

March 5, 1962

Dr. J. L. Pawsey  
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University Grounds  
Sydney, Australia

Dear Dr. Pawsey:

We are all looking forward to seeing you in March. Jerry Tape tells me they are trying to induce you to alter your plans to the extent of being in New York for the Trustees' meeting March 16. I hope you will be able to.

In addition to just getting generally familiar with Green Bank and the people here, I believe there are two broad items that it is particularly important we discuss -- personnel, and the general scientific program of the Observatory. I believe the Observatory needs scientists and engineers. I want to acquaint you with what we are now doing about this, discuss the situation with you and see what more we might do. The immediate scientific program is relatively straightforward and revolves largely around getting best use out of the present instruments - 85-ft, 300-ft, and hopefully in two years the 140-ft, but we should discuss it. The question of future scientific plans is more difficult, and is somewhat crucial at present because of the budget. We must either delay all new plans for a year, or make some plans and at least tentative decisions very soon. We have already had to prepare a preliminary budget for 1964. There will be time to modify it now as a result of our discussions with you, but by the time you return in October it may be much more difficult to make changes. In this preliminary budget we have requested three new major items - the von Hoerner antenna, a millimeter wave antenna, and the first phase in the development of a very large telescope. We should discuss these at length while you are here.

There are a variety of other matters, both administrative and scientific, which we should take up, but probably none are as important as the above.

You mentioned your interest in polarization measurements. I agree with you that there is much of interest to be done. Hein Hvatum is building equipment now for polarization measurements at 750 mc. This will probably go on the 85 ft. later this spring. Since it is such a difficult instrumental problem and none of us have any experience, I suspect we have a great deal to learn, and our first attempts will be rather exploratory. But it is something we should try to develop. I would sometime like to try measuring polarization in extended extragalactic objects like 5128 and 1316, using a narrow beam.

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I might mention our present observing programs and plans for the immediate future. The 85 ft. at present is just going back into operation at 10 cm and 40 cm wavelengths after a period at 21 cm. Drake will observe planets at 10 cm, Hogg supernovae remnants and some HII regions at both 10 cm and 40 cm, and I will observe normal galaxies at 10 cm. When the polarization equipment is ready, it will go on for a time. After this our present intention is to go back to 10 cm until the 5 cm maser is ready next winter, at which time it will go on. The 300-ft. should be ready in June. The first program will probably be my own -- a systematic study of all Shapley-Ames galaxies down to some limiting magnitude, simultaneously at 20 and 40 cm. Drake will probably also observe planets during this time, and a few other smaller studies by Wade, Hogg or others may go in also. This program should take 3 to 6 months, depending on how many other programs get in also, and also depending in part on whether it proves possible to make accurate observations at low flux levels with the sun up. Following this program, and perhaps sharing time with it in the latter stages, hydrogen line work is planned. Bernie Burke wants to bring the DTM multichannel receiver to Green Bank in the fall, and our own 20 channel extragalactic receiver should also be ready by then. Everyone here, and a number of potential visitors, have programs waiting for the 300 ft.

One final personal item. You once mentioned that Struve's resignation and my appointment were "messy". I want to assure you that I have no desire to make things messy. I don't think I am developing any delusions of grandeur or a taste for administrative power. It pleased me very much that you accepted the position as Director. When you take over I hope to get out of administration and back to radio astronomy as quickly as I can.

I think we have a good group at Green Bank, and I know that everyone is looking forward to your taking over. You will have an enthusiastic and cooperative staff, and I hope things won't be in too bad shape as a result of this interim period.

Sincerely yours,

D. S. Heeschen

Dr. Pawsey: One other thing I almost forgot. The Observatory has an advisory committee, whose present members are:

Herbert Friedman  
Mrs. Gaposchkin  
George Swenson (chairman)  
Cornell Mayer  
Gordon Stanley  
Bengt Strongren  
John Firor  
Donald Osterbrock

This committee is appointed by the AUI Trustees to advise them as to the quality, etc., of the work at Green Bank. In practice, they meet twice a year and advise us on just about everything. George Swenson has suggested it would be desirable to have a full committee meeting while you are here. This committee can be quite helpful at times and you will certainly want to maintain close contact with them. However, they are not very familiar with the day-to-day situation at Green Bank, and most of them know relatively little about radio astronomy. I was not sure you would want to meet for two days with the committee during this visit, when there will be so many other things to do. So I have told George that we would decide whether to have a meeting immediately after you arrive and we talk over your plans and wishes for the visit. We should come to some decision immediately after your arrival, so we can let George know the answer. If you should not want a full committee meeting -- which would be my choice -- then perhaps we could ask Swenson to come here for a day or two, as chairman of the committee.