



## SEASONAL BULLETIN

### ANOMALIES OF AVERAGE AIR TEMPERATURE AND ATMOSPHERIC PRECIPITATION ACROSS THE TERRITORY OF KAZAKHSTAN FOR THE SUMMER SEASON OF 2026

The bulletin is designed to promptly inform government agencies, industry organizations, the scientific community, and other interested parties about current climatic conditions in Kazakhstan.

#### RELEVANT

- In summer 2026, the average monthly air temperature was **2,15 °C above the climate norm.**
- Precipitation was **7,12 mm below the climatological norm.**

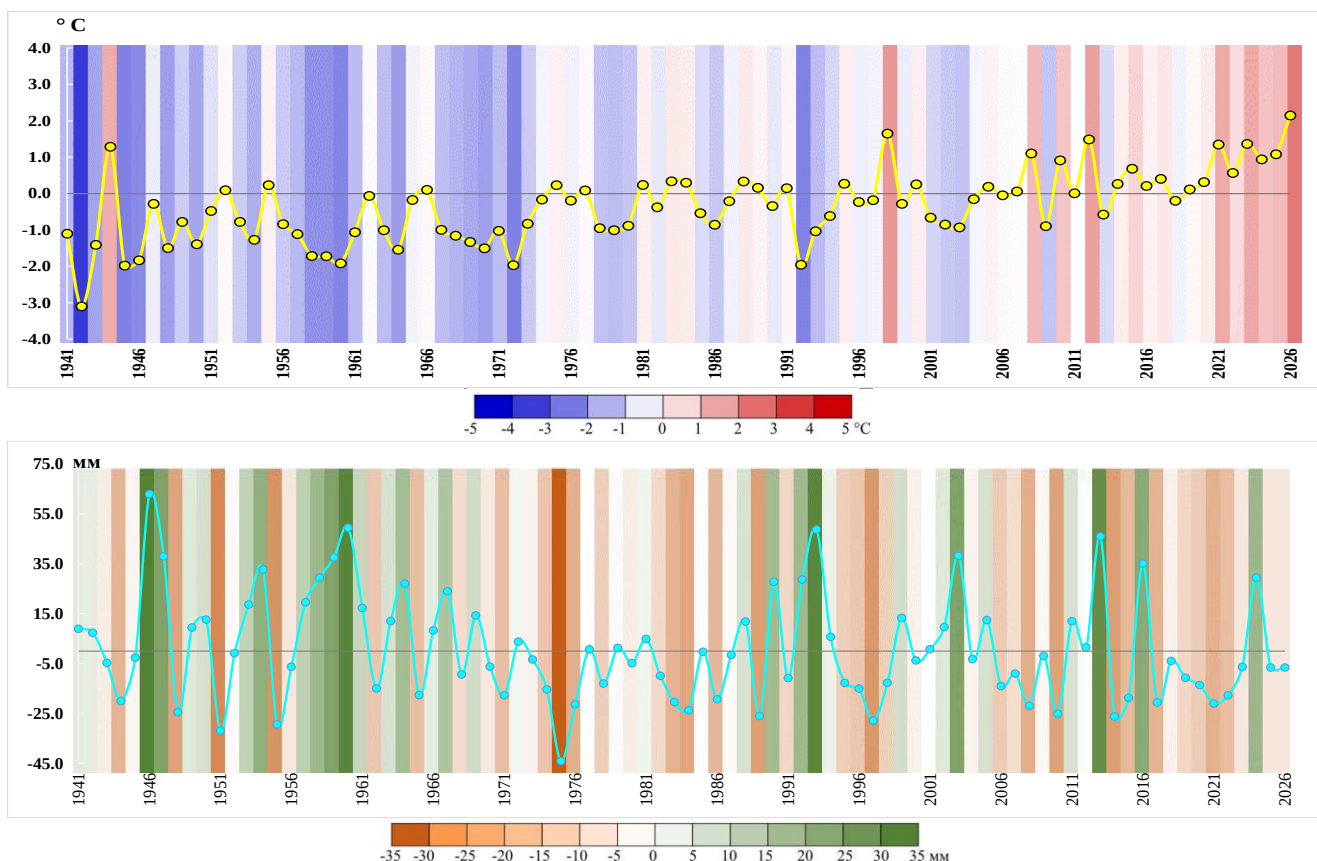


Figure 1 – Time series of air temperature anomalies (a) (°C) and precipitation anomalies (b) (mm) summer season, averaged across Kazakhstan for the period 1941–2026.  
The anomalies are calculated relative to the 1991–2020 reference period

## AIR TEMPERATURE

In the summer of 2026, the positive air temperature anomalies were observed in most territory of Kazakhstan.

