THE OBSERVATORY
OF THE
UNIVERSITY OF MICHIGAN
ANN ARBOR, MICHIGAN

August 14, 1956

Dr. Richard M. Emberson
Associated Universities
350 Fifth Avenue
New York City

Dear Dick:

Thank you for your letter of August 1st. As yet I have not heard from Dr. Waterman about his decision on letting us use A.U.I. design material in building a large antenna on our Navy contract. If we are not permitted the benefits of the servo and related studies, it would be ironical, since it is all government money allocated for fundamental research in radio astronomy.

I think that your idea of setting up a group of objective consultants to consider various antenna designs is a good one, and I will be happy to serve in this group as you have suggested.

I will not be at the Berkeley meeting because our 28-ft. dish will arrive the latter part of August, and I must be here then. However, I would like very much to have Dave Heeschen stop off here in Ann Arbor on his return from the Berkeley meetings or, of course, at a later date if it is more convenient.

If you haven't seen it, you'll be interested in an article by P. B. Fellgett on "Servo-mechanisms and the design of large telescopes" in Occasional Notes, Roy. Astron. Soc. (Lond.) Vol. 3, No. 18, p. 143-159 (Feb. 1956). He argues for an alt-azimuth mounting for the planned 120-inch English telescope! He wants a closed servo loop with digital axis converter. Very interesting.

My trip to Charleston, West Virginia, was uneventful except for difficulty of landing. We circled the airport for one hour, but I made the meeting in plenty of time. The legislators seemed very favorably inclined toward the passing of the zoning law. I was quite glad that I was able to help you in this phase of the work. However, from a purely personal point of view, I would have preferred to have stayed at home, since I just barely missed buying a very lovely house which was sold just a few hours ahead of me.

I enclose my expense account for the trip to Charleston.

With best regards.

Sincerely,

Fred T. Haddock

FTH:KW