HELLENIC NATIONAL
METEOROLOGICAL
SERVICE
ΕΘΝΙΚΗ ΜΕΤΕΩΡΟΛΟΓΙΚΗ ΥΠΗΡΕΣΙΑ

VERIFICATION of the SEECOF-15 SUMMER 2016 CLIMATE OUTLOOK FOR GREECE

P. FRAGKOULI and N. KARATARAKIS
DIVISION of CLIMATOLOGY – APPLICATIONS
HELLENIC NATIONAL METEOROLOGICAL SERVICE

1. TEMPERATURE

1.1 Analysis of the 2016 summer Temperature Anomalies for Greece

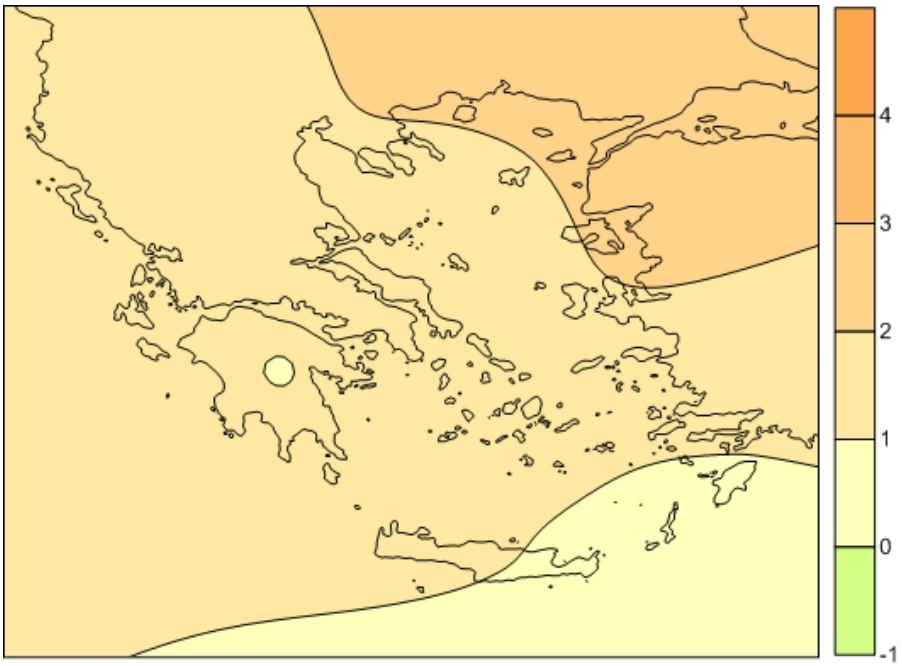

Figure 1. Mean Temperature anomalies (°C) for summer 2016 in Greece according to the 1971-2000 climatology.

