

ISPRS Society

ISPRS Council Meeting Minutes

Hyderabad, 10th - 11th December 2002

Summary of Minutes

Attendees

President	John Trinder (JT)
Secretary General	lan Dowman (ID)
First Vice President	Lawrence W. Fritz (LF)
Second Vice President	Gerard Begni (GB)
Congress Director	Orhan Altan (OA)
Treasurer	Ammatzia Peled (AP)

I. Opening

JT welcomed Council to the meeting and noted that Council had met many times during the year for useful discussions and that some decisions had been made which would be confirmed at this meeting.

2. Approval of Agenda

The agenda was approved with the addition of an item on the Center for Geospatial Workforce Development (GWD).

3. Review of Council Meetings in Buenos Aires, Xi'an and Corfu

Council last met formally in Buenos Aires but had had a number of informal meetings at the Commission Symposia. A number of decisions taken at those meeting were ratified by Council:

- Not to further subsidise Journal for developing countries.
- To change rules for Helava and Schermerhorn Awards and tidy up ToRs to be consistent.
- To put papers from ISPRS meetings on ISPRS website at ETH. [Subsequently put on hold, until consultations held with GITC].
- To rearrange the schedule for presentation of awards at the Congress and for OA to make a proposal for a new schedule.
- To revise late and day registration fee for Congress.
- To invite OrdMs to exhibit at Congress.
- Approved Sustaining Membership of:
- Istanbul Technical University. Research Systems International UK Ltd ImageSat International NV
- That ISAC should prepare guidelines for refereeing papers.
- To review ISAC membership.
- To take part in the SPOT 5 HRS assessment.

4. Policy Matters

4.1 Review of Technical Commission Structure Council reviewed the discussions which had taken place during the symposia and at the JM.A final draft was prepared for presentation to TCPs, who will provide comments and changes by 7 January.When these had been incorporated the draft would be sent to ISAC and then to Members for comment.

The following schedule was agreed:

- Jan 7th Response from TCPs
- Jan 10th JT to send revision to ISAC and Council
- Jan 31st Response from ISAC
- Feb 15th Council agree final version
- Feb 28th Send final proposal to members and put on web. FR to set up bulletin Board on web page. Letter to members to ask for objections to a mail vote. Announcement in Highlights referring to

web and bulletin board. Draft rationale and details of Bylaw

changes

- April 30th CM, Sydney
- June 7th Deadline for response from members.
- June 15th Compile new version
- June 30th Mail vote. Invitation to consider bids under old and new ToRs and joint symposia.
- Aug 16th CM and JM, Istanbul
- Sept 30th Result of vote
- Oct 1st Letter to members inviting submission on TCs

Other issues relating to the organisation of symposia and appointment of TCPs were discussed:

Frequency of Congress/GA/Symposia

Council discussed the advantages and disadvantages of a 2 year cycle: PRO

Shortens cycle of decision making, Allows election of TCPs in advance. Could have meetings at regional meetings

CON

Extra work for SG TCPs inactive for 2 years after election

Cost to delegates.

If the current process works, we do not need an extra $\mathsf{G}\mathsf{A}$

Symposia

Council discussed options for reducing the number of symposia by holding joint symposia of 2 TCs, and Council noted the success of TCVII meeting, acting a regional event, giving good exposure for ISPRS, but noted that not all regional events were as successful.

It was suggested that the symposia could be spread over 18 months [e.g. from Oct 2005 to March 2007], and that this could be combined with encouraging TCPs to hold combined symposia. This however limits time available for WG workshops in the odd-numbered years. It was agreed that TCPs should develop a programme of WG workshops for the 4 year period with one major meeting for each Commission each year.

The following decisions were made:

- Change TC ToRs. [Bylaw change requested by mail vote in 2003].
- Maintain 4 year period between GAs Council (members) will conduct meetings at regional conferences to discuss ISPRS activities. A Special Session may be arranged.
- Quorum for mail ballots:
 - no quorum for membership admission; 50% quorum for cancellation of membership and change of Bylaws. Quorum for GA: 50% . [Bylaw change at GA].
- Reject suggestion of inviting bids from Members to host symposia Change Bylaws to allow combined symposia. [Bylaw change requested by mail vote in 2003].
- Planning of symposia will be flexible and guided by Council, restriction on times for workshops relaxed.
- Council will strive to make TCPs combine symposia and to encourage joint Member bids for TCs.
- Council and TCPs will make a 4 year plan for meetings at post Congress JM.
- Council supports peer review of papers at symposia and Congress if TCPs want to organize this.
- A pre-selection process for TCPs will involve a teleconference for bidders.
- Consider JMs post congress and in following October and April.
- Change Bylaws to require bids for TCPs 4 months before Congress . [Bylaw change requested by mail vote in 2003].
- 4.2 Appointment of Marketing Manager (MM) JT reported that Tina Cary and Associates had been appointed as marketing manager for ISPRS. The signed contract was tabled. It was also noted that the

Strategic Plan requires Council to seek sponsorship for producing a CD with successful applications of GIS, this could be a task for MM.

- 4.3 Strategic Plan Actions These were all covered in the JM.
- 4.4 Foundation

LF reported that he was awaiting further advice from the lawyer on the preparation of documents. He asked for feedback from Council on the drafts circulated in July.

4.5 Registration of ISPRS

LF tabled the IRS forms for ISPRS registration in Maryland, with comments from the lawyer. Council reviewed the figures and agreed those to be submitted.

4.6 Industry Forum

The report to CEOS 14th Plenary for an International Industry Forum was discussed following the meeting in Denver with representatives from NOAA. This would be followed up by Council.

5. Preparations for Congress

OA reported good progress with Congress planning and on discussions with TCPs on the technical programme. The titles of the technical sessions had been agreed. The Second Announcement would be distributed early in 2003.

6. Review of Symposia and Commission activities

6.1 Symposia

Council reviewed the reports and discussion at the JM and expressed satisfaction with the symposia. Many of the issues raised had been addressed in the discussion on the reorganisation.

6.2 Commissions

A number of problems were noted with working groups. All of these were being addressed.

- 6.3 Geotechnics Meeting in Brazil OA to investigate copies of displays. No decision was made on who would represent Council. CA might be able to go.
- 6.4 ICRSE in Hawaii in November 2003 RN to follow up TCVII participation in ICSRE in 2003

7. Statutes and Bylaws

Bylaw changes had been agreed on: Terms of reference of TCs* Quora Combining symposia* Timetable for TC bids* Those with $\ensuremath{^*}$ to be changed by postal vote before next GA.

