

The Indian Society of Remote Sensing Ahmedabad Chapter

NEWS LETTER

Vol. 1, No. 1

July 1, 1987

C/o. Space Applications Centre, Ahmedabad-380 053.

The Indian Society of Remote Sensing, Ahmedabad Chapter (ISRS-AC) is pleased to present to the members this first issue of its Newsletter.

The main objective of the Newsletter is fast dissemination of relevant information to all members of the Chapter and also to serve as a forum for exchange of views.

The present plan envisages four issues a year.

An editorial committee consisting of :

Shri V. Tamilarasan	SAC	Editor
Shri R. P. Dubey	SAC	Member
Shri Mukund K. Rao	SAC	Member

has been constituted for the purpose.

The co-operation of all members is earnestly solicited to ensure this venture a success. Suggestions to improve quality of the contents and format may kindly be communicated to the Editor of the Newsletter, Shri V. Tamilarasan.

Dr. T. A. Hariharan
Chairman, ISRS-AC

MESSAGE

I am extremely happy to know that the Ahmedabad Chapter of the Indian Society of Remote Sensing is starting a Newsletter. This Chapter is not only the first and the largest Chapter of the Society, but has done commendable work during the last three years under the guidance of its erstwhile Chairman, Shri O P N Calla, in organising talks seminars etc. and also organised the last National Symposium in September 1986 on behalf of the Society. The Newsletter would hopefully keep the members of the Chapter well informed about events and developments of interest to them. It would strive to fulfil the objectives of the Society. I wish this venture a great success.

Dr. Baldev Sahai
President, I S R S

DEAR MEMBERS.....

We are extremely pleased to bring to you this **FIRST ISSUE OF THE NEWSLETTER**. We have made all efforts to make the **NEWSLETTER** as attractive as possible not only in its format but also in its contents. But, please note, our efforts have just begun.

We plan to bring to you, through this Newsletter, significant results of case studies, reports of various activities of the Chapter and the Society and also various departments/agencies engaged in remote sensing activity, training and educational programmes, forthcoming symposia/seminars/workshops, important books, important articles from Journals etc. We also plan to have a **LETTERS** section which will feature your comments and views. Further we would like to mention that this is your **NEWSLETTER**. We expect that each of you will contribute in some way or the other to the Newsletter. Your contribution could be in terms of a description of progress in work and significant results in your field or reporting some interesting feature

which you think others should know or it could be through your letters which would not only give us encouragement but, we hope, would also initiate debates on various issues and matters. We very much look forward to your contribution in making this new endeavour of the Chapter a success.

In this issue of the newsletter, we are featuring the society, in general, and the Ahmedabad Chapter in particular. We have one case study on urban land use and also a report on the contribution by SAC to the scarcity programme in Gujarat. We also bring you information on forthcoming events, trainings etc. and to end, we have included a complete list of members of the Ahmedabad Chapter as of date.

Lastly we would like to thank the Executive Council of the Chapter for having entrusted us the responsibility of bringing out the Newsletter. Though this job is new to us, we shall do our best to make this Newsletter a success. And, yes, we shall ensure that the Newsletter comes out in time.

—Editorial Committee

THE INDIAN SOCIETY OF REMOTE SENSING

The Indian Society of Photo Interpretation and Remote Sensing (now renamed as Indian Society of Remote Sensing) was conceived by the staff members of the Indian Photo Interpretation Institute (now renamed as Indian Institute of Remote Sensing), Dehradun and scientists/officers from different state and central government organisations in the year 1969.

The main aims and objectives of the Society are :

- 0 To help towards advancement, dissemination and application of the knowledge of remote sensing technology which is deemed to include photointerpretation, photogrammetry, aerial photography, image processing and other related technologies in the field of survey, planning and management of natural resources and other areas of applications where the technology is considered to be appropriate.

- 0 To promote interaction among all persons, bodies, institutions (private and/or state-owned) and industries interested in achieving advancement, dissemination and application of technology as mentioned above.