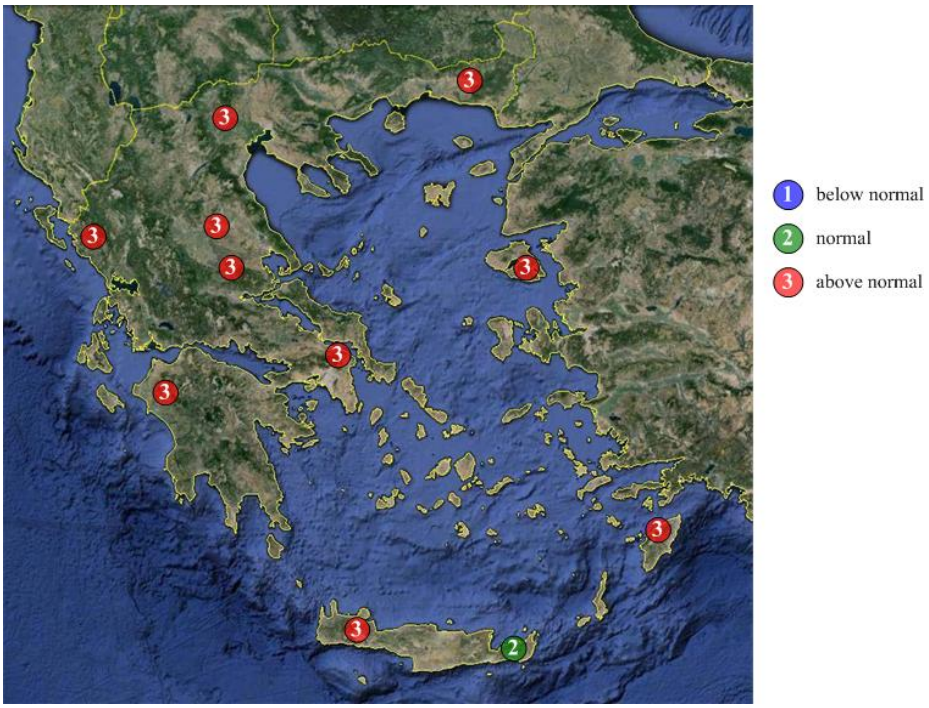

Figure 2. Mean Temperature terciles for summer 2016 in Greece according to the 1971-2000 climatology.

For the 2016 summer period, the **analysis of mean Temperature** from representative Met. Stations in Greece showed that:

Anomalies (Figure 1)

(i) Te whole country experienced **positive anomalies** compared to the 1971-2000 normal values.

(ii) The greatest differences (< 3 °C) were detected at the northeast part of the country.

(iii) The smallest positive differences were recorded at the southeast part of the Aegean Sea islands and locally at some mainland stations.

Terciles (Figure 2)

The tercile analysis showed that above-average temperature conditions (≈ 95%) prevailed in Greece during summer 2016.

It should be mentioned that the range of the borders of the middle tercile is not wide enough, thus the tercile categories are not clearly distinguished.

