

a concerned effort, and the results have large potentialities in terms of nuclear physics. At the same time, our needs for better information about the earth and its atmosphere have grown markedly as a result of practical advances in transportation (in particular, high-altitude, high-speed aircraft) and of the possible importance of remote and isolated geographical regions.

Advances in various fields of science have also contributed to the realization that a major geophysical effort offered substantial promise of success. In particular, recent developments in instrumentation and methods of measurement permit the taking of data that could not be achieved twenty-five years ago. It was, thus, the combination of important problems, needs for better knowledge for practical as well as scientific reasons, and the current availability of suitable instruments that led to the present proposal of the International Geophysical Year.

Thus, the International Geophysical Year represents a broad, international cooperative program of research in the major fields of geophysics: aurora and airglow, cosmic rays, geomagnetism, glaciology, ionospheric physics, meteorology, oceanography, longitude and latitude, rocket exploration of the upper atmosphere, and solar activity. It denotes the period of time during which these intensified studies will be made (1957 and 1958). It also denotes that, while each Nation's program will be its sole responsibility and prerogative, mutual advantages can accrue from simultaneous, coordinated measurements of critical phenomena.

ICSU and UH Organizations

The proposal for the international geophysical effort originated in the International Council of Scientific Unions (ICSU), which consists of the various specialized international scientific unions. Toward the end of 1952, in consideration of the scientific aspects outlined above, ICSU deemed it of value that the International Geophysical Year program be pursued in order that advantage be taken of the period of maximum solar activity in 1957-58 and of the concurrent eclipses. ICSU accordingly established a Special Committee for planning on an international scientific level, and adhering bodies of the various nations were called upon to establish National Committees for the planning and undertaking of the program of specific nations.^{1/} The adhering body in the United States is the National Academy of Sciences - National Research Council, which established a U. S. National Committee for the preparation of the United States program that would take advantage of the International Geophysical Year. Out of these acts and activities arose the proposal noted in this memorandum.

The cognizance of ICSU in scientific matters on an international level goes back in time to the Inter-Allied Conference on International Scientific Organizations, London, October, 1918. In the ensuing years

^{1/} Membership lists for the ICSU Special Committee and the U. S. National Committee are attached to this memorandum.