

Climate Watch (Serial No.: 20241007–41)

Initial/Updated/Final

Topic: **temperature, precipitation**

Organization issuing
the statement: SEEVCCC

Issued/ Amended / 7-10-2024 16:00
Cancelled

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Valid from – to: 7-10-2024 – 31-12-2024 Next amendment: 14-10-2024

Region of concern: **Balkans, Ukraine and Turkey**

„ Within the first week (30 September to 6 October 2024), ECMWF monthly forecast predicts above normal mean weekly air temperature with anomaly up to +6 °C in most of the SEE region while anomaly up to +3 °C is expected in Cyprus, most of Georgia and Azerbaijan, Middle East and southwestern Balkans. Probability for exceeding upper tercile (top third of the highest temperature) is over 90%. Precipitation surplus is forecasted for the westernmost Balkans and central Ukraine, with over 90% probability for exceeding upper tercile (top third of the highest precipitation). “

Monitoring

During the period from 28 September to 4 October 2024, weekly precipitation sums were up to 200 mm in the western and part of southwestern Balkans as well as part of northwestern Turkey, around 50 mm in western Ukraine, northeastern Bulgaria, Romania, while in eastern part of Romania they were even up to 100 mm. Precipitation sums up to 25 mm were recorded in northern Turkey, most of South Caucasus and central Balkans.

Outlook

Within the first week (7 to 13 October 2024), ECMWF monthly forecast predicts above normal mean weekly air temperature with anomaly up to +6 °C in most of the SEE region while anomaly up to +3 °C is expected in Cyprus, most of Georgia and Azerbaijan, Middle East and southwestern Balkans. Probability for exceeding upper tercile (top third of the highest temperature) is over 90%. Precipitation surplus is forecasted for the westernmost Balkans and central Ukraine, with over 90% probability for exceeding upper tercile (top third of the highest precipitation). Precipitation deficit is predicted for most of the Balkans and westernmost Turkey, with probability for exceeding lower tercile (bottom third of the lowest precipitation) in a range from around 70 in the eastern Balkans up to 90% in the southern Balkans.

During the second week (14 to 20 October 2024), above average mean weekly air temperature, with anomaly up to +3 °C is forecasted for eastern and southern Turkey, South Caucasus, Middle East and Cyprus, with probability for exceeding upper tercile (top third of the highest temperature) around 60%. Precipitation surplus is expected in part of northern Turkey and western Georgia, with up to 60% probability for exceeding upper tercile (top third of the highest precipitation). Precipitation deficit is predicted for the western and southwestern Balkans, with probability for exceeding lower tercile (bottom third of the lowest precipitation) around 60%.

During the following three months (October, November and December), seasonal forecast predicts above average seasonal air temperature in the parts of western and southern Balkans, Cyprus, most of Turkey, Ukraine, South Caucasus and Middle East. Precipitation surplus is expected in the areas of middle Adriatic, Ionian and Black Sea. Precipitation deficit is forecasted for Azerbaijan and Middle East.

