**HADUKP**

**CEP/ESP Daily values fix, January 2023**

# Overview

A bug was identified within the latest version of the UKP daily rainfall values for Central England (CEP) and East Scotland (ESP) regions. This issue occurred during the reformatting of the daily output files from the previous fixed width format to the new flat file version. This impacted some of the historic QC’d daily values. These rainfall values have not been updated in the series but have been displayed incorrectly on the data download page and in some of the plots.

In total, there were **34** values in the Central England Precipitation daily series and **37** values in the East Scotland Precipitation daily series that had the first digit truncated in the reformatted totals file.

As a result of this fix, there is also an update to the CEP June accumulation plots with the highest daily value currently quoted as 34.4mm on 10th June 2019. This highest daily value should now read 35.6mm on 19th June 1973.

There were no issues with the monthly series files and so the following values and plots were not impacted by the bug fix:

* Monthly totals
* Ranked monthly and seasonal tables
* Monthly and seasonal time series plots
* Long term averages
* Annual accumulation values

There were also no issues with 2022’s rainfall values.

A full list of corrected daily values in the series can be found below:

|  |  |  |
| --- | --- | --- |
| Date | Truncated Value | Corrected Value |
| 19/06/1939 | 1.2mm | 11.2mm |
| 19/07/1939 | 0.51mm | 10.51mm |
| 19/08/1944 | 7.3mm | 17.3mm |
| 19/08/1946 | 0.91mm | 10.91mm |
| 19/11/1946 | 7.57mm | 17.57mm |
| 19/11/1952 | 3.78mm | 13.78mm |
| 19/08/1953 | 0.82mm | 10.82mm |
| 19/10/1955 | 0.84mm | 10.84mm |
| 19/09/1960 | 1.3mm | 11.3mm |
| 19/10/1960 | 0.51mm | 10.51mm |
| 19/10/1961 | 0.43mm | 10.43mm |
| 19/03/1964 | 0.31mm | 10.31mm |
| 19/02/1966 | 0.61mm | 10.61mm |
| 19/08/1970 | 9.1mm | 29.1mm |
| 19/06/1971 | 1.9mm | 11.9mm |
| 19/06/1973 | 5.59mm | 35.59mm |
| 19/01/1979 | 1.68mm | 11.68mm |
| 19/09/1981 | 5.82mm | 15.82mm |
| 19/10/1981 | 9.7mm | 19.7mm |
| 19/05/1986 | 0.2mm | 10.2mm |
| 19/10/1986 | 1.24mm | 11.24mm |
| 19/10/1988 | 0.3mm | 10.3mm |
| 19/08/1990 | 1.63mm | 11.63mm |
| 19/11/1990 | 0.52mm | 10.52mm |
| 19/01/1995 | 1.76mm | 11.76mm |
| 19/12/1995 | 3.52mm | 13.52mm |
| 19/11/1996 | 7.4mm | 17.4mm |
| 19/12/1996 | 6.2mm | 16.2mm |
| 19/09/1999 | 5.77mm | 15.77mm |
| 19/09/2000 | 7.58mm | 17.58mm |
| 19/10/2004 | 0.39mm | 10.39mm |
| 19/08/2007 | 1.98mm | 11.98mm |
| 19/12/2012 | 4.08mm | 14.08mm |
| 19/11/2016 | 3.22mm | 13.22mm |

**CEP daily value corrections**

**ESP daily value corrections**

|  |  |  |
| --- | --- | --- |
| Date | Truncated Value | Corrected Value |
| 27/05/1942 | 1.82mm | 11.82mm |
| 27/09/1943 | 9.68mm | 19.68mm |
| 27/05/1945 | 2.08mm | 12.08mm |
| 27/04/1948 | 8.89mm | 18.89mm |
| 27/04/1953 | 3.86mm | 13.86mm |
| 27/11/1954 | 0.51mm | 10.51mm |
| 27/09/1956 | 5.53mm | 15.53mm |
| 27/06/1959 | 0.34mm | 10.34mm |
| 27/07/1959 | 8.9mm | 18.9mm |
| 27/10/1959 | 1.6mm | 11.6mm |
| 27/08/1960 | 0.41mm | 10.41mm |
| 27/07/1965 | 0.81mm | 10.81mm |
| 27/06/1966 | 0.92mm | 20.92mm |
| 27/02/1967 | 5.72mm | 15.72mm |
| 27/06/1970 | 4.4mm | 14.4mm |
| 27/09/1977 | 0.21mm | 10.21mm |
| 27/01/1978 | 8.06mm | 28.06mm |
| 27/04/1978 | 4.63mm | 14.63mm |
| 27/09/1982 | 3.57mm | 13.57mm |
| 27/05/1985 | 0.64mm | 10.64mm |
| 27/10/1987 | 0.43mm | 10.43mm |
| 27/12/1987 | 1.16mm | 11.16mm |
| 27/10/1989 | 4.98mm | 14.98mm |
| 27/02/1994 | 9.99mm | 19.99mm |
| 27/06/1999 | 2.93mm | 12.93mm |
| 27/05/2000 | 1.35mm | 21.35mm |
| 27/06/2004 | 4.2mm | 14.2mm |
| 27/11/2004 | 1.13mm | 11.13mm |
| 27/02/2007 | 1.35mm | 11.35mm |
| 27/10/2007 | 5.33mm | 15.33mm |
| 27/10/2009 | 2.97mm | 12.97mm |
| 27/11/2010 | 3.03mm | 13.03mm |
| 27/07/2013 | 1.42mm | 11.42mm |
| 27/10/2014 | 4.29mm | 14.29mm |
| 27/09/2019 | 2.55mm | 12.55mm |
| 27/07/2020 | 2.98mm | 22.98mm |
| 27/07/2021 | 9.27mm | 29.27mm |