Other Bylaw changes were identified as peer review of papers and co-operation with other international organizations

8. ISPRS Membership

8.1 Ordinary Members

Council reviewed the status of Members and reaffirmed their decision to remove members who were in arrears at the next General Assembly.

- 8.2 Associate Members There was no change in Associate members.
- 8.3 Regional Members CSSTEAP is admitted as a new member.
- 8.4 Sustaining Members
 New: National Hydraulic Research Institute of Malaysia
 Remove: ERIM, Kimoto

9. ISPRS Publications

9.1 Highlights, Home Page These were in good order.

9.2 Archives

ID reported that he had distributed 154 copies to 21 organisations in Africa, and that there were 128 pre Amsterdam volumes left. RICS Books have declined to sell further copies and 3 copies of other pre Amsterdam Archives were now at UCL. Surplus Commission V Archives would be distributed at the CIPA Symposium in Turkey.

It was noted that some Archives from the 2002 symposia did not fully follow the Guidelines and did not include keywords and indexes. CDs cannot be read in some cases.

9.3 Orange Book

It was decided to review the model contract for symposia and also to review the Orange Book for redundancy and consistency

9.4 Journal

Some Council still are not receiving Journals; ID to follow this up with EB.

EB had provided a report on the Journal. Council noted that hardcopy subscriptions had declined but electronic subscriptions had increased. The ISI impact factor had improved.

ID to liaise with EB over a meeting with Elsevier. This could be combined this with a meeting with Balkema about the book series.

JT presented a draft letter which would be sent to prospective publishers. Council made some comments

and JT will revise the draft and send to those publishers which have shown an interest.

9.5 Annual report

 ${\sf ID}$ reported that he was compiling the annual report and asked Council members to send their report to KB.

9.6 Book series

No response has been received to the advertisement for a Book Series Editor but a possible candidate has been suggested that will be followed up. Balkema still have an interest, but need guaranteed bulk orders. There are 2 planned workshops in 2003 for which the organisers may wish to publish the proceed-

10. Financial Affairs

ings as a Book Series.

10.1 Financial report

AP reported good progress in collecting subscriptions relative to previous years. Summary report to be signed off by HR and AP.

10.2 Budget

Council to send budget items for April 2003-2004 to AP by 31st Jan

10.3 Science initiatives

Professor Tateishi had submitted an account for the publication of the book on global databases and this had been paid.

It was agreed that SwF20 000 should be available for Science initiatives in 2003 and that ID would prepare an announcement for the Home page.

10.4 Financial reporting to members

Table 2 of Financial Report to be sent to OrdMs on request. An announcement will be put in annual report stating that this information is available.

11. Awards

LF noted that Cassinis, Dolezal, Schwidefsky, Schermerhorn and Gamble awards will be awarded at the Gala Dinner. Awardees would be informed of this and that tickets would not be not paid for by ISPRS. Donors could be asked to pay.

JT to collect information for citations and to prepare a booklet. The booklet would only be distributed at the Gala Dinner; citations to cover awards presented at the opening ceremony would be in published in the newsletter (as well as in the booklet)

12. Relations with International and other Organisations

12.1 ICSU

There had been a significant increase in communication with ICSU since we had been elected as a full member. This was being dealt with by JT and ID. AP was asked to complete the financial return.



It was agreed that, subject to his agreement, Ray Harris would be nominated for membership of the Data and Information panel.

12.2 COPUOS - renewal of MoU

Council to send any amendments to ID and the revised MoU would be presented to COPUOS S&T in February.

12.3 IEEE-GRS - MoU

The signing of the MoU was noted. WGs have been asked to think about collaboration. OA to contact relevant IEEE-GRSS Technical Committees in relation to Congress.

12.4 SPIE MoU

The proposed MoU was discussed at JM

12.5 CEOS WSSD follow up

ISPRS had been asked for nominations for participation in CEOS WSSD follow up team. We would not make any nominations but JT would contact CEOS with information on our links with GWD (see item 15.1).

12.6 European education in geomatics

AP reported that PP had mentioned a meeting in Valencia, Spain for European Departments. ISPRS should investigate this.

Reports from Council (All – in writing) Reports were noted.

14. Review of Actions

14.1 Council

Action 02/217 AP reported that an ISPRS flag to be given to StMs would cost 350 - 400 in the first year, and 100 thereafter. AP to send sample of flag to Council

14.2 New actions from this meeting ID reviewed the action items.

15. Other Business

- 15.1 Geospatial Workforce Development (GWD) Council discussed the proposals made by Pam Lawhead (PL) at the JM for ISPRS participation in the preparation of teaching modules on remote sensing. LF suggested that ISPRS could provide:
 - Programme review committee
 - Content review committee

- Co-ordinator
- Candidate pool for preparing course content
- Collect requirements from international bodies
- Translation
- Promotion
- Preparing specialist modules e.g. for industry,

ISPRS would wish to endorse the modules, and hence implement a sound review procedure. PL agreed and suggested that we go ahead with planning for a programme review committee meeting in June/July 2003. PL will send details of how to access courses through Intranet. AP to coordinate proposal for venue and content of meeting, possibly in association with a European conference possibly EARSeL.

15.2 Fiscal year

Council agreed to moving the fiscal year to calendar year, and would hold a postal vote.

16. Next Council Meetings

CM Sydney, 28-30th April 2003 JM and CM Istanbul, 16-23rd August 2003

17. Close

JT closed the meeting and thanked Council for their participation and noted that we have made important decisions.

Abbreviations used in the text

TCP I	Stan Morain (SM)
TCP II	Chen Jun (CJ)
TCP III	Franz Leberl (FL)
TCP IV	Costas Armenakis (CA)
TCPV	Petros Patias (PP)
TCP VI	Tania Maria Sausen (TS
TCP VII	Rangnath Navalgund (RN)

Assistant to Secretary General Kate Barber (KB) Chair Finance Committee (FC) Heinz Rüther (HR)

Chair International Science Advisory Committee (ISAC) Armin Gruen (AG)

Chair International Policy Advisory Committee (IPAC) Ray Harris (RH)

International Committee On Remote Sensing of Environment (ICORSE)

Report on ISPRS Commission I Mid-term Symposium

Denver, CO, USA, 10-14 November 2002

By Dr. Beverley Adams, ImageCat Inc. and Karl Benedict, Earth Data Analysis Center,

University of New Mexico

Welcome to Denver and the ISPRS Commission I Mid-Term Symposium, taking centre stage among the glittering ballrooms, glassy towers, and myriad of elevators, elegant meeting rooms and walkways that is the Adam's Mark Hotel. Despite the notable absence of slot machines and neon, the venue had a 'Vegasian' air, with delegates greeted by a lofty atrium, harbouring numerous bars and restaurants.

