

ORIENTATION COURSE ON REMOTE SENSING APPLICATIONS IN MARINE ENVIRONMENT, AT IIRS, DEHRADUN

The successful launch of PSLV - C2 on May 26, 1999 from Sriharikota with three satellites namely IRS - P4 (Oceansat -1) as the main payload and Korean and German satellites as auxillary payloads has added another feather in the crown of Indian Space Research Organisation (ISRO). Its launch has added a new dimension to the remote sensing of the oceans with IRS - P4 (Oceansat- 1) in the orbit beaming pictures regularly, few of which can be seen on the National Remote Sensing Agency (NRSA) web site.

The Oceansat - 1 was launched with the objective of beaming data on the oceans, primarily the Indian Ocean. With Oceansat - 1 in the orbit, the Indian Institute of Remote Sensing (IIRS), Department of Space, organised an orientation programme in the Marine Science Division for a duration of two weeks from July 5 to July 14, 1999. The primary objective of this programme was to impart to scientists in the middle level; (a) a first hand knowledge of Remote Sensing the Oceans, (b) interpreting the satellite data and its proper utilization and (c) project formulation and management of the marine environment.

Four participants were invited to attend the course namely K.G.S. Sarma, RITES, New Delhi, V.G. Sravan Kumar, CSMCRI, Bhavnagar, Sujit Kumar Sarkar, Department of Marine Sciences, Calcutta University, Calcutta and the author of this note from Micropalaeontology and Marine Geology Lab., Department of Geology, Banaras Hindu University, Varanasi.

Lectures on Integrated Coastal Zone Management and related practicals were organised by R. Sudarshan, Head, Marine Science Division, IIRS. With rapid urbanization, industrialization, and other socio-economic activities, the management of our coastal resources has become a complex task and thus has gained importance in recent years. The coastal zones are ecologically important for mankind. However, lack of coordination between different organisations involved in the coastal management has made this task difficult. Satellite data can be used as an effective tool in solving coastal water problems and their effective management. R. Sudarshan highlighted what can be effectively measured from satellite sensors, its limitations and the sensors required for different objects. Apart from this, he also introduced us to Remote Sensing and GIS applications in coastal zone with case studies.

The basics of Remote Sensing were introduced by Meenakshi Kumar. Vandana Agrawal introduced Geographical Information System (GIS) and its operation. The participants had the opportunity to see the operation of GIS package and its usefulness.

A.K. Mishra, Course coordinator, gave lectures on physics of Ocean Colour, measurement of optical parameters and algorithm development. The participants were given hands-on-training on the latest softwares related to image processing. Apart from this, the atmospheric corrections of satellite data and applicability of ocean colour data were also covered during the practicals.

K. Raghunath Rao from Oceanography Division, NRSA, Hyderabad delivered a series of lectures on (a) IRS - P4 utilization, (b) Ocean Colour Monitor (OCM), (c) its application in the use of Ocean Environmental studies.

A field visit was organised in order to acquaint the participants with the field data collection methods, which included collection of surface reflectance of different objects with hand held radiometers and locations recorded with the help of Global Positioning System (GPS). The data recorded in the field were plotted for reflectance and compared with the standard plots.

In the end the participants were briefed by A.K. Mishra and R. Sudarshan about the satellite

data products and project formulation, its management, funding and procurement of satellite data products.

*Micropalaeontology and Marine Geology Lab.
Department of Geology, Banaras Hindu University
Varanasi - 221 005*

RAHUL MOHAN

CORRESPONDENCE

MOLTEN ROCK EXTRUSIONS AND HIGH TENSION ELECTRIC LINES

Reference is invited to the correspondence by the first author (VKK) on the rock melt extrusion in Purulia district in April 1998 published in your esteemed Journal, v.54, p.98. Recently another rock extrusion occurred on 26th June 1999 in Badkuhi-Gajandoh area near Central School about four km from tehsil headquarters, Parasia in Chhindwara district, killing a buffalo. The second author (KLM) visited the site of extrusion and found that the extrusion was mainly close to a pole of high tension electric line and some from a vent 30 to 40 cm away from the pole. The extrusion covered an area of about 5 m x 5 m and the thickness of the extrusion was 5 cm to 8 cm. The extrusion followed sparking from the pole site. Water vapour emission continued even 3 days after the incident.

The rock melt extrusion is black in colour and full of cavities. It shows pitch like shine and is entirely made up of glass. Under the microscope it is brown in colour and completely isotropic. The extrusion has been derived by the melting of Deccan Trap which overlies Barakar Sandstone. The melting appears to have taken place at very shallow depth.

Rock melt extrusion due to high tension electric lines (H.T.E.L.) have occurred in recent past in various parts of India. The heating of the ground surface and electric shocks felt by people in some parts of Bihar during the last few months may be due to the presence of H.T.E.L. Measures to prevent such events by putting insulating material/refractory bricks around so many electric poles across the country will need plenty of money. It is suggested that remedial measures be worked out to check such events as these can at times be dangerous.

*Department of Geology
Government Autonomous Science College
Jabalpur - 482 001*

V.K. KHANNA

*Government Pench Valley College
Parasia - 480 441*

L.K. MAHESWARI