

# How to access the BETWIXT scenario data and software



# www.cru.uea.ac.uk/cru/projects/betwixt

## with link to password-protected data section

## See also BETWIXT section on BKCC intranet

#### **BETWIXT deliverables**

D1: Examples of WG/NSRP model output for testing impacts models Conditions of use form	Password protected web site
D2: Daily/hourly scenarios for eight variables for ten representative case-study locations	Public web site
D3: RainClim software package to run the GNSRP precipitation model for any given UK location License agreement	Password protected web site
D4: Report describing the analyses of changes to urban/rural temperature and humidity	Public web site
<b>D5:</b> Technical briefing notes on issues such as the models used and underlying assumptions, uncertainties and confidence limits, and guide to good practice in scenario use	Drafts on intranet Final versions on public web site
BADC observed station data Conditions of use form	Password protected web site
Scenario time series for NSRP case-study sites	Public web site



# **Technical briefing notes**

**Available from the BETWIXT web site:** 

- 1. The CRU daily weather generator
- 2. Neymann-Scott rectangular pulses rainfall simulation system
- 3. Simulating climate change in urban areas

**Close to completion:** 

4. Assessment of HadRM3H wind speed and direction and of potential future change in cyclone activity

Ten more titles in preparation.....



# **Technical briefing notes**

In preparation:

- UKCIP02 change fields and scaling factors
- Validating the CRU daily weather generator
- The CRU daily weather scenarios
- The CRU hourly weather generator and scenarios
- Perturbing the NSRP model
- Fitting and validating daily/hourly NSRP output
- The NSRP scenarios
- NSRP user manual
- Implications of the Hadley Centre modelling work
- Analyses of the Manchester urban heat island



# **BETWIXT scenarios**

- Control period (1961-1990)
- For each emissions scenario (low, medium-low, medium-high, high), three future time periods: 2020s, 2050s, 2080s, i.e., 12 series per station or grid square
- Clickable tables on public web site for downloading CRU/NSRP station series



#### The NSRP case-study sites Loch Glascarnoch SAWS Stornoway Airport Dyce Leuchars Abbotsinch Turnhouse **5** Eskdalemuir Aldergrove **Carlisle SAWS** Hillsborough Leeming Ringway young Hemsby Elmdon Heathrow Manston St Mawgan Yeovilton ε.

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# The CRU case-study sites





# The CRU daily variables

#### **Primary generated variable:** Precipitation (mm)

Secondary generated variables:

Minimum temperature (degrees C) Maximum temperature (degrees C) Vapour pressure (hPa) Wind speed (ms<sup>-1</sup>) Sunshine duration (hours)

#### Calculated variables:

Relative humidity (%) Reference potential evapotranspiration (mm day<sup>-1</sup>)

## **CRU** weather generator is stochastic

- 100 simulations is optimal
- We present range across 100 simulations in figures (and we will provide data files containing these numbers)
- For the time series, we will provide a representative run (i.e., from middle of distribution)



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