

SEISMICITY OF THE UNITED STATES, 1568-1989 (REVISED)

U.S. Geological Survey Professional Paper 1527
By Carl W. Stover and Jerry L. Coffman, 1993, 418 pp

The Publication is a compilation of history of principal earthquakes in United States from 1568 to 1989. It includes focal parameters and description of earthquakes having Modified Mercalli intensity equal to or > VI and or magnitude equal to or > 4.5. For some areas, such as California, Oregon and Washington, where seismicity is high, reporting has been limited to $M \geq 5.5$ earthquakes. The volume is arranged in alphabetical order for all the States of USA. For each State there is a map showing location of earthquakes of magnitude ≥ 4.5 or intensity > VI followed by a table giving focal parameters of earthquakes, a brief description of felt area and damage, and wherever available the isoseismal maps for more important earthquakes. There are excellent photographs going back to probably some of the earliest photographs of damage due to an earthquake in the U.S. and covering the period up to the damage caused by the latest Loma Prieta earthquake of October 18, 1989 which is considered to be the most expensive natural disaster ever to hit North American continent during the period reported. There is a very detailed bibliography giving all the sources of information on earthquake, focal parameters and intensity. On the last page of the volume, there is a table of the human lives lost from the earthquakes in the US. The volume is very well printed and is a very good source of information on earthquakes in the United States. It is interesting to note that, according to this volume, the total human lives lost till the end of 1989 in USA is 3,967. In India, which is only about 1/3rd in area to the United States, we have had several earthquakes, each of them claiming many more human lives: the latest being the Latur earthquake of September 30, 1993 which claimed more than 10,000 lives. This volume should inspire us to make an authentic compilation of earthquake information for our country. Other countries in the world, which do not have a proper catalogue of earthquakes, would do well by following this example.

H.K. GUPTA

PROGRESS OF MARINE GEOLOGICAL STUDIES IN GSI

Among the Newsletters that are occasionally published by the Geological Survey of India, the one being brought out by the Marine Wing is generally quite informative. The latest one (vol. X, No.2, September 1994, 36p.) commences with an Editorial which lists the objectives of the investigations being carried out on board the two coastal vessels RV Samudra Kaustubh and RV Samudra Saudhikama. These are essentially for seabed evaluation of the Territorial Waters of India and mapping them in stages. Many young scientists are being trained and geotechnical investigations along and off the coast are undertaken with results of importance for the user agencies seeking such information.

In spite of the apparent large volume of water carried by the Mahanadi river into the sea, the sediment discharge is found to be not commensurate. There is possibly a palaeo-strand line off the east coast between Gopalpur and Chilka Lake in Orissa. Geophysical surveys coupled with micropalaeontological studies have indicated the presence of Flandrian transgressive and regressive phases off Orissa coast during Holocene. Change in the nature

of sediments deposited off the coast in Kerala has substantiated the earlier knowledge of sea level changes within 5000 yrs. B.P. Among the geotechnical studies those off Pulicat Lake (Ennore, Tamil Nadu) and Kandla Port area (Gujarat) are significant. Whereas the amount of flour gold off Subarnarekha river mouth, off Orissa coast, may not be economically workable, but even the recognition of its existence is noteworthy at the present stage. As a decade has passed since the two vessels were commissioned in 1984, the results of seabed surveys and Integrated Geotechnical surveys are summarised towards the end (pp. 22-29).

R.V.

ANNOUNCEMENTS

SHANTI SWARUP BHATNAGAR PRIZE FOR SCIENCE AND TECHNOLOGY. Council of Scientific and Industrial Research (C.S.I.R.) invites nomination each year from organisations/institutions/individuals listed in the brochure on this, published by C.S.I.R. (p.7) in the proforma presented (20 copies) before *31st March 1995*, for the prize of the year 1995. The nominations signed by the sponsors should be sent to the Head, Human Resources Development Group, Extramural Research Division, CSIR Complex, NPL Campus, Dr. K.S. Krishnan Marg, Pusa, New Delhi-110012.

JOURNAL OF MARINE AND ATMOSPHERIC RESEARCH. Editor-in-chief: N.R. Menon. Bi-annual. First issue: January 1995. Annual subscription: Individual = Rs 100/-; Institution = Rs 500/-. Address: School of Marine Sciences, Cochin University of Science and Technology, Fine Arts Avenue, Cochin 682016.

NATIONAL SEMINAR ON EARTH RESOURCES, INDUSTRIAL DEVELOPMENT AND ENVIRONMENTAL ISSUES. 20-22, March, 1995 at the Department of Geology, University of Rajasthan, Jaipur. For further particulars write to: Dr. A.K. Sinha, (Convener), Dept. of Geology, University of Rajasthan, Jaipur-302004.

SYMPOSIUM ON RECENT ADVANCES IN GEOLOGICAL STUDIES OF NORTHWEST HIMALAYA AND THE FOREDEEP. February 21-23, 1995, Organised by the Geological Survey of India at Lucknow. For further particulars write to: Shri B.D. Dungrakoti, Organising Secretary, Symposium on RAGS of NWH and FD, GSI Complex, 7th Floor, 'A' Block, "Vasundara", Sector - "E", Aliganj, LUCKNOW - 226 020.