

Climate Watch (Serial No.: 20241223–52)

Initial/Updated/Final

Topic: **temperature** and **precipitation**

Organization issuing
the statement: SEEVCCC

Issued/ Amended / 23-12-2024 16:00
Cancelled

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Valid from – to: 23-12-2024 – 31-3-2025 Next amendment: 30-12-2024

Region of concern: **Balkans, Armenia, Turkey, Romania**

„ Within the first week (23 to 29 December 2024), ECMWF monthly forecast predicts above normal mean weekly air temperature, with anomaly up to +6 °C in Armenia and most of Turkey. Probability for exceeding upper tercile (top third of the highest temperature) is over 90%. Below normal mean weekly air temperature, with anomaly up to –3 °C is expected in most of the Balkans, with probability for exceeding lower tercile (bottom third of the lowest temperature) around 90%. Precipitation surplus is expected in most of the Balkans, most of Romania, western, southwestern and part of central Turkey, with around 90% probability for exceeding upper tercile (upper third of the highest precipitation). “

Monitoring

During the period from 15 to 21 December 2024, weekly precipitation sums up to 200 mm were observed in southwestern part of Greece and southwestern part of Turkey, up to 100 mm in western Georgia and southern Adriatic coast, up to 50 mm in western Turkey and part of the western and southwestern Balkans, while rest of the region received less than 25 mm of precipitation.

Outlook

Within the first week (23 to 29 December 2024), ECMWF monthly forecast predicts above normal mean weekly air temperature, with anomaly up to +6 °C in Armenia and most of Turkey, while up to +3 is expected in most of Ukraine, Moldova, eastern and southern Romania, eastern Bulgaria and South Caucasus region. Probability for exceeding upper tercile (top third of the highest temperature) is over 90%. Below normal mean weekly air temperature, with anomaly up to -3 °C is expected in most of the Balkans, with probability for exceeding lower tercile (bottom third of the lowest temperature) around 90%. Precipitation surplus is expected in most of the Balkans, most of Romania, western, southwestern and part of central Turkey, with around 90% probability for exceeding upper tercile (upper third of the highest precipitation). Precipitation deficit is expected in northern Ukraine with probability for exceeding lower tercile (bottom third of the lowest precipitation) over 90%.

During the second week (30 December 2024 to 5 January 2025), above average mean weekly air temperature, with anomaly up to +3 °C, is forecasted for central part of northern Turkey, southern Azerbaijan, Moldova and most of Ukraine, with around 60% probability for exceeding upper tercile (top third of the highest temperature). Below normal mean weekly air temperature, with anomaly up to -3 °C is expected in most of the Balkans and part of eastern Turkey, with probability for exceeding lower tercile (bottom third of the lowest temperature) up to 60% in Turkey and around 70% in the Balkans. Precipitation deficit is predicted for most of the SEE region, with low probability for exceeding lower tercile (bottom third of the lowest precipitation).

During the following three months (January, February and March), seasonal forecast predicts above average seasonal air temperature in most of the SEECOF region, beside northeastern Turkey and some parts of South Caucasus. Precipitation surplus is expected in Azerbaijan, while deficit is forecasted for southeastern Turkey and Middle East.

