The NERC Earth Observation Data Centre

Current and forthcoming data holdings

Steve Donegan
NERC Earth Observation Data Centre

- Introduction
- NEODC Background
- Current data holdings
- Forthcoming data
- Accessing NEODC data
- Future developments
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The NEODC is 1 of 8 NERC designated data centres

We deal with terrestrial EO data

Satellite or Airborne

Located at CCLRC Rutherford Appleton Laboratory, Oxfordshire

Merged management and infrastructure functions with the BADC, also at RAL
Background

- Management of EO data acquired with NERC money
- Provision of access to data
- Development of metadata & website
- Purchasing of new EO data
- Helpdesk
ARSF Data

- Archive of ARSF data from 1984+
- Airborne Thematic Mapper (ATM) 1984 to date
- Compact Airborne Spectrographic Imager (CASI) 1995 to date
- LiDAR terrain model data
SHAC 2000 data

HyMap
126-band hyperspectral data

ESAR Airborne SAR
NextMap Britain

- Airborne radar derived digital terrain dataset
- Recently purchased by BGS for NERC
- Covers England, Wales and some of Scotland (remainder to follow)
- Ground resolution upto 2.5m (depending on mode)
- Various modes to choose from: ORI, DSM, DTM etc
- Licensed for use by all NERC staff and award holders
NextMap Britain

Images from http://istore.intermaptechnologies.com/handbook.cfm
NextMap Britain

Ordnance Survey Landform PROFILE

NextMap Britain SK64 DTM 5m cell

NextMap Britain SK64 DSM

Courtesy of Nextmap Britain
Combining NextMap DTM and ARSF data

Radiometrically corrected level 1b ATM/CASI data. Post-1992, scan line altitude and location data also recorded.

NextMap Britain DTM of the Tamar estuary

Level 3, geometrically corrected flight line, shown in true-colour. The curvature of the image edges is due to pitch and roll of the platform. Use AZ software suite to do this correction and to extract required bands etc.
Combining NextMap DTM and ARSF data

Data from ATM and CASI can be draped over the 3d NextMap DTM data.
Aerial Photography

- Aerial photography also obtained on many ATM/CASI flights
- Wild RC-10
- Stereo imaging capability
- Negatives held at BGS, Keyworth
Satellite Data

- Wide selection of Landsat scenes, 1970’s to present
- SPOT
- ERS-1/2 SAR
- Ikonos
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ATSR UBT Archive

- **UBT**: Ungridded Brightness Temperature
- ATSR2 UBT data will soon be available online
- UBT product includes pixel coordinates in latitude and longitude
- All other ATSR data products can be derived from the UBT product
- ATSR has 7 channels spanning the visible, VNIR, SWIR and TIR
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Accessing the NEODC archive

- Web interface – main point of access
- Can order data found on the interface
- Can download data from webpage or via ftp
- Not all data holdings can currently be found on the web interface
- Merging user database with that of the BADC
- New helpdesk software for more efficient query tracking

Helpdesk: neodc@rl.ac.uk 01235 778123
Accessing the NEODC archive
Accessing the NEODC archive

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Future developments

- Addition of (A)ATSR UBT data will result in a continuous, consolidated archive
- Continuing to create a full Metadata catalogue of all NEODC data holdings
- NEODC is actively involved in development of new ways for accessing EO data
- Closer collaboration with BADC, with the goal of making EO data available via the NERC datagrid
MASS ATSR2 GeoTiff service
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