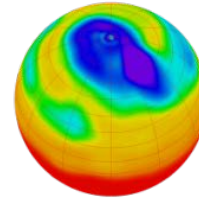




**National Centre for  
Atmospheric Science**

NATURAL ENVIRONMENT RESEARCH COUNCIL



**Centre for Environmental  
Data Archival**

SCIENCE AND TECHNOLOGY FACILITIES COUNCIL  
NATURAL ENVIRONMENT RESEARCH COUNCIL

# Data Users

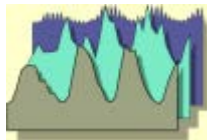
# NERC Data Centres



**Meteorological and Climate data**



**Earth Observation data**



**Solar-Terrestrial Physics**

**IPCC DDC**

**Climate, socio-economic and environmental data**

**The NERC Data Catalogue Service (DCS) allows data held by all NERC data centres to be located by users.**

# How to find data? CEDA Metadata Catalogue

Search - Windows Internet Explorer  
http://badc.nerc.ac.uk/search/

File Edit View Favorites Tools Help

Search for Met Office MIDAS stations NERC Data Discovery service A-Z page index

- **Search data**  
To search for datasets held at the BADC and NEODC use the search box below. You can use the wildcard character \* to indicate zero or more characters and ? to indicate exactly one character. For example, 'rain\*' will match both 'rain' and 'rain fall'. 'air?' will match 'airs' but not 'air'.

airsf in: All Search

- **Search BADC website**  
To search the BADC website use the search box below. For example, 'rain and snow' will find 'Data Production Tool' and 'Observation Station'. Use the \* character to match zero or more characters. You can also enter multiple terms separated by 'and' or 'or'.

Search

- [Dataset Index](#)  
Full list of datasets held at the BADC. You can apply for access to datasets from this page.
- [Search the NERC Data Catalogue Service](#)  
The NERC Data Catalogue Service allows you to search for related data across all NERC data centres.
- [Search for Met Office MIDAS stations](#)  
Search for Met Office surface stations using a variety of methods, including an interactive map.
- [A-Z index](#) of BADC webpages.

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

Home Contact Disclaimer Last Modified: 04/17/2012 13:59:43

Users can search CEDA Catalogue from homepage or BADC Search Tab

# How to find data?

## CEDA Catalogue and links to the data

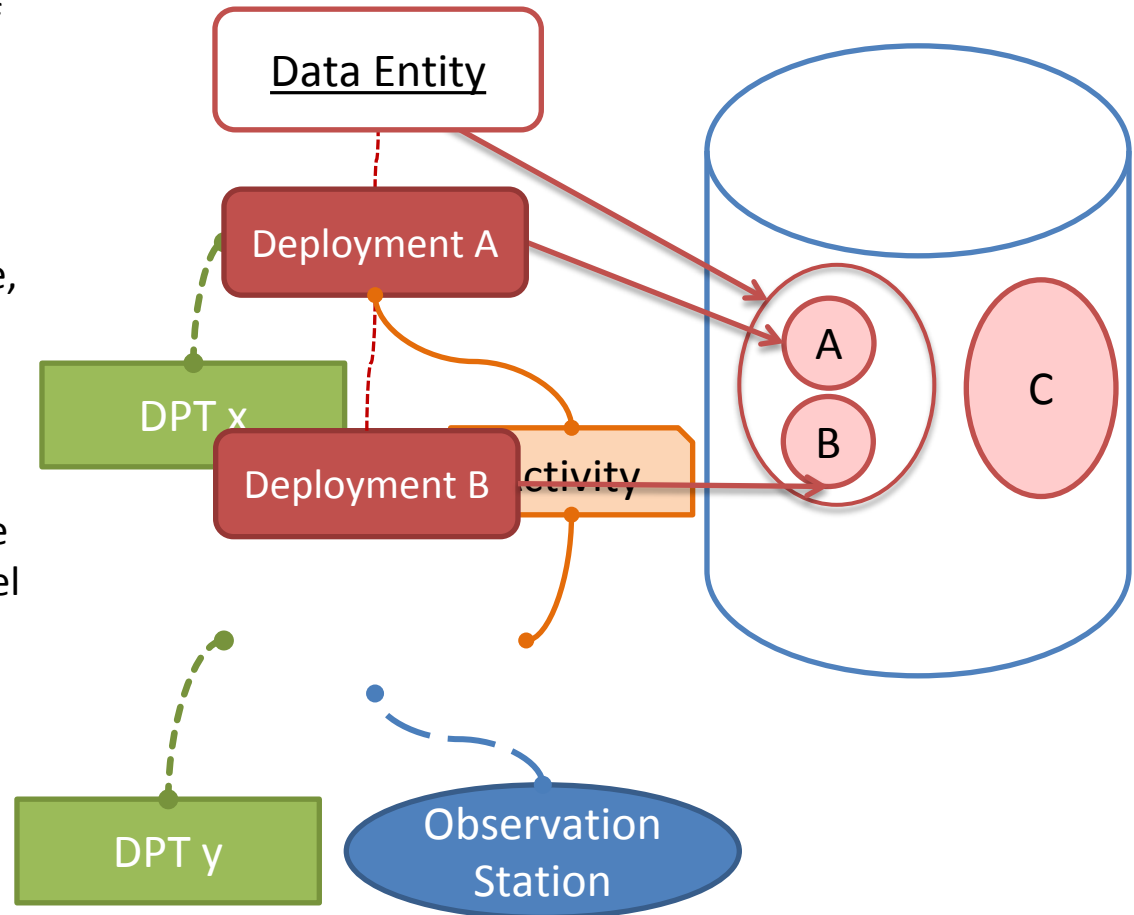
**Data Entity** – Logical grouping of results, e.g. all data for a project, all data for a facility

