

Att Dave Heeschen

ASSOCIATED UNIVERSITIES, INC.

350 FIFTH AVENUE  
NEW YORK 1, NEW YORK  
LONGACRE 5-0400

January 3, 1956

Dr. Otto Heckmann  
Hamburg-Bergedorf Observatory  
Hamburg, Germany

Dear Dr. Heckmann:

Prof. B. J. Bok of the Harvard College Observatory has suggested that I write to you directly concerning a problem we have in radio astronomy. You may know already that we hope to build a radio astronomy telescope with a parabolic reflector about 140 feet (42.7 meters) in diameter, capable of utilizing wavelengths as short as 3 cm. This reflector will be used in the daytime as well as at night, and in cloudy weather as well as in clear weather. Hence it frequently will not be possible to guide the reflector on a visual star, and we must rely on a precise drive and control system. We desire an angular accuracy of 10 seconds of arc, which is similar to that necessary for an optical telescope.

In the November 1955 Sky and Telescope, your article, "The New Schmidt Telescope of the Hamburg Observatory", mentions an automatic control and positioning arrangement capable of 15 seconds of arc in hour angle and 6 seconds of arc in declination. This precision and the automatic features described appear to be similar to our requirements for the radio telescope.

Would you kindly give me more information concerning the drive and control system for your new Schmidt telescope? Have details been published in some journal? If not, would you please tell me what you use as the reference circles in hour angle and declination, and how the basic angular information is changed into electrical form? I know that I am asking for many details. Perhaps you have drawings or charts that you would loan to me; I would return them to you promptly.

Thanking you in advance for your help and assistance, I remain,

Sincerely yours,

*RME*

Richard M. Emberson  
Assistant to the President

✓ cc: Dr. B. J. Bok