

Index

General	1
Performance legislation	1
Airworthiness requirements according to CS 23 and CS 25	1
Operational regulations	2
General performance theory	2
Stages of flight	2
Definitions, terms and concepts	4
Influencing variables on performance	19
Performance Class B - Single Engine Aeroplanes	28
Definitions of speeds used	28
Effect of variables on single-engine aeroplane performance	28
Effect of temperature, wind and altitude on climb performance	30
Effect of temperature and altitude on climb	31
Influence of mass, wind and speed on descent	31
Take-off and landing	32
Legal requirements for take-off and landing	32
Effect of flap setting on ground roll distance	33
Climb, cruise and descent	35
Effect of power setting, altitude and wind on endurance and range	35
Use of aeroplane performance data	36
Take-off	36
Climb	41
Cruise	44
Landing	48
Performance Class B - multi engine aeroplanes	51
Definitions of terms and speeds	51
Critical engine	51
Effect of variables on multi-engine aeroplane performance	53
Take-off and landing	53
Climb, cruise and descent	60
Landing	66
Use of aeroplane performance data	66
Take-off	66
Climb	76
Cruise and descent	80
Landing	84
Performance Class A - Aeroplanes Certified under CS 25 only	90
Take-off	90
Definitions of terms used	91
Take-Off Distances	100
Accelerate-Stop distance	107
Balanced field length concept	110
Unbalanced field length concept	111
Runway length Limited Take-Off Mass (RLTOM)	113
Take-off climb	114
Obstacle-limited take-off	118
Performance Limited Take-Off Mass	122
Take-off performance on wet and contaminated runways	122
Use of Reduced and Derated Thrust	125
Take off performance using different take off flap settings	129

Take-off performance using increased V_2 speeds (“improved climb performance”)	129
Brake energy and tyre speed limit	131
Use of aeroplane flight data	133
Climb	143
Climb techniques	143
Influence of variables on climb performance	144
Use of aeroplane flight data	147
Cruise	148
Cruise techniques	148
Maximum endurance	149
Maximum range	151
Long Range Cruise	151
Influence of variables on cruise performance	152
Cruise altitudes	155
Cost index	159
Use of aeroplane flight data	160
En-route One Engine Inoperative	168
Drift down	168
Influence of variables on En-route One Engine Inoperative performance	170
Use of aeroplane flight data	170
Descent	173
Descent techniques	173
Influence of variables on descent performance	174
Use of aeroplane flight data	175
Approach and Landing	177
Approach requirements	177
Landing field length requirement	178
Influence of variables on landing performance	179
Quick turnaround limit	181
Use of aeroplane flight data	181
Keyword Index	189