AUSTRALIAN CENTRE FOR REMOTE SENSING

NEWS UPDATE

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LANDSAT FUNDING.... AN UPDATE

THE PROPOSED SHUTDOWN OF LANDSAT FROM THE END OF MARCH, DUE TO FUNDING RESTRICTIONS, SEEMS TO HAVE BEEN AVERTED. EOSAT HAVE ADVISED THAT FOLLOWING A CONGRESSIONAL HEARING ON MARCH 7, DIRECTIVES HAVE BEEN ISSUED TO THE U.S. DEPARTMENT OF FINANCE FOR THE PROGRAM'S CONTINUATION.

UPGRADE STATUS

ACRES' customers will be pleased to hear that the upgrade of the receiving and processing facilities is proceeding on schedule. Testing and production trials using thematic mapper data recorded at Alice Springs is going ahead as planned. Final acceptance testing is expected to be undertaken with M.D.A. staff in June, leading to the first products being available in late July this year.

Initially only TM data will be available with SPOT data being released in early 1990.

In order to meet users needs, TM data will be available in full or as quarter scenes along with 1:100 000 scale map sheet coverage for both digital and photographic products. Further more, digital products will be available in any combination of 1 or 7 bands with significant cost savings for less than 7 bands.

CCT's will be in the Landsat Technical Working Group (LTWG) format, as is the case with TM data currently available through AMIRA. Films will be either colour or black and white and written onto 240 mm film stock. It is proposed that enlargements of up to 5 times will be available.

TED DONNELL

For those of our users who have been long term customers and are familiar with Ted Donnell's voice on the telephone, from now on Ted will not be here. He is retiring from ACRES after ten years of service.

He will be missed by his ACRES colleagues as well as his many friends and customers within the remote sensing user community. Ted's expertise ensured the continued efficiency of the User Services Section in distributing Landsat MSS imagery to customers both within Australia and overseas.

Ted will be leaving Canberra for life as a farmer in the Cootamundra region of N.S.W.. No doubt all of the remote sensing user community wish him well in his new endeavour.

DIRECTOR'S MESSAGE

SATELLITE UPDATE

The continuity of data from remote sensing satellites generally seems assured, at least through the 1990's, however, funding of the Landsat 4/5 program beyond March 26th is still the subject of negotiation in the United States. We will keep you informed.

NOAA/EOSAT are pressing ahead with the development of Landsat 6, planned for launch in mid 1991. In addition to the SeaWiFS instrument, we understand that data from the new panchromatic (15 metre resolution) band, being added to the Thematic Mapper instrument, will be available for reception at foreign ground stations. Meanwhile Landsat 5 continues to operate normally and Alice Springs is receiving both MSS and TM data routinely.

SPOT 1 is also operating normally but new Australian data acquisitions are only being programmed on request. SPOT 2 has now been slipped to a new launch date in late 1989 and it is likely that this will be adhered to, meaning that we could have the possibility of their simultaneous operation, with an effective repeat cycle time of 13 days. SPOT 3 will carry the same sensors but SPOT 4 is planned to have an enhanced multispectral band instrument.

Beyond Landsat 6/SPOT 4, it is reported that the French Space Agency, CNES, and the U.S. Government Landsat Program administrators, NOAA, are exploring the possibility of a joint effort to launch a remote sensing satellite.

No firm plans have been made regarding reception from the proposed Japanese satellites JERS-1 and ADEOS.

The MOS 1 data reception program at Alice Springs on behalf of COSSA may be continued beyond the planned 6 months acquisition period.

ACRES will also be receiving and processing Synthetic Aperture Radar (SAR) data from the European Space Agency's ERS 1 satellite, planned for launch in late 1990.

SPOT PRICES

Pending the direct reception of SPOT data at Alice Springs, ACRES currently buys SPOT data from SPOT Image under the terms of a Distribution Agreement to meet customer orders. Following the favourable movement of the Australian dollar against the French franc we have revised our SPOT product prices downwards by around 20%.

SPOT NEWS

We are gradually building up quite an impressive SPOT archive over Antarctica, and hope to acquire

additional imagery before the bad weather arrives at the end of March.

Imagery has been acquired over Heard Island, Casey, Beaver Lake and the Prince Charles Mountains, and a number of other locations.

