

Charles H. Schauer

26/2/56

Dear Hag:

This morning we left Singapore after an all night stay at Raffles Hotel and should be in Djakarta by noon. It has been a pleasant trip with only minor uncertainties like one of my bags getting on the wrong plane and going to London instead of P. G. Estwick.

As you probably know, it has been a bad winter in Europe with rather confused transport. I stayed one week each at Manchester and Leiden, passing up Cambridge and Paris on the way. It was pleasant to see what people were doing at these places.

Both were different and neither related to my present interests. Leiden has just completed a very detailed survey of neutral hydrogen in the Milkyway. It is the first real solid evidence of spiral structure in our own galaxy. Their new radio telescope 83 ft diameter is structurally complete and very good. Motors are now being attached.

I was clearly and pleasantly informed that the company which built it would be happy to build any number more like it in America for about \$500,000 each. The error in focal length over all the dish at any position is only about ± 1 cm maximum. The large mirror at Manchester is still being constructed. The dish has been completely redesigned with a wide outside band 78 ft deep and 16 radial ribs. Only two ribs are now installed. The new subpage is to be solid black steel plate 0.080" thick weighing 70 tons. The entire structure will weigh 1800 tons and cost about \$145/ton sterling by present estimates. Steel

work to be complete late 1956 or early 1957.
Drive, building, etc. to be added to this
price. Bending in mirror about $+1''$ to $1\frac{1}{2}''$
at center depending on position. I also
learned that the Aussies have engaged the
services of the man (name slips me) who
designed the dirigible R100 to design their
mirror. I think this is a smart move in
line with my recommendations of October 1954.
Emerson would do well to hunt up Hugo
Eckner and hire the German zeppelin
engineers if any are still alive.

Best regards,

Grote Reber.