

## Index

<b>Subsonic Aerodynamics</b>	<b>1</b>
Basic Concepts, Laws and Definitions	1
Two-dimensional Airflow Around an Aerofoil	23
Coefficients	28
Three-dimensional Airflow Around Wing and Fuselage	30
Drag	36
Ground Effect	42
The Stall	44
Increase of Lift Coefficient $c_L$	57
The Boundary Layer	63
Special Conditions	65
<b>Stability</b>	<b>68</b>
Condition of Equilibrium in Unaccelerated Level Flight	68
Methods to Achieve Equilibrium	69
Static and Dynamic Longitudinal Stability	70
Dynamic Lateral and Directional Stability	74
<b>Control</b>	<b>75</b>
General	75
Longitudinal Control	76
Yaw Control	78
Roll Control	78
Measures to Reduce Control Forces	80
Mass Balance	82
Trim	82
<b>Limitations</b>	<b>84</b>
Operating Limits	84
Flight Envelope	85
Gust Envelope	86
<b>Propeller</b>	<b>89</b>
Conversion of Engine Torque to Thrust	89
Engine Failure or Engine Shut-down	91
Moments Due to Propeller Operation	92
<b>Flight Mechanics</b>	<b>94</b>
Forces on an Aeroplane	94
<b>Keyword Index</b>	<b>101</b>