**Deployment** – specific part of a collection – describes **What** (date, time, description) the result (data) is plus **Where, When, & Who** information

**Data Production Tool (DPT)** – the **How**, describes instrument/model

**Observation Station** - describes where the DPT was deployed

**Activity** – the **Why**, describes a programme/project/field campaign + has relevant links



# How to find data? CEDA Metadata Catalogue

Will search across all catalogue holdings depending on search semantics.

CEDA Catalogue is based on MOLES data model that links the concept of a data entity (aka “dataset”) with related objects such as the “observation station” (i.e. plane), data tool (i.e. radar), activity (i.e. whole campaign) and the “deployment” (i.e. flight).

Users can navigate this structure to find the data they want/ related information i.e. On this mission/deployment what other instrument available?

The screenshot shows a web browser window displaying the search results for the term 'arsf'. The page header identifies the Centre for Environmental Data Archival, part of the Science and Technology Facilities Council and the Natural Environment Research Council. A search bar contains the term 'arsf' and a dropdown menu is set to 'Data Entity'. Below the search bar, the results are listed in a table with 6 entries found.


Provider ID	Created	Type	Title	Subtype
neodc.nerc.ac.uk	2007-02-16	Data Entity	<a href="#">Airborne Research and Survey Facility (ARSF) data</a>	Measurement
badc.nerc.ac.uk	2011-08-17	Data Entity	<a href="#">European Facility for Airborne Research in Environmental and Geo-sciences (EUFAR)</a>	Measurement
badc.nerc.ac.uk	2010-04-19	Data Entity	<a href="#">Eyjafjallajökull - Volcanic Ash Cloud Measurements</a>	Measurement
badc.nerc.ac.uk	2005-11-14	Data Entity	<a href="#">Aerosol and Chemical Transport in Tropical Convection (ACTIVE)</a>	Measurement
badc.nerc.ac.uk	2006-11-03	Data Entity	<a href="#">Met Office Met. Research Flight C-130 data</a>	Measurement
badc.nerc.ac.uk	2008-09-09	Data Entity	<a href="#">FAAM - VOCALS-UK - VAMOS (Variability of the American Monsoon System) Ocean Cloud Atmosphere Land Study Regional Experiment</a>	Measurement

At the bottom of the page, there are logos for the National Centre for Atmospheric Science and the National Centre for Earth Observation, along with a copyright notice: Copyright © 2011 STFC | All Rights Reserved.

