MANILA OBSERVATORY
MIRADOR BAGUIO CITY
PHILIPPINES

RESEARCH INVESTIGATIONS NOW IN PROGRESS AND IN PREPARATION

1. IONOSPHERIC — Since early 1952 the station has operated a C-2 Vertical Incidence Ionosonde by contract with the National Bureau of Standards, Boulder, Colorado, U.S.A. Frequencies used are: 1Mc to 25 Mc/s in a period of 15 seconds. A 70-foot mast is used for the antenna (Delta). Operates at 1000, 4000, and 8000 volts. Hourly data, f-plots and monthly resumes are sent out when published.

Plans are being completed at NBS to replace this C-2 by a C-3 when the new building at Loyola Heights is ready to receive it in 1962.

Under construction in the shops at present is a Radio Telescope, Dicke-type Dish antenna, 6' diameter. This is intended for research on solar-emissions in the area of one meter wavelength.

Arrangements have been completed with the High Altitude Observatory for continuous observations of Sudden Cosmic Noise Absorptions and the Sudden Enhancement of Atmospherics .

2. SOLAR — This research project is to supply data from optical investigation of solar phenomena. In addition, a radio flar patrol with Esterline Angus recorder, is in use for addition information and coverage.

Under test and to be finished in 1961 is a rotatable Vacuum Spectrograph and Spectroheliograpn with 18-inch coelostat plus telescopic mirrors. This is being manufactured by the Fecker & Co., Division of the American Optical Company, Pittsburgh, Pa. A new building is under contract for this 35-foot instrument. It will be one of four units to be erected on the campus of the University of the Ateneo de Manila, Loyola Heights, Quezon City.

Daily sun photographs are taken by means of a telescope with 4-inch aperture, 60-inch focal length (white light) and a 3-inch aperture, 55-inch focal length with calciumfilter (3933 A° Baird Filter).

Other equipment - Hydrogen-alpha filter(Halle, Lyot monochromatic) 4-inch aperture with 72-inch focal length. 6-inch coelostat mirrors and achromat lens. Achromat 13½-inch aperture, 25-foot focal length, white light solar image; Camera, 3½-inch aperture, 24-inch focal length; Comet seeker, 3.5-inch aperture, 36-inch focal length, used for satellite tracking; Moonwatch telescope, 2-inch aperture, 7-inch focal length, for satellite tracking; Chronograph, also for satellite tracking.

3. GEOMAGNETIC — Two variographs (ASKANIA) are in operation - one at the Baguio station and one further south in Cebu City, Island of Cebu. The photographic data is used as supplementary information in ionospheric and solar research.

Geomagnetic coordinates of Baguio station:
5.2° N; 190.3° E.
Dip 18.5° N.

Geomagnetic coordinates, Cebu station
0° — 193° E.
Dip. 6° N.