- 0 To encourage research in remote sensing and related technologies.

- 0 To undertake and execute all acts which shall promote all or any of the aims and objectives of the Society.

Technical Meetings

The topics for the Society's meetings are chosen from the whole range of remote sensing activities. There is an annual conference/symposium on a selected theme, the proceedings of which are published by the Society.

Publications

The Journal of Indian Society of Remote Sensing (Photonirvachak) is the official journal of the Society. The Editor and an Editorial Board are appointed by the Society to oversee the technical contents of the publication.

Local Chapters

As per the constitution of the Society, the local Chapters can be established in response to the request of atleast 15 members from a town or a city. Area lying within 40 km of a town can be included in the jurisdiction of a Chapter. Each Chapter shall conduct its affairs in accordance with the Memorandum and the rules and regulations of the Society.

The Constitution of the Society is to be shortly published in the Journal of ISRS.

THE AHMEDABAD CHAPTER

The first local Chapter of the Society was established in the great city of Ahmedabad in December 1983. The Chapter which had 33 members in the beginning has grown to 123. This Chapter has members drawn from various institutes, agencies and Government departments in and around Ahmedabad.

Some of the significant activities organised in

the short span of time of the Ahmedabad Chapter are:

- I A one-day seminar on **Utilisation of Remote Sensing in Gujarat** to mark the occasion of the inauguration of Ahmedabad Chapter on May 1, 1984
- II A popular talk on **Satellite Remote Sensing** by Dr. K Kasturirangan, Project Director, Indian Remote Sensing Satellite in June 1984 on the occasion of the fifth anniversary celebration of Bhaskara-1, launch.
- III Two scientific film shows titled **Remote Sensing in Mineral Exploration and Assessment of Vegetation Using Remotely Sensed Data** in the months of July and August 1984 respectively.
- IV A half day panel discussion on **Role of Remote Sensing for Regional Development in Gujarat** on December 12, 1984.
- V A two-day symposium on **Remote Sensing in Agriculture** during February 27-28, 1985.
- VI A one-day National Seminar on **Remote Sensing of Water Resources** was organised jointly by IWRS and the Ahmedabad Chapter on December 27, 1985.
- VII A National Symposium on **Remote Sensing in Geology** during September 17-19, 1986.

Dr. V. K. Dadhwal, Congratulations !

The ISCA young scientist award for the best presentation in Agriculture Section has been awarded to Dr. V. K. Dadhwal, one of our members for the presentation of a paper entitled **Estimating Quantitative Relation Between Environmental Factors and Growth, Development and Yield of Wheat** at 74th Session of Indian Science Congress Association (ISCA) at Bangalore during January 3-8, 1987. The award includes Rs. 500/- cash, a certificate of appreciation and Rs. 2,500/- as research grant.

STOP PRESS : IRS NEWS : STOP PRESS

The payload for the first of the Indian Remote Sensing Satellite is ready. It was regently "flagged" of by Director, SAC to be airlifted to Bangalore for its integration with the satellite. The payload is made up of two Linear Imaging Self Scanners, LISS-I with 73 m. resolution and LISS-II with 36.5 m. resolution. The payload was developed by the payload project team at SAC. The IRS-1 is scheduled for launch in the end of this year.

CASE STUDIES

1. REMOTE SENSING OF URBAN LAND USE

In order to update the urban land use, examine the urban growth pattern and to suggest future pattern of urban land use by way of development plan and town planning schemes, the Town Planning and Valuation Department (TPVD), Government of Gujarat and the Space Applications Centre (SAC), Ahmedabad took up a joint venture to map the urban land use and monitor the urban spread of Surat city using remotely sensed data.

The aerial colour infrared and black-and-white photographs were interpreted for detailed mapping of urban land use such as transport network, slum typology, quality and density of housing, residential encroachment on agricultural land and open space in the city. It is found that in general the direction of growth is along the transportation network on north east and southwest direction.