Fine fare, flowing wine (at the exhibition opening at least) and a friendly, jovial atmosphere set the tone of this event, held jointly with the ASPRS, Transportation Research Board (TRB) and organisers of a Future Intelligent Earth Observing Satellites (FIEOS) symposium. Delegates were tempted by a delectable array of tutorials, meetings, exhibits, technical and poster sessions, which had the scientific excellence and international flavour that are coveted ISPRS trademarks.

Delegates who managed to decode the organisationally challenged conference program, made their way to a selection of pre-program tutorials. These covered a broad range of topics including: integration of Lidar in mapping and GIS programs; the 10-year industry forecast; and a portable digital aerial imaging system that may be transported in a briefcase.

At the Commission I Council Meeting, Working Group Officers jetting in from many nations, recounted an impressive list of activities, including: symposia; workshops; and collaborative research efforts, which have been undertaken during 2002-2003. Discussions were rounded off with a dynamic overview of the 2004 Congress in Istanbul, by Congress Director Orhan Altan. It was all rather exciting, especially when the chair, Commission I President Stan Morain, admitted that convening this first 'family meeting' rendered him quite 'tingly'. Returning to the business of the day, ISPRS President John Trinder invited members to contribute to the ongoing debate surrounding a possible redefinition of the technical missions for Commission I-VII. Comments regarding the 'Terms of Reference', which have stood since 1948, were presented and discussed at a well-attended session in the Century Room.

The ISPRS program included fifteen technical sessions, comprising two poster and thirteen sessions of presented papers. All were well attended, with the airborne technology sessions hosting standing-room only crowds. Presentations covered a wide range of topics, including advances in and evaluation of the next generation of large format digital cameras, software integration for digital image capture systems, direct georeferencing, new developments in LiDAR systems, radiometric and geometric calibration, new satellite systems that are in development, and a lively panel discussion of barriers to the adoption of digital image capture technologies. Overall, the presented papers and posters ran the full gamut of platforms - from satellites to kites; provided detailed technical discussions of existing and planned sensors; and offered a venue for philosophical discussions on the benefits and economics of applying competing technologies to photogrammetric and remote sensing data collection and processing problems.

Following a free-flowing dialog on 'Policies Affecting the Use of Satellite Imagery', the final General Session culminated in the presentation of the 'Young Author's Award' to Daniela Poli of the Institute of Geodesy and Photogrammetry, Swiss Federal Institute of Technology (Zurich, Switzerland), for a paper entitled "General Model For Airborne And Spaceborne Linear Array Sensors". The meeting concluded with ISPRS President John Trinder recognising the Commission-I President Stan Morain and Secretary Amy Budge for their significant contributions to an extremely successful conference.

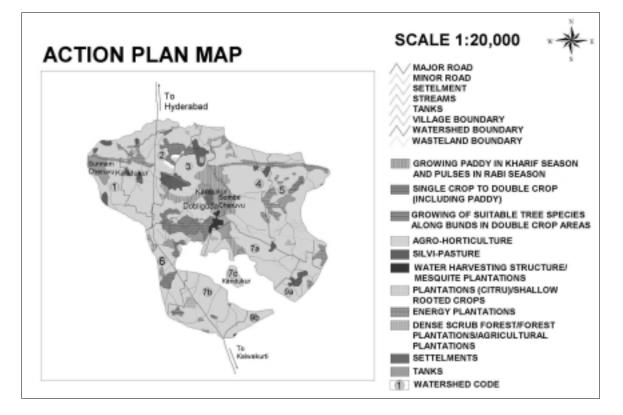


ISPRS Council and Commission Presidents Visit an Indian Watershed

By Lawrence W. Fritz, 1st Vice President, ISPRS

The National Remote Sensing Agency of India hosted the Annual Joint Meeting of ISPRS Council and Commission Presidents at its headquarters in Hyderabad. On 8 December 2002, the off-day of the Joint Meeting, NRSA arranged a field excursion to visit the Kandukur Watershed located in Andhra Pradesh. The excursion provided an opportunity for ISPRS Officers and some NRSA officials to see for themselves an example of the practical application of





remote sensing technology at field level being sponsored by one of the leading Non-Governmental Organizations (NGO) in India. The sojourn to Kandukur Watershed started at the early morning hours from the Taj Krishna Hotel. The journey was comfortable in the pleasant winter weather. Natural landscape on the way was typically Indian and rustic. After traversing a distance of about 56 km, the group reached the Sarlapally Village located in the watershed.

The first thing that attracted the group was a colorful sketch of the Kandukur Watershed prepared on the ground by the villagers using 'Rangoli' fine grain limestone powder. It depicted the hilly terrain, the small stream flowing through the watershed in blue, the agricultural fields in green, the fallow lands, the small, unpaved cart-tracks, etc. It also showed the places where check dams have been constructed.

The lead representative of the NGO discussed preparation of the action plan for the region and he explained how thematic maps for the watershed were prepared using IRS satellite data, which enabled generation of land and water resources development plans for the area.

The Kandakur Watershed Development Programme began during the 1995–96 year and since then the program has been successfully implemented. The program covers 16 watersheds in the Mandals of Kandakur and Maheswaram. The average rainfall of the area is 655 mm, however it is erratic. During a prolonged drought situation, thousands of acres of land are kept vacant and only few hundreds of acres are kept under cultivation. The availability of drinking water is a major problem.

The NGO representative explained how the program was initiated by adopting Participatory Rural Appraisal techniques in order to build confidence in the local villagers. First a Watershed Association and a committee were formed. Then through education and motivation, village farmers were made aware of the adverse effect of the soil – erosion and drought situation. Villagers were taken into confidence by taking up entry point programs resulting in common welfare of the village community. Continuous motivational training programs were organized. Ample opportunities were given to the watershed committee to prepare its own plan of action for the development of the watershed using inputs available from satellite and other conventional data.