Update

An updated statement will be issued on 14-10-2024

For further information, please contact cws-seevccc@hidmet.gov.rs

ANNEX

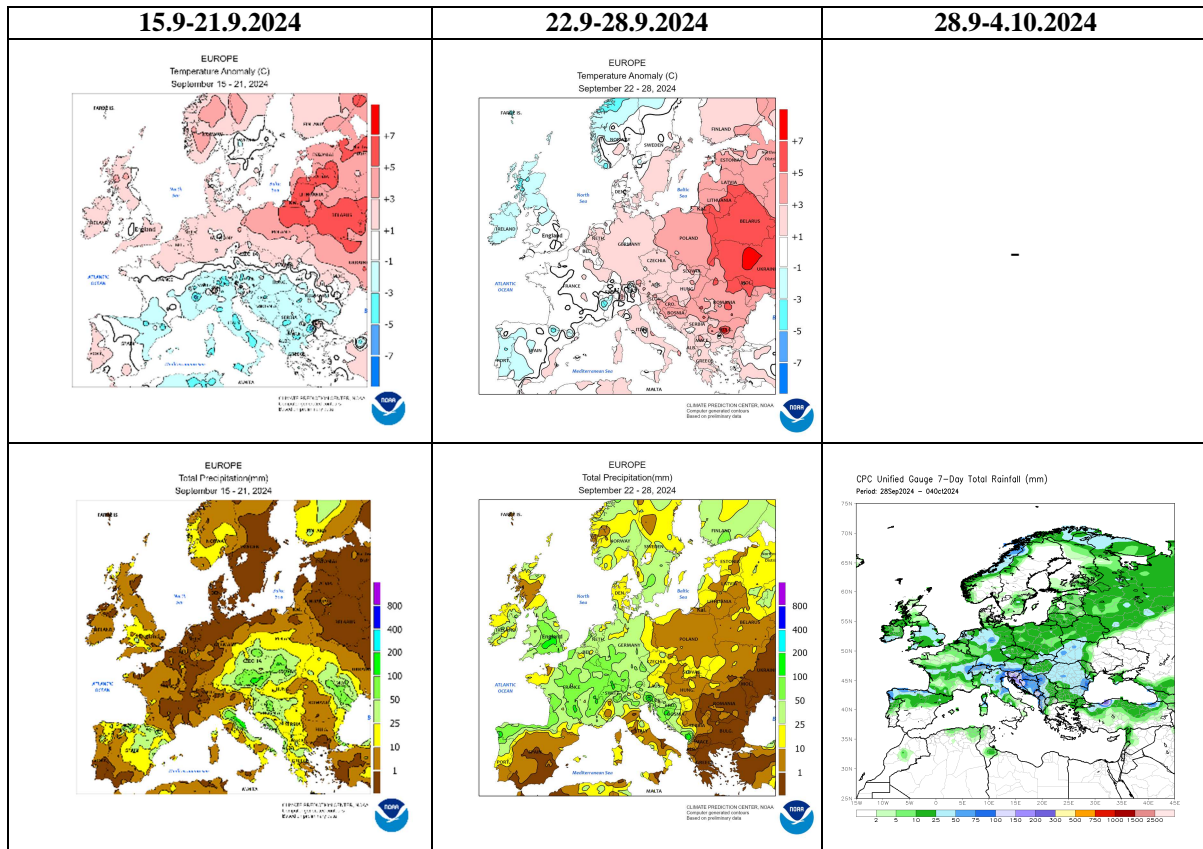


Figure 1. Temperature anomaly and total precipitation for recent weeks (source: Climate Prediction Center, USA)