The average air temperature during the summer season exceeded the climatic norm by 2.15 °C, and the summer of 2026 became the hottest on record (1<sup>st</sup> rank) (Fig.1a).

The greatest positive air temperature anomalies were observed in the east of Akmola, Karaganda regions, Pavlodar, most territory of East Kazakhstan region and Abai region. The maximum positive deviation from the climatic norm was +4.0 °C and was recorded at MS Bes-Oba in the Karaganda region.

73% of weather stations located in most of the country, with the exception of the western region, were classified as "extremely warm". The probability of non-exceedance was 95-100 % (Fig. 2).

Meteorological stations located in the south part of Atyrau, northeast part of Mangystau regions, in most territory of Aktoobe, Kostanay regions and in the west of North Kazakhstan, Akmola, Kyzylorda regions, as well as in the foothill areas of Turkestan region were classified as "warm". The probability of non-exceedance was 75-95%.

The temperature regime close to the climatic norm was observed in Western Kazakhstan, in most territory of Atyrau and in the west part of Aktoobe and Mangystau regions. Negative air temperature anomalies from -0.1 to -0.6 °C were observed at 5 meteorological stations in West Kazakhstan, 2 meteorological stations in Aktoobe and 1 meteorological station in Mangystau regions.

102 meteorological stations have updated their maximum air temperatures in the summer season of 2026 (table 1).