A villager is seen explaining the finer aspects of the watershed to the excursion group.





ISPRS group pose with the tribal group of dancers.

Because barren granitic ridges encircled the village, it was possible to take advantage of the terrain by digging trenches to capture surface runoff and thus recharge the ground water level. This has improved the ground water situation. In many of the bore wells the water level rose from 2 m. to 5 m., whereas in many of the open wells the water level rose on an average of 5 to 12 m. Also a major lineament in the granitic terrain was identified in Sarlapally village, so it was suggested that this would be a good site to construct a check dam. The net result of building



ISPRS group with villagers in the vicinity of the 'Check dam'.

the check dam was improvement in the ground water table.

The 'ISPRS Group' gained a very good appreciation of the positive results effected by the program for this particular site. Where once a wide dry eroded surface area with gullies had existed, now a check dam has created a surface water storage pond. This pond provides a resource for catering to the local requirements of irrigation and drinking water for cattle. In addition, it has significantly enhanced opportunities to capture enriched soils, thus gaining further support of the local populace for use of soil conservation methods and an appreciation of its benefits. This was clearly exhibited by the president of the Watershed Association,

a local farmer, when he removed his shirt and dove into the pond and proudly showed that the water level is up to his shoulders.

Dr. Gerard Begni, ISPRS 2nd Vice President noted that this program is an outstanding example of the use of remotely sensed data in the conservation of natural resources and for improving the quality of life of local people.

The day's excursion was complemented by a mid day meal and tours of local facilities and temples. This was hosted by The Human Resource Development Centre of AWARE at Bhagawathipuram who took care of the hospitality for the group and also organized a cultural show by several of the local tribes.

NRSA and the Indian Commission on Space are applauded for their outstanding planning, public awareness efforts and implementation of using remote sensing imagery for addressing national needs at the local level. In this regard, India has set an international example of which others should take notice. This excursion confirmed to the ISPRS officers that India's plan is working very well and that its use is being understood, and very importantly, being embraced by the local populace where it is applied.

Overview of International Workshop on Future Intelligent Earth Observing Satellites (FIEOS)

Denver, Colorado, USA, 10-14 November 2002 By Dr. Guoqing Zhou, Old Dominion University

The future of earth observing satellite systems lies with incorporating 'intelligence' into these systems. The increasing need for acquiring timely information about Earth system processes and for early warning of natural and human disasters, combined with a need to control costs and for coping with increased system complexity, suggests that intelligent satellites are appropriate for deriving information quickly and in near real-time for dissemination to non-sci-



ence user communities. Such intelligent systems could include space-based architectures capable of dynamic and comprehensive onboard integration of sensors, data processors, and communications. The first International Workshop on Future Intelligent Earth Observing Satellites (FIEOS) was held November 10-14 in Denver, Colorado. This symposium brought together private sector, government, and university experts to discuss the possibility and feasibility of such intelligent systems for 2010 and beyond. It also facilitated interactions between international planning and data user communities to arrive at the needs and requirements for future intelligent systems for global application.

The FIEOS Workshop was co-organised by ISPRS WG I/4 (Advanced Sensor Systems). Sponsoring organisations included the National Aeronautics and Space Administration Institute for Advanced Concepts (NASA-NIAC), the International Society for Photogrammetry and Remote Sensing (ISPRS), and Virginia's Center for Innovative Technology (CIT).

The workshop was held in conjunction with the International Society for Photogrammetry and Remote Sensing (ISPRS) Commission I Mid-term Symposium, the Remote Sensing for Transportation Conference, and the Pecora I5 and Land Satellite Information IV Conference at Adam's Mark Hotel in Denver. It provided a stimulating, casual environment for scientific presentations, interactive discussions, and information exchange on future intelligent Earth observing satellite systems.

The combined conference brought together over 900

participants from 17 countries: specialists, engineers, users, and those interested in intelligent Earth Observing satellites, onboard image data processing, sensor-webs, satellite networks, remote sensing applications in transportation, and other related topics. In the workshop of FIEOS, 58 abstracts were collected, and 24 oral presentations were made in six sessions (including the opening session), and 34 posters were displayed.

Two keynote speakers, Dr. Bob Cassanova and Dr. Roger King, opened the workshop. Dr. Cassanova is the Director of the NASA Institute for Advanced Concepts (NIAC) in Atlanta, Georgia. His address was titled 'Visions of the Future in Earth and Space Sciences.' Dr. King serves as Chief Technologist for NASA's Earth Science Enterprise Applications Division. His address was titled 'The Challenge of End-to-End Solutions in FIEOS.'

Thirteen papers from the FIEOS workshop have been compiled into a book-length collection of proceedings, the purpose of which is to facilitate the interactions of international colleagues and to raise international interest in this vision.

On behalf of the FIEOS organising committee, we would like to express our special thanks to all people and organisations that contributed to the success of the symposium and helped to make the completion of these proceeding possible. Special thanks go to Dr. Bob Cassanova for his support for this project and symposium. We also thank Amelia Budge for her hard work preparing for this meeting and for her success in attracting working groups from different professional and scientific organisations.



Report on ISPRS Commission VII Mid-term Symposium on 'Resource and Environmental Monitoring'

Hyderabad, India, 3-6 December 2002 By Shailesh Nayak and R. Nagaraja

Background

The International Society of Photogrammetry and Remote Sensing (ISPRS) Technical Commission (TC) VII Mid-term Symposium on "Resource and Environmental Monitoring" was held during December 3-6, 2002 at Hyderabad, India. The Symposium was jointly organised by the Indian Society of Remote Sensing (ISRS) and ISPRS TC VII. The Indian Space Research Organisation (ISRO) sponsored the event and was hosted by the National Remote Sensing Agency (NRSA), Hyderabad.

