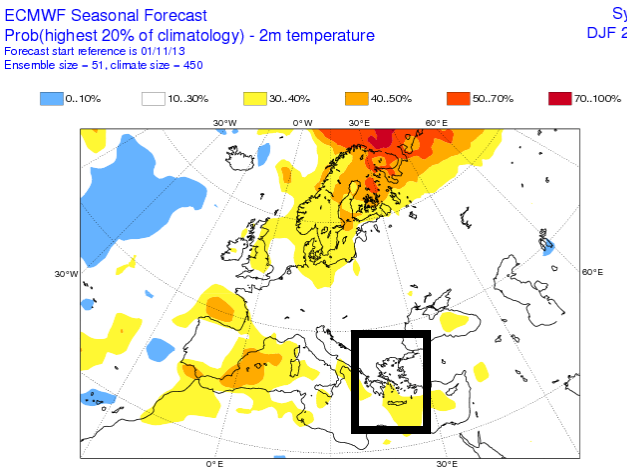

Figure 2. ECMWF seasonal forecast plots for winter 2013/14 for probability of 2m temperature at the 20% highest climatology value, based on the November 2013 run

Source:(http://www.ecmwf.int/products/forecasts/d/charts/seasonal/forecast/seasonal_range_forecast/)

In addition following the UK Met Office forecasts, based on October 2013, are illustrated in Figure 3. Probability maps of above, near and below normal 2m temperature during winter 2013/14 indicate that temperature will slight be above normal (40-60% probability) over southern Greece, as also supported by the ECMWF forecast. However there is not a clear scenario, other than following the climatological values, for the winter temperature over the rest of the country.

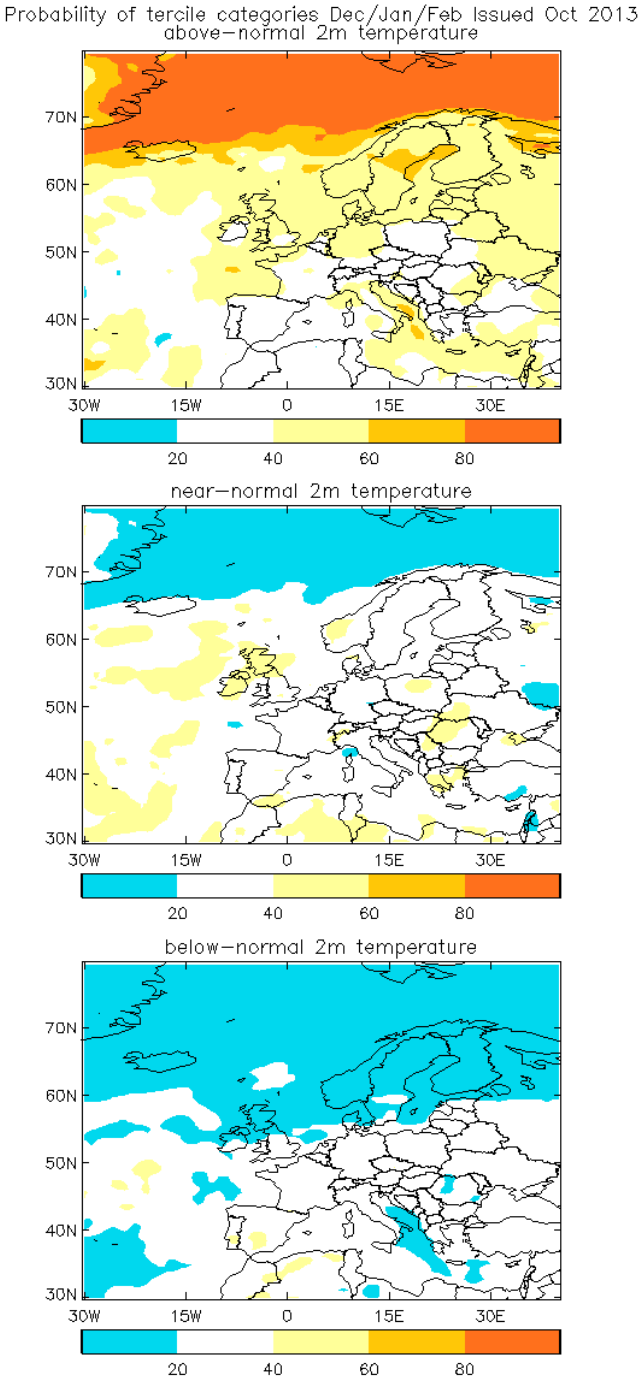

Figure 3. UK Met office seasonal forecast for winter 2013/14 for 2m temperature, based on the October 2013 run

Source:(http://www.metoffice.gov.uk/research/climate/seasonal-to-decadal/gpc-outlooks/glob-seas-prob)

Regarding the mean precipitation, the ECMWF seasonal forecast illustrated in Figures 4 as well as the UK Met Office forecasts presented in Figure 6, indicate a rather strong probability (40-60%) for above normal precipitation. The positive anomaly is clear over the southern parts of the Greece, especially over the Crete island, while no signal is evident for the mainland of Greece compared to model climatology. In addition according to ECMWF Seasonal forecast the probability of precipitation to exceed the upper 20th percentile at the southern part of Greece is above 40% as shown in Figure 5. Thus in both models it is expected that during winter season the precipitation amount are not likely to be shifted from the climatological averages following normal values over the greatest part of Greece. Contradictory a wetter winter is expected for the southern parts of Greece.