Update

An updated statement will be issued on 30-12-2024

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

ANNEX

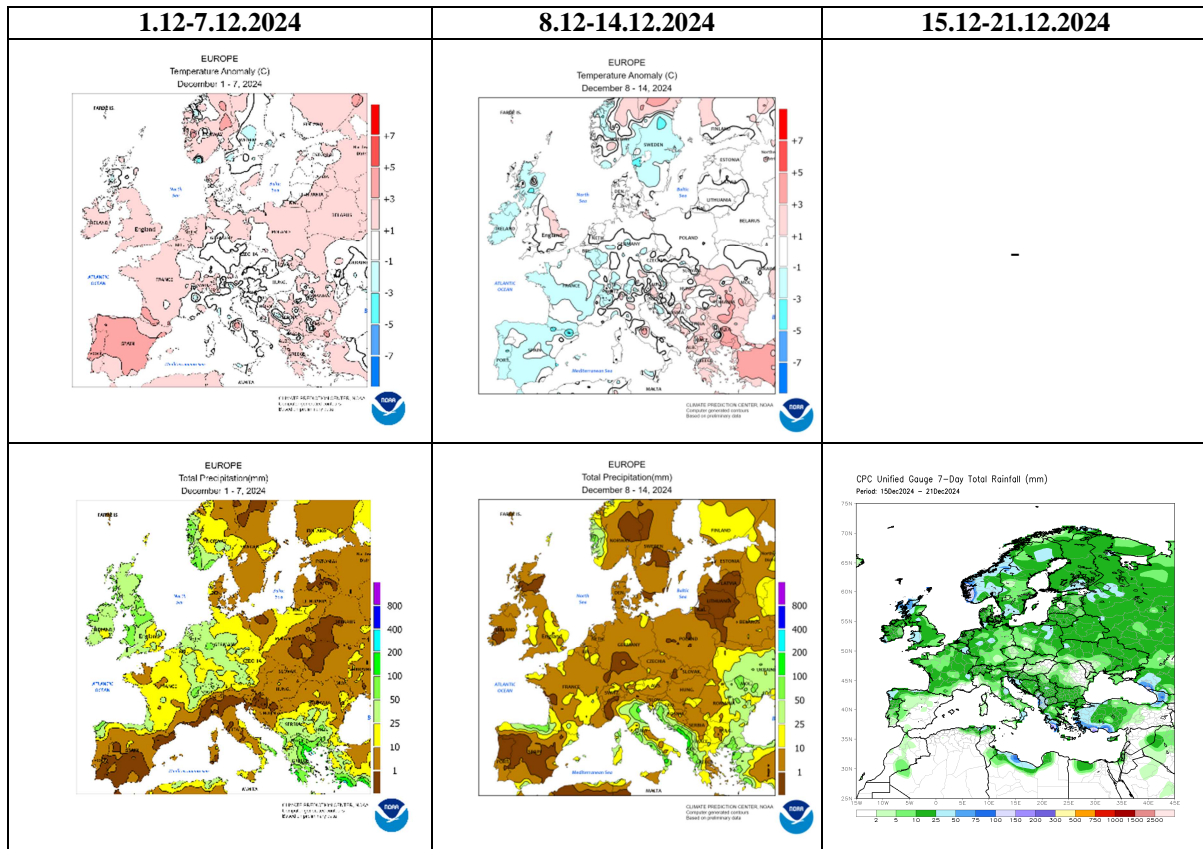


Figure 1. Temperature anomaly and total precipitation for recent weeks (source: Climate Prediction Center, USA)

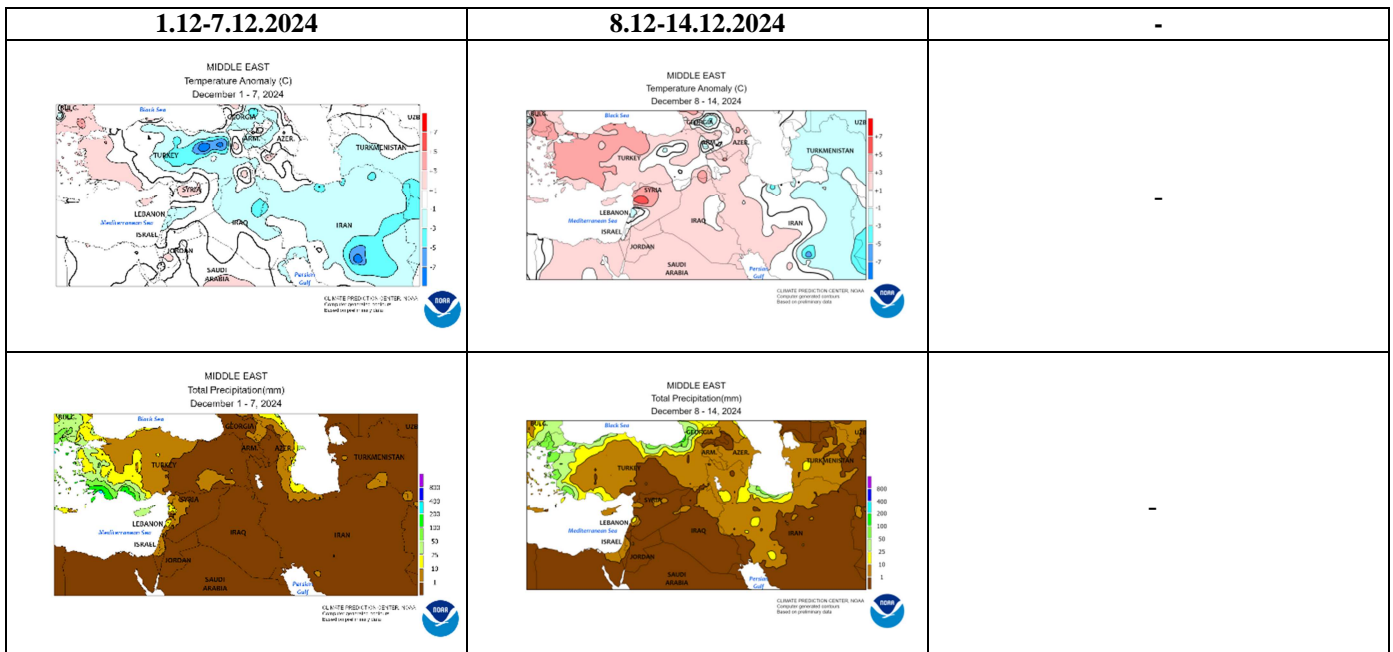
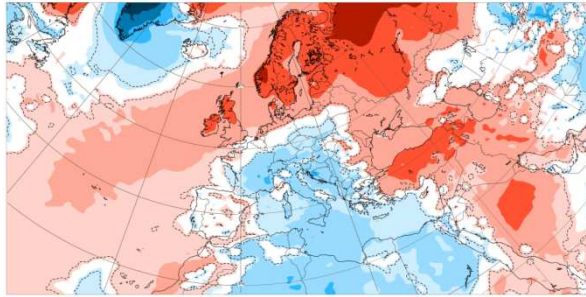