Inaugural Session

Dr. K. Kasturirangan, Chairman, ISRO inaugurated the Symposium. He released the Proceedings of the Symposium (hard copy, two volumes, 1470 pages and a CD). He stressed the importance of environment and role space observa-

tions. Dr. Ranganth Navalgund, President, TC VII, welcomed the distinguished guests and delegates. He gave overview of the activities of the ISPRS TC VII and NRSA. Dr. George Joseph, President, ISRS, briefly described ISRS activities and promised all support to ISPRS activities in India. Prof. John Trinder, President, ISPRS, thanked ISRS, ISRO and NRSA for supporting ISPRS activities. He gave away 'Bhaskara' Awards, the highest award for lifetime contribution to remote sensing in India to Dr. Baldev Sahai and Dr. L. R.A. Narayanan, and Indian National Remote Sensing Award to Dr. Philip George. He also inaugurated the Exhibition of the various equipment products and services related to remote sensing. The publication 'Integrated Mission for Sustainable Development" brought out by the National Remote Sensing Agency was also released on the occasion. Dr. R. Nagaraja, Organising Secretary, proposed vote of thanks.



Торіс	Speaker
Determining sustainability indicators by remote sensing	Prof. John Trinder, President, ISPRS University of
	NSW, Australia
Ecosystem response to physical forcing of the oceans:	Dr. Shubha Sayendranath, Executive Director,
a baseline to discuss the potential effect of climate change	POGO, Bedford Institute of Oceanography, Canada
Earth Observations for sustainable development	Dr. R. R. Navalgund, President, TC VII NRSA, India
Land use planning for sustainable agriculture	Dr. Karl Harmsen, Director CSSTE-AP, India.

Figure 1, Plenary Session Sustainable Development.



Dr. K. Kasturirangan, Chairman, ISRO and Chief Guest of the Inaugural Function handing over the ISPRS TC VII Symposium proceedings to Prof. John Trinder, President, ISPRS.

Plenary Sessions

Two Plenary Sessions on 'Sustainable Development' and 'Earth Observation System' were held subsequent to the inaugural session on December 3, 2002.

Dr. K. Kasturirangan chaired the Plenary Session on 'Sustainable Development'. Four eminent experts in the field delivered keynote addresses. The need for identifying sustainability indicators, case studies related to role of orbital imagery in sustainable development and need for marine ecosystem in achieving sustainable development were discussed. The details about topics and speakers are given in Figure 1.

Dr. Lawrence W. Fritz, First Vice-President, ISPRS chaired the Second Plenary session on 'Earth Observation System'. Three keynote addresses by the space agencies, France, Japan and India, and one by ITC were delivered. The details about topics and speakers are given in Figure 2.

Vikram Sarabhai Memorial Lecture

Prof. Vinod Gaur, Indian Institute of Astro-physics delivered the twelfth lecture of this prestigious Lecture Series, instituted by ISRS on the evening of December 3, 2002. He spoke on 'Space probes for planetary thermodynamics'.

Special Sessions

Two special sessions on 'Ocean Colour' and ' and 'Industry Participation' were organised on December 4 and 5, respectively. The 'Ocean Colour' session was organised in collaboration with the International Ocean Colour Coordinating Group (IOCCG). Five oral presentations including a lead talk and six posters were presented. Issues related to developing algorithms specific to species, sediment algorithms, comparison of ocean colour data from IRS P4 OCM and SeaWiFs, applications of ocean colour data in fisheries, primary productivity, eddies, coastal processes, etc. were discussed. The Industry session has five presentations, from the Antrix Corporation, RSI-Leica, ERDAS, ESRI and NDC-NRSA.

Inter-Commission Sessions

Five sessions were organised jointly with ISPRS TC I, IV and VI. The details are given in Figure 3.



Prof. John Trinder, President, ISPRS inaugurating the technical exhibition.

Торіс	Speaker
Serving sustainable development: Future perspectives	Dr. Gerald Begni, Second Vice President, ISPRS,
of earth observation systems	Medias - France
Spatial data modelling aspects of global change monitoring	Dr. Martien Molenaar, Rector, ITC, The Netherlands
Japanese Earth Observation Programme: Past, present	Dr.Yukata Kaneko, NASDA
and future	
Earth Observation Systems – Indian perspectives	Dr.V. Jayaraman, Director, Earth Observation
	System, ISRO, India

Figure 2, Plenary Session - Earth Observation System.



Theme	TC/WG	Lead	Oral	Poster	Total
Remote sensing for transportation	TC I	I	4	-	05
Retrieval and Cal/Val	WG I/2	-	6	8	14
Spatial data infrastructure	WG IV/4	I	5	5	11
Global data bases	WG IV/8	I	3	2	06
Internet Resources	WG VI/4	I	2	-	03

Figure 3, Type of contribution for joint sessions.

Remote Sensing for Transportation: Image intelligence for infrastructure protection, evacuation planning, airfield security, road connectivity and ARCIMS/ARCSDE and GGI.GRASS approaches for transportation information and management systems.

Retrieval and, calibration and Validation: Characterisation of TES PAN sensor, comparison of TRMM-TMI, DMSP-SSM/I and IRS-P4 MSMR as well as registration techniques of SAR images for interferometry were discussed.

Spatial Data Infrastructure: Relationship between geometric elements and objects, structure and development of geo-spatial data, SDSS software for land and water resources action plans, biodiversity information system were discussed.

Global Data Bases: Long-term regional and global databases, Global land Cover Ground Truth, co-operation between different countries, modelling for land productivity and irrigation water requirement were discussed.

Internet Resources: Need for RS education at global level, e-governance at the grass-root level were discussed.

Technical Sessions of TC VII

Technical sessions of the six working groups were organised into twenty-two sessions. The details are given in Figure 4.

WG VII/: I Fundamental Physics and Modelling

Highlights of the first session included the impact of data compression on mineral mapping products using hyperspectral AVIRIS data, leaf area index retrieval form spectrally high resolution data, relationship between land cover parameters and BRDF coefficients. The "Data Fusion" session focused on wavelet-based integration of ASTER data for soil information extraction, fusion of multi-sensor data for various applications and content-based image retrieval.

WG No.	Title of WG	Session	Lead	Oral	Poster	Total
WG VII/ I	Fundamental Physics and Modelling	Hyper-spectral Remote Sensing Advanced Classifiers Data Fusion Techniques	02	14	10	26
WG VII/2	Sustainable Agriculture & Ecosystem Approach	Sustainable Agriculture Precision Farming Crop Production Forecasting	02	11	13	26
WG VII/3	Integrated Monitoring S ystems for Resources Management	Integrated Coastal Zone Management & Marine Science (two sessions) Geosciences Land Use Planning Terrain Evaluation Soil Resources Water Resources (two) Forest Ecosystem	05	44	81	130
WG VII/4	Human Settlement & Impact Analysis	Urban and Regional Development High Resolution Data for Urban Studies	03	09	15	27
WG VII/5	Disaster Monitoring, Mitigation and Damage Assessment	Disaster Monitoring, Mitigation and Damage Assessment (Two)	01	10	04	15
WG VII/6	Monitoring and Modelling global Change	-	01	05	05	11
		Total	14	93	128	235

Figure 4, Type of contribution for technical sessions.



