UNCLASSIFIED DJA45-87-C-6846

I. KINETIC ENERGY FINED PROJECTILE AERODYNAMIC HEATING

DEUTSCHE FORSCHUNGSANSTALT F"UER LUFTHANDELN (U)

MEASUREMENT (U)

UNIVERSE FOR LUFTHANDELN (U)

H. KRPPLIN 15 DEC 87

F/G 20/3

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The message that the research proposal R & D 5810-AN-01 has been awarded was received by DFVLR-AVA on November 23, 1987. DFVLR approval was received on November 4, 1987.

The models to be tested in DFVLR Ludwieg tube A and B are under design. Basis for the design is Fig. 5 of the research proposal mentioned above. Present status is one sting-mounted finned afterbody with three interchangeable forebodies to provide the different values of L1. The models will be machined from Plexiglas as the application of the desired thick wall method for heat transfer measurement requires low thermal conductivity.

The physical dimensions are planned to be D = 20 mm which means a total length of the models of about 350, 450, and 550 mm, respectively. The test section of the Ludwieg tube is equipped with windows of 320 mm diameter. Thus, each of the models has to be tested in two runs for each flow condition with different sting length in order to allow the observation of the whole model surface.

Machining of the models is planned in March 1988.

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