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Computer program for estimation of leading-edge suction distribution for plane thin wings at subsonic speeds

Associated software: ESDUpac A9438

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COMPUTER PROGRAM FOR ESTIMATION OF LEADING-EDGE SUCTION
DISTRIBUTION FOR PLANE THIN WINGS AT SUBSONIC SPEEDS

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COMPUTER PROGRAM FOR ESTIMATION OF LEADING-EDGE SUCTION DISTRIBUTION FOR PLANE THIN WINGS AT SUBSONIC SPEEDS

The program has been written in "STRICT" Microsoft FORTRAN 77 for use on machines using PC/MS DOS.

1. NOTATION AND UNITS

		<i>SI</i>	<i>British</i>
A	aspect ratio		
a_1	lift-curve slope	rad^{-1}	rad^{-1}
C_s	total leading-edge suction coefficient normal to leading edge		
c	chord	m	ft
$\bar{c}$	geometric mean chord	m	ft
c_s	local leading-edge suction coefficient normal to leading edge		
M	Mach number		
α	angle of attack	rad	rad
β	$(1 - M^2)^{1/2}$		
δ	$(1 + \delta)$ is lift-dependent drag factor due to trailing-vortex wake		
η	spanwise distance from centre-line as fraction of semispan		
Λ_0	leading-edge sweep	deg	deg