# How to find data?

## Typical Dataset Catalogue Record

[http://badc.nerc.ac.uk/view/neodc.nerc.ac.uk\\_\\_ATOM\\_\\_dataent\\_11716368890815055](http://badc.nerc.ac.uk/view/neodc.nerc.ac.uk__ATOM__dataent_11716368890815055)




Centre for Environmental  
Data Archival  
SCIENCE AND TECHNOLOGY FACILITIES COUNCIL  
NATURAL ENVIRONMENT RESEARCH COUNCIL

in All

### Remote Sensing Data from the NERC Airborne Research and Survey Facility (ARSF)

**General Info**

<b>Title:</b>	Remote Sensing Data from the NERC Airborne Research and Survey Facility (ARSF)
<b>Type:</b>	Data Entity
<b>Sub-Type:</b>	Measurement
<b>Abbreviation:</b>	ARSF
<b>Publication State:</b>	published
<b>URI:</b>	<a href="http://badc.nerc.ac.uk/view/neodc.nerc.ac.uk__ATOM__dataent_11716368890815055">http://badc.nerc.ac.uk/view/neodc.nerc.ac.uk__ATOM__dataent_11716368890815055</a>



#### Summary

The Airborne Research & Survey Facility (ARSF, formerly Airborne Remote Sensing Facility) is managed by NERC Scientific Services and Programme Management. It provides the UK environmental science community, and other potential users, with the means to obtain remotely-sensed data in support of research, survey and monitoring programmes. The ARSF is a unique service providing environmental researchers, engineers and surveyors with synoptic analogue and digital imagery of high spatial and spectral resolution. The NEODC holds the entire archive of Airborne Thematic Mapper (ATM) and Compact Airborne Spectrographic Imager (CASI) data acquired by the NERC ARSF. High-resolution scanned digital versions of the entire collection of analogue photographs are now also available as well as selected LIDAR-derived elevation and terrain models for selected sites flown using the sensor.

#### Content

##### Introduction

The ARSF is a unique service providing environmental researchers, engineers and surveyors with synoptic analogue and digital imagery of high spatial and spectral resolution. Such a comprehensive data service cannot be easily achieved by other survey techniques.

The ARSF currently uses a Dornier 228 aircraft. This extensively modified aircraft is not only capable of accommodating the current ARSF core instrumentation, as well as additional experimental optical and geophysical sensors, but is also configured to deploy a range of atmospheric instrumentation and samplers.

The operational flying season generally spans from early March until early October. Three elements determine this period:

- weather, solar zenith angle and vegetation state
- maintenance on the aircraft
- sensor maintenance is performed by the manufacturers between November and January

Every day during this season, the ARSF has to make difficult decisions on whether or not to attempt flying based on weather forecasts, and to prioritise the most important projects based on many parameters. Flying schedule is available from the ARSF website.

The NERC Airborne Research & Survey Facility (ARSF) provides the UK's environmental science community with:

- **Aerial photography data**, using an analogue camera, the Wild RC-10 visible NIR, in conjunction with CASI and ATM instruments.
- **Airborne Thematic Mapper (ATM)**. ARSF has flown two ATM instruments over the period 1982 - 2008: the Daedalus 1268 was operated from 1982 until 1998. Since 1996 and until 2008 an upgraded version - the Azimuth Systems AZ-16 was used, along with an improved data acquisition system.

