CESSNA 172SP
QUICK REFERENCE GUIDE (QRG)
X Plane 12 Use ONLY

TAKEOFF & CLIMB

- **Vr (Rotation Speed)**: 55 KIAS
- **Vx (Best Angle of Climb)**: 62 KIAS
- **Vy (Best Rate of Climb)**: 74 KIAS
- **Normal Climb Speed**: 75–85 KIAS (flaps up)
- **Flaps for Takeoff**: 0°–10° depending on runway length

CRUISE PERFORMANCE

- **Typical Cruise Speed**: 110–120 KTAS
- **Cruise Power Setting**: 2200–2500 RPM
- **Best Economy**: Leaned mixture, 65% power (~105 KTAS)
- **Recommended Altitude**: 3,000 – 9,000 ft AGL

DESCENT

- **Normal Descent**: 90–100 KIAS | ~500 fpm
- **Approach Descent**: 65–75 KIAS with flaps

- **Power-Off Descent**: Maintain 68 KIAS (best glide)

APPROACH & LANDING

- **Downwind**: 90 KIAS | Flaps 0°
- **Base**: 80 KIAS | Flaps 10°–20°
- **Final**: 65–70 KIAS | Flaps 30° (full)
- **Short Field Approach**: 61 KIAS | Flaps full
- **Flare Speed**: Reduce to 50–60 KIAS just before touchdown
- **Braking**: Smooth braking, elevator back pressure

V-SPEEDS SUMMARY

V-Speed	Value (KIAS)	Definition
Vso	40	Stall speed in landing config (full flaps)
Vs1	48	Stall speed in clean config (flaps up)
Vr	55	Rotation speed
Vx	62	Best angle of climb
Vy	74	Best rate of climb
Vg	68	Best glide speed (max gross weight)
Vfe	85 (10°), 75 (20°–30°)	Max flap extension speeds
Va	90 @ 1900 lbs, 105 @ 2550 lbs	Maneuvering speed (weight dependent)
Vno	129	Max structural cruising speed
Vne	163	Never exceed speed

EMERGENCY OPERATIONS

- **Best Glide**: 68 KIAS
- **Engine Out Procedure**:
    - Airspeed: 68 KIAS
    - Landing Site: Identify
    - Fuel Selector: Both
    - Mixture: Rich

    - Throttle: Full
    - Carb Heat: On
    - Primer: In & Locked
    - Master: On
    - Magnetos: Both (Start if prop windmilling)
- **Short Field Landing**:
    - Approach Speed: 61 KIAS (Flaps full)
    - Full braking, nose high attitude

NOTES

- All speeds assume maximum gross weight and sea level unless stated.
- Vg (glide) speed varies slightly with weight.
- Va (maneuvering speed) must be reduced at lighter weights.
