McDonnell Douglas MD-82
QUICK REFERENCE GUIDE (QRG)
X Plane 12 Use ONLY

ROTATION, TAKEOFF & CLIMB SPEEDS (Typical Weights)

- **V1**: 135–145 KIAS | Flaps 5–11 | Varies by weight and runway
- **VR**: 140–150 KIAS | Flaps 5–11 | Rotate smoothly
- **V2**: 145–155 KIAS | Flaps 5–11 | Maintain V2 +10–15 during climb
- **Initial Climb**: V2 + 10–15 | Retract flaps/slats on schedule
- **Climb < FL100**: 250 KIAS | Clean | Standard airspace restriction
- **Climb > FL100**: 280/M.74 | Clean | ECON or CI-based climb

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CRUISE SETTINGS

- **Normal Cruise**: M0.76–M0.78 | FL290–FL370 | Typical range profile
- **ECON Cruise**: M0.74–M0.77 | Based on fuel and cost index
- **Max Cruise**: M0.80 | Avoid unless necessary

DESCENT SPEEDS AND RATE

- **Managed Descent**: 280/M0.74 | ~1500–2500 fpm | ECON descent
- **Idle Descent**: 280/M0.74 | ~1000–2000 fpm | With idle thrust
- **Speed Descent**: 320/M0.76 | Up to 3000 fpm | Controlled descent
- **Below 10,000 ft**: 250 KIAS | ~1000–1500 fpm | Regulatory speed limit

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CIRCUIT / APPROACH SPEEDS & SETTINGS

- **Downwind**: Flaps 5–11 | ~180–190 KIAS | Gear UP
- **Base**: Flaps 15–28 | ~160–170 KIAS | Gear DOWN
- **Final**: Flaps 40 | 125–140 KIAS (VREF + 5) | Gear DOWN
- **Brakes**: Autobrake LOW or MED | MAX Manual for short or wet runways

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EMERGENCY SPEEDS & ENGINE-OUT

- **Engine-Out Climb**: V2 + 10
- **Drift Down**: Green Dot or VMD (~250 KIAS)
- **Single Engine Cruise**: M0.70–0.74 | Fuel conservative setting
- **Dual Engine Failure Glide**: ~260–270 KIAS
- **Max Glide Ratio**: ~11:1 @ FL300 (~1.8 nm per 1000 ft)

ALL ENGINES OUT / APU / RAT

- **Glide Speed**: ~265 KIAS
- **APU Start**: Use below FL350 if required
- **Electrical Power**: Limited to battery/APU depending on altitude
- **Restart Procedure**: Windmill restart above 250 KIAS