# How to find data?

## New CEDA Metadata Catalogue: MOLES3

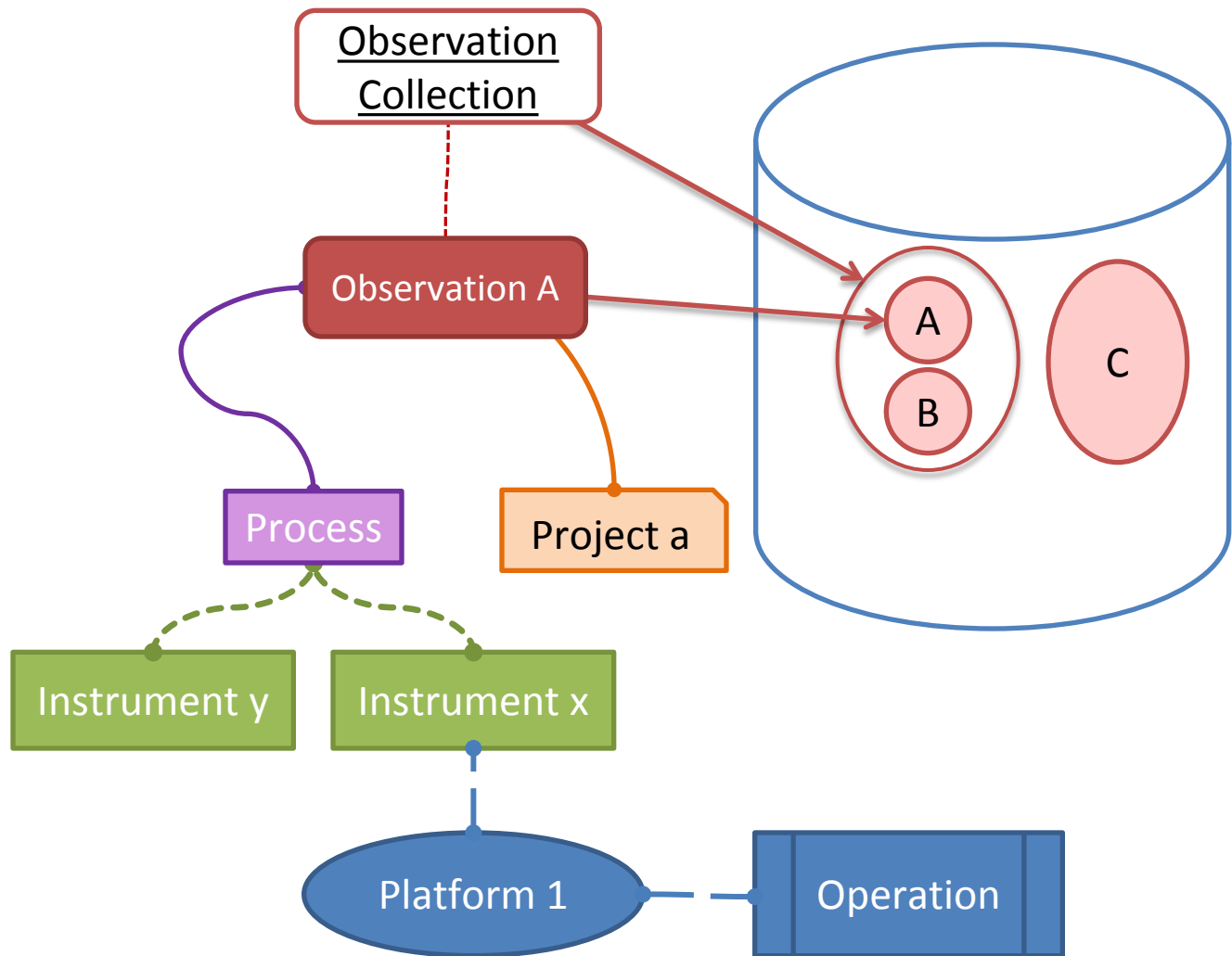
Observation

Collection – Logical grouping of results, e.g. all data for a project

Observation – specific set of data – the **What** (date, time, description of result – the **Where, When, Who**)

Process – the **How**:  
Acquisition |  
Computation |  
Composite

Project – the **Why**



# How to find data?

## New CEDA Metadata Catalogue: MOLES3

The screenshot shows a web browser window with the URL [www.ceda.ac.uk/datacat/cov/893](http://www.ceda.ac.uk/datacat/cov/893). The page header includes the logo for the Centre for Environmental Data Archival, Science and Technology Facilities Council, and Natural Environment Research Council. A search bar is visible with the text "Search for:" and a dropdown menu set to "CEDA".

