

## Where to find Teaching Resources on Remote Sensing

The following list was compiled by the Education Special Interest Group (EdSIG) of the Remote Sensing Society. A list such as this requires constant updating. If you know of any omissions or errors in this list, please send them to EdSIG. Please note that this list is produced for information only. It does not constitute endorsement by the British National Space Centre or the Remote Sensing Society for any of the products listed:

1. Text and Reference Books
2. Teaching Resource Packs
3. CDROMs
4. Posters and Image Maps
5. Slide Sets
6. Videos
7. Large Format Picture Books
8. Aerial Photography
9. Hardware / Software
10. Digital Images

### 1. Text and Reference Books

- Spaceship Earth. Calder, N. 1991 Viking.
- An Introduction to Remote Sensing. Cracknell, A.P. and Hayes, L.W.B. 1991 Taylor and Francis.
- A Guide to Remote Sensing. Drury, S.A. 1990 Oxford University Press
- Remote Sensing. Drury, S.A. and Rothery, D.A 1990 PS670. Milton Keynes: Open University.  
A 380 page self-study text with a 32 page colour plate booklet. Available from Learning Materials Sales Office, The Open University, PO Box 188, Milton Keynes MK7 6DH. Phone: (01908) 274066
- Satellite Atlas Flint, D.A.  
This book shows the world in all its variety through extraordinary photographs taken from space. The photographs and maps give children the opportunity to see and understand our planet. Each double page spread looks at a different area using a stunning full-page satellite image, inset with smaller satellite images showing detailed close-ups of certain areas such as towns, lakes and coastlines.  
Available from MJP Geopacks
- Multilingual Dictionary of Remote Sensing and Photogrammetry, published by the American Society of Photogrammetry and Remote Sensing. ISBN 0-937294-46-2
- Manual of Colour Aerial Photography, published by the American Society of Photogrammetry and Remote Sensing. First Edition. Library of Congress Catalog Card Number 67-31748
- Remote Sensing - Principles and Interpretation. 3rd Edition. F.F. Sabins. Published by W.H. Freeman and Company. ISBN 0-7167-2442-1
- Photogeology. V.C. Miller published by McGraw-Hill Book Company. Library of Congress Catalog Card Number 60-15760
- Satellite Hydrocarbon Exploration - Interpretation and Integration Techniques. Z Berger, published by Springer-Verlag ISBN 3-540-57348-8

### 2. Teaching Resource Packs

- Beyond the Black Mountains  
Bilingual (English/Cymraeg) - CDROM is written to support the National Curriculum Key Stage 2 and upwards. It is produced in PC format and is supplied with a printed copy of the Landsat Image. Available from The Satellite Project
- Eye on the Earth  
A useful review of the ways in which remote sensing techniques are being used in environmental science research. Available free from The Natural Environment Research Council, Remote Sensing Applications Development Unit, Monks Wood Experimental Station, Abbots Ripton, Huntingdon PE17 2LS. (01487 773381)

•Hampshire from Space

Hampshire County Council Teaching Pack. (see also slide sets) Available from The Geography Advisor, The Castle, Winchester, Hants SO23 8UG.

•Hurricane !

A pack for teachers that explains in detail the nature, origin and distribution of tropical cyclones in general and involves a detailed case study of Hurricane Hugo.

•Images from Space

CD ROM Available from The Satellite Project

•O.S. Teacher Resource File Port Talbot

This spiral bound file contains maps, aerial photographs, terrain models, pupil activities and detailed background information on the Port Talbot area. A comprehensive photocopiable teaching guide with cross-curricula applications. Ideally suited for use with the Port Talbot Project Map and related Satellite Map. Available from Wildgoose Publications

•Pictures and Pixels, Kay, H. and May, S. 1992 (NRSC Ltd)

Satellite images and aerial photographs for use in geography at keystone 2 upwards. Pupil resource sheets copyright free. Available from Wildgoose Publications

•Satellite Project Core Pack

Pupil information and activity sheets. Applicable in keystone 3. Laser masters suitable for photocopying and a copyright waiver for use within an individual institution. Available from The Satellite Project

•Satpacks I (October case) and II (May case)

Loose-leaf classroom exercises using NOAA satellite images. Available from Royal Meteorological Society

•Teacher's Weather Satellite manual, Infotech Systems

Sets out experiments, demonstrations and teaching topics for use with the Infotech Systems weather satellite imaging station plus BBC microcomputer. Available from Infotech Systems, Unit 1, 14 Conway Crescent, Bedford, MK41 7BW.

•Teamwork: The Map Pack (Version II)

Teaching pack produced by the army, with Ordnance Survey map extracts, vertical aerial photographs and satellite images. One copy is available free to schools, additional copies are £5.00 + £3.50 p&p. Available from Directorate of Army Recruiting, PO Box 934, Poole, Dorset BH17 7BR.