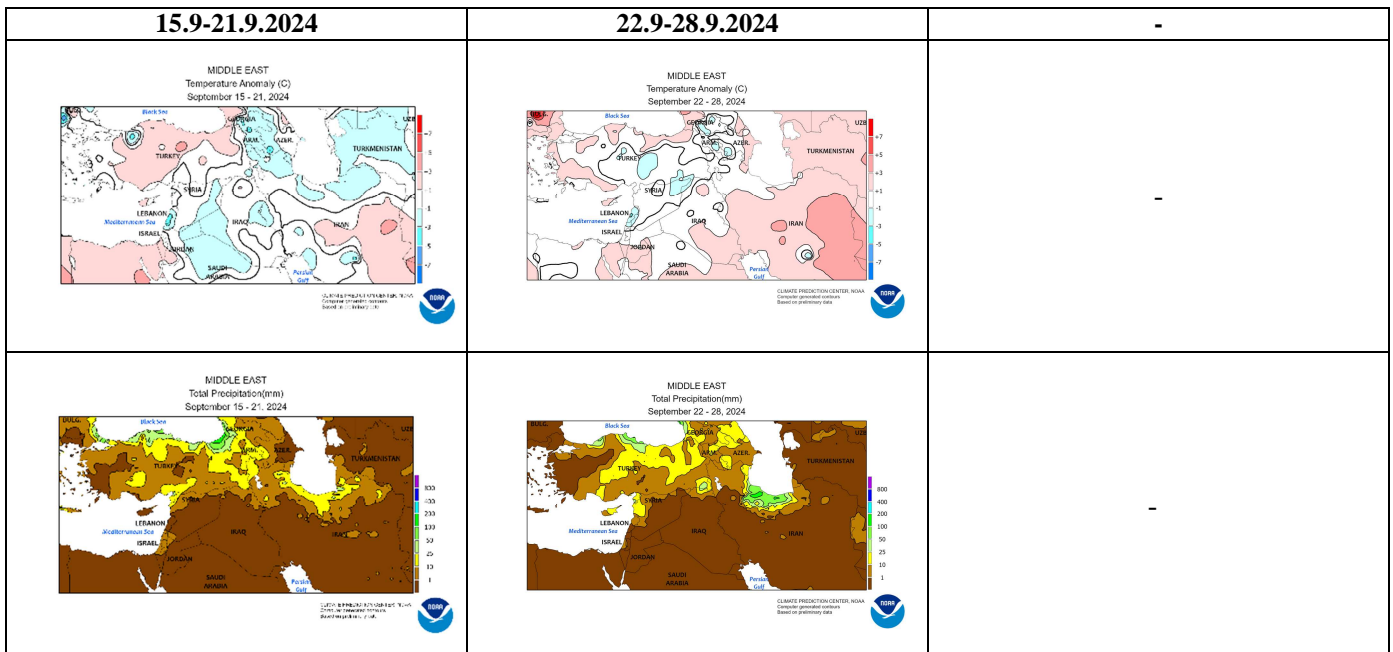
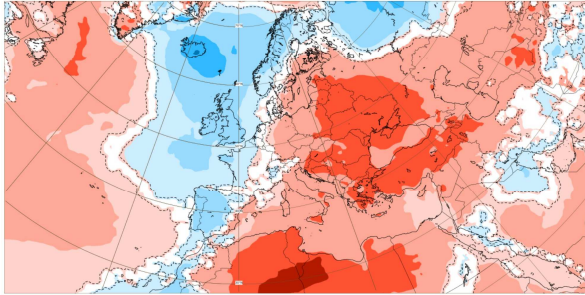


Figure 2. Temperature anomaly and total precipitation for recent weeks for Middle East (source: Climate Prediction Center)

2 m temperature: Weekly mean anomalies

Base time: Sun 06 Oct 2024 Valid time: Mon 07 Oct 2024 - Mon 14 Oct 2024 (+192h) Area : Europe



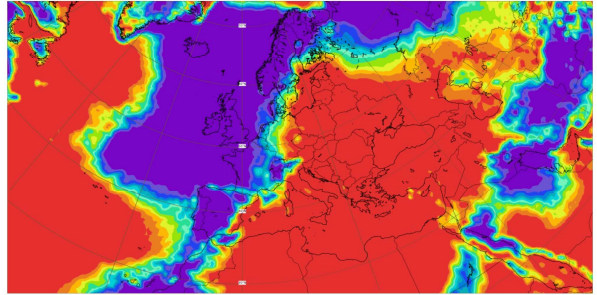
Extended range: 2m T weekly mean anomaly, significance level: 10 % (°C)

© 2024 European Centre for Medium-Range Weather Forecasts (ECMWF)
 Source: reinterpolated
 Dataset: ECJF v4.0 and ECMWF Reanalysis (ERA5) (https://apps.ecmwf.int/datasets/data/era5-nc/)
 Created at 2024-10-07T10:21:00Z



2 m temperature: Probability distribution

Base time: Sun 06 Oct 2024 Valid time: Mon 07 Oct 2024 - Mon 14 Oct 2024 (+192h) Distribution group : Upper tercile Area : Europe



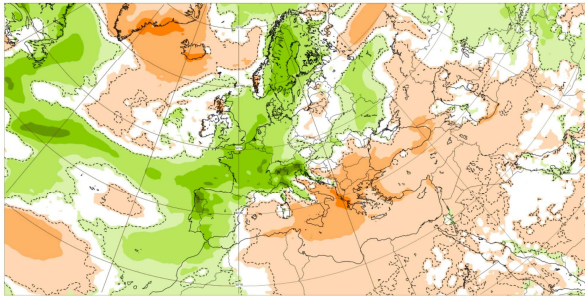
Extended range: 2m probability dist. at quantile: Upper tercile (%)

