

August 21, 1956

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

Dear Mr. Emberson:

I wish to thank you for your letter of 17 August 1956 and for your invitation to join you in your meeting with your consultants during the third or fourth week in September.

I noted with particular interest your plan to consider the feasibility of combining the most promising components to provide an optimum design. As you know, BIRDAIR specializes in the design and fabrication of lightweight structures employing high strength coated fabric. The type of antenna that looks most promising to us would use an air stabilized fabric reflector surface on a supporting metal framework. I would be glad to discuss the design and performance characteristics of air supported antennas for the purpose of familiarizing you and the other antenna manufacturers with the outstanding features of this type of unit. If the air supported antenna looks promising, it is possible that an air supported reflector surface could be effectively used in connection with one of the present designs or, that one of the manufacturers would be interested in joining with us to design an antenna meeting your requirements.

In your letter you also mentioned the possibility that the air supported reflector would require the protection of a radome. It might prove helpful if I briefly discussed some of the characteristics of radomes and savings in weight and cost that can be realized by protecting antennas against high winds and severe weather conditions. On a large facility, such as you are planning, inertia loads would be negligible because of the low speed of rotation. It appears that a large saving in the structural weight of a conventional antenna could thus be realized by protecting it with a radome. The size of radome required for this project would be larger than any that have been built or planned to date, and it would be necessary to carefully evaluate the potential savings against the cost of such a unit.

Mr. Richard M. Emberson

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If you would like to have me join you at your meeting to discuss our work as noted above, please advise me of your plans.

Sincerely yours,

BIRDAIR Structures, Inc.

Walter W. Bird,
President

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