The overview of classification techniques for remotely sensed data was highlight of the third session "Advanced Classifiers". Additional topics covered the application of fuzzy methods for land cover classification, the meaning of colour in photogrammetric remote sensing, and generalised clustering techniques for image data.

WG VII/2: Sustainable Agriculture & Ecosystem Approach

Novel approaches for mapping agricultural land use systems, modelling land use in Canada and predicting change in 2040, use of SAR for crop identification, identification of areas to grow legumes on residual soil moisture in South Asia and various aspects of the relationship of wastelands with income poverty levels in India were discussed in the session 'Sustainable Agriculture'. Inversion techniques using physical radiative-transfer models of multi-spectral Deadalus ATM data to estimate vegetation parameters, deriving crop indices using satellite data, relevance of precision farming were presented in the 'Precision Farming' session. In the Session on 'Crop Production Forecasting' session, timeliness and accuracy of current forecasts in India were highlighted. New sampling techniques, role of passive microwave data for agricultural land monitoring and wheat simulation model for improved crop growth monitoring were presented.

WG VII/3: Integrated Monitoring Systems for Resources Management

A large numbers of papers were received under this working group. Nine sessions were organised. In the Integrated Coastal Zone Management and Marine Science session, papers related to use of remote sensing and GIS in coastal management were highlighted. Interesting papers related to bio-invasion in Israel, zonation of coral reefs and mangroves, impact of cyclone on coastal landforms, sea surface temperature, sea-ice estimation with SSM/I and MSMR were presented. In the Geo-sciences session, papers related to integrated approach to mineral exploration for base metals including radioactive minerals, site selection for a bridge across the river and statistical analysis of the lineaments to identify stress direction were presented. Use of MIR and thermal bands and aeromagnetic mapping were also highlighted. In Land use planning session, use of decision support system for land use planning, SAR interferometric data and change detection analysis and Indian case studies were discussed. In the Terrain Evaluation session, DEMs generated from both optical and microwave sensors for crustal movement studies, use of very high resolution optical data for change detection, position and height accuracies obtained from GPS, management of land and water resources and natural hazards were presented.

In the Soil Resources Session, optimal data base on soil and land degradation, information system for monitoring and models for estimating soil moisture were presented. In the Water Resources Session, papers related to use of optical, hyper-spectral and microwave data for estimating limnological studies, soil moisture estimation using multipolarisation and multi-look angle in rice fields and modelling of ground water assessment were discussed. In the second session, use of stereo IRS PAN data for deglaciation model, use of thermal data for estimation of irrigation requirement, performance index of watershed development and watershed management for improving livelihood were presented. In the session on Forest Ecosystems, predictive modelling for change in forest cover, use of hyper-spectral and LIDAR for assessing forest resources, wildlife management, especially migration dynamic in Kenya and Tanzania and habitat suitability accuracy of species distribution maps were discussed.

WG VII/4: Human Settlement & Impact Analysis

In the session on Urban and Regional Development, MOLAND project of the European Commission focusing on land use change monitoring in the Istanbul area, water supply system and overall development for cities with specific examples and change detection study for China were discussed. Optical and ALTM data, knowledge-based fuzzy approach for urban studies were highlighted in the session on High resolution data for urban studies. In the Cultural Heritage session, type of thematic data required, use of ortho-photos and identification of cosmic cities were presented

WG VII/5: Disaster Monitoring, Mitigation and Damage Assessment

Five papers related to all aspects of flood management, viz. flood hazard mapping, near-real time monitoring, role

Country	No. of
	Delegates
Japan	20
The Netherlands	10
U.S.A.	06
Canada, China, Germany, Iran, Sri Lanka	04 (each)
Russia	03
Bangladesh, Czech Republic, Israel, Korea, Lao PDR, Mongolia, Thailand, Turkey, U.K., Uzbekistan	02 (each)
Australia, Austria, Bhutan, France, Denmark, Greece, Hungary, Indonesia, Italy, Myanmar, Nepal,	01 (each)
Switzerland, Vietnam	

Figure 5, Overview of the number of foreign delegates.



Name of the Award	Award Winner
ISPRS TC VII Young Author Award - Best Oral Presentation	Iffat Huque, Bangladesh
ISPRS TC VII Best Poster Awards :	
- First Best Poster	S. Srinivasa Rao, India
- Second Best Poster	Yumico Wada, Japan
- Third Best Poster	P.S. Roy, India
- Fourth Best Poster	P.V. Narasimha Rao, India
- Fifth Best Poster	Chiradeep Adhikari, India
ISRS INRS Young Scientist Award 2001	Arun K. Saraf, India
ISRS Speck Award – Best Oral Presentation	Eberhard Steinle, Germany
ISRS Optomech Award – Best Student Presentation	Madhavi Latha, India
ISRS JISRS Award – Best paper published in the Journal of ISRS during 2001	R.K. Sarangi, India

Figure 6, Awards.

of SAR, and use of GIS were discussed. In the second session, papers related to geological hazards such as earthquake, volcanic eruption, landslides were discussed. The study on impact of locust was an interesting paper. Use of NDVI profiles in drought condition assessment was highlighted.

WG VII/6: Monitoring and Modelling global Change

Papers related to use of RS data in estimating carbon emission for the Siberian wetlands, impact of global warming on glacial melting on the Himalayan Glaciers, impact of biomass burning on aerosol loading and El Nino on the Indian monsoon were presented and discussed.

Delegates

The Symposium received very good response. 534 delegates from 32 countries participated in the deliberations of the Symposium, out of which 92 delegates were foreign delegates. The details of foreign delegates is given in Figure 5.

Each delegate was provided with a soft leather bag containing programme schedule, Abstract volume, Symposium Proceedings on CD-ROM, list of participants, badge, NRSA/Antrix/ISRO publicity material, ISPRS Congress-2004 announcement, travel/tourism brochures, pen and pad. Lunch, coffee/tea, etc. were provided to all delegates.