Landsat data of Surat City and its environs, acquired during December 1978 and May 1984, were analysed employing visual as well as digital techniques for monitoring the changes in urban land use. It was found that during the period 1972-1984, the urban areas of Surat city has increased by 88 per cent.

Realising the potential of remotely sensed data through the case study of Surat city, now the TPVD has taken up a project to prepare regional plan for South Gujarat Region (Bharuch, Surat, Valsad and Dangs districts). The main objectives of this study is to study settlement pattern, transportation network, land use/cover and natural resources. The

end result of this study will help evolve a strategy for a balanced Regional Development Plan for the year 2001. (For further details please contact : Shri Shirish Avarani, TPVD/ Shri M H Kalubarme, SAC, Ahmedabad.)

2. REMOTE SENSING WORK CARRIED OUT FOR SCARCITY PROGRAMME OF THE GOVT. OF GUJARAT BY SPACE APPLICATIONS CENTRE, AHMEDABAD

As a sequel to the discussions held with the Secretary, Water Supply, Health and Family Welfare and Chief Engineer (Mech) Gujarat Water Supply and Sewerage Board (GWS & SB), the interpretation of satellite imagery for identifying potential ground water bearing areas was taken up on priority basis at SAC.

The interpretation involved the enlargement of the Landsat TM imagery to 1:50 000 scale and transferring the ground water potential features onto the Survey of India topographical maps at 1:50,000 scale. Potential pockets of ground water around villages were identified. Hydrologists and Geologists from the concerned districts were apprised of the information extracted and also of the inferences drawn.

In all, work for seven districts comprising about 400 villages was completed by April, 1986.

After geohydrological and geophysical surveys 150 mm. diameter borehole drilling was carried out in the identified areas. The results reported in the second meeting of the high power action group of the Government of Gujarat for drinking water scarcity shows substantial increase in success rate (68.12% as against 45% last year). For further details contact Dr. Baldev Sahai SAC.

ANNOUNCING

National Symposium on Remote Sensing in Land Transformation and Management alongwith the Annual Convention of the Indian Society of Remote Sensing, will be held at the National Remote Sensing Agency, Balanagar, Hyderabad during December 21-23 1987.

For details contact :

Dr. L. Venkatratnam
Organising Secretary for the National Symposium & Head Soils Division
National Remote Sensing Agency
Balanagar, HYDERABAD-500 037(A.P.)

FORTH COMING EVENTS

September 1987

7-11 Advances in Digital Image Processing, Annual Conference, Contact : Dr. P. M. Mather, 1987 RSS Conference Organiser, Department of Geography, University of Nottingham, Nottingham, NG7, 2RD. England.

14-18 4th Australian Remote Sensing Conference, Contact : Mr. L. Michael, Secretary South Australian Centre for Remote Sensing, Innovation House, 1st Ave, Technology Park, The Levels, South Australia 5095, Australia, Telex AA 88556.

22-24 Third Conference and Exhibition on Sensors and their Applications, at Institute of Physics, Meetings Officers, 47 Belgrave Square, London, SW1 X 8Q X UK.

October 1987

26-30, 21st International Symposium on Remote Sensing of Environment Environmental Research Institute of Michigan (ERIM), Ann Arbor, MI 48107.

November 1987

24-26, Seventh Indian National Cartographic Association Conference at Space Applications Centre, Ahmedabad 380053

December 1987

21-23 National Symposium on Remote Sensing in Land Transformation and Management along with the Annual Convention of the Indian Society of Remote Sensing at NRSA, Hyderabad.

21-24, National Space Science Symposium : Special Session on Science of Remote Sensing to be held at Physical Research Laboratory, Ahmedabad 380009.

March 1988

28-31, Sixth Thematic Conference on Remote Sensing for Exploration Geology at Houston, Texas, Contact : Thematic, Conformato Environmental Research Institute of Michigan (ERIM), P. O. Box 8618, Ann Arbor, MI 48107.