Figure 2. Temperature anomaly and total precipitation for recent weeks for Middle East (source: Climate Prediction Center)

2 m temperature: Weekly mean anomalies

Base time: Sun 22 Dec 2024 Valid time: Mon 23 Dec 2024 - Mon 30 Dec 2024 (+192h) Area : Europe



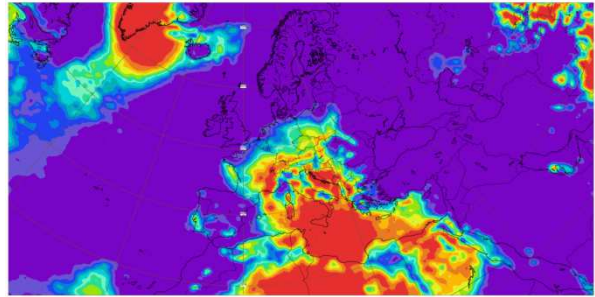
Extended range: 2m T weekly mean anomaly, significance level: 30 % (°C)

© 2024 European Centre for Medium-Range Weather Forecasts (ECMWF)
Source: reanalysis and
Service: EC-EV4.4 and EC-EV4.5 (ECMWF) Service of User Support (https://www.ecmwf.int/en/our-services)
Created at 2024-12-22 10:58:30 UTC



2 m temperature: Probability distribution

Base time: Sun 22 Dec 2024 Valid time: Mon 23 Dec 2024 - Mon 30 Dec 2024 (+192h) Distribution group: Lower Tercile Area : Europe



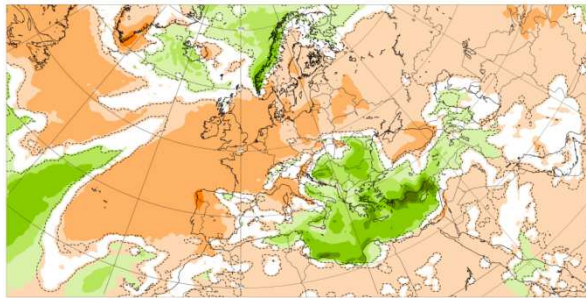
Extended range: 2m probability dist. at quartile: Lower tercile (%)

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Source: reanalysis and
Service: EC-EV4.4 and EC-EV4.5 (ECMWF) Service of User Support (https://www.ecmwf.int/en/our-services)
Created at 2024-12-22 10:58:30 UTC



Precipitation: Weekly mean anomalies

Base time: Sun 22 Dec 2024 Valid time: Mon 23 Dec 2024 - Mon 30 Dec 2024 (+192h) Area : Europe



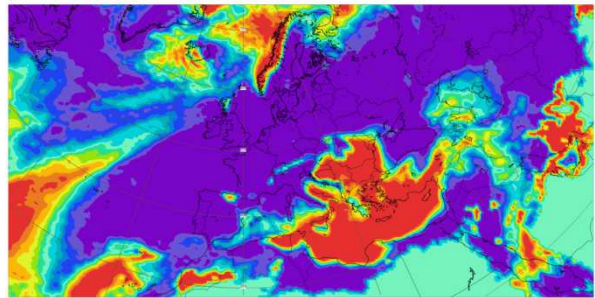
Extended range: Precipitation weekly mean anomaly, significance level: 10 % (mm)

© 2024 European Centre for Medium-Range Weather Forecasts (ECMWF)
Source: reanalysis and
Service: EC-EV4.4 and EC-EV4.5 (ECMWF) Service of User Support (https://www.ecmwf.int/en/our-services)
Created at 2024-12-22 10:58:30 UTC