A view of delegates in the symposium gallery.

Pre-Symposium Tutorials and Workshops

Two tutorials on 'Sustainable Agriculture' and 'Integrated Coastal Zone Management' were jointly organised in collaboration with the Space Applications Centre (ISRO) and NRSA on December 2, 2002. The participants of tutorials were provided with lecture volume and CD containing case studies and methodologies to interpret images for desired information. Experts drawn from India, the Netherlands and Sri Lanka delivered Five talks in on different aspects of 'Sustainable Agriculture' in the first tutorial. Forty Four participants including 16 delegates from 11 foreign countries attended the tutorials. These countries were, Bhutan, Germany, Laos (2), Mongolia (2), Nepal, The Netherlands, South Korea, Sri Lanka, Thailand, Vietnam and Uzbekistan (2) apart from India. The Second tutorial was on 'Integrated Coastal Zone Management'. Five talks on role of remote sensing and GIS, coastal erosion, coastal habitats, numerical modelling for sediment transport and strategy for coastal zone management were delivered. Thirty Eight participants including 8 participants from foreign countries attended this tutorial. These countries were Bangladesh, Denmark, Indonesia, Myanmar, South Korea, Sri Lanka and Thailand.

A Workshop on 'Land Use/Cover Change' was organised jointly by the LUCC Focus 2 Office, Japan and ISPRS WG VII/6 on December 2, 2002. Forty delegates, 13 from Japan and 27 from India participated.

Social Program

A cultural programme followed by the Welcome dinner were organised on December 3, 2002 evening. Three sightseeing trips were organised on December 4-5, 2002.

Exhibition

An exhibition for commercial companies was organised. Three foreign companies, four Indian Government agencies and 15 Indian Companies participated in the Exhibition. They are as follows: Hitachi Software Engineering Company,Yokohama, Japan; Radarsat Corporation International, Canada; Sovinformsputnik, Moscow, Russia; Antrix Corporation, Bangalore; Indian Space Research Organisation, Bangalore; National Remote Sensing Agency, Hyder-





A view of technical exhibition.

abad; Survey of India, Dehradun; CBAS Aerospace, Bangalore; DVP Geomatic Pvt. Ltd., New Delhi; GIS@Development, Noida; Kampsax India (P) Ltd, Gurgaon; Locuz Enterprises, Hyderabad; NIIT – GIS, Hyderabad; N.D. Soft Ecognition; PCI Geomatics, Pune; Rakesh Enterprises, Hyderabad; Remote Sensing Instruments, Hyderabad (2); Rolta India, Mumbai; Sierra Atlantic, Hyderabad; Silicon Graphics India, New Delhi; Sinsil International, Vadodara and Speck Systems Pvt. Ltd. Hyderabad

Open session on Terms of Reference of Technical Commissions

Prof. John Trinder, President ISPRS conducted on open session on the present terms of reference of various technical commissions and need to modify them. Bifurcation of the Technical Commission VII was also discussed. Many believed that remote sensing is not adequately represented in ISPRS. Need for reducing the number of symposia was also discussed. Delegates participated enthusiastically and provided important suggestions.

Concluding Sessions

In the concluding session of TC VII, WG chairs presented brief report on technical sessions belonging to their WG. The brief recommendations of the Symposium are given below.

- To promote development of techniques for using high resolution data in generation of thematic and terrain information at local levels to provide problem specific solutions especially in the field of terrain evaluation, infrastructure planning and urban studies.
- ii) To develop techniques to assimilate space-based inputs and other collateral data in global change models in association with IGBP and other international bodies.
- iii) To promote development of analytical techniques, standard calibration - validation procedure, data fusion and classification techniques for synergistic use of remote sensing data.

- iv) To accelerate efforts towards identifying sustainability indicators, understanding driving forces, developing algorithms and models for predicting likely changes and mitigating their impact on attaining food and water security.
- v) To concentrate efforts towards development of integrated models for environmental management especially in the field of coastal zone, forest and water resources.
- vi) To enhance international co-operation and transfer of know-how to developing world in managing disasters along with CEOS and other international agencies.

Awards

During this session, following prizes were awarded. Mr. Lawrence W. Fritz, First Vice- President, ISPRS gave away these prizes (Figure 6).

Symposium Report

Dr. R. Nagaraja, presented the Symposium report providing details about the technical sessions, number of delegates and their affiliation, tutorials, workshop, exhibition, etc.

Briefing about Congress - 2004

Prof. Orhan Altan, Congress Director, briefed the delegates about the Istanbul Congress and invited everybody to participate.

Vote of Thanks

Dr. Shailesh Nayak, Secretary, ISPRS TC VII thanked: All delegates for actively participating in the deliberations, Key-note speakers for setting the tone of the Symposium, Chairs, Co-chairs, rapporteurs, Hall co-ordinators and lead speakers for conducting sessions and providing overview of the state-of-the art in the particular field, respectively, Members of the Jury for painstaking work to choose best oral and poster presentations, Sponsoring agencies including exhibitors, especially ISRO, for its generous support, ISPRS Council, TCP I, IV, VI and WG Chairs 1/2, IV/4, IV/8, VI/4 and TC VII WG Chairs and Co-chairs for their guidance in organising technical programmes, President and Council of ISRS for support and guidance, Chairman ISRO, Director, SAC, Director, RRSSC, Director, EOS for their unstinted support, Press and Media, Director, NRSA for agreeing to host the event and the Organising Secretary and various committees for taking care of all logistic needs of delegates and warm hospitality.

Prof. Ian Dowman, Secretary General, ISPRS had the final word. He profusely thanked President, ISRS, Director, NRSA and President, ISPRS TC VII for organising a very successful Symposium.



Change of Officers

During the Board meeting of Technical Commission VII held on 04 December 2002, certain changes in the officers of the Working Groups have been made. These have been ratified by the ISPRS Council.