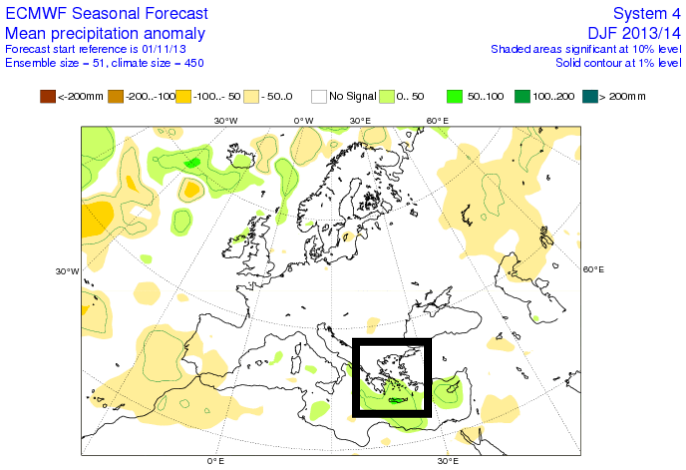

Figure 4. ECMWF seasonal forecast plots for winter 2013/14 for mean precipitation anomalies, based on the November 2013 run

Source:(http://www.ecmwf.int/products/forecasts/d/charts/seasonal/forecast/seasonal_range_forecast/)

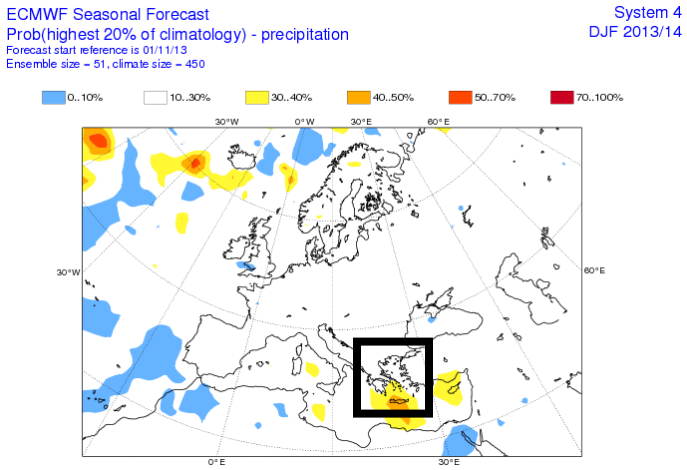

Figure 5. ECMWF seasonal forecast plots for winter 2013/14 for the probability of mean precipitation at the 20% highest climatology value, based on the November 2013 run

Source:(http://www.ecmwf.int/products/forecasts/d/charts/seasonal/forecast/seasonal_range_forecast/)

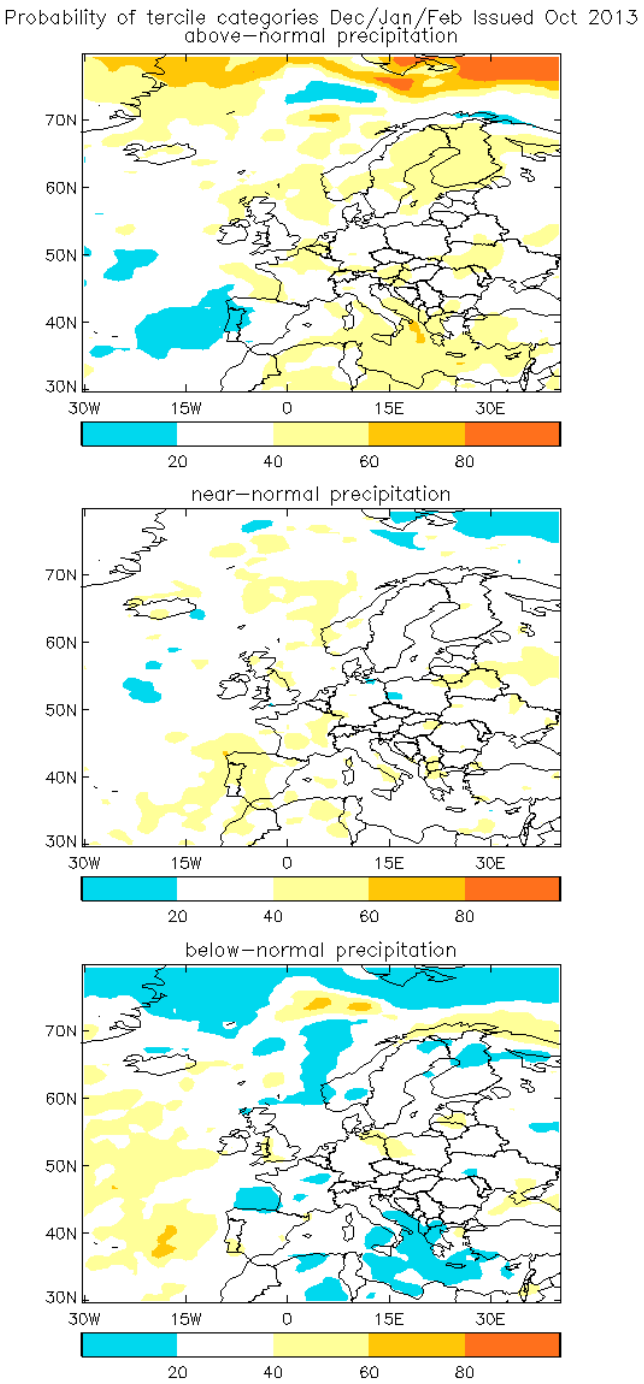

Figure 6. UK Met Office version seasonal forecast for winter 2013/14 for mean precipitation, based on the October 2013 run.
Source:(http://www.metoffice.gov.uk/research/climate/seasonal-to-decadal/gpc-outlooks/glob-seas-prob)