1.2 Verification of the SEECOF-15 2016 summer Temperature outlook for Greece

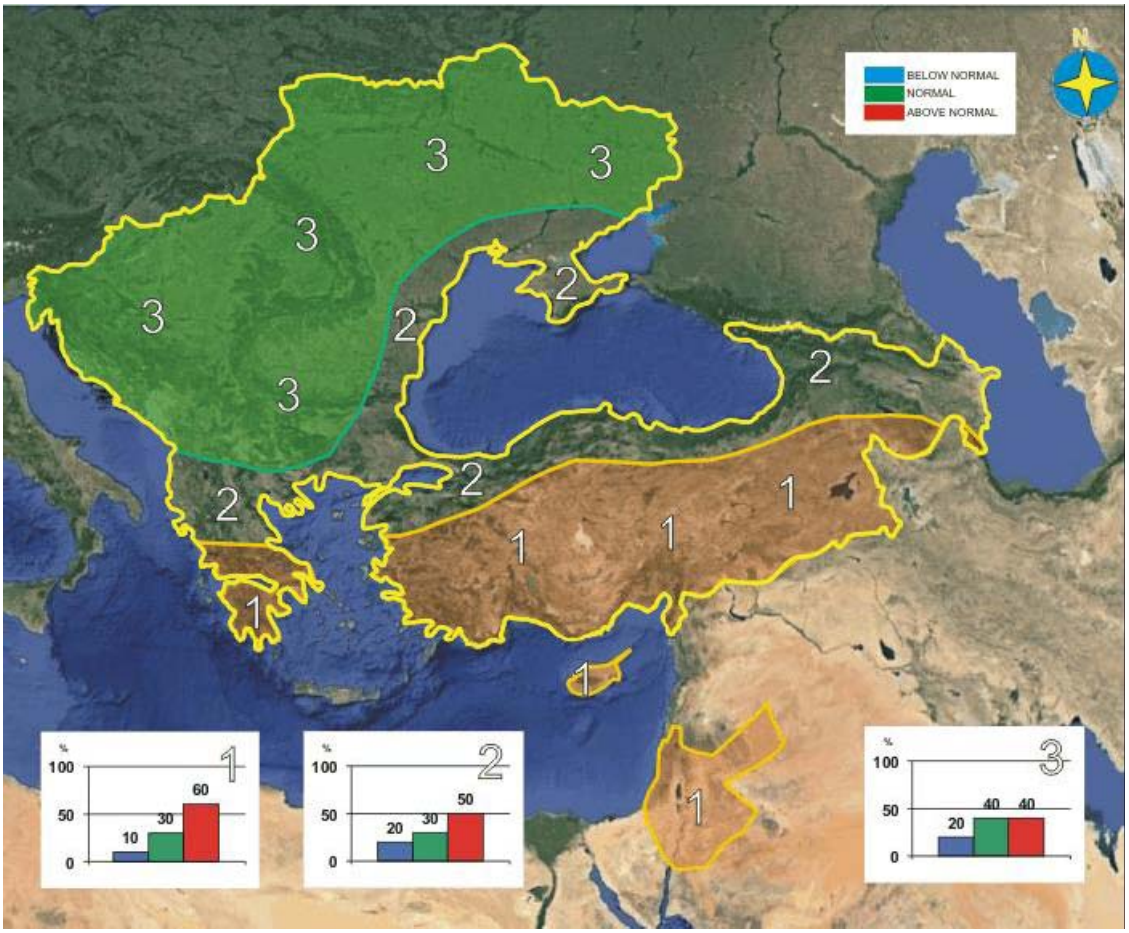

Figure 3. Graphical presentation of the 2016 summer temperature outlook.

According to the SEECOF's outlook for the 2016 summer mean Temperature (Figure 3):

The Greek area is in the SEECOF's zones 1 and 2, where the above average temperature conditions are more likely with a percentage of 60% and 50% respectively.

Verifying the SEECOF's temperature outlook (although this is relative to the 1981-2010 normals):

Since that above-average temperature conditions (≈ 95%) prevailed in Greece, the SEECOF's prediction can be considered as successful, although the greatest positive temperature anomalies were recorded at the northeast part of the country which is included in the SEECOF's zone 2 (where the above average temperature percentage is lower than the corresponding of zone 1).

2. PRECIPITATION

2.1 Analysis of the 2016 summer precipitation anomalies for Greece

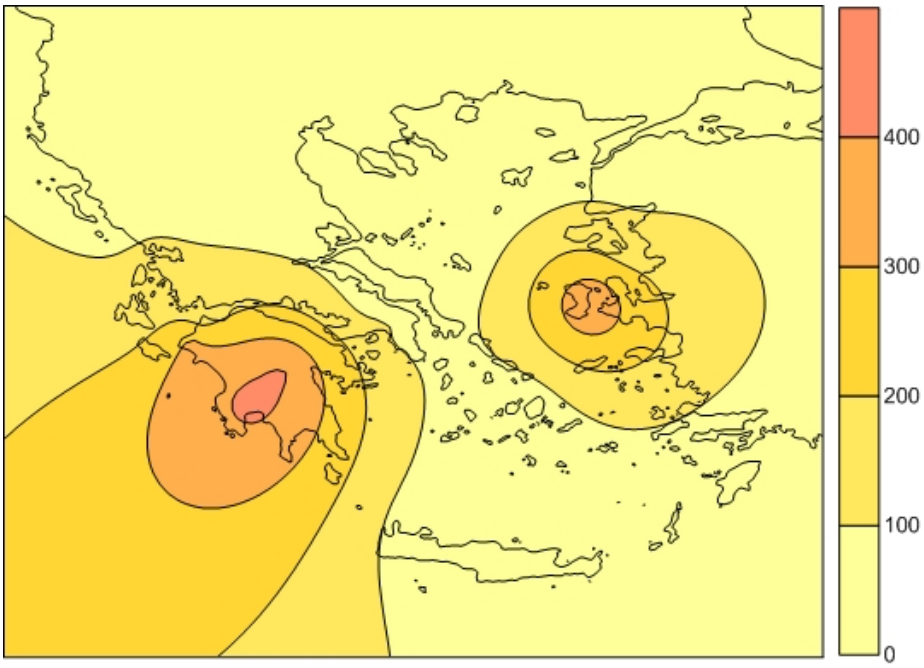

Figure 4. Precipitation anomalies for summer 2016 in Greece according to the 1971-2000 climatology.