The main content area displays the following information:

- Record Status:** Dataset is Citable
- additional metadata fields may be added**
- Available:** 2007-09-20
- Download & Services:** Data directory for GBS data from Sparsholt: [download](#)
- Apply for Access:** [Apply for Access](#)
- Help:** [Help](#)
- Geographical Extent:** A map showing the location of Sparsholt in the UK.
- Data Start Date:** 2003-10-08
- Data End Date:** 2005-03-31
- Data Update Frequency:** notPlanned
- Citation:** Science and Technology Facilities Council, Chilbolton Facility for Atmospheric and Radio Research; Walden, C. J.; Agnew, J.; Waight, J.; Ventouras, S.; Callaghan, S. A., (2007). Data from GBS 20.7GHz slant path radio propagation measurements, Sparsholt site. NERC - British Atmospheric Data Centre. doi:10.5285/EF43A51-0198-4323-A926-FE69225D57DD. <http://uk.eri.org/10.5285/EF43A51-0198-4323-A926-FE69225D57DD>
- Previous Identifiers Used:** [http://bado.nerc.ac.uk/view/bado.nerc.ac.uk\\_\\_ATOM\\_\\_dep\\_11902949270501452](http://bado.nerc.ac.uk/view/bado.nerc.ac.uk__ATOM__dep_11902949270501452)
- Keywords:** Meteorological geographical features
- Description:** The GBS (Global Broadcast Service) dataset is a series of radio attenuation measurements made at three sites in the UK: Chilbolton and Sparsholt, both in southern UK, and Dundee in Scotland. The aim of the experiment was to make long term measurements of the signal strength received from a 20.7GHz beacon on the US Department of Defense satellite UFO-9 at multiple sites, in order to determine whether the use of site diversity as a fade mitigation technique would be effective. The dataset spans a period of 3 years, from August 2003 to August 2005 with signal attenuation sampled once per second. Science and Technology Facilities Council (STFC), Chilbolton Facility for Atmospheric and Radio Research; S. A. Callaghan, J. Waight, C. J. Walden, J. Agnew and S. Ventouras; GBS 20.7GHz slant path radio propagation measurements, Sparsholt site. [Internet]. British Atmospheric Data Centre, 2003-2005. 1st April 2011. doi:10.5285/EF43A51-0198-4323-A926-FE69225D57DD
- Project Abstract:** [Project Abstract](#)

**Additional Information**

Archive content details | Data Lineage

For further details see the following links:

- [CEDA MOLES2 Metadata Catalogue Entry](#)

The browser's download bar at the bottom shows a file named "download" with ID "140749349426" and a "Canceled" status. A "Show all downloads..." link is also visible.



# Data Access Rules & Policies

All datasets held by CEDA are available Free of Charge...

## **Public Datasets i.e. anonymously available**

Many of our datasets are publicly available and do not require CEDA user registration.

## **Restricted Datasets**

BADC restricted datasets are labeled with a yellow key.



Although restricted datasets are distributed under strict Conditions of Use, the data remains Free of Charge.

# Citing Data in Publications

If data are used in a publication then the dataset **should** be cited in the same way as a paper citation.

An acknowledgement to CEDA or the data provider may also be welcome/required depending on conditions of use

Examples of a citation are given on each dataset's Catalogue record, under the Citation section.



## Citation

Natural Environment Research Council Airborne Research and Survey Facility . Airborne Research and Survey Facility (ARSF) Aerial Photography, Airborne Thematic Mapper (ATM), Light Detection and Ranging (LiDAR) and Compact Airborne Spectrographic Imager (CASI 2) data, [Internet]. NERC Earth Observation Data Centre, 2007, *Date of citation*. Available from [http://badc.nerc.ac.uk/view/neodc.nerc.ac.uk\\_\\_ATOM\\_\\_dataent\\_11716368890815055](http://badc.nerc.ac.uk/view/neodc.nerc.ac.uk__ATOM__dataent_11716368890815055)

**UK Meteorological Office. Met Office Integrated Data Archive System (MIDAS) Land and Marine Surface Stations Data (1853-current), [Internet]. NCAS British Atmospheric Data Centre, 2012, *Date of citation*. Available from [http://badc.nerc.ac.uk/view/badc.nerc.ac.uk\\_\\_ATOM\\_\\_dataent\\_ukmo-midas](http://badc.nerc.ac.uk/view/badc.nerc.ac.uk__ATOM__dataent_ukmo-midas)**