EDUCATION AND TRAINING

TRAINING :

The following two training programmes are scheduled by NRSA :

- 0 Third Training Course (8 weeks) on Remote Sensing Applications from October 21 to December 17, 1987
- 0 5-day appraisal course on Applications of Remote Sensing Second Course September 7-11, 1987

For details please write to Dr. R S Ayyangar, Head Training Division, National Remote Sensing Agency, Balanagar, Hyderabad 500 037, Phone : 262572, Gram : REMOSEN, Telex : 0155-6522

EDUCATION

The library of the Space Applications Centre (SAC) has a few video films and movies on various topics of remote sensing. A list of these is given below.

Video Films

1. The Role of Pattern recognition in Remote Sensing
2. Spectral properties of soils
3. Correction and enhancement of digital image data
4. The remote sensing information system

Movies

1. Remote Sensing : Minerals
2. Remote Sensing : Vegetation

USEFUL REFERENCES

A list of books that could serve as useful references is given below :

1. Remote Sensing Today's solutions for tomorrow's information needs, IGARSS, ESA SP-254 three volumes. Edited by T. D. Guyenne and J. J. Hunt Published by ESA publications division, C/o. ESTEC, Noordwijk, The Netherlands, Price Dollars 90.
2. Wildlife Habitat Evaluation Using Remote Sensing Techniques 1986. Edited by D. S. Kamat and H. S. Panwar IIRS and Wildlife Institute of India, Dehradun.
3. Remote Sensing and Tropical Land Management. 1986. Edited by M. J. Eden and J. T. Parry Chichester, A John Wiley Publication Price Pounds 37.00
4. Results from the Joint Indo-Soviet Remote Sensing Experiment TERRA Onboard Salyut-7 Special Publication No. ISRO-SP-17-86 Edited by T. K. Alex. V. Aruna Rao and T. A. Hariharan 299 Pages Published in 1986 by :- Publications and Public Relations Unit India Space Research Organisation HQ, Cauvery Bhavan, Bangalore-560 009
5. Extraction of Information from Remotely Sensed Images published by American Society for Photogrammetry and Remote Sensing, 210, Little Falls st. Falls Church, Virginia-22046, USA, Price Dollars 30,
6. Satellite remote sensing for resource development, 1986 Edited by K H Szekiolda Pulished by Graham Trotmen Ltd, London Price Pounds 37 50

INDIAN SOCIETY OF REMOTE SENSING

EXECUTIVE COUNCIL 1987-89

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Dr. D P Rao, NRSA, Hyderabad, (Zonal Representative from Southern Zone)
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Dr. G R Vekaria, LD Engg. College, Ahmedabad
- Ex-officio** Mr. O P N Calla
- Permanent Invitees** Prof. P D Bhavsar, PRL, Ahmedabad
Dr. Baldev Sahai, SAC, Ahmedabad
Shri J F Mistry, Irrigation Dept, Gandhinagar

LIST OF MEMBERS OF AHMEDABAD CHAPTER

The list of the members of the Ahmedabad Chapter has been compiled from the regular mailing list, as of May 1987. This list will not be included in the subsequent News Letters. New members who join the Chapter after May 1987 will be listed in the subsequent issues. Please inform us if any names are missing so that they can be included in the mailing list immediately.