Precipitation: Probability distribution

Base time: Sun 22 Dec 2024 Valid time: Mon 23 Dec 2024 - Mon 30 Dec 2024 (+192h) Distribution group: Upper tercile Area : Europe



Extended range: precipitation probability dist. at quartile: Upper tercile (%)

© 2024 European Centre for Medium-Range Weather Forecasts (ECMWF)
Source: reanalysis and
Service: EC-EV4.4 and EC-EV4.5 (ECMWF) Service of User Support (https://www.ecmwf.int/en/our-services)
Created at 2024-12-22 10:58:30 UTC



Figure 3. Outlook for the temperature anomalies and probability for the lower tercile (upper row), along with the precipitation surplus/deficit and probability for the upper tercile (lower row) for the 23.12–29.12.2024 period (source: European Centre for Medium-Range Weather Forecasts, ECMWF)

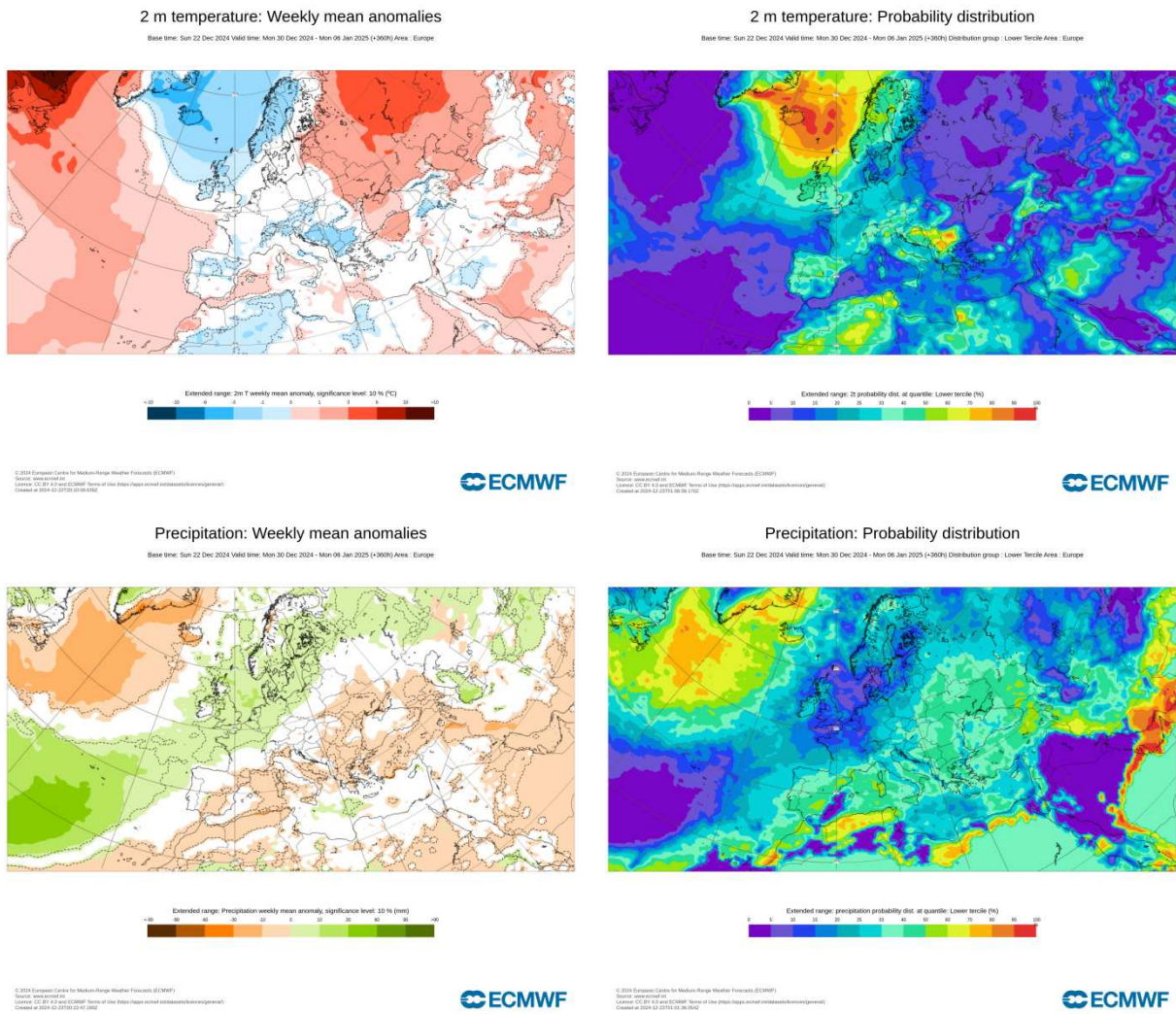


Figure 4. Outlook for the temperature anomalies and probability for the lower tercile (upper row), along with the precipitation surplus/deficit and probability for the lower tercile (lower row) for the 30.12.2024–5.1.2025 period (source: ECMWF)