Our AUSLIG Applications Area is currently carrying out image mapping over Larsemann Hills, Heard Island and Casey for the Antarctic Division. The future program involves the production of image maps of Macquarie Island, Prince Charles Mountains and the Amery Oasis.

Selected SPOT stereo pairs will be used to produce line maps of selected areas possibly using AUSLIG's SATMAP package installed on a Wild BC2 analytical plotter.

USER SERVICES NEWS

Sandy Browne reports that the MSS processing system is now back on line after the move from Oatley Court. Some equipment is still being installed and throughput will be consequently reduced, resulting in a 3 to 4 week processing time for priority 3 orders.

The MSS image and data catalogue is now being produced, Cycle 111 (31 December 1988 to 15 January 1989) will be shipped next week.

A new member has joined the User Services team. She is Ana Gadzic, and is proving to be enthusiastic and efficient in carrying out her training programme activities.

SPOT PRICE LIST

The standard SPOT products are available at the following prices

CCT's

	1A	1B	2A
XS	$1925	$2120	$2695
P	$2500	$2695	$3270

FILM (1:400 000)

XS	N/A	$1540	$2115
P	$1925	$2120	$2695

PAPER PRINTS

	1:100 000	1:200 000
COL	$290	$145
B & W	$155	$ 80

Note: paper prints are only available at these prices if SPOT Image has already processed the scene.

(For more information on SPOT prices, contact the ACRES User Services Section).

MOS-1 DATA

Users requiring MOS-1 data will have to wait a little longer for their imagery.

The software for converting the high density tapes to CCT's (computer compatible tapes) is not complete but tapes in a similiar format to ACRES' products should soon be available.

Quicklooks of the MOS-1 data will not be produced, however, cloud assessment will be available.

ACRES has completed a scene-by-scene estimate of MOS-1 cloud cover from the data recorded.

TECHNOLOGY TRANSFER

The process of transferring remote sensing technology from the innovators to the operational users continues via workshops, professional short courses, publications and so on. It is vital to the long term viability

of this technology to continue this process.

Accordingly, ACRES News will feature some examples of this process for the interest of the remote sensing user community.

GEOLOGICAL PHOTO-INTERPRETATION WORKSHOP.

Tim Wilson, of Australian Photogeological Consultants, is conducting 2 workshops for the Queensland Geological Survey aimed at helping geologists to acquire interpretation skills for multi-sensor data studies.

Landsat MSS, TM, SPOT, NOAA-AVHRR imagery and aerial photography will be used for the multi-sensor data types. Geologists will be able to benefit by gaining an understanding of the appearance of the earth's surface in the visible, near, middle and thermal infrared regions of the spectrum. In addition the added perspective of microwave imagery will be introduced during the course.

Tim has given similiar courses overseas and has promoted the use of Australian technological expertise in South East Asia.

DISTRIBUTORS AND REFERENCE CENTRES

ACRES congratulates its Browse and Reference Centres for their efforts in distributing remotely sensed imagery within their regions and contributing, in many cases, to the advancement of the technology.

ACRES intends to support the Distributors and Reference Centres more than ever, and has now committed one full-time staff member, Rosalie Booth, to organise and implement a special assistance and promotional program.

Some of the planned activities include new supplementary data sheets on Thematic Mapper sensor characteristics and data product descriptions and prices. This will be followed up by new examples of photographic and digital data from the various sensors for demonstration at Distribution and Reference Centres. Additional information will be comprised of specifications on pre-processing types available, coverage maps and overpass calendars.

Recently we have had a couple of additions to our Distributors and Reference Centres. Wollongong University was accepted as a Reference Centre prior to Christmas and Spectrascan Pty. Ltd., a private company in Perth, became a Distributor in January this year.

Since ACRES is góing through many changes, it was timely during the recent ACRES new building open day, to hold a meeting of invited representatives from the Distibution and Reference Centres. This meeting was most successful, and a firm policy of mutual information exchange established between ACRES and the Centres.

For information concerning the ACRES Distribution and Reference Centre Network please contact, Rosalie Booth, Information Co-Ordinator, ACRES, on (062) 52 4430.

1989 CATALOGUE SUBSCRIPTION

Some users have still not renewed their subscription to the Landsat Micro-Catalogue. The 1989 catalogue is now in production so this reminder is being issued to ensure continuity of coverage.

