

London Heathrow Field Site - Metadata

Field Site Information

Name: Heathrow
 src_id (Station ID number): 708
 Geographic Area: Greater London
 Latitude (decimal °): 51.479
 Longitude (decimal °): -0.449
 OS Grid Reference: TQ 076767
 Postcode: TW6
 Elevation: 25 m
 Drainage System: Crane
 Hydrological area ID: 391
 Station start date: 1st January 1947
 Station end date: Current
 METAR code: EGLL
 (Source: BADC, 2007 - http://badc.nerc.ac.uk/search/midas_stations/)

Equipment

Information not available.

Data Types

Type	Source Location	Sampling & Averaging	Collection/ Processing Method
METAR	Automatic meteorological data available from National Weather Service Telecommunication Operations Center website. http://weather.noaa.gov/weather/current/EGLL.html	Instantaneous samples taken every 30 mins at 20 and 50 mins past the hour	Data collected every 30 mins and processed daily
SYNOP	Synoptic meteorological and precipitation data extracted from Met Office's MIDAS dataset which is available with the relevant permission from the British Atmospheric Data Centre. http://badc.nerc.ac.uk	Hourly data. Averaging period or sampling method unknown	Data collected using online data extractor

Data Storage

Type	Location	Start Date	File Name(s)
METAR	LondonRawData W:\KCLroof\2007\LHR_EGLL	6 th Aug 2007 DOY 218	EGLLYYYYDDD.txt
SYNOP	LondonRawData W:\KCLroof\YYYY\MIDAS\	1 st Jan 1999 DOY 001	heathrowYYYYmidas.txt heathrowYYYYprecip.txt

Data Processing

Program	Description	Execution
heathrow4.m	Program reads internet source code and extracts meteorological data. This data is written to a daily output file	Program run twice an hour to coincide with data updates.
MIDASextract.m	Extracts required meteorological data from raw SYNOP (MIDAS) data files. Generates yearly data file. All units a left in original format (no conversion to S.I.)	Program run when new data is downloaded from MIDAS.
MIDASprecip.m	Extracts required precipitation data from MIDAS data files. Generates yearly data file.	Program run when new data is downloaded from MIDAS.

Programs listed here are executed in Matlab (Mathworks Inc.).

Data File FormatsMETAR

Column	Variable	Units
1	Year	-
2	Month	-
3	Day	-
4	Hour	-
5	Minute	-
6	DOY	-
7	Decimal Time	-
8	Wind Direction	°
9	Wind Speed	ms ⁻¹
10	Air Temperature	°C
11	Dew Point Temperature	°C
12	Pressure	hPa

Full data line (commented) is included in the data file after column 12.

SYNOPheathrow YYYYmidas.txt

Column	Variable	Units
1	Year	-
2	Month	-
3	Day	-
4	Hour	-
5	Minute	-
6	Decimal Time	-
7	src_id (Station identification number)	-
8	Wind Direction	°
9	Wind Speed	Knots
10	10 min wind gust maximum	Knots
11	Cloud Cover	Oktas
12	Cloud Base	m
13	Visibility	m
14	Mean Sea Level (msl) pressure	hPa
15	Station Pressure	hPa
16	Air Temperature	°C
17	Dewpoint Temperature	°C
18	Wetbulb Temperature	°C
19	Relative Humidity	%

heathrow YYYYprecip.txt

Column	Variable	Units
1	Year	-
2	Month	-
3	Day	-
4	Hour	-
5	Minute	-
6	Decimal Time	-
7	src_id (Station identification number)	-
8	Precipitation Amount	mm
9	Precipitation Duration	mm

Satellite Pictures



Figure 1. Local scale (100 m radius) around Heathrow field site (Google Earth, 2007)



Figure 2. Mesoscale (1 km radius) around Heathrow field site (Google Earth, 2007).

Field Notes (BADC, 2007)

Up to date field notes are available on the station webpage

(http://badc.nerc.ac.uk/search/midas_stations/).