Fundacion Entropika. [Lafon T.]. Fundacion Entropika High Resolution Monthly Means of Atmospheric Variables over the Amazon Basin (1972-2009) version 1.0, [Internet]. NCAS British Atmospheric Data Centre, 2013, *Date of citation*. Available from [http://badc.nerc.ac.uk/view/badc.nerc.ac.uk\\_\\_ATOM\\_\\_ACTIVITY\\_493f3d08-0ade-11e3-9d71-00163e251233](http://badc.nerc.ac.uk/view/badc.nerc.ac.uk__ATOM__ACTIVITY_493f3d08-0ade-11e3-9d71-00163e251233) ;  
[doi:10.5285/2dfce039-cd71-43b3-bed4-98978e78f1bb](https://doi.org/10.5285/2dfce039-cd71-43b3-bed4-98978e78f1bb)

# The CEDA Web Processing Service

<http://ceda-wps2.badc.rl.ac.uk/ui/home>

**CEDA OGC WEB SERVICES**  
 Web Processing Service
 

 Capabilities (XML) | Documentation | Admin | Contact | Disclaimer

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**Define the inputs for the Extract UK Station Data process**

Please complete the form below to submit a request to run the ExtractUKStationData process. Note that some processes are restricted to registered users only. Click the 'Submit' button to submit your request.

**Process Abstract:** The "Extract UK Station Data" process provides tools to access surface station weather observations for a range of variables throughout the UK. These include temperature, rainfall and wind measurements. These records are available from 1959 to this year.

You can select which stations you require using either a bounding box, a list of UK counties, a list of station IDs or an uploaded file containing station IDs. Data is returned in CSV or tab-delimited text files. Please see the [disclaimer](#).

Instructions for the Extract UK Station Data process: [See User Guide](#)

<b>Start Date Time</b>	<input type="text" value="2009-01-01T00:00:00"/>	Please insert a date/time field in the format YYYY-MM-DDThh:mm:ss such as 2009-01-01T00:00:00.
<b>End Date Time</b>	<input type="text" value="2014-01-25T16:37:43"/>	Please insert a date/time field in the format YYYY-MM-DDThh:mm:ss such as 2009-01-01T00:00:00.
<b>Output Time Chunk</b>	Year	Please select an item from the list shown.
<b>BBox</b>	Current Bounding Box: <input type="text" value="-12.0,49.0,3.0,61.0"/> <input type="button" value="Reset bounding box"/> North: <input type="text" value="61.0"/> West: <input type="text" value="-12.0"/> South: <input type="text" value="49.0"/> East: <input type="text" value="3.0"/>	This input is optional. Please select a valid bounding box within the following geographical extent: -12.0, 49.0, 3.0, 61.0.
<b>Counties</b>	<input type="text" value="-- Please select --"/> ABERDEENSHIRE ALDERNEY ANGLU	This input is optional. Multiple selections are allowed. Please select one or more items from the list shown.
<b>Station IDs</b>	<input type="text"/>	This input is optional. Multiple selections are allowed. Please insert a value of type string. If inserting multiple values please separate them with a space.
<b>Stations File</b>	<input type="text"/>	This input is optional. Please insert a value of type string.
<b>Obs Table Name</b>	TD	Please select an item from the list shown.
<b>Delimiter</b>	comma	Please select an item from the list shown.

**CEDA OGC WEB SERVICES**  
 Web Processing Service
 

 Capabilities (XML) | Documentation | Admin | Contact | Disclaimer

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**Define the inputs for the Subsetter process**

Please complete the form below to submit a request to run the Subsetter process. Note that some processes are restricted to registered users only. Click the 'Submit' button to submit your request.

**Process Abstract:** A Subsetting tool that allows the extraction of variable subsets from a range of datasets. The user can select a dataset, a single variable, time range and bounding box. The output format can also be selected (NetCDF or CSV) along with instructions on how to divide output files into sensible time chunks. The tool uses CDAT's CDMS (Climate Data Management System) libraries to interact with the datasets in the archives. The extraction jobs run on the batch processing servers and the user is e-mailed when the job has completed.

