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PROBLEMS AND PROGRESS ON THE GEOLOGICO-SEISMOLOGICAL FRONTIER1

By Dr. James B. Macelwane, S.J.
Professor of Geophysics and Director of the Department of Geophysics of
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The recent organization by the American Geophysical Union of two cooperative committees of national scope, the Special Committee on the Geophysical and Geological Study of Ocean Basins, under the chairmanship of Professor R. M. Field, and the Special Committee on the Geophysical and Geological Study of Continents, under Professor W. T. Thom, points unmistakably to a growing realization of the convergence and interdependence of geology and geophysics. And what is said of geophysics in general is particularly true of seismology. Hence the speaker thought it would be of interest to this joint meeting of geologists and seismologists to take our stand as it were on an eminence and survey the wide stretch of frontier between the two sciences and attempt to chart the progress of the two converging groups of explorers. There are times when even the formulation of a problem from two different points of view is an advance toward its solution. In any case it is well to take stock of fact and probability, of established theory and working hypotheses and to attempt to locate ourselves with some precision on the map of research.

In the brief compass of an address it is obviously impossible to qualify one's statements adequately; but if some of my statements seem to you so incomplete

1 Address of the retiring vice-president and chairman of the Section of Geology and Geography of the American Association for the Advancement of Science, delivered at a joint session of the section and the Seismological Society of America, St. Louis, December 30, 1935.