Start date	End date	Remark type	Remark
29-07-2007	30-07-2007	MISSING DATA	WIND ID 511305 : ALL WIND DATA UNAVAILABLE DUE TO LOCKED WIND ISU .INC 240940 REFERS.
27-05-2007	29-05-2007	MISSING DATA	WIND ID 511305 : ALL WIND DATA UNAVAILABLE .INC 233807 REFERS.
21-04-2007	23-04-2007	MISSING DATA	WIND ID 511305 : WIND ISU LOCKED : INC 229292 REFERS.
03-04-2007	04-04-2007	MISSING DATA	WMO 03772: ALL OBSERVATION DATA UNAVAILABLE.INC 227292 REFERS.
06-03-2007	07-03-2007	MISSING DATA	WMO 03772 : ALL OBSERVATION DATA MISSING FROM OBS.INC 223985 REFERS.
29-11-2006	30-11-2006	MISSING DATA	WIND ID 511305 : ALL WIND DATA UNAVAILABLE .INC 212936 REFERS.
17-12-2006	08-11-2006	MISSING DATA	WIND 511305: COMMS PROBLEMS
23-10-2006	09-10-2006	MISSING DATA	WIND 511305: COMMS PROBLEMS
19-09-2006	20-09-2006	MISSING DATA	WMO 03772: ALL OBSERVATION DATA UNAVAILABLE.INC 204109 REFERS.
17-09-2006	19-09-2006	MISSING DATA	WIND ID 511305 : ALL WIND DATA UNAVAILABLE .INC 203643 REFERS.
28-07-2006	29-07-2006	MISSING DATA	WIND ID 511305: COMMS PROBLEMS
01-09-2006	06-09-2006	MISSING DATA	WMO 03772 : ALL WIND TEMP & MSLP DATA INTERMITTANTLY MISSING FROM OBS.INC 201973 REFERS.
30-08-2006	31-08-2006	MISSING DATA	WMO 03772 : ALL WIND & RADIATION DATA MISSING FROM OBS.INC 201826REFERS.
27-08-2006	29-08-2006	MISSING DATA	WMO 03772 : ALL OBSERVATION DATA MISSING FROM OBS.INC 201530 REFERS.
12-08-2006	13-08-2006	MISSING DATA	WIND ID 511305 : ALL WIND DATA UNAVAILABLE .INC 200130 REFERS.
08-08-2006	08-08-2006	MISSING DATA	WMO 03772: ALL OBSERVATION DATA UNAVAILABLE.INC 199528 REFERS.
27-03-2006	28-03-2006	MISSING DATA	WMO 03772: ALL OBSERVATION DATA UNAVAILABLE.INC 186847 REFERS.
04-03-2006	05-03-2006	MISSING DATA	WMO 03772 : ALL OBSERVATION DATA UNAVAILABLE.INC 184407 REFERS.
30-12-2005	30-12-2005	MISSING DATA	WIND ID 511305 : ALL WIND DATA UNAVAILABLE .INC 177630 REFERS.
27-12-2005	28-12-2005	MISSING DATA	WIND ID 511305 : ALL WIND DATA UNAVAILABLE .INC 177630 REFERS.
26-11-2005	28-11-2005	MISSING DATA	WIND ID 511305 : ALL WIND DATA UNAVAILABLE .INC 174425 REFERS.

17-11-2005	18-11-2005	MISSING DATA	WIND ID 511305 : ALL WIND DATA UNAVAILABLE . INC 173555 REFERS.
01-05-1969	31-12-1969	QUALITY CONTROL	WIND 511301: DATA CORRUPTED IN ORIG DIGITISED RECORD; DATA MAY BE ASSIGNED TO INCORRECT DATE ORIG DATA IN ARCHIVE
01-01-1969	31-12-1969	QUALITY CONTROL	WIND 511301: MANY DDD & FFF DATA CORRUPTED IN ORIGINAL DIGITISED RECORD; COR SCRIPT RUN 2002 ORIGINAL DATA IN ARCHIVE
02-05-1997	01-09-1997	MISSING DATA	RAIN ID 247536 WADRAIN: NO DATA IN MIDAS FOR ~ 4 MONTHS CDB OR PAPER RECORDS MAYBE AVAILABLE
11-09-2002	Current	INSTRUMENTATION	MK6 WIND ANEMO TOWER AT NGR 508436.1736 EAST 175536.8963 NORTH BASE ELEVATION 22.76M MAST HEIGHT 10.38M
02-11-1996	Current	HISTORICAL NOTES	GAUGE 247536 : RAIN RECORDER CHARTS RETAINED IN TECHNICAL ARCHIVES
30-05-1996	Current	OBSERVING PRACTICE	24 OBS/DAY
20-02-1996	Current	IDENTIFIERS	247536 1947-**** 247537 1988-**** / SSER