

290 Larkin Street XXXXXXXXXXXX

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September 12, 1956

Mr. Richard M. Emberson
Assistant to the President
Associated Universities, Inc.
350 Fifth Avenue
New York 1, New York

Dear Mr. Emberson:

Thank you for your letter of August 31 and for the copy of the Specifications for The Development of A Design for The Construction of A 140-Foot Radio Telescope. While we are extremely interested in your problem, I will be frank to admit that we do not yet have enough experience with air inflated antennas which can be changed in elevation through 180 degrees to be able to estimate with any certainty the tolerances which we would be able to maintain. Our work to date has been limited to search-type antennas which have a fixed elevation but rotate 360 degrees in azimuth. We are doing some preliminary work on the design of a tracking-type antenna which will need to meet requirements equal to, or possibly even greater than, those required for your application. Fortunately for us, this antenna will be much less than 140 foot in diameter which will somewhat reduce our problems.

Your requirements do not include the one requirement which makes our type of construction outstanding for many military applications: that is, the need for portability. Whereas you can afford to use tons of steel and concrete to achieve the rigidity you wish, our designs are based on providing a stable, close tolerance structure with a minimum weight in order to achieve maximum mobility. Unfortunately, we do not have the time to prepare a detailed design study such as is indicated by the reference specifications so I am afraid we will have to pass up the opportunity to work with you on this problem.

I wish to thank you for considering BIRDAIR as a consultant and would be pleased to have you contact us if you find that you have a need for lightweight, portable structures of the type in which we specialize.

Very truly yours,

BIRDAIR Structures, Inc.

Walter W. Bird,
President

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