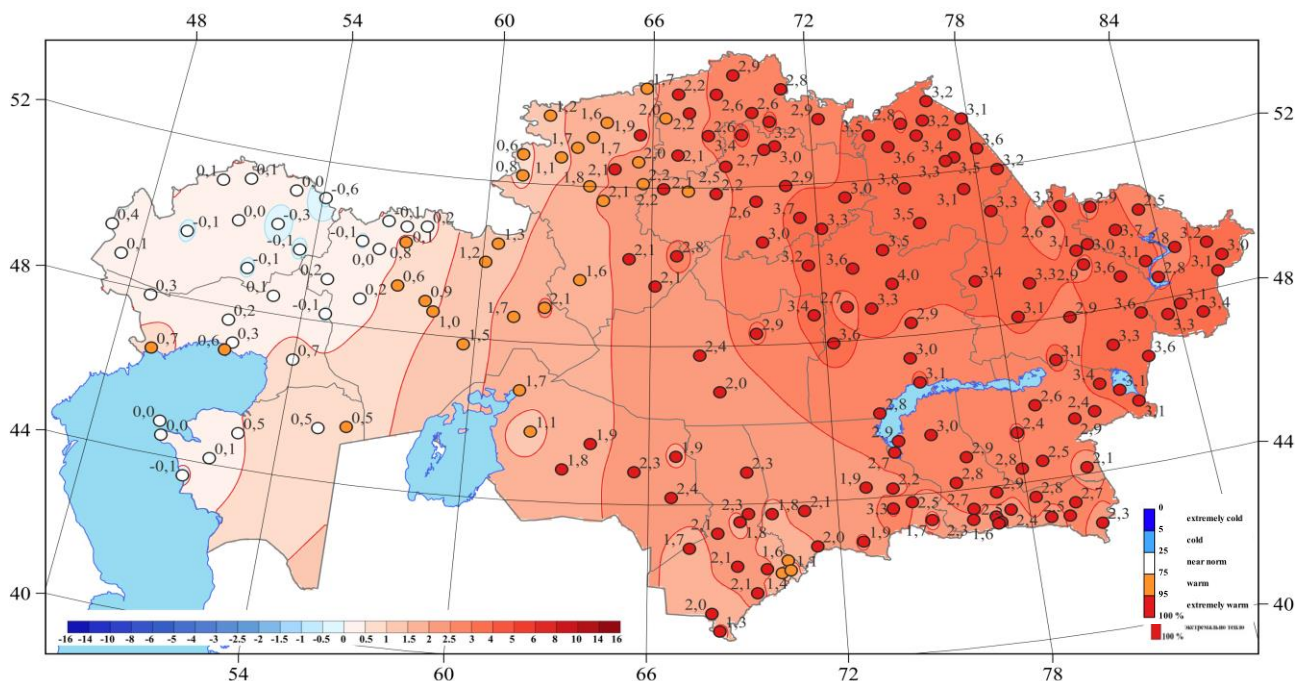


Figure 2 – Spatial distribution of anomalies of mean monthly air temperature (°C), (relatively to the norms for the period 1991–2020 years) and distribution of probabilities of non-exceedance of air temperature in summer season 2026 year, the period 1941–2026 years

Table 1. Record values of the average seasonal air temperature for the summer of 2026

| №  | Meteorological station | Region           | New maximum air temperature, °C | The previous record of the average seasonal air temperature, °C |
|----|------------------------|------------------|---------------------------------|-----------------------------------------------------------------|
| 1  | Akzhar                 | Abai             | 24,3                            | 22,6 (2008)                                                     |
| 2  | Aksengir               | Almaty           | 25,6                            | 25,4 (2025)                                                     |
| 3  | Aksuat                 | Abai             | 24,7                            | 22,7 (2025)                                                     |
| 4  | Aksu-Ayuly             | Karagandy        | 22,0                            | 21,6 (1998)                                                     |
| 5  | Aktogay                | East Kazakhstan  | 26,5                            | 25,2 (2024)                                                     |
| 6  | Aktogay                | Karagandy        | 21,5                            | 21,1 (1998)                                                     |
| 7  | Aktogay                | Pavlodar         | 23,1                            | 22,3 (2012)                                                     |
| 8  | Alakol                 | Zhetisu          | 26,5                            | 25,2 (2025)                                                     |
| 9  | Arshaly                | Akmola           | 22,5                            | 21,8 (1998)                                                     |
| 10 | Arys                   | Turkistan        | 30,0                            | 29,9 (2021)                                                     |
| 11 | Astana                 | Akmola           | 23,5                            | 22,5 (1998)                                                     |
| 12 | Auyl №4                | Almaty           | 27,1                            | 26,2 (2025)                                                     |
| 13 | Ashchysay              | Turkistan        | 26,3                            | 26,2 (2025)                                                     |
| 14 | Ayagoz                 | Abai             | 22,9                            | 21,7 (2024)                                                     |
| 15 | Bakanas                | Almaty           | 27,6                            | 26,6 (2024, 2025)                                               |
| 16 | Bakty                  | Abai             | 25,5                            | 24,2 (2025)                                                     |
| 17 | Balkash                | Karagandy        | 26,1                            | 24,6 (2025)                                                     |
| 18 | Barshatas              | Abai             | 23,7                            | 22,5 (1998)                                                     |
| 19 | Bayanaul               | Pavlodar         | 22,7                            | 21,7 (1998)                                                     |
| 20 | Bektauata              | Karagandy        | 25,1                            | 23,9 (2025)                                                     |
| 21 | Bes-Oba                | Karagandy        | 21,3                            | 20,5 (1998)                                                     |
| 22 | Vozvyshenka            | North Kazakhstan | 21,1                            | 20,9 (1998)                                                     |
| 23 | Golubovka              | Pavlodar         | 23,1                            | 22,3 (2012)                                                     |
| 24 | Dmitriyevka            | Abai             | 22,7                            | 21,2 (2024)                                                     |
| 25 | Ekibastuz              | Pavlodar         | 24,0                            | 22,6 (1998)                                                     |
| 26 | Ertis                  | Pavlodar         | 22,4                            | 22,3 (2012)                                                     |
| 27 | Esik                   | Almaty           | 24,4                            | 24,4 (2025)                                                     |
| 28 | Zhalanash              | Almaty           | 19,1                            | 18,6 (2025)                                                     |
