

MANILA OBSERVATORY REPORT OF THE INVESTIGATION OF VARIOUS MAGNETO-
GRAPHS IN THE UNITED STATES BY DR. RICHARD MILLER

PURPOSE OF VISITS

The reason for the travel of Dr. Richard Miller was to see the magnetograph installations in operation, especially that of the Aerospace Corporation in Los Angeles and of the Kitt Peak Solar Observatory near Tucson, to talk with the personnel who designed and operated these installations and to evaluate the relative merits ,quality-wise and cost-wise.

SITES EXAMINED

The installations visited were:

- (A) at the San Fernando Observatory of the Aerospace Corporation, Upper Van Norman Lake, where a video-magnetograph designed by Dr. Thomas Janssens under the directorship of Dr. Earl Mayfield is in operation;
- (B) at the same location, a Bowens and Chivens spectrograph type of magnetograph, designed in large part by Dr. Dale Vrabec;
- (C) at California Institute of Technology, a video magnetograph, developed by doctoral candidate Robert Smithson, under the direction of Dr. Stephan Schoolman;
- (D) at Kitt Peak National Observatory, the Livingston-designed magnetograph, using the McMath solar telescope;
- (E) at Boulder, Colorado, the spectrohelioscope type of magnetic instrument, designed and assembled by Dr. Harold Leinbach.

BASIC CONCEPTS COMMON TO MAGNETOGRAPHS

The idea behind these magnetographs is the conversion of the left and right-handed circular polarization of the solar spectral line, split by the Zeeman effect, to linear polari-