•The Remote Sensing in the Geography National Curriculum Project 1994

Primary teachers Pack (KS2)

Secondary teachers pack (KS3&4)

Resources aimed specifically at teacher training. Secondary set includes digital data. Further details from Ashley Kent, Institute of Education, University of London, 20 Bedford Way, London WC1H 0AL.

•Using Weather Satellite Images; Volumes 1 and 2

Users may make photocopies or stencil duplicates of specified sections for class use. Includes activity sheets, ideas for coursework, objective checklists. Available from The Satellite Project

•Using Weather Satellite Images in Schools, Reynolds, R. (Ed.) 1988

Introduction to meteorological satellites and sensors, the global atmosphere from Meteosat, Britain's weather from NOAA satellites, seven case studies of teachers experiences in using meteorological satellite data in the classroom, annotated list of hardware and suppliers, list of other resources and addresses. Available from Micro-electronics Support Unit (MESU), Unit 6, Sir William Lyons Road, Science Park, University of Warwick, Coventry CV4 7EZ.

### 3. CDROMs

•Satellites and Maps

The CD contains 20 images of classic British Landscapes and features. Each scene covers 20km x 20km and is suitable for image processing systems and art packages. In addition, pre-processed false and natural colour images are included in TIFF and PICT2 formats. The CD requires image processing software such as Microsoft Draw, Powerpoint, Aldus Pagemaker etc. Available from Wildgoose Publications

•Britain from the Air

Produced by Anglia Multimedia CDROM, in association with Aerofilms, this CDROM contains 230 aerial photographs which provide a unique view of the British Isles.

- NPA SPOT Satellite Explorer series.

Each CD contains a variety of images selected for maximum educational benefit. The series includes a UK CD (46 images - see an extract from one of them) and a World CD (50 images). The data can either be imported from the CD into any image processing or paint package, or easily viewed independently by means of "CD-DIVIEW" (featuring 'SmartAccess') included on the CD.

#### 4. Posters and Image Maps

- A Large Number of Posters and Imagemaps are available from Wildgoose Publications and MJP Geopacks. The following list is not exhaustive and these suppliers should be addressed for further information.

- Living Earth

- Fragile Earth

- World at Night

- Europe by Satellite.

- Europe at Night

- North America

- Australia and New Zealand

- London and the Home Counties from Space

- Antarctica

- Lake District and Surrounds

- Wales from Space

- Great Britain and Europe

Low cost A3 encapsulated desk maps showing stunning full colour satellite images on oneside with accompanying background information and colour key. On the reverse is an outlined photocopyable map of the same area with other informative maps showing land use, transport and geology. Available from Wildgoose Publications

- Posters of some National Parks (including the Peak District and surrounding towns)

Available from Robertson-McCarta Publications, 122 Kings Cross Road, London WC1X 9DS.

- Seven A4 size satellite images and a small poster on how satellites work

Available from Pictorial Charts Educational Trust, 27 Kirchen Road, London W13 0UD.

- Satellite image maps of Kilimanjaro showing vegetation zones

Available from Nigel Press Associates Ltd

- Posters of Surrey and Herts

Available from Hunting Technical Services Ltd, Thamesfield House, Boundary Way, Hemel Hempstead, Herts.

- A selection of high quality prints of SPOT images

Available from Space Scenes Ltd, Mare Hill House, Pulborough, West Sussex.

- A selection of offset litho posters, and also teaching sets of postcard-size images specifically aimed at the schools market

Available from Earth Images, Manor Cottages, Burnett Keynsham, Bristol BS18 2TF. • A selection of remote sensing posters

Available from NES Arnold, Ludlow Hill Road, West Bridgford, Nottingham NG2 6HD.

- O.S. Project Map Related Satellite Maps

As simple to use and understand as traditional O.S. maps, satellite maps offer a unique perspective on human and physical geography. Each map corresponds exactly with the O.S. Project Map of the same area, covering 20km x 20km at 1:50,000 scale. Every map is overlaid with the O.S. National Grid and is accompanied by a key, image explanation notes and student exercise ideas. Areas published include: Aviemore, Telford, Kelso, Port Talbot, Keswick, Cheddar, York, The Gower, High Peak and Southampton Water. Available from Wildgoose Publications

#### 5. Slide Sets

- Norfolk from Space

Available from Norwich Teachers Centre, 13 Ipswich Road, Norwich.

- Lincolnshire from Space

Available from Freiston Hall Field Centre, Halstoft End, Freiston, Boston, Lincs PE22 0NX.

- Derbyshire from Space

Available from Dr. G. O'Hare, Derby College of Higher Education, Derbyshire. •Hampshire from Space  
Accompanied by notes, stimulus materials and pupil exercises (see also teaching packs)

Available from The Geography Advisor, The Castle, Winchester, Hants SO23 8UG. •Cheshire from Space

(See also teaching packs) Available from Geography Department, Chester College, Cheyney Road, Chester CH1 6NR.