Instructions for the Subsetter process: [See User Guide](#)

This process includes fields for which the possible values are dependent on other selections you have made (these are known as *dynamic fields*). The form works from top to bottom so please start by selecting an option for the first field. Once you have made your selection the form will automatically update to show the next available options in the fields below. You can instruct the form to update by clicking the 'Update form' button and you can re-set it to the initial values using the 'Reset form' button.

<b>Dataset</b>	<input type="text" value="Met Office Stratospheric Assimilated Data"/>	Please select an item from the list shown.
<b>Variable</b>	-- Dynamic field (see instructions) --	This field is <a href="#">dynamic</a> .
<b>Start Date Time</b>	-- Dynamic field (see instructions) --	Please insert a date/time field in the format YYYY-MM-DDThh:mm:ss such as 2009-01-01T00:00:00. This field is <a href="#">dynamic</a> .
<b>End Date Time</b>	-- Dynamic field (see instructions) --	Please insert a date/time field in the format YYYY-MM-DDThh:mm:ss such as 2009-01-01T00:00:00. This field is <a href="#">dynamic</a> .
<b>Output Format</b>	nc	Please select an item from the list shown.
<b>Split Output Files Into Time Chunks</b>	AUTOMATIC	Please select an item from the list shown.

# The BADC Trajectory Service

The **BADC Trajectory service** provides a user friendly interface to an atmospheric trajectory model so that authorised users may calculate their own air parcel trajectories. It is based on the use of the ECMWF Model data. This service is particularly useful to atmospheric research campaign participants.

## Atmospheric Trajectories

[Help](#) on submitting trajectories.

### Data Source

- Type:
- ECMWF archive (2.5 degree pressure levels)
  - ECMWF 1.125 op archive
  - ERA 40 archive (2.5 degree pressure levels) - post 1st Jan 1970 only

### Time information

Start Date (yyyyymmdd):   
Start Time (hours):  00  06  12  18  
Length of run (days):   
Trajectory Direction:  Forwards  Backwards  
Output Frequency (hours):  0.5  1  3  6  24

### Vertical Advection

Vertical Advection Type:  3D  Isentropic

### Initial parcel positions

Longitudes (degrees):   
Latitudes (degrees):   
Levels (hPa for 3D or K for isentropic):   
Use Profile?   
Use Cluster?  Cluster Radius:   deg  km

### Multiple time release of trajectories (Optional)

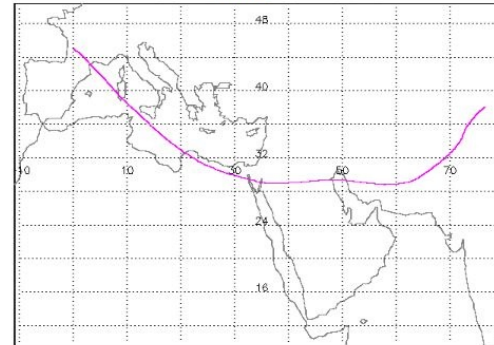
Number of releases:   
Frequency of release (hours):

Please report any problems with this page to:  
[BADC User Support](#)

## Atmospheric Trajectories



Produced at the BADC /requests/<userid>/traj\_service/exp171/tt2005012200.nc



## Plotting file requests/ <userid>/traj\_service/exp171/tt2005012200.nc

[Help](#) on plotting trajectories  
[Download](#) NetCDF file (binary based format)  
[View](#) NASA Ames file (ASCII based format)

Plot Limits		
Variable	Minimum	Maximum
Latitude	<input type="text"/>	<input type="text"/>
Longitude	<input type="text"/>	<input type="text"/>
Pressure	<input type="text"/>	<input type="text"/>
Temperature	<input type="text"/>	<input type="text"/>
Potential temperature	<input type="text"/>	<input type="text"/>

Note: Limits do not have to be given, defaults will be chosen for empty fields

Plot type:   
Trajectory initial conditions (lon,lat,lev):   
Markers:  On  Off  
Output to:

[Back](#) to main trajectory page  
Please report any problems with this page to:  
[BADC Support](#)



[http://badc.nerc.ac.uk/cgi-bin/trajectory/traj\\_form](http://badc.nerc.ac.uk/cgi-bin/trajectory/traj_form)