

Seasonal weather forecast for the months of

January, February and March 2016

General over view of the weather expected to prevail during January, February and March 2016.

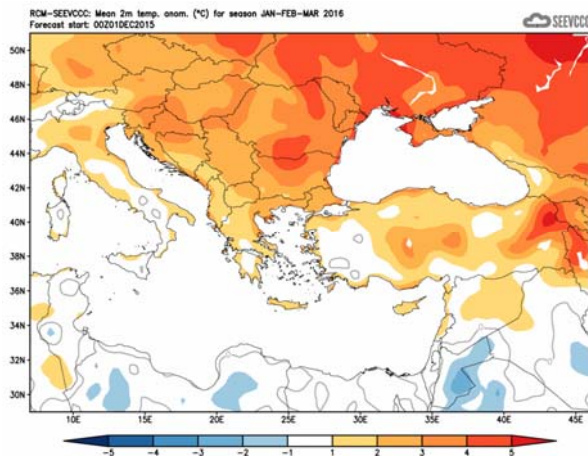
The weather for the following period consists of a part (January and February) of the traditional winter, where the most of the annual accumulated precipitation is climatologically expected, while in the period in focus normal temperatures (both maximum and minimum) are significantly lower than the other months of the year and the first month (March) of the traditional Spring, which is also a part of the period of forecast. During the period the frequency of baroclinic depressions affecting the area is at its most resulting in higher accumulated precipitation amounts. From the climatological data kept by the Department of Meteorology **January** results at a mean of 10 snow days while a record of snow days was recorded with 22 snow days, resulting in 248 cm of accumulated snow in 1981. **February** results in 11 snow days with the 1990 **February** resulting in 16 days and **February** 1981 resulting in 189cm of new snow. During **March** 8 days of fresh snow are climatologically expected while during 1987 **March** resulted in 21 snow days with 205cm of fresh snow and a 30cm fresh snow in a single snow event

Seasonal forecast for the next three months

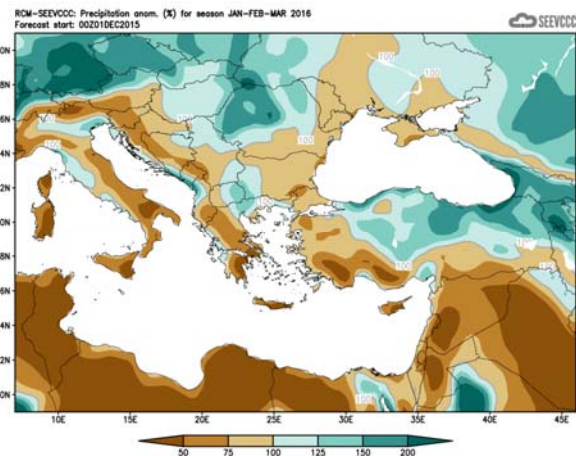
Specifically, regarding the seasonal forecast for the period of the three first months of the year (**January, February and March 2016**), the temperature is expected to be generally above normal by 1 to 2°C. The amount of the accumulated precipitation is relatively disappointing if examined to the accumulated precipitation of former December (over which was also disappointing). The accumulated precipitation will be inland around normal but below normal (from 50% of normal to 75% of normal) over the southern and eastern areas and normal to slightly above normal (125% of normal) over the western coasts.

The greater surrounding area is forecasted with almost the same characteristics as Cyprus.

Bearing in mind the models suggestion (the results of which are presented in graphical form in the charts below) and also the long climatology of the area of Cyprus the next three month period is expected to be warmer than normal with mean season temperatures ranging slightly above normal and precipitation to be generally below normal to normal with an exemption of the western coasts and the where a normal to slightly above normal accumulated precipitation is expected. But based on the climatology of Cyprus snow days are to be expected, during the period, while isolated areas will accumulate sufficient precipitation.

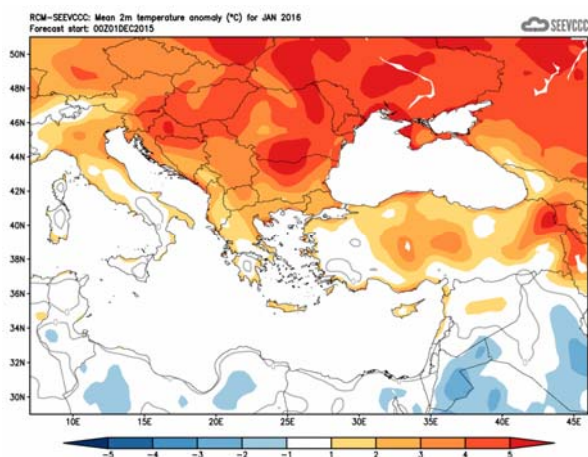


Divergence of temperature from normal from the mean seasonal temperature ($^{\circ}\text{C}$) for January, February and March

