

EGU26-5694, updated on 08 Jun 2026

<https://doi.org/10.5194/egusphere-egu26-5694>

EGU General Assembly 2026

© Author(s) 2026. This work is distributed under the Creative Commons Attribution 4.0 License.



Crowd-Grid & Recent Heat Packs: From Crowdsourced Observations to a Prototype Climate Service

Matthew Fry^{1,2}, Timothy Mitchell¹, Lee Chapman², Francis Pope², and Liam Farrar¹

¹Met Office, Exeter, EX1 3PB, United Kingdom (matthew.fry@metoffice.gov.uk)

²University of Birmingham, Birmingham, B15 2TT, United Kingdom (mxf423@student.bham.ac.uk)

Crowd-Grid is an innovative new 12-year gridded daily temperature dataset released by the Met Office in December 2025. It leverages quality-controlled crowdsourced and third-party temperature observations, interpolated to a 1km grid, to provide a snapshot of recent UK climate (2013-2024) that enhances understanding of local-scale variability. Crowdsourced data has often been assessed at city scale on individual days; using it to build a decadal-length gridded dataset at national scale comparable to established products (HadUK-Grid) is new. This presents an opportunity to use temperature information from the built urban environment, rather than standard observing sites alone, to give a better representation of the day-to-day temperatures experienced by citizens. This data can thus inform adaptation decisions aimed at reducing the impact of future climate changes on the UK population, particularly regarding extreme heat risk.

The Recent Heat Packs form a prototype climate service that presents curated information from Crowd-Grid for use at local level to support decisions on climate adaptation. A 2-page factsheet and a set of supporting .csv files are provided for each of 393 local government areas in the UK. These complement the climate information that is currently available, addressing an oft-recognised need for recent climate data to bridge the gap between historical records and future projections.

This paper discusses the development and delivery of these data and services. It compares Crowd-Grid with existing climatological baselines and highlights its value using case studies from extreme events over the past 12 years of UK climate. In addition, the insights that are gained through the incorporation of crowdsourced observations into an urban climate service are discussed, along with an examination of the past and future impacts of transient sensing on such baselines. Finally, potential future enhancements to the dataset and its delivery are explored.