Department of the Ionosphere Investigation

The Manila Observatory resuming its program after the total destruction of its buildings and equipment during World War II has selected the investigation of the ionosphere as one of its principal fields of research. This in one sense is a departure from its program of about ~~eighty~~ ninety years duration. The change to this new field is made clear by the question often repeated by inquirers who were familiar with the pre-war work of the Observatory. "What is the relation of the ionosphere work to weather forecasting?" And the answer must be: "Directly this has nothing to do with the prediction of local weather conditions though indirectly it may have". Our present work is concerned with the upper atmosphere far above the troposphere in which ordinary weather takes place". This work is truly a continuation of the fundamental program of the Manila Observatory. Since its early beginnings it has devoted itself to the latest developments and technics of science in order to inquire into the phenomena of nature. Throughout the period of most of the Observatory's history the existence of the ionosphere was either unknown or, at any rate, not experimentally established for it is commonly stated that it was not until 1925 that direct proof was given for the existence of the ionosphere. The names of Appleton and Barnett in England; of Breit and Tuve, and Taylor and Hulbert in the United States are associated with this confirmation. So today the study of the ionosphere, young and active, has quickly grown into a branch of physical research that is now worldwide in scope and interest.

The Jesuit Fathers, then, following the example of the past and their long traditions in science have considered this line of research desirable and timely for the post-war work of the Observatory. This work though different is not bereft of close links with past work. Rather it neatly ties in with the program of the past. Meteorology, terrestrial magnetism and astronomy were three of the four principal fields of inquiry in the past. (Seismology was the fourth.) Now the