WORK AREA DESCRIPTION FOR MCDONNELL DOUGLAS
RESEARCH ASSOCIATES PROGRAM

Aircraft engine installation engineer.—His primary responsibility would be the development of nacelles for externally mounted engines of transport aircraft operating at near sonic speed (\( M = 0.98 \)). The supercritical wing allows the development of transports with cruise speeds very near sonic; however, little has been done to develop an engine nacelle for such an airplane, particularly the inlet. An industry engineer filling this position would function as part of a team working on the aerodynamics of such an airplane. He would be required to have a background in engine installation aerodynamics and a substantial understanding of transonic flow phenomena. His work would require some design analysis based on available subcritical theory; however, his primary effort would be to conduct wind-tunnel experiments on engine installations at near sonic speeds.

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May 22, 1970