Change of Working Group Officers of TC-VII/2

K. de Bie, Chair - Working Group VII/2 in place of Andrew K. Skidmore Contact details of K. de Bie ITC P.O. Box 6 7500 AA, Enschede The NETHERLANDS Tel: + 31 53 4874362 Fax: + 31 53 4874388 E-mail: debie@itc.nl

Change of Working Group Officers of TC-VII/3

Dr. Shailesh Nayak, Chair - Working Group VII/3 in place of Sandra Maria Fonseca da Costa Contact details of Dr. Shailesh Nayak Group Director, Marine & Water Resources Space Applications Centre Jodhpur Tekra, Ambawadi Vistar, P.O. Ahmedabad - 380 015 INDIA Tel: + 91 79 6914141 Fax: + 91 79 6760626 E-mail: snayakad I@sancharnet.in

Dr. R. Nagaraja, Secretary - Working Group VII/3

Contact details of Dr. R. Nagaraja Head, Landuse Division Landuse and Urban Studies Group National Remote Sensing Agency Balanagar, Hyderabad - 500 037 INDIA Tel: + 91 40 3884239 Fax: +91 40 3884259 E-mail: nagaraja_r@nrsa.gov.in

Announcement of the Proposed ASPRS Binary LIDAR Data File Format Standard (LAS)

Submitted by ISPRS Commission I, WG3

The LAS file format is a proposed public file format for the exchange of LIDAR data. It was originally developed by a consortium of industry partners (Z/I Imaging, Enerquest, US Army Corps of Engineers, Optech and Leica Geosystems) and is now being considered for adoption as an ASPRS standard. An ASPRS LIDAR data format standard will facilitate the processing, editing and visualisation of LIDAR data in a wide variety of commercial and proprietary software packages, as well as the efficient exchange of data between providers and end-users. More detailed information, as well as a digital version of the format standard can be downloaded from www.asprs.org.

The LAS file format has been reviewed and discussed informally at industry forums and conferences over the past year. ASPRS is now prepared to accept and maintain the LAS file format as an industry standard, pending a period of public review and comment. The format standard will be published in two sequential issues of PE&RS, as well as posted on the ASPRS web-site. The public comment period ends on **30 March 2003**.

Please send all comments and questions via email to standards@asprs.org or complete the online form at the ASPRS web-site. All submittals will be reviewed by both the industry sponsors and the ASPRS Photogrammetric Applications Division LIDAR Committee. A detailed report of the comments, review and findings will be published in a future version PE&RS.The goal of the PPD Standards Committee is to present the LAS Standard to the ASPRS Board of Directors for their vote at the 2003 Annual Meeting of ASPRS in Anchorage, AK in May, 2003.

(Prepared by Karen Schuckman, ASPRS Professional Practice Division Director)





Call for Papers ISPRS Workshop on Spatial Analysis and Decision Making

Hong Kong, 3 – 5 December 2003

The workshop is a joint group workshop of ISPRS WG II/5 'Design and Operation of Spatial Decision Support Systems' and WG II/6 'Spatial Analysis and Visualisation Systems'. The objective of the workshop is to provide a platform for scholars and professionals in the areas of spatial decision support systems, spatial analysis and spatial visualisation to exchange research ideas and interest, and to present the newest research results in these areas.

Topics for Technical Sessions

- Spatial Decision Support System (SDSS) design and implementation
- Image-based SDSS, spatial analysis and visualisation
- Knowledge-based spatial decision processes and systems
- Artificial neural networks and fuzzy set theory for spatial analysis and decision making
- Spatial data integration and modelling for SDSS
- Multi-scale spatial analysis
- Spatial relations and spatial reasoning
- Web-based systems for value-added data analysis and visualisation
- Mobile-based systems for visualisation and value-added data analysis

- Systems for on-demand visualisation and value-added data analysis
- Integration of 3D, temporal and dynamic aspects into spatial analysis and visualisation systems

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XX Congress - Turkish Cuisine By M. Orhan Altan, ISPRS 2004 Congress Director



All travel to foreign lands has one common denominator: the local cuisine! Of course, to the less adventurous or to those with a more conservative outlook on gastronomy, there is always the safe heaven of what is euphemistically called 'international cuisine'. Of such eating places, I hasten to reassure our reader, we have a fair supply. However, in these establishments, you will not find authentic Turkish dishes and what you do find, will have been watered down, Europeanised or Westernised, to bear only the very slightest resemblance to the original!

Yet to those of you who are more adventurous and wish to widen their taste experience, authentic Turkish cuisine will provide a gold mine of gastronomic adventures.

To the uniniated, I would start by mentioning that our main source of meat is lamb, which in reality is a different animal from its European counterpart, as not only is it a smaller animal, but is also prepared for the table at a much earlier time in its life. Furthermore, not having been fed only in preplanted meadows, but left to roam freely on hills, where aromatic herbs grow wild, their meat is both tender and impregnated with the natural aromas of its habitat. Prepared either as grilled meat, this being the best way to savoir the flavour, it is also prepared with vegetables 'en casserole'

This brings us to the important place of vegetables in our cuisine. Having been blessed with a mild Mediterranean climate, we enjoy the constant availability of a wide variety of fresh vegetables, which we eat both cold, dressed with olive oil or hot, cooked with onions and tomatoes. We eat these vegetable dishes, not as side dishes to a meat course, but as a main course, standing on their own merit fully deserving their main role in any meal. A very special place in Turkish cuisine is the rice dish, or PILAFF, as we call it. It can take any forms, from the plain white rice to the much more elaborate and gastronomic masterpiece when it is enveloped in flaky pastry and enriched with chicken livers, raisins and pine nuts, the whole flavoured with cinnamon and fresh herbs.

Milk is also an important factor in our cuisine, derivatives of which serve either as a sauce, a refreshing salad, or as a base for a variety of puddings. Whatever you may previously have heard, yoghurt is of Turkish origin and while being part of the Turkish diet, it has been one of our main contributions to the health foods of the world.

Lastly we would invite you to taste and enjoy the wide variety of sweets based either on milk or wheat flour. One milk based sweet the more adventurous among you may wish to try is a sort of blanc-mange into which the meat from the breast of the chicken, beaten into thin shreds, has been added. Eaten cold, with a sprinkling of cinnamon, the dish dates back to Roman times, which will give you an idea about the wide range of the sources of our traditional cuisine. Even the lowly rice pudding, known worldwide, takes on a different taste when covered with a lightly browned skin and sprinkled with cinnamon.

For those with a sweet tooth, we feel certain that our numerous varieties of Baklavas and Kadayıfs will provide a treasure house of unique taste experiences. And to cap it all, no, not a watery concoction of some freeze dried simile coffee powder, but a thimbleful of real Turkish coffee.



That's Turkish cuisine for you, so enjoy it while you are here!

Asure.

Siskebap.

Turkish cuisine.