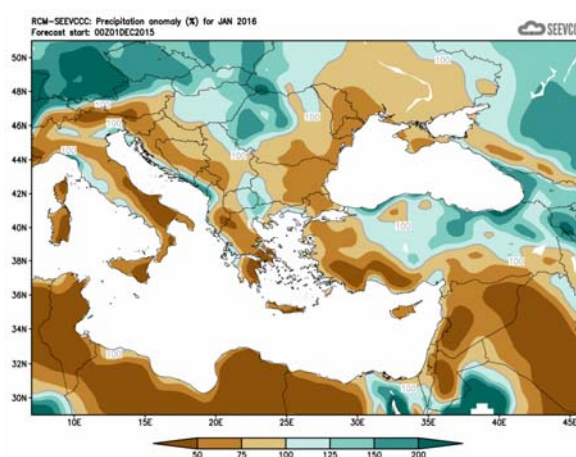


Percentage (%) of the mean seasonal accumulated precipitation compared to the mean normal for January, February and March

The seasonal forecast for **January 2016** suggests that temperature will be normal to slightly above normal (by 1°C to 2°C) over the coastal zone. The accumulated precipitation of **January** is again disappointing since the forecast suggests a mainly dry month with accumulation ranging only from 50% to 75% of normal, except the western part where the accumulation will range almost up to normal. Low accumulations are characterizing all the surrounding area.



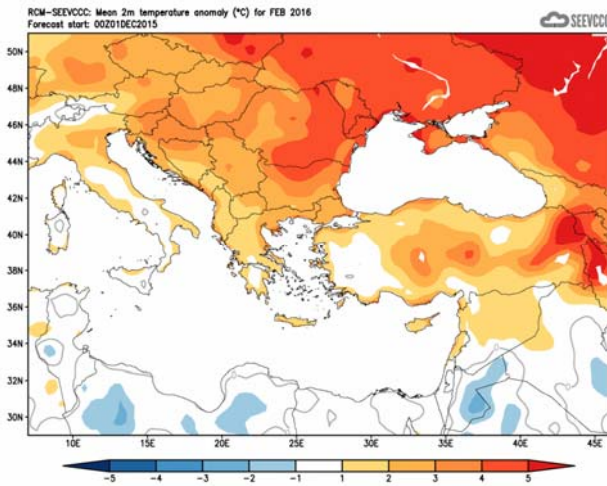
Divergence of the mean monthly temperature ($^{\circ}\text{C}$) from normal during January



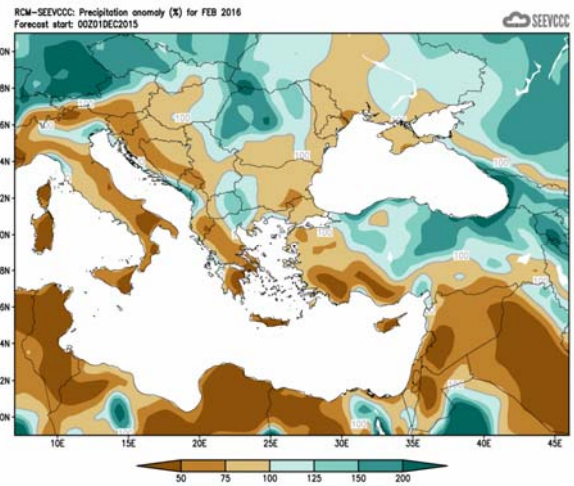
Percentage of the mean monthly precipitation (%) compared with the normal of January

The seasonal forecast for **February 2016** is almost similar to the one of January and it will be warmer than normal by 1°C to 2°C . The accumulated precipitation of **February** is again disappointing since the

forecast suggests a mainly dry month with accumulation ranging only from 50% to 75% of normal. The above temperature and accumulated precipitation characteristics apply also for the surrounding area.

