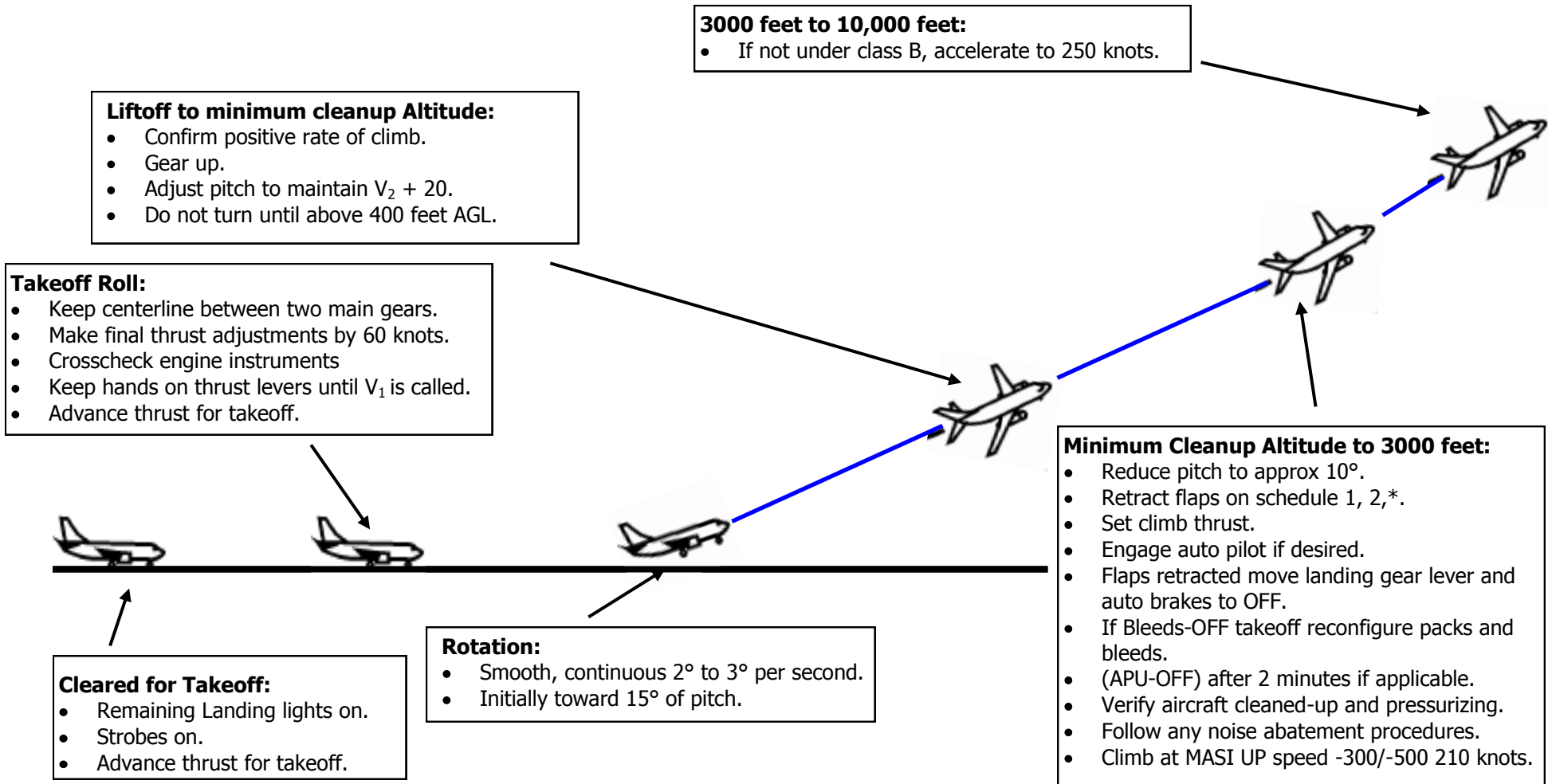




Takeoff: Normal



1. *Use MASI for maneuvering speeds and flap selection.
2. *In -300/-500, add 10 knots to speeds when above 117,000 pounds gross



Takeoff: Adverse Conditions

3000 feet to 10,000 feet:

- If not under class B, accelerate to 250 knots.

