Langley Research Center

June 21, 1965

Associate Director

Head, 8-Foot Tunnels Branch,
Full-Scale Research Division

Review of proposal for research to U. S. Army

At the request of Mr. Sudhir Kumar, Associate Director, Engineering Sciences Division, U. S. Army Research Office, the undersigned has reviewed a research proposal to the U. S. Army by the Lockheed-Georgia Company entitled "Methods for Analysis of Two-Dimensional Transonic Airfoils." In order to determine more exactly what the proposed research would include, the undersigned talked by telephone with Mr. J. F. Cahill of the research staff of the Lockheed-Georgia Company on June 21. Because of the pressing need for an immediate answer, the undersigned transmitted his comments by telephone to Mr. Kumar on June 21. Mr. Kumar requested that the comments also be forwarded to him in writing. The present memorandum is intended as the basis for an answer to him.

The primary purpose of the proposed research is to develop a computer program to compute the pressure distributions for lifting two-dimensional airfoils utilizing available theory. This proposed research would provide a useful tool for designers of subsonic aircraft. However, it does not fulfill the more important need for the development of a more exact theory to predict these pressure distributions.

It is recommended that the Lockheed-Georgia Company be given the contract to initiate the proposed research; however, the company should be made aware that the research does not fulfill the important need for a new theory and that further work should include the development of such a theory. Mr. Kumar would like the attached copy of the proposal returned to him.

Enclosure

Richard T. Whitcomb

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