



**National  
Aeronautical  
Laboratory**

**Documentation Sheet**

*Document Classification*

Restricted

*Title* : DRAG MEASUREMENTS OF TA SPHERES  
AT HIGH SPEEDS

*Document No.*

PD-EA-9301

*Date of issue:* Jan. 93

*Author(s)* : K.N. NARASIMHA SWAMY

*Contents* 12 pages

Text 4 Table 1

Figs 7

*Division* : Experimental Aerodynamics

*No. of copies:* 10

*External participation* : Nil

*NAL Project No.*

EA-0-165

*Sponsor* : ARDE, Pune

*Sponsor's Project No.*

Nil

*Approval* : Head, Experimental Aerodynamics

*Remarks* : Nil

*Keywords* : Drag, TA Spheres

*Abstract* :

Results of drag measurements on two TA sphere models with horizontal and vertical belts are reported. Tests were conducted at Mach numbers of 0.5, 0.8, 1.0, 1.6, 2.0, 2.5 and 3.0. Results show that the measured drag values are not too different from the data on smooth spheres reported in literature.