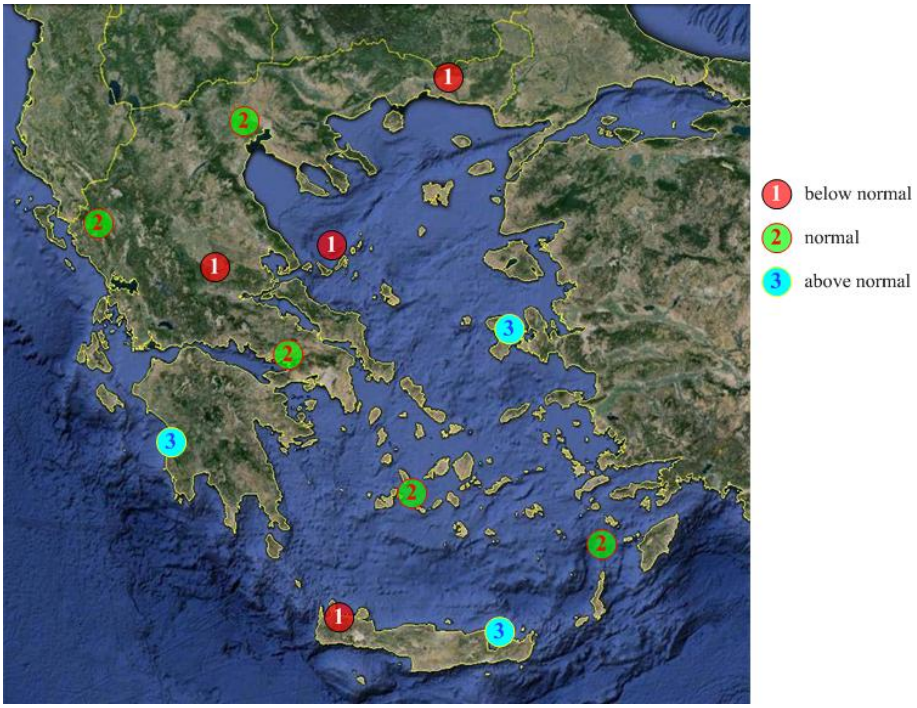

Figure 5. Precipitation terciles for summer 2016 in Greece according to the 1971-2000 climatology.

For the 2016 summer period, the **analysis of Precipitation** from representative Met. Stations in Greece showed that:

Anomalies (Figure 4)

(i) The west and southwest region of the country received precipitation amount **above the normal values** compared to the 1971-2000 climatology.

(ii) Local maxima of more than 4-times above the average summer rainfall height can be spotted either at some mountainous places due to enhanced convection or at some islands of the east Aegean Sea, where the summer normal value of precipitation is near equal to zero.

(iii) At the rest part of the country the summer recorded rainfall amounts were **below the normal values** compared to the 1971-2000 climatology.

Terciles (Figure 5)

The analysis of rainfall conditions in Greece during summer 2016 showed that:

(i) The prevailing tercile was the equal to the average rainfall conditions (≈ 40%).

(ii) The percentage of the above average rainfall conditions was slightly higher than the below-one.

(iii) The terciles regional pattern did not clearly depict a uniform distribution of the below-equal-above average rainfall conditions. Thus, the uncertainties in regional prediction regarding precipitation were greater than the ones for temperature.

It is important to clarify that:

- At many island-areas the normal value of the summer precipitation height is near-equal to zero, thus a small recorded rainfall amount results to very extreme anomalies.
- The range of the borders of the middle tercile is very-narrow, and again like temperature, the tercile categories are not efficiently distinguished.