LIFE - MEMBERS

A. Space Applications Centre, Ahmedabad-380 053

Dr. Ajai
Dr. Baldev Sahai
Dr. Bardhan M.
Shri Bhatnagar G. C.
Shri Calla O. P. N.
Dr. (Ms.) Chaturvedi Neera
Shri Dasgupta A. R.
Dr. Desai Pranav
Dr. Dhinwa P. S.
Shri Dubey R. P.
Shri Dwivedi R. M.
Shri Garg J. K.
Shri Goel R. K.
Shri Gopalan A. K. S.
Dr. Hariharan T. A.
Shri Jadhav R. N.
Shri Kalubarme M. H.
Shri Kandya A. K.
Shri Kulkarni A. V.
Shri Mehta N. S.
Dr. Muley M. V.
Dr. Naik S. D.
Dr. Narain A.
Dr. Navalgund R. R.
Dr. Nayak S. R.
Dr. (Mrs.) Panigrahi Sushma
Shri Parihar J. S.
Shri Patel N. K.
Shri Pillai N. S.
Shri Rao Mukund K.
Dr. Sharma Ravi
Dr. Shivmohan
Shri Singh T. P.
Dr. Sood R. K.
Shri Tamilarasan V.
Shri Thakkar P. S.

B. Directorate of Geology and Mining, Ahmedabad-380 0016

Shri Bhatt J. V.
Shri Joshi C. K.
Shri Madhukara N.
Shri Naik K. K.
Shri Patel J. M.
Shri Pathole B. P.
Dr. Shukla R. T.
Dr. Talati D. J.

C. Physical Research Laboratory, Ahmedabad-380 009

Prof. Bhavsar P. D.

D. Gujarat Maritime Board, Ahmedabad-380 016

Shri Desai Vikasin

E. Dept of Physics., Ahmedabad-380 009

Prof. Verma S. D.

F. Indian Institute of Management, Ahmedabad-380 015

Prof. Madhavan T.

G. Irrigation Dept, Gandhinagar-382 010

Shri Mistry J. F.

H. Gujarat Water Resources Dev. Corpn, Gandhinagar-382 010

Shri Sharma S. C.

I. GEER Foundation, Gandhinagar-382010

Shri Agarwal J. P.

J. Others From Ahmedabad

Dr. Bhatt Panubhai
Shri Patel M. M.
Shri Raval H. M.
Shri Shukla Pradeep

ANNUAL MEMBERS

A. Space Applications Centre, Ahmedabad-380 053

Miss Advani Sonia
 Shri Andharia H. I.
 Shri Arya Ashutosh
 Dr. Basu Aparna
 Miss Beenakumari
 Shri Bhatt H. P.
 Dr. Chakraborty Manav
 Shri Chauhan H. B.
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 Shri Das Bhaskar
 Miss Dwivedi Kavita
 Dr. Ghosh R.
 Dr. Gupta M. C.
 Shri Ilanthirayan S.
 Shri Jothimani P.
 Mrs K. S. Sudha
 Dr. Kimothi M. M.
 Shri Lole B. S.
 Shri Majumdar T. J.
 Shri Mallick K. D.
 Shri Mankodi P. C.
 Shri Mathur K. M.
 Miss Mehta Jagruti
 Shri Mehta Ramlal
 Shri Murthy E. S.
 Dr. Murthy K. V. S.
 Shri Murthy T. V. R.
 Dr. Nandkumar R.
 Shri Narayana A
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 Dr. Palria S.
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 Shri Pathan S. K.
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 Shri Rajawat A. S.
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 Shri Rao R. S.
 Shri Ravi N.
 Shri Roy C. L.
 Dr. Saratbabu G. V.

Shri Shaikh M. G.
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 Shri Sharma Rajeev
 Shri Sharma S. K.
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 Dr. Thakur S. S.
 Miss Vanikar Yogini
 Miss Vora Ketki
 Dr. Vyas N. K.

B. Central Ground Water Board, Ahmedabad-380 009

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 Shri Purchase P. K.

C. Town Planning & Valuation Dept., Ahmedabad-380 006

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 Shri Pandya G. B.
 Shri Shah R. D.

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Shri Shukla R. N.

G. Central Designs Organisation, Gandhinagar-382 010

Shri Pancholi D. M.

H. Others From Ahmedabad

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 Shri Mehta Kaushik S.
 Mrs. Mohini S. P.
 Shri Parikh H. N.
 Shri Patel B. P.
 Shri Thakur S. V.