Liftoff to minimum cleanup Altitude:

- Confirm positive rate of climb.
- Gear up.
- Accelerate and retract flaps on schedule.*
- Maintain positive rate of climb.
- Climb speed at MASI UP speed -300/-500: 210 knots*
- Do not turn until above 400 feet AGL.

Takeoff Roll:

- Keep centerline between two main gears.
- Make final thrust adjustments by 60 knots.
- Crosscheck engine instruments
- Keep hands on thrust levers until V_1 is called.



Cleared for Takeoff:

- Use maximum thrust.
- Remaining Landing lights on.
- Strobes on.
- Advance thrust for takeoff.

Rotation:

- Smooth, continuous 2° to 3° per second.
- Limit pitch to approximately 15° .

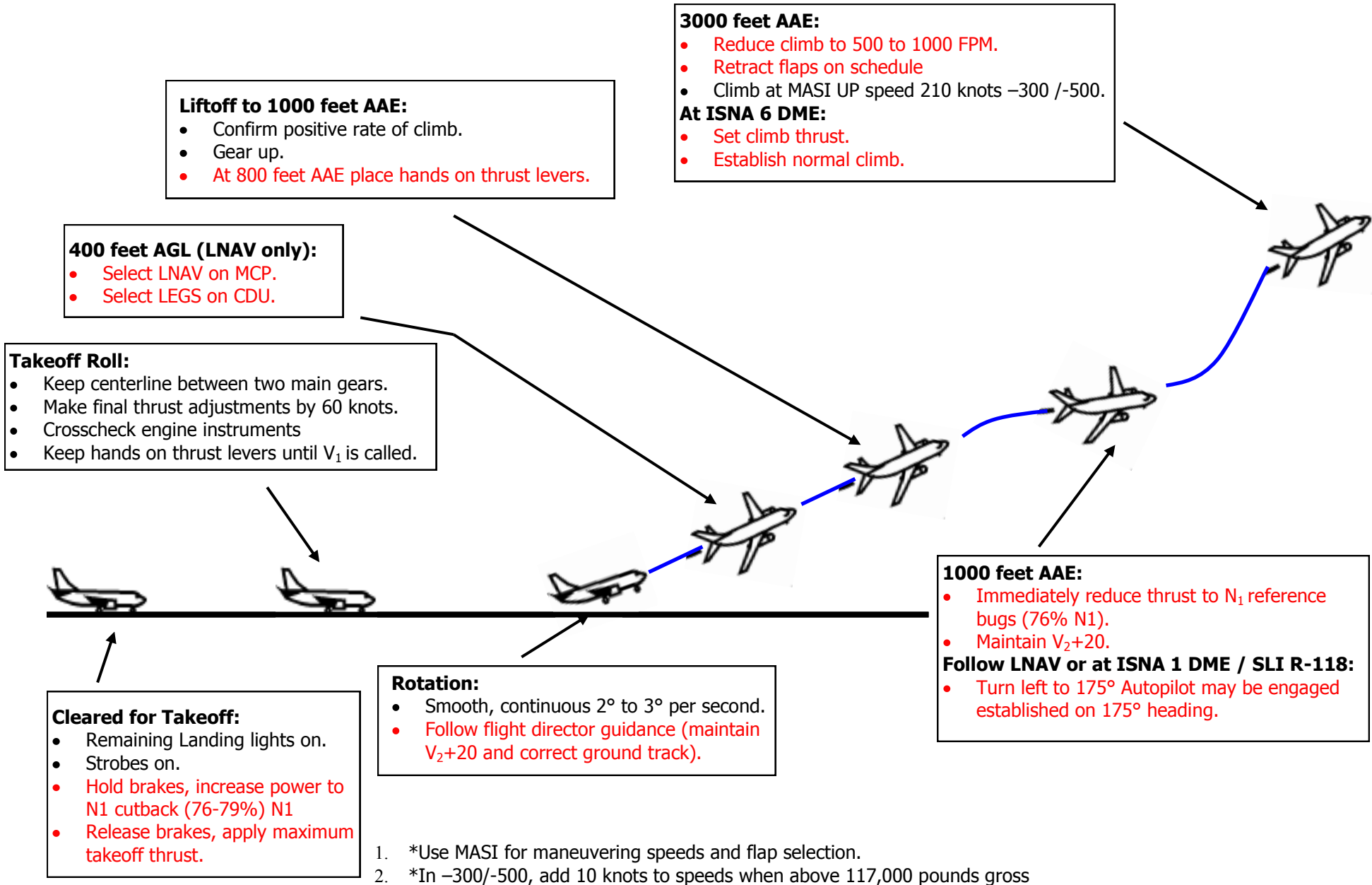
Minimum Cleanup Altitude to 3000 feet:

- Set climb thrust after reaching safe altitude and airspeed.
- Retract flaps on schedule*
- Engage auto pilot if desired.
- Flaps retracted move landing gear lever and auto brakes to OFF.
- If Bleeds-OFF takeoff reconfigure packs and bleeds.
- (APU-OFF) after 2 minutes if applicable.
- Verify aircraft cleaned-up and pressurizing.
- Follow any noise abatement procedures.

1. *Use MASI for maneuvering speeds and flap selection.
2. *In -300/-500, add 10 knots to speeds when above 117,000 pounds gross



Takeoff: KSNA Runway 19R





Takeoff: Engine Failure

After Cleanup:

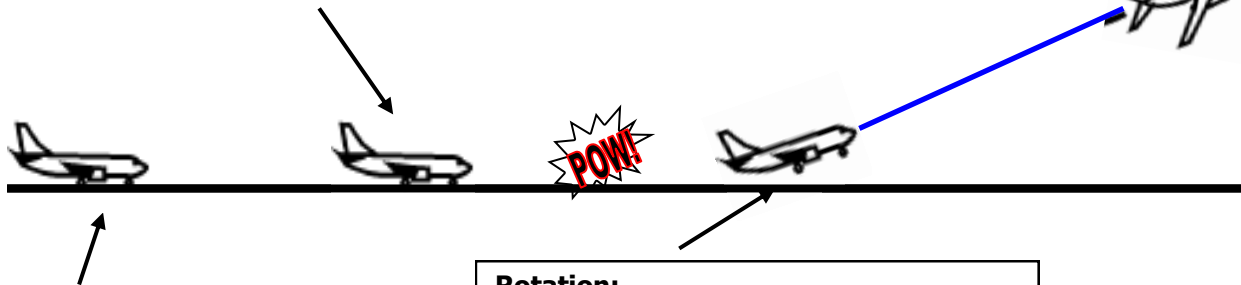
- Climb at MASI UP speed -300/-500: 210 knots.*
- Max continuous thrust.

Liftoff to minimum cleanup Altitude:

- Confirm positive rate of climb.
- Gear up
- Climb V_2 at minimum, or present speed whichever is higher ($V_2 + 25$ maximum).

Takeoff Roll:

- Keep centerline between two main gears.
- Make final thrust adjustments by 60 knots.
- Crosscheck engine instruments
- Keep hands on thrust levers until V_1 is called.



Cleared for Takeoff:

- Remaining Landing lights on.
- Strobes on.
- Advance thrust for takeoff.

Rotation:

- Smooth, continuous 2° to 3° per second.
- Initially toward 15° of pitch.

Minimum Cleanup Altitude (1000 feet AAE)

- Level off and accelerate
- Retract flaps on schedule ($V_2 + 15$ minimum).

1. *Use MASI for maneuvering speeds and flap selection.
2. *In -300/-500, add 10 knots to speeds when above 117,000 pounds gross