| 29 | Zhalanashkol           | Zhetisu          | 27,9                            | 26,7 (2025)                                                     |
| 30 | Zhalgyztobe            | Abai             | 23,5                            | 22,4 (2024)                                                     |
| 31 | Zhanaarka              | Ulytau           | 23,9                            | 22,8 (1998)                                                     |
| 32 | Zharkent               | Zhetisu          | 25,8                            | 25,7 (2023)                                                     |
| 33 | Zharyk                 | Karagandy        | 22,1                            | 22,0 (1998)                                                     |
| 34 | Zhezkazgan             | Ulytau           | 25,6                            | 25,2 (1998)                                                     |
| 35 | Zhetykonyr             | Ulytau           | 26,2                            | 25,8 (2023)                                                     |
| 36 | Zhetysai               | Turkistan        | 28,1                            | 27,9 (2024)                                                     |
| 37 | Zholboldy              | Pavlodar         | 23,5                            | 22,6 (1998)                                                     |
| 38 | Zaysan                 | East Kazakhstan  | 26,0                            | 24,4 (1998)                                                     |
| 39 | Zapovednik Markakol    | East Kazakhstan  | 16,5                            | 15,0 (2024)                                                     |
| 40 | Kainar                 | Abai             | 21,3                            | 20,3 (1998)                                                     |
| 41 | Kapshagai              | Almaty           | 27,0                            | 26,6 (2025)                                                     |
| 42 | Karaganda              | Karagandy        | 22,7                            | 22,0 (1998)                                                     |
| 43 | Karaul                 | Abai             | 23,2                            | 21,8 (2024)                                                     |
| 44 | Katonkaragai           | East Kazakhstan  | 19,3                            | 17,9 (2008)                                                     |
| 45 | Kegen                  | Almaty           | 17,5                            | 17,1 (2025)                                                     |
| 46 | Kertindy               | Karagandy        | 23,1                            | 22,2 (1998)                                                     |
| 47 | Kyzylzhar              | Ulytau           | 25,2                            | 24,6 (1998)                                                     |
| 48 | Kyzyltau               | Karagandy        | 22,6                            | 21,2 (1998)                                                     |
| 49 | Kogaly                 | Zhetisu          | 19,6                            | 19,4 (2025)                                                     |
| 50 | Kokpekty               | Abai             | 23,3                            | 21,7 (1998)                                                     |
| 51 | Koktobe                | Pavlodar         | 23,6                            | 22,8 (1998)                                                     |
| 52 | Kokshetau              | Akmola           | 22,1                            | 21,6 (1998)                                                     |
| 53 | Korgalzhyn             | Akmola           | 23,0                            | 22,7 (1998)                                                     |
| 54 | Korneevka              | Karagandy        | 21,4                            | 20,5 (1998)                                                     |
| 55 | Krasnoarmeika          | Pavlodar         | 24,1                            | 23,0 (1998)                                                     |
| 56 | Kuigan                 | Almaty           | 27,0                            | 26,1 (2025)                                                     |
| 57 | Kurshim                | East Kazakhstan  | 23,7                            | 22,5 (1998)                                                     |
| 58 | Kyzylorda              | Kyzylorda        | 29,4                            | 29,2 (2021)                                                     |
| 59 | Kyrgyzsay              | Almaty           | 23,5                            | 23,2 (2025)                                                     |
| 60 | Leninogorsk            | East Kazakhstan  | 18,8                            | 18,5 (1998)                                                     |