© 2024 European Centre for Medium-Range Weather Forecasts (ECMWF)
 Source: reinterpolated
 Dataset: ECJF v4.0 and ECMWF Reanalysis (ERA5) (https://apps.ecmwf.int/datasets/data/era5-nc/)
 Created at 2024-10-07T10:21:00Z



Precipitation: Weekly mean anomalies

Base time: Sun 06 Oct 2024 Valid time: Mon 07 Oct 2024 - Mon 14 Oct 2024 (+192h) Area : Europe



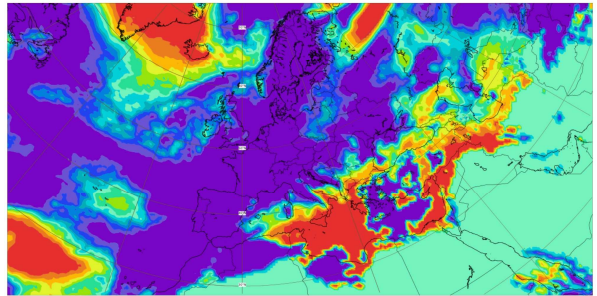
Extended range: Precipitation weekly mean anomaly, significance level: 10 % (mm)

© 2024 European Centre for Medium-Range Weather Forecasts (ECMWF)
 Source: reinterpolated
 Dataset: ECJF v4.0 and ECMWF Reanalysis (ERA5) (https://apps.ecmwf.int/datasets/data/era5-nc/)
 Created at 2024-10-07T10:21:00Z



Precipitation: Probability distribution

Base time: Sun 06 Oct 2024 Valid time: Mon 07 Oct 2024 - Mon 14 Oct 2024 (+192h) Distribution group : Lower Tercile Area : Europe



Extended range: precipitation probability dist. at quantile: Lower tercile (%)

© 2024 European Centre for Medium-Range Weather Forecasts (ECMWF)
 Source: reinterpolated
 Dataset: ECJF v4.0 and ECMWF Reanalysis (ERA5) (https://apps.ecmwf.int/datasets/data/era5-nc/)
 Created at 2024-10-07T10:21:00Z



Figure 3. Outlook for the temperature anomalies and probability for the upper tercile (upper row), along with the precipitation surplus/deficit and probability for the lower tercile (lower row) for the 30.9–6.10.2024 period (source: European Centre for Medium-Range Weather Forecasts, ECMWF)