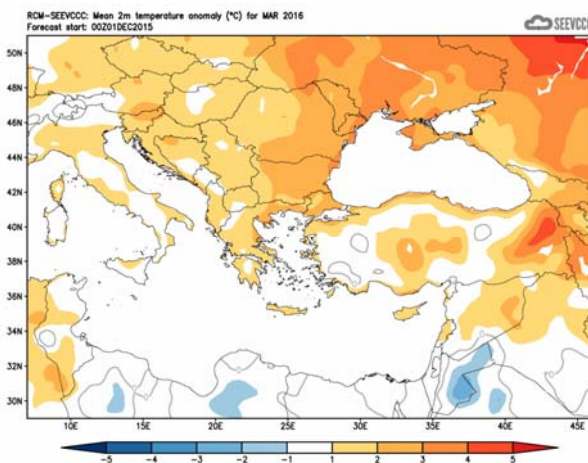


Divergence of the mean monthly temperature ($^{\circ}\text{C}$) from normal during February

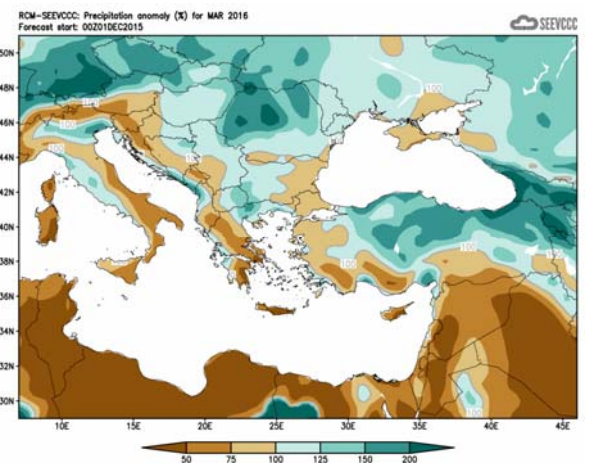


Percentage of the mean monthly precipitation (%) compared with the normal of February

The seasonal forecast for **March 2016** is almost similar to the one of the previous months suggesting that **March** will be warmer than normal by 1°C to 2°C . The accumulated precipitation of **March** is again relatively disappointing since the forecast suggests that over the southern and eastern part of the island the accumulated precipitation will not exceed 75% over the central part will be around normal and only over the western and northern coastal zone will range up to 125% of normal. The above temperature and accumulated precipitation characteristics apply also for great parts of the surrounding area.



Divergence of the mean monthly temperature ($^{\circ}\text{C}$) from normal during March



Percentage of the mean monthly precipitation (%) compared with the normal of March

Normal values of temperature (mean maximum and mean minimum) and accumulated precipitation for January, February and March 2016

The normal values of mean maximum, mean minimum temperature and accumulated precipitation are presented below for sample stations, concerning the three months the period of forecast is covering, in order to gain a better view of the normal seasonal climate. The temperatures, both maximum and minimum, of **January** and **February** are the lowest climatological temperatures of the year while the accumulated precipitation has the greater amount of the year during **January**, as a result of the increased frequency of reoccurrence/redeveloping of depressions over the area of the east Mediterranean. During **March** a transitional month from winter to summer an increase of mean maximum and mean minimum temperature is noted with a simultaneous drop of the accumulated precipitation over all sample stations.

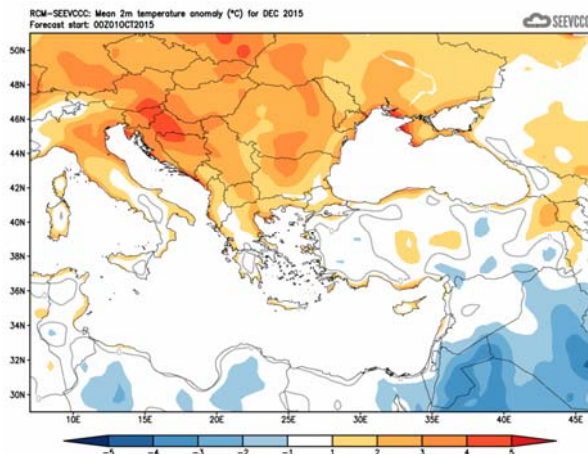
| TEMPERATURE AND PRECIPITATION NORMAL VALUES FOR THE PERIOD 1981-2010 | | | | | | | | | |
|--|-------------------------------------|----------|-------|-------------------------------------|----------|-------|---------------------------------------|----------|-------|
| Area Name | MEAN DAILY MAXIMUM TEMPERATURE (°C) | | | MEAN DAILY MINIMUM TEMPERATURE (°C) | | | MEAN MONTHLY TOTAL PRECIPITATION (mm) | | |
| | January | February | March | January | February | March | January | February | March |
| NORTH COAST | 16.3 | 16.3 | 18.3 | 7.6 | 7.3 | 8.3 | 85.3 | 68.5 | 45.7 |
| WEST COAST* | 17.1 | 17.1 | 18.6 | 8.3 | 8.1 | 8.9 | 78.8 | 59.8 | 34.4 |
| MOUNTAINOUS AREAS | 6.3 | 6.7 | 10.4 | 0.7 | 0.5 | 2.8 | 150.0 | 128.7 | 92.1 |
| INLAND* | 15.5 | 16.0 | 19.2 | 5.4 | 5.3 | 6.9 | 48.8 | 44.5 | 31.9 |
| SOUTH COAST | 16.8 | 17.0 | 19.3 | 7.5 | 7.1 | 8.6 | 73.7 | 50.3 | 35.8 |
| EAST COAST** | 16.3 | 16.5 | 19.1 | 6.6 | 6.3 | 7.8 | 67.3 | 50.7 | 35.2 |

