Performance - All factors

Take-off

Performance factors

Surface	factor
Paved	1
Paved + Wet	1
Grass	1.2
Grass + Wet	1.3
1% Upslope	1.05 (5%)

Regulatory factors

Unbalanced

TORA	TODA	ASDA
1	1.15	1.3

Balanced: 1.25

To calculate slope:

$$\frac{\text{Difference in threshold elevation}}{\text{TORA}} \times 100$$

Takeoff speeds

	VR	V2
Vmc	1.05	1.1
Vs	1.1	1.13 Class A 1.2 Class B 1.08 - twin turboprop

Class B Regs

× AEO gradient by 0.77

$(\frac{1}{2}$ wingspan$) + 60 + (0.125d)$

Max Width	Straight	Turning
High performance	300m	600m
Anything else	600m	900m

Class A - Take-off factors

Net safety factor:
- 0.8% - 2 eng
- 0.9% - 3 eng
- 1% - 4 eng

Vr:
- Class A - 1.05 (Vmc)
- B - 1.1 (Vs)

Net to flight path

Engine	Sector 1	2	3	4
2	0	2.4	1.2	1.2
3	0.3	2.7	1.5	1.5
4	0.5	3	1.7	1.7

4/1 0.5

The Landing

Performance factors

Surface	factor
Paved, dry	1
Paved, wet	1.15
Grass, dry	1.15
Grass, wet	1.15 × 1.15
1% of downslope	1.05 (5%)

Regulatory factors

Jet = 1.67

Prop = 1.43

Vapp = 1.33 Vs

Vref = Class A - 1.23 Vso, B - 1.3 Vso

Go-Around

Missed Approach

Class A - req gradient:

OEI: no of engines
- 2 - 2.1
- 3 - 2.4
- 4 - 2.7

Class B = 0.75%

Baulked Landing

Class A:
- OEI: 2.5%
- AEI: 3.2%

Class B:
- AEO = 2.5%