Prices are as follows -

Total Image Catalogue:	$530.00
Part Catalogue:	
5 Microfiche	$325.00
4 microfiche	$260.00

3 microfiche	$195.00
2 microfiche	$130.00
1 microfiche	$ 65.00

The data catalogue is included as part of the subscription.

RECENT CONFERENCES AND WORKSHOPS

ONLINE '89 CONFERENCE

ACRES represented the Remote Sensing Unit of AUSLIG (Australian Surveying & Land Information Group) in an AUSLIG display at the conference trade exhibition.

Generally the delegates visiting the stand had no knowledge of satellite data or remote sensing. However, many were interested, and could see how it might be utilized within their organisations.

The exhibit also proved successful from an educational point of view. Information was taken by conference delegates to be placed in organisations' libraries with the intention of informing those who may be able to make use of satellite data.

THE NATIONAL AGRICULTURAL OUTLOOK CONFERENCE

This conference was held in Canberra on 17-19 January this year. The programme concentrated on economic issues especially focussing on problems in international trade. The conference delegates were mainly at a corporate level with financial, government and producer organisations coming together to examine the outlook for Australian, U.S. and world agricultural prospects.

The trade exhibition was organised to present the information technology available to financial, government and producer organisations involved in agriculture. The information products and services displayed ranged from "on line" data in tabular and graphic format to spatial data technology represented by remote sensing and geographic information systems soft and hardcopy output.

ACRES took part in the AUSLIG display demonstrating the monitoring capability of satellite data in digital and photographic format for renewable resources such as agriculture.

Applications-specific material was provided by AUSLIG's Remote Sensing Applications Unit and the NSW Department of Agriculture's Remote Sensing Unit.

GEOGRAPHIC INFORMATION SYSTEMS AND REMOTE SENSING WORKSHOP

The venue for this workshop was the University of Adelaide and was held over 3 days, from 13-15th February. It was part of the Australian Institute of Geographers' general conference.

The organisers, the University of Adelaide's Geography Department, did an excellent job in organising the workshop and keeping the cost to registrants to a minimum.

The workshop papers were dominated by satellite remote sensing themes but contributions from the geographic information systems area were received with a high level of interest by attendees.

A valuable contribution was made by the trade exhibit, where image processing and geographic information systems were demonstrated to the attendees, and comparisons of capabilities and costs for the various systems were available to potential buyers.

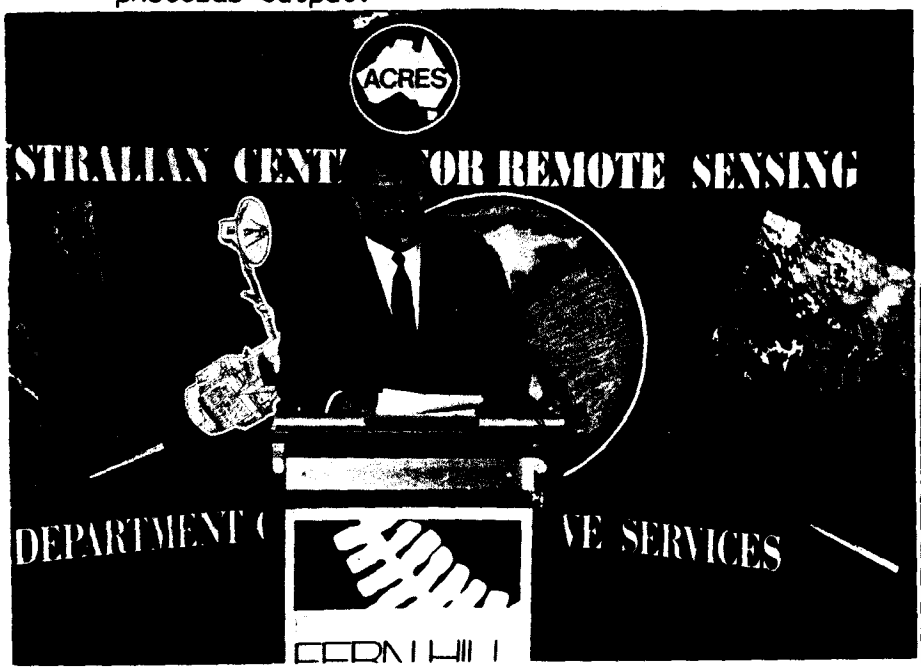
OFFICIAL OPENING — ACRES BRUCE FACILITY

Fern Hill Park is one of a number of technology parks being developed around the country. The ACRES building is a purpose-built facility which is designed to provide optimum conditions for equipment and personnel and provide for long-term storage of satellite data on high density digital tapes and in photographic film format.