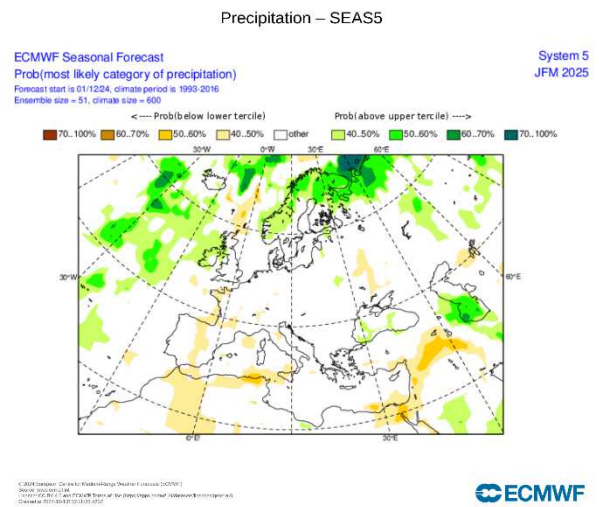
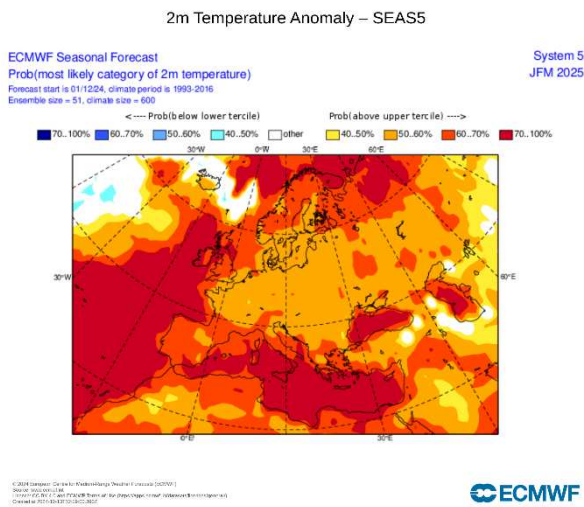


Figure 5. Mean seasonal air temperature and precipitation anomaly probabilities for the season JFM (source: ECMWF)

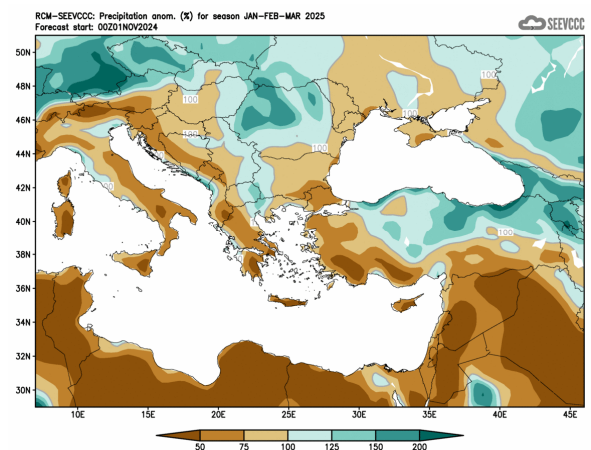
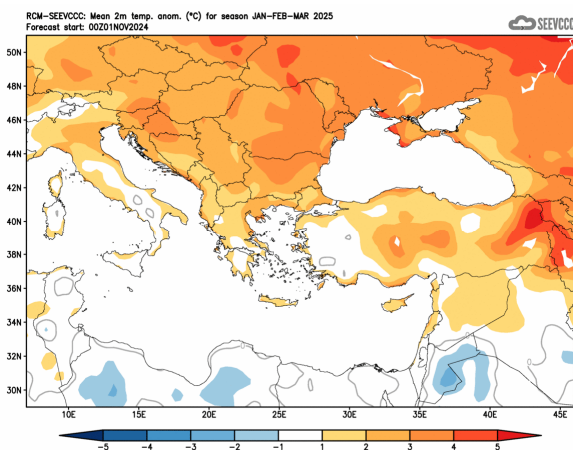


Figure 6. Mean seasonal temperature and precipitation anomaly for the season JFM (seasonal outlook from RCM – SEEVCCC)

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>)