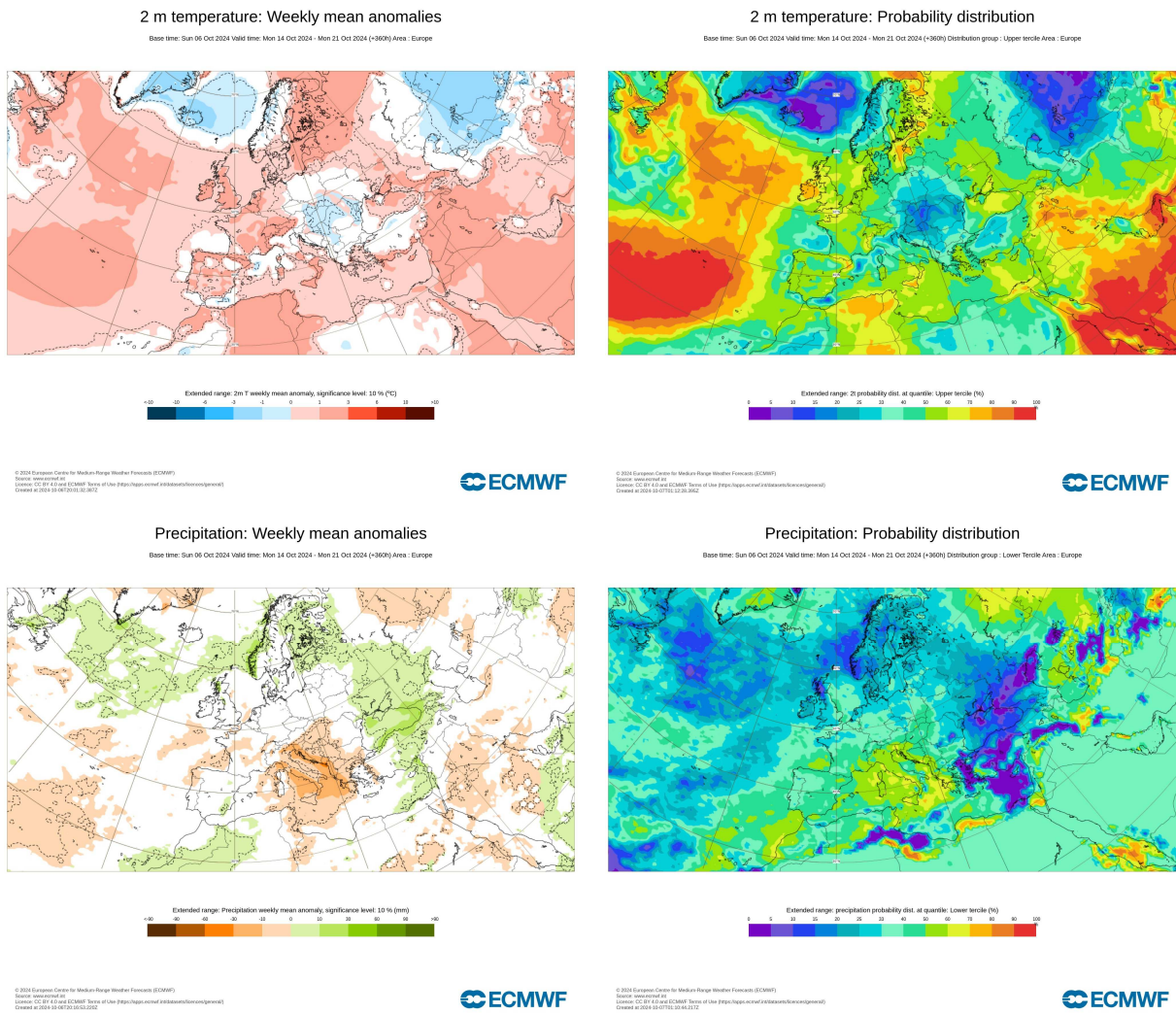


Figure 4. Outlook for the temperature anomalies and probability for the upper tercile (upper row), along with the precipitation surplus/deficit and probability for the lower tercile (lower row) for the 7.10–13.10.2024 period (source: ECMWF)