A pictorial record of the occasion was produced by John Horn, Photographic Specialist, acting manager of the ACRES photographic laboratory. Some selected shots are included here.

BELOW: ACRES' staff and Distributor and Reference Centre representatives

ABOVE: The official party inspects the photolab output.



ABOVE: The Minister for Administrative Services, Mr Stewart West, declares the ACRES Fern Hill Park building officially open.

ABOVE: Invited guests inspecting cloud assessment workstation

IMAGE PROCESSING SYSTEMS

DISIMP VERSION 4.1

The Centre for Spatial Information Systems of CSIRO's Division of Information Technology released in November 1988 the DISIMP version 4.1. A comprehensive, flexible and functional image processing and analysis system, this version of DISIMP runs under UNIX system 5 on APOLLO workstations (DN3000/4000 series), with a fully integrated 32-bit VISTA image display system.

The modular and flexible design of DISIMP allows system builders to extend its capabilities and to develop additional utilities as required for specific applications.

IBGIS

The Centre for Spatial Information Systems has developed IBGIS, a geographic data processing system designed to analyse and display a variety of geographically referenced data.

The system has been designed to be operated by staff without significant exposure to computers. A user can, for example, quickly generate a display of derived satellite image overlaid with cadastral data with land parcels labelled, or report data values from the image at a specific point or aggregated over a named property. The output products of the system are maps, legends reports and tables.

The initial use of IBGIS is in support of a collaborative research project between the CSIRO Division of Wildlife and Ecology and Elders IXL, to explore the forecasting of agricultural and pastoral production using satellite images of vegetation condition over Australia together with other data sets.

MICROBRIAN OFFER

MPA International Pty. Ltd. announced a special offer for new MicroBrian users at the recent IAG Conference in Adelaide, S.A.

Until May 15th 1989, an ESRI PC ARC/INFO Starter Kit is being offered to purchasers of MicroBrian systems. This offer is in response to interest expressed through the MicroBrian Users Group.

This kit will give MicroBrian users access to the vector data handling capabilities of the PC ARC/INFO software package. GIS vector and polygonal data can now be integrated with remotely sensed data and output in image or in line map or tabular format.

Paul Hutton (CSIRO, Division of Water Resources) reported at the IAG Conference that MicroBrian users now have available to them:
- a 32 bit plane board
- a new, very high resolution thermal transfer colour printer (300 dots per inch).

ACRES PHOTOLAB NEWS

NEW PHOTOLAB MANAGER

John Horn joined ACRES as manager of our photo laboratory in October last year. He is on two years secondment from ITC. For the past few years he has held the position of Lecturer in Photographic Technology and Aerial Photography at the International Institute for Aerospace Survey and Earth Sciences at Enschede, The Netherlands. Currently his interests lie in the photo-processing of satellite imagery, hence his involvement with ACRES.

John's expertise in aerial surveying extends to a general interest in flying. Holding a private pilot's licence he has

served as a weekend flying instructor to the RAF Laarbruch Flying Club, West Germany, and is now a member of the Canberra Aero Club.

Being a commissioned officer in the Royal Air Force Volunteer Reserve John retains an interest in military aerial reconnaisance as well as the civilian uses of aerial photography and satellite imagery. For the two years of his stay John is attached to 28 Sqn RAAF Reserve.

NEW PROMOTIONS OFFICER

Jenny Weissel has joined ACRES as the new promotions officer. Her background in remote sensing is well known to many of the user community having worked as a consultant in satellite image sales and interpretation with Technical and Field Surveys, Sydney, for the past 8 years.

Currently Jenny is completing her Masters of Applied Science (remote Sensing) at the University of New Sales, Centre for Remote Sensing. Her undergraduate degree was in geography, also at the University of New South Wales. Her specialisation in remote sensing is in marketing, both image products and value-added services.

Her activities at ACRES will include production of the newsletter and undertaking promotions that will benefit both ACRES and remote sensing technology in Australia.