

## 1.0 Introduction

This CD ROM is structured to include two main areas: a Business Section and an Education Section.

The aim of the Business Section is to promote the use of remotely sensed data in the business world. The material is arranged in case studies explaining the application requirements and how using remotely sensed data met these requirements in operational situations. The content of the Business Section may be useful for certain Secondary and Tertiary level courses; for example business GNVQ. However, the material here is designed for business use rather than the college or school context, since the Education Section fulfils this requirement.

The aim of the Education Section is to raise awareness of, and promote involvement in, remote sensing. The content, structure and functionality of the CD is designed to make it attractive and useful for pupils, teachers and parents. The material is structured so as to be accessible to pupils from a range of age groups and curriculum areas. The material supports the requirements of the National Curriculum, in Science and Geography and provides information relevant to post-16 courses such as the GNVQ and A level Geography / Physics. Pupils who are interested in a career in Remote Sensing can find information about a range of career options in the Careers Section. The factual content is presented by means of text and graphics, including diagrams, maps, and imagery, supported by video sequences and animations. Interactive participation by the user is provided in the Games Section.

The Education Section of the CD ROM can be used:

- as a reference resource for material on the CD itself,
- as a database of sources of further information and imagery, including web sites
- by an individual for stand-alone interactive activities
- by a teacher as a resource for class based activities

Don't forget you can compile customised documents for printing by selecting the appropriate text and 'copy and pasting' it into the Project Clipboard with associated graphics (if required).

## 2.0 Educational Aims and Objectives

The aims of the Educational Section are:

*"To make users aware of the potential and current use of remote sensing as a tool for;*

- *scientific investigation and monitoring of the Earth's processes,*
- *practical, sustainable, utilisation of the earth's resources ,*
- *global communications*

The main themes within the CD-ROM are shown in Table TN1.1.

The objectives within each theme are:

- to provide background information so that the user understands :
- the basic issue or problem
- the physical principles of the techniques being used by the sensors
- the reason why remote sensing is useful in each case
- to provide suitable imagery and support material
- to provide the user with routes to related themes and case studies via hypertext links

### 3.0 Content of the Education Section

The content of the CD is show in Table TN1.1.

- The sections *What is a Satellite?* and *Principles of Remote Sensing* provide information concerning the varied nature of satellite missions and the physical principles of the techniques used.
- The major sections *Monitoring Planet Earth* and *People and Economic Activities* include an introduction giving background relevant to each topic and a variety of case studies that illustrate the uses of remote sensing within these topic areas.
- In *Getting the Most out of Your Images* the pupil is made aware of the processes involved in transforming raw image data from the sensor into a product suitable for the required application.
- The *Games and Activities* are designed to involve the user and increase user enjoyment. They also help to provide a means by which the user's understanding of the material can be assessed.
- In *Where to Find Out More* pupils and teachers are directed to contact addresses, including internet web sites for further resources.
- The *Careers* section provides the pupil with profiles of people currently working in remote sensing.
- The *Download Zone* contains software that may be required to run the CD on various platforms and other useful packages.
- This teachers' section contains solutions to the three meteorological case studies featured in the *Monitoring Planet Earth, Atmosphere* section. They are:
- Solutions to Hurricane Hugo case study and Hurricane Hugo classroom activities

- Solutions to Burn's Day Storm case study
- Solutions to A Thundery Day in England and Wales case study

General Weather Notes for Teachers have also been written by Ross Reynolds.

- A special feature has been included so that teachers can re-work / recycle content from the CD for inclusion in their classes. Guided Tours will enable the creation of your own tutorials / a guided tour slideshow of the CD, which can be run on any computer or network from which the CD is accessible.
- The Project Clipboard enables teachers and students to re-work the CD content and then print it out.
- The Winchester Case Study contains a detailed analysis of an important geographical and historical site which boasts many features that would make it suitable for a cross-curricula Field Trip / Visit. The case study contains imagery spanning ten years which included the extension of the M3 over Twyford Down. Oblique aerial photography of this work is included as well as other oblique and vertical photographs of the City. The local award-winning Tourist Office can provide details of many educational attractions such as the Conservation projects of Marwell Zoo and Hilliers Arboretum; and Hampshire's educational Technology Centre. An excellent companion text has been published by English Heritage and a wealth of other information can also be acquired.