* West Coast and Inland Values cover the period 1983-2010

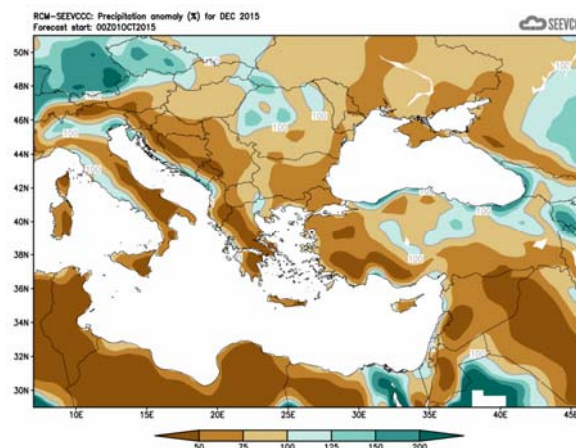
** East Coast Temperature Values cover the period 1981-2007

Evaluation of Decembers seasonal forecast for the area of Cyprus

The seasonal forecast for **December** suggested that temperature would be generally normal except the narrow coastal zone coast over which it would be slightly above normal (by 1°C to 2°C). The accumulated precipitation of **December** was disappointing since the forecast suggested a mainly dry month with accumulation ranging only from 50% to 75% of normal, except the western coastal part where the accumulation would range almost up to normal. Low accumulations were characterizing all the surrounding area.



Divergence of the mean monthly temperature (°C) from normal during December



Percentage of the mean monthly precipitation (%) compared with the normal of December

The seasonal forecast for **December** was suggesting that temperature will be inland generally normal, while the mean monthly temperature of the coastal zone area would be again slightly above normal. The accumulated precipitation for Cyprus would range over west and northwest part from normal up to 125% of normal while over the rest of the island it would be ranging from 50% to normal.

From the provisional data recorded by the Department of Meteorology, for the selected portion of the meteorological stations, which are presented in the table below,

| TEMPERATURE AND PRECIPITATION PROVISIONAL DATA FOR DECEMBER 2015 | | | | | | | | | | | | |
|--|------------------------|-------------------------------------|--------------------------|------------------------------|--|-------------------------------------|--------------------------|------------------------------|---------------------------------------|----------------------------------|--------------------------|------------------------------|
| St. No. | Station Name | Mean Daily Maximum Temperature (°C) | Normal Value (1981-2010) | Difference from Normal Value | Highest Daily Maximum Temperature (°C) | Mean Daily Minimum Temperature (°C) | Normal Value (1981-2010) | Difference from Normal Value | Lowest Daily Minimum Temperature (°C) | Monthly Total Precipitation (mm) | Normal Value (1981-2010) | Difference from Normal Value |
| | | 41 | POLIS CHRYSOCHOUS | 21.2 | 18.0 | 3.2 | 23.9 | 9.4 | 9.3 | 0.1 | 5.6 | 7.4 |
| 82* | PAFOS (AIRPORT) | 20.3 | 18.9 | 1.4 | 21.8 | 10.5 | 10.0 | 0.5 | 5.8 | 37.0 | 90.1 | -53.1 |
| 225 | PRODROMOS (C.F.C.) | 8.5 | 8.3 | 0.2 | 12.9 | 1.9 | 2.6 | -0.7 | -4.1 | 14.1 | 157.3 | -143.2 |
| 666* | ATHALASSA (RADIOSONDE) | 18.1 | 17.3 | 0.8 | 22.7 | 7.5 | 7.0 | 0.5 | 4.7 | 29.0 | 57.2 | -28.2 |
| 731 | LARNAKA (AIRPORT) | 19.0 | 18.6 | 0.4 | 22.4 | 9.8 | 9.2 | 0.6 | 5.1 | 116.5 | 79.0 | 37.5 |
| 800** | ACHNA (DASAKI) | 18.1 | 18.0 | 0.1 | 21.3 | 7.8 | 8.3 | -0.5 | 3.0 | 37.2 | 76.8 | -39.6 |

