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In the forecasting movement

Chi-Yu King

Earthquake Prediction Research.

Editor Tsuneji Rikitake.

Reidel. 4/yr. Dfl. 90, \$36 (personal);

Dfl. 180, \$72 (institutional).

EARTHQUAKE prediction, the scientific dream once shunned by respectable scientists, has been hotly pursued during the past two decades in such earthquake-prone countries as the USSR, Japan, China and the United States. Because of its interest to the public, and the multi-disciplinary nature of the research effort, many papers on the topic have been presented at a wide variety of scientific and non-scientific meetings, and published in many different journals and reports. Thus the appearance of *Earthquake Prediction Research* (EPR) to serve as a focal point for work on the subject is certainly very welcome.

The journal is published by a Japanese foundation (the Association for the Development of Earthquake Prediction) in cooperation with the Dutch publisher Reidel, with the objective of providing an international medium for original and review papers, reports and other items related to earthquake-prediction research. The editorial board, consisting of most of the current members of the Commission on Earthquake Prediction of the International Association of Seismology and Physics of the Earth's Interior, is strong and internationally well represented.

As of 31 July 1984, five issues of EPR had been published, three of them devoted to a single international symposium. All

EPR

EARTHQUAKE PREDICTION RESEARCH Vol.2 No.1 1983
Edited by Tsuneji Rikitake

the issues arrived at our library in Menlo Park much later than scheduled. For example, Vol. 1, No. 1 (1982) and Vol. 2, No. 1 (1983), the last published issue, were received on 1 October 1982 and 9 November 1983, respectively. Thus the speed of publication is significantly less than one might infer from the manuscript receipt dates shown in the individual papers. Writing from personal experience, I submitted a manuscript on 1 November 1982, but was not informed of its acceptance until 9 June 1984.

Published in EPR so far are an introductory editorial, a meeting report and 29 "regular" papers, most of which are seismological (17) and rock-mechanical (9). About half of the papers are not directly relevant to earthquake prediction and could have been published elsewhere. Similarly, the scientific quality of the

papers ranges widely, from the mediocre to excellent. Some of the papers (from non-English speaking countries) could have done with additional editorial assistance. The quality of production is very good, comparable to *Pure and Applied Geophysics*, and the cost is reasonable (Vol. 1, which has 391 pages, cost \$69 for libraries and \$28 for individuals).

Having identified and filled a significant publication gap, EPR has a potential of becoming a fine international journal. Whether it will fulfil its promise depends on the ability of its editorial members to attract and promptly and properly process good, relevant papers from all the different disciplines concerned, including geology, geophysics, geochemistry, hydrology and biology. □

Chi-Yu King is a Geophysicist at the US Geological Survey, Menlo Park, California.

Fusion across the fields

G.J. Pert

Laser and Particle Beams: Physics of High Energy Densities.

Editor-in-chief Heinrich Hora.

Cambridge University Press. 4/yr.

£50, \$135.

IN 1962, the observation of gas breakdown by high-power lasers initiated research into laser-generated plasmas as a possible source of thermonuclear power. However, before the introduction of the concept of near-isentropic compression in 1972 overcame the fundamental limitations, these proposals remained extremely speculative. It was shown that such compression could be generated by the ablation pressure of the blow-off plasma formed by surface heating of a simple deuterium-tritium pellet (sphere or shell). These initial designs have now been shown to be over-simple, in that the nature of the heating process may strongly modify the compression phase, and this problem particularly applies to laser-driven compression. As a result, ion-beam systems have been proposed as alternatives.

Over the past ten years the field has grown considerably, to the extent that probably about a quarter of the fusion effort around the world is now in this direction, and with a commensurate increase not only in number of workers but also in the range of activity. Research in this area now embraces nuclear burn and product studies, hydrodynamics, electromagnetic wave propagation, spectroscopy, and laser construction and design, in addition to the basic plasma physics. The field is thus rooted in several, distinct disciplines, which has led to