| №   | Meteorological station | Region           | New maximum air temperature, °C | The previous record of the average seasonal air temperature, °C |
|-----|------------------------|------------------|---------------------------------|-----------------------------------------------------------------|
| 61  | Lepsi                  | Zhetisu          | 19,2                            | 18,7 (2025)                                                     |
| 62  | Lozovaya               | Pavlodar         | 22,6                            | 21,7 (1998)                                                     |
| 63  | Matai                  | Zhetisu          | 27,0                            | 26,2 (2008)                                                     |
| 64  | Mikhailovka            | Pavlodar         | 22,2                            | 21,6 (2012)                                                     |
| 63  | Moiynkum               | Zhambyl          | 26,9                            | 26,7 (2023)                                                     |
| 64  | Mynzhylky              | Almaty           | 9,5                             | 9,4 (2025)                                                      |
| 65  | Narynkol               | Almaty           | 17,8                            | 17,2 (2025)                                                     |
| 66  | Pavlodar               | Pavlodar         | 23,3                            | 22,4 (2023)                                                     |
| 67  | Samarka                | East Kazakhstan  | 24,0                            | 22,9 (1974)                                                     |
| 68  | Sarkand                | Zhetisu          | 24,6                            | 23,9 (2025)                                                     |
| 69  | Saryozek               | Zhetisu          | 24,1                            | 23,7 (2025)                                                     |
| 70  | Saryshagan             | Karagandy        | 26,5                            | 25,4 (2025)                                                     |
| 71  | Saudakent              | Zhambyl          | 27,4                            | 26,7 (2025)                                                     |
| 72  | Semipalatinsk          | Abai             | 23,2                            | 22,5 (1998)                                                     |
| 73  | Semiyarka              | Abai             | 24,5                            | 23,2 (1998)                                                     |
| 74  | Taraz                  | Zhambyl          | 26,2                            | 26,2 (2025)                                                     |
| 75  | Tasty                  | Turkistan        | 28,8                            | 28,3 (2025)                                                     |
| 76  | Terekty                | East Kazakhstan  | 24,2                            | 23,2 (1974)                                                     |
| 77  | Tole bi                | Zhambyl          | 27,7                            | 26,2 (2025)                                                     |
| 78  | Tugyl                  | East Kazakhstan  | 24,6                            | 23,4 (1998)                                                     |
| 79  | Turkestan              | Turkistan        | 30,0                            | 29,7 (2025)                                                     |
| 80  | Uzynagash              | Almaty           | 24,1                            | 24,0 (2025)                                                     |
| 81  | Ulken Naryn            | East Kazakhstan  | 22,7                            | 21,8 (2008)                                                     |
| 82  | Urzhar                 | Abai             | 24,6                            | 23,4 (1974)                                                     |
| 83  | Uspenka                | Pavlodar         | 23,5                            | 22,2 (1998)                                                     |
| 84  | Ust-Kamenogorsk        | East Kazakhstan  | 23,0                            | 21,6 (2024)                                                     |
| 85  | Usharal                | Zhetisu          | 26,7                            | 25,4 (2025)                                                     |
| 86  | Ushtobe                | Zhetisu          | 25,7                            | 25,2 (2025)                                                     |
| 87  | Uyuk                   | Zhambyl          | 28,0                            | 27,7 (2025)                                                     |
| 88  | Fedorovskaya           | Pavlodar         | 22,5                            | 22,1 (2012)                                                     |
| 89  | Khantau                | Zhambyl          | 28,5                            | 28,2 (2025)                                                     |
| 90  | Chiganak               | Zhambyl          | 27,6                            | 26,8 (2025)                                                     |
| 91  | Chkalovo               | North Kazakhstan | 22,0                            | 21,0 (2012)                                                     |
| 92  | Shalabay               | Abai             | 23,1                            | 21,9 (2024)                                                     |
| 93  | Shaldai                | Pavlodar         | 23,3                            | 22,6 (1998)                                                     |
| 94  | Shar                   | Abai             | 23,3                            | 22,1 (2024)                                                     |
| 95  | Sharbakty              | Pavlodar         | 23,8                            | 22,5 (2012)                                                     |
| 96  | Shardara               | Turkistan        | 29,9                            | 29,7 (2025)                                                     |
| 97  | Shelek                 | Almaty           | 27,1                            | 26,8 (2025)                                                     |
| 98  | Shemonaikha            | East Kazakhstan  | 22,5                            | 21,3 (1998)                                                     |
| 99  | Shieli                 | Kyzylorda        | 28,5                            | 28,0 (2025)                                                     |
| 100 | Shokpar                | Zhambyl          | 27,0                            | 26,8 (2025)                                                     |
| 101 | Sholakkorgan           | Turkistan        | 27,8                            | 27,3 (2025)                                                     |
| 102 | Yavlenka               | North Kazakhstan | 21,0                            | 20,8 (1989)                                                     |