* Pafos' and Athalassa's Station Normal Values cover the period 1983-2010
 ** Achna's Temperature Normal Values cover the period 1981-2007

= VALUES FROM AUTOMATIC WEATHER STATION

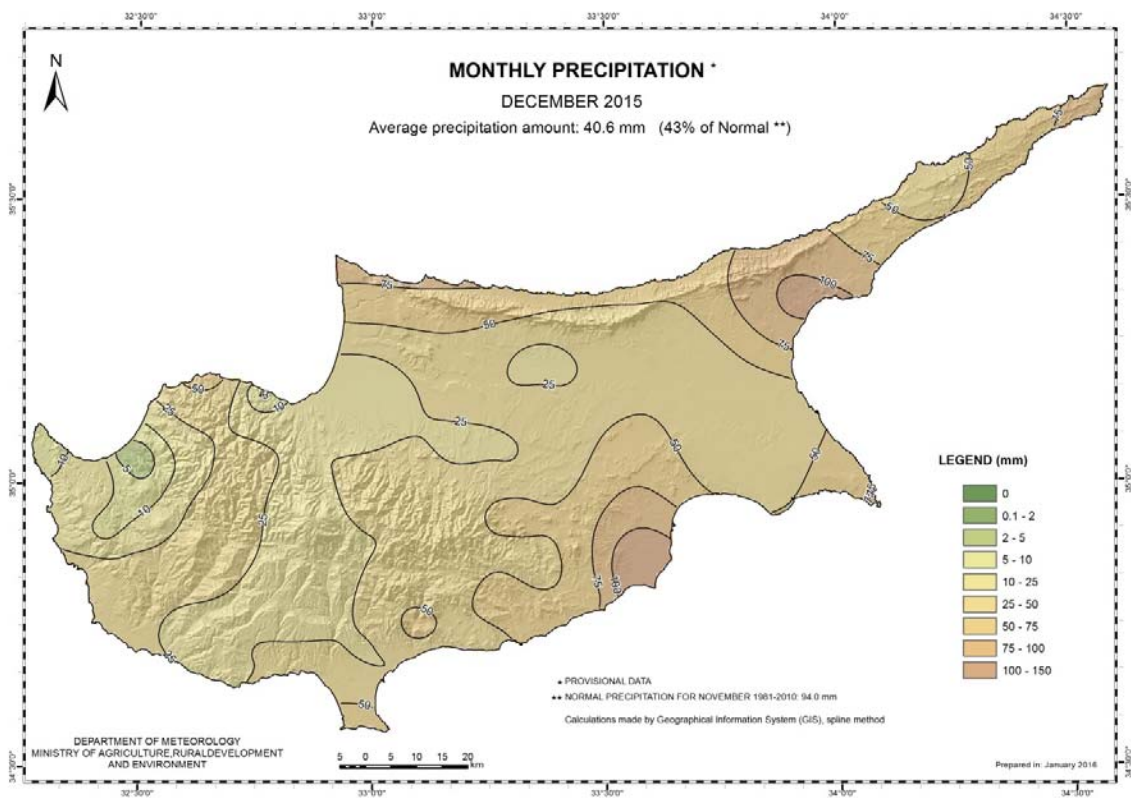
Is evident that the model performed well, since it was able to forecast relatively correct the observed temperature anomalies (mainly the mean maximum), but also the accumulated precipitation. From the recorded data is shown that **December** was warmer than the normal **December** with the western and northern coastal zone warmer than the rest of the island. Extremes (deviating by 4°C or more from normal) were also recorded. As an example note the recorded maximum of Polis of the 23rd of

December 23.9°C (with a normal of 18°C). Extreme maximum temperature lower by 4°C or more from normal were recorded during the 31st of December. As an example is the Athalassa maximum of 10.6°C (17.3°C normal) and the Prodromos station minimum of 2.7°C (8.3°C normal).

As regarding the accumulated precipitation **December** was relatively dry except the area of Larnaka, as presented from the table above. Larnaka recorded a total accumulated precipitation of 116mm (37mm above its normal) while the Troodos mountainous range and the western and northern coasts recorded accumulated precipitation well below normal.

From the distribution (provisional accumulated precipitation chart) of the accumulated precipitation of the **December** is evident that the surface distribution was well below normal (reaching only 43% of normal).

For the purpose of better visualization of **December** accumulated precipitation, a chart of Cyprus with the total preliminary accumulated precipitation is presented.



A Cyprus chart with the normal (period 1981 to 2010) accumulated precipitation for the month of **December** is also presented.