- 14 slide sets based on early MSS imagery, ranging from The British Isles through Europe from Space and studies of different continents

Available from Focal Point Audio Visual Ltd, 251 Copnor Road, Portsmouth.

- Remote Sensing Slide sets

Available from MJP Geopacks

## 6. Videos

- An Introduction to Remote Sensing

A 14 minute video introducing students to the subject of remote sensing and satellites •Applications in Remote Sensing

A 13 minute video outlining some of the applications for satellite data, for example coastal processes and variations in land use.

- Discovering Kano

A 25 minute video showing and describing life in a mainly Moslem city in Northern Nigeria. This video, using stunning aerial photography provides information on studying a distant contrasting locality. All available from Wildgoose Publications

## 7. Large Format Picture Books

- Mission to Earth

NASA 1976 Washington

- Earthwatch, Sheffield, C. 1981 Sidgwick and Jackson.

- Man on Earth, Sheffield, C. 1981 Sidgwick and Jackson.

- Britain from Space, Bullard, R.K. and Dixon-Gough, R.W. 1985 Taylor and Francis. •Images of the World, Mueller-Willie, C. 1984 Collins/Longman.

## 8. Aerial Photography

All of the following hold aerial photography, though you may need to shop around for a particular photograph. Always quote grid references for the desired area.

- Aerofilms Ltd

Gate Studios, Station Road, Borehamwood, Herts.

- PhotoAir

PhotoAir House, 191A Main Street, Yaxley, Peterborough PE7 3LD

- MAFF, Air Photographic Unit, Government Buildings, Brooklands Avenue, Cambridge.

- Cambridge University, Collection of Air Photographs, Mond Building, Free School Lane, Cambridge.

- Ordnance Survey, Air Photograph Sales, Romsey Road, Maybush, Southampton.

- The Geographical Association, 160 Solly St., Sheffield S1 4BF

- Wildgoose Publications (as above)

## 9. Hardware/software (PC/Acorn/Mac-based)

- DARTCOM

Data acquisition and image processing hardware and software

Available from British Aerospace Space Systems Ltd, Earth Observation and Science Division, FPC 302, PO Box 5, Filton, Bristol BS12 7QW.

- DRAGON software for PCs

Available from IS Ltd

- EOSCAPE software for PCs and Windows/Mac

Available from IS Ltd

- ERDAS image processing and mapping software for PCs and workstations

Available from ERDAS (UK) Ltd or through CHEST (Combined Higher Education Software Team)

- IDRISI software for PCs and Windows

Available from Clark Labs, University, 910 Main Street Worcester, Massachusetts 01610, USA.

- MACSAT and WEATHERSAT (Macintosh), Dartcom's WEATHEREYE (DOS) and WINSAT (Windows)

Educational weather satellite systems

Available from NCS Satellite Division, Newcastle Computer Services plc, Belville House, Ponteland, Newcastle upon Tyne NE20 9BD.

- PDSview image processing software for Acorns

Available from Spacotech Space Science Resources, 21 West Wools, Portland, Dorset DT5 2EA.

- The Weather Desk data acquisition and image processing software for Acorns

Available from Spacotech Space Science Resources, 21 West Wools, Portland, Dorset DT5 2EA.

- TIMESTEP

Data acquisition and image processing hardware and software

Available from Timestep Weather Systems, Wickhambrook, Newmarket CB8 8QA. •TREDMAR

Training modules for applications of remote sensing. Includes image processing system (BILKO), digital imagery, notes

Available free from Dirk Troost, TREDMAR, UNESCO, 1 rue Miollis, 75732 Paris Cedex 15, FRANCE.

## 10. Digital images

Digital images for use in image processing systems.

- The Local Area Satellite Image Programme

800 by 800 pixel Landsat or SPOT images (up to 20km by 20 km), covering most of the United Kingdom. On 3.5" floppy disks in flat binary file format.

Available from MJP Geopacks, Freepost, PO Box 23, St Just, Cornwall TR 19 7JS. •EduSPOT

40 SPOT images at educational prices

Available from NRSC Ltd, Delta House, Southwood Crescent, Farnborough, Hampshire GU14 0NL; or from Nigel Press Associates Ltd, Edenbridge, Kent TN8 6HS.

- Schools with facilities to receive meteorological images from satellites may be interested in the METFAX service provided by the Meteorological Office.

METFAX is a dial-up weather service to enable schools to request Met. Office weather charts and data.

There is no need to register or subscribe. Products include shipping forecasts, surface pressure charts and plotted maps of the latest weather reports, which can be compared with images from NOAA or METEOSAT systems.

Further details from The Met. Office Educational Services, Sutton House, London Road, Bracknell, Berks RG12 2SY.