## ATMOSPHERIC PRECIPITATION

The amount of precipitation fell below the climatic norm by 7.12 mm in the summer of 2026.

An analysis of the time series of precipitation anomalies during the summer season indicates an alternation of dry and wet periods, with a shortage of precipitation in the last two years. (Fig. 1b).

The summer of 2026 was characterized by an irregular spatial distribution of precipitation across the territory of Kazakhstan.

Precipitation exceeding 120% of the climatic norm was observed mainly in the western regions of the country, locally in the North Kazakhstan region, in the northern part of the Akmola region, as well as partly in Pavlodar, Kostanay, Kyzylorda, Turkistan, Zhambyl, Karaganda, and Almaty regions (Fig. 3). The humidification conditions were characterized as extremely humid and corresponded to a 5%

extreme at MS Beineu (Mangystau region), MS Sagiz (Atyrau region), MS Ilyinsky (Aktobe region), MS Presnogorkovka (Kostanay region), MS Timiryazev (North Kazakhstan region), MS Ertis (Pavlodar region).

Precipitation closes to the climatic norm (80-120%) was observed in the north and south of Kostanay, east part of North Kazakhstan, Akmola, Pavlodar regions, west part of Ulytau, Kyzylorda and Zhambyl regions, as well as in certain territories of the west, south and east parts of the country.

Precipitation deficit was observed in most of the territory of Pavlodar, East Kazakhstan and

Almaty regions, as well as in the Abai and Zhetysu regions. Local precipitation deficit zones were also observed in the western, northern, northeastern, central, southwestern, and southern regions of the country.

Seasonal precipitation values corresponding to the "extremely dry" gradation with a probability of not exceeding 0-5% were recorded at ten meteorological stations. There was no precipitation in Zhalanashkol MS (Zhetysu region) during all summer months.

New maximum precipitation values were set at some meteorological stations: in June – by 5 meteorological stations, in July – by 1 meteorological station.

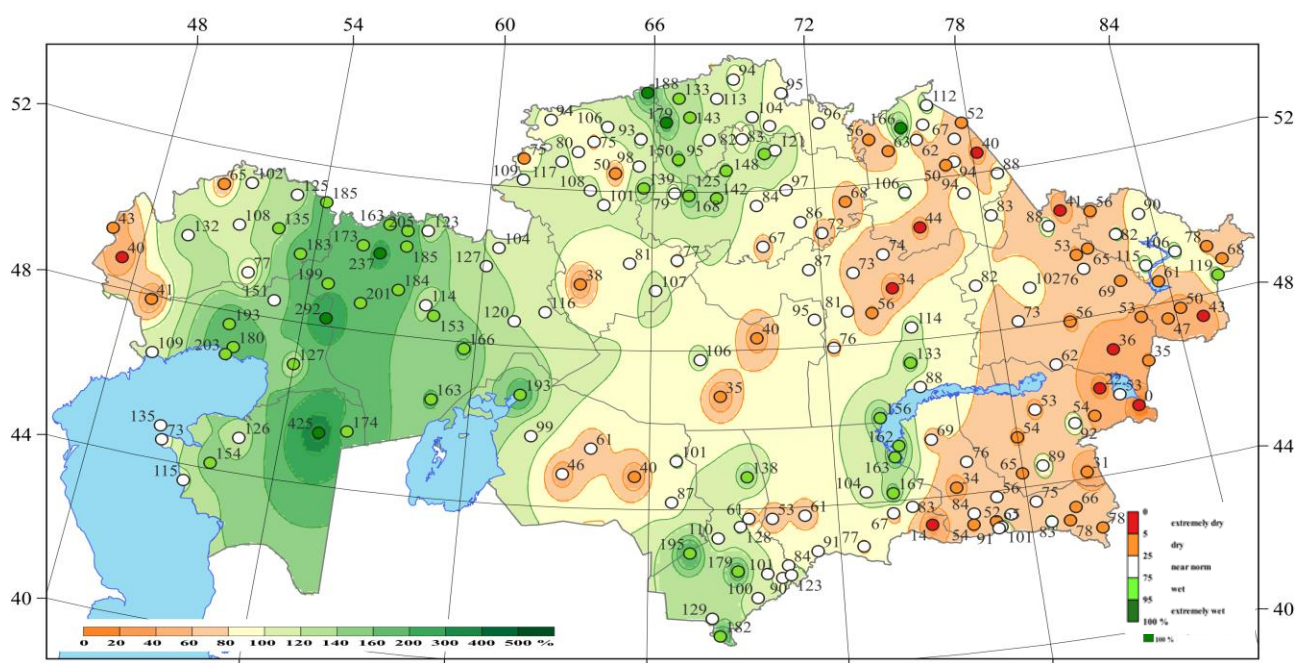


Figure 3 – Spatial distribution of atmospheric precipitation (as % of the norm, for the period 1991–2020) and the probability of non-exceedance of precipitation in summer season 2026 (period 1941–2026 years)

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