2.2 Verification of the SEECOF-15 2016 summer precipitation outlook for Greece

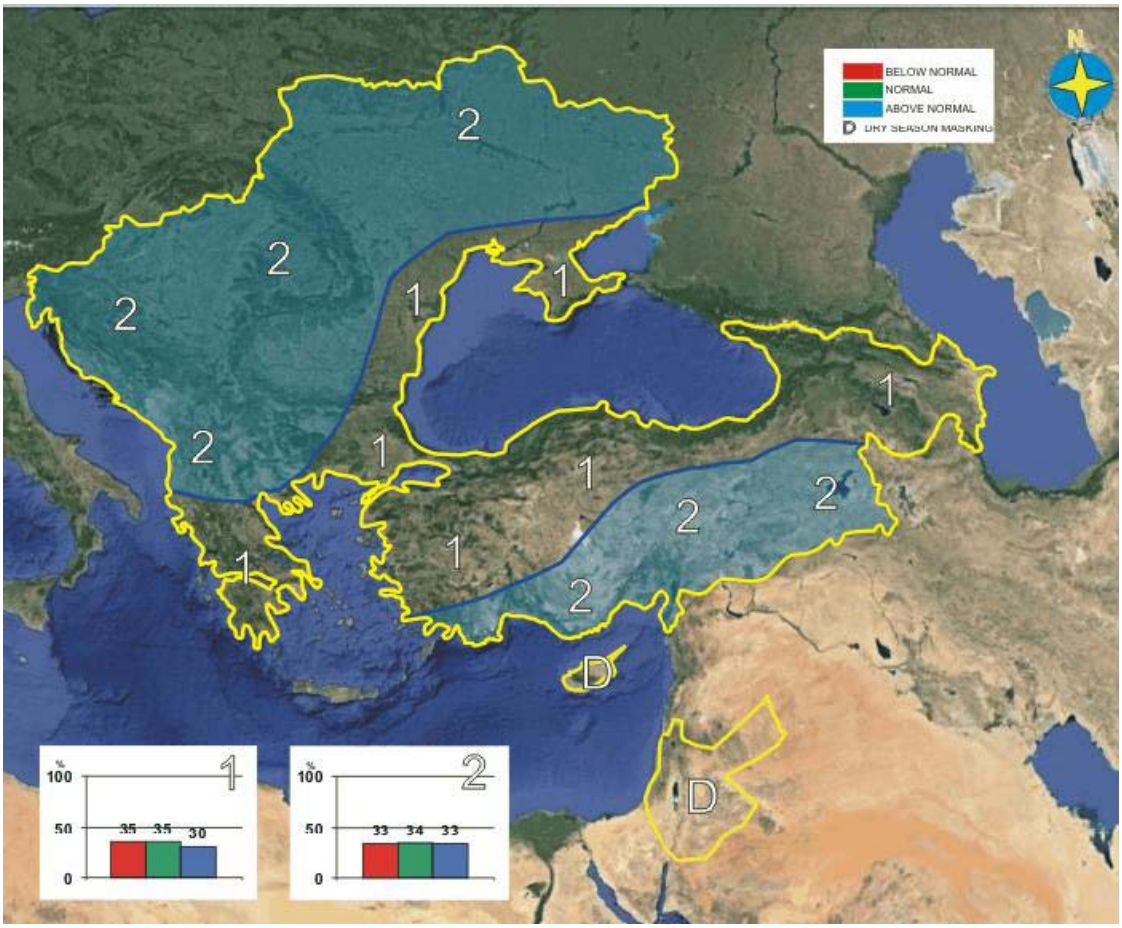

Figure 6. Graphical presentation of the 2016 summer precipitation outlook.

According to the SEECOF-15 outlook for summer 2016 precipitation (Figure 6):

(i) Almost the whole Greek region is in the SEECOF-15's zone 1, where the summer precipitation totals are likely to be near- or below average normals.

(ii) The island of Crete is included at the dry summer season area (SEECOF's D-zone).

Verifying the SEECOF-15 precipitation outlook (although this is relative to the 1981-2010 normals):

In general, the prediction is successful, although there was not a clear pattern of the regional distribution of the below-equal-above- terciles.

Finally, it should be mentioned that at both the 2 zones of the precipitation outlook the probabilities of below-near-above average did not show significant differences between them.