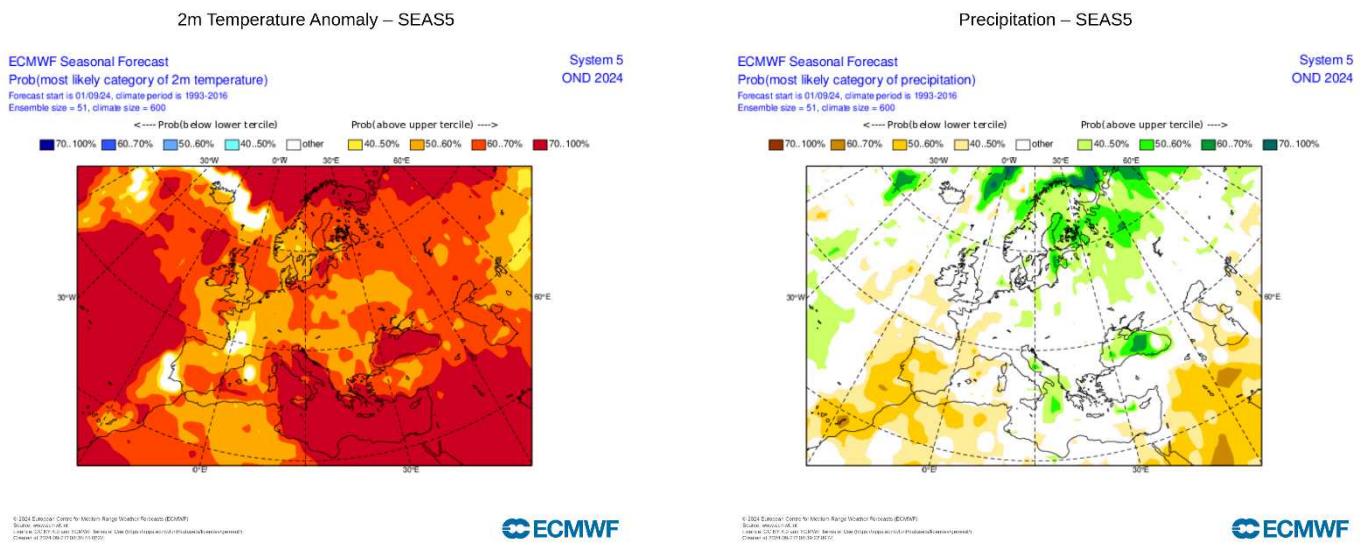


Figure 5. Mean seasonal air temperature and precipitation anomaly probabilities for the season OND (source: ECMWF)

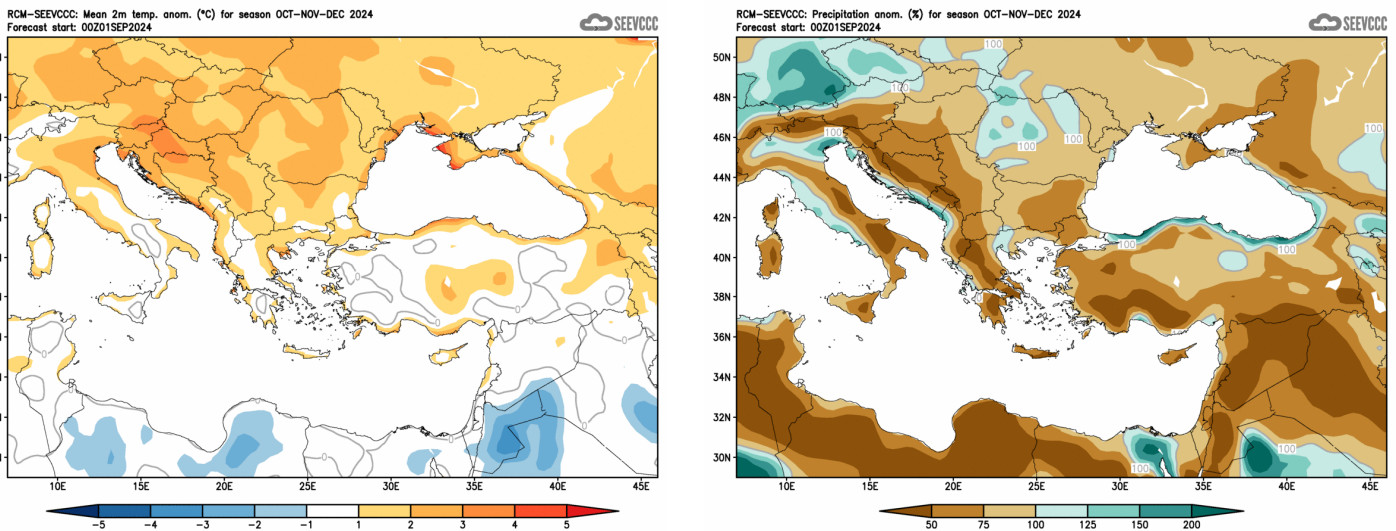


Figure 6. Mean seasonal temperature and precipitation anomaly for the season OND (seasonal outlook from RCM – SEEVCCC)

Sources

- Republic Hydrometeorological Service of Serbia (www.hidmet.gov.rs)
- South East European Virtual Climate Change Center (www.seevccc.rs)
- European Centre for Medium-Range Weather Forecasts (<http://www.ecmwf.int/>)
- Climate Prediction Center USA (<http://www.cpc.ncep.noaa.gov/>)
- Deutscher Wetterdienst (<http://www.dwd.de>)