Langley Research Center

November 30, 1945

Associate Director

Head, 5-Foot Tunnels Branch,
Full-scale Research Division

Proposed wind-tunnel tests of model of the DC-6

On November 30, the undersigned was contacted by telephone by Mrs. Doris McCann of the Douglas Aircraft Company. The Douglas Company at the present time is actively considering constructing a transonic wind tunnel. The principal question involved at present is the size of the tunnel. The size decided upon will depend to a great extent on the relative size of model to wind-tunnel cross section which can be utilized and still obtain reasonably correct results. No data are available to the Douglas Company which indicates the effect of model to wind tunnel relative size for subsonic cruise-type airplanes. To provide such information, Mrs. McCann requested tests in the 3-foot transonic pressure tunnel of a model of the DC-6 previously investigated in the 11-foot tunnel at Ames to provide some indication of model to tunnel size effects. The undersigned agreed to run the tests in approximately two weeks from this date provided that the flight results for the DC-6 would be made available to Langley so that a comparison of 5-foot results with flight could be made. Mrs. McCann indicated that this could be arranged. Two runs involving the complete model in an upright and inverted position would be made.

Richard Y. Whitcomb

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