

SAFETY AND INSPECTION

- 1. Fuel and Oil Quantity.....CHECKED
- 2. Surfaces and Chocks.....CHECKED
- 3. Maintenance Status.....CHECKED
- 4. Passenger Briefing.....COMPLETED
- 5. Weight and Balance/Manifest.....COMPLETED

BEFORE STARTING ENGINES

See AFMS RAM 4 For Starting Hot Engines

- 1. Parking Brake.....SET
- 2. Preflight.....COMPLETED
- 3. Cabin Door.....LATCHED AND SECURE
- 4. Control Locks.....REMOVE
- 5. Seat, Belts and Harnesses.....SECURED
- 6. Landing Gear Switch.....DOWN
- 7. Fuel SelectorsMAIN TANKS
- 8. Cowl Flaps.....OPEN
- 9. Yaw Damper.....OFF
- 10. Mixtures.....FULL RICH
- 11. Props.....HIGH RPM
- 12. Throttles 1/2"OPEN
- 13. Synchrophaser.....OFF
- 14. Flight Controls.....CHECK
- 15. Switches & Circuit Breakers.....SET
- 16. Magneto Switches.....ON
- 17. Battery and Alternator Switches.....ON
- 18. Fuel Quantity GaugesCHECK
- 19. Gear Switch and Position LightsCHECK
- 20. Annunciator Panel.....PRESS TO TEST
- 21. Prop and Blast Areas.....CLEAR
- 22. Lights.....AS REQUIRED

-----CLEARED FOR START-----

- 1. Engines.....START
- 2. Oil Pressure.....25 PSI within 30 Seconds
- 3. Engine Instruments.....CHECK
- 4. Vacuum Gage.....CHECK

AFTER START / TAXI

- 1. Aux. Fuel Pumps.....OFF
- 2. Warm Up..... 1000-1200RPM
- 3. Avionics.....ON
- 4. Exterior Lights.....AS REQUIRED
- 5. Air Circulator/Heater.....AS REQUIRED
- 6. Seat Belt Light.....ON
- 7. Accessory Switches.....ON
- 8. Mixtures.....SET
- 9. Radios.....SET
- 10. Brakes.....CHECK
- 11. Instruments.....CHECK
- 12. Altimeters/ASA.....SET

CESSNA 414 RAM IV NORMAL CHECKLIST

BEFORE TAKEOFF

- 1. Parking Brake.....SET
- 2. Autopilot.....CHECK
- 3. Electric Trim.....CHECK
- 4. Fuel Quantity.....CHECK
- 5. Fuel Selectors.....MAIN TANKS
- 6. Cowl Flaps.....OPEN
- 7. Flaps.....UP
- 8. Autopilot.....TEST/CHECK
- 9. Trim.....SET FOR TAKEOFF
- 10. Avionics and Radios.....SET
- 11. Flight Instruments.....SET
- 12. Alternate Air and Ram Dump..... IN
- 13. Pressurization Controls.....SET
- 14. Mixture.....RICH or as Req'd
- 15. Throttles.....1700 RPM
- 16. L&R Hyd Flow Lights.....OFF
- 17. Vacuum System.....CHECK
- 18. Annunciator Panel.....CLEAR
- 19. Alternators and Battery Meter.....CHECK
- 20. Props.....FEATHERING CHECK
- 21. Magnetos.....CHECK
- 22. Engine Instruments.....CHECK
- 23. Throttles.....IDLE 1000 RPM
- 24. Quadrant Friction Lock.....ADJUST
- 25. Doors and Windows.....LOCKED
- 26. Spoilers.....CHECK/RETRACTED
- 27. Takeoff Briefing.....REVIEWED
- 28. Parking Brake.....OFF
- 29. Minimum Takeoff Oil Temp.....75F

-----CLEARED FOR TAKEOFF-----

- 1. Wing Flaps.....UP
- 2. Transponder.....ON ALT
- 3. Air Conditioner.....RECIRCULATE or OFF
- 4. Boost Pumps.....LOW
- 5. Lights.....AS REQUIRED
- 6. Anti-Ice.....AS REQUIRED
- 7. Takeoff Time.....DOCUMENT
- 8. Power.....SET
- 9. Fuel Flow & Engine Instruments.....CHECKED
(Raise Nosewheel 84 KIAS Liftoff 91 KIAS)

AIRSPEEDS FOR SAFE OPERATION

- Vmca.....73 KIAS**
- VX, VXse.....91 KTS
- VySE.....105 KTS**
- Vy.....112 KTS
- Va.....156 KTS**
- Vlo & Vle.....140KTS
- Vfe.....15 = 160.....45 = 140 KTS**

AFTER TAKEOFF / CLIMB

- 1. Gear.....UP
- 2. Yaw Damper.....ON
- 3. Taxi / Landing Lights.....OFF
- 4. Heater or Air Conditioner.....AS REQUIRED
- 5. Climb Power.....SET
- 6. Mixtures.....CHECK
- 7. Engine Instruments.....CHECK
- 8. Pressurization.....CHECK
- 9. Climb.....130 KIAS

CRUISE

- 1. Cruise Power / Fuel Flow.....SET
- 2. Cowl Flaps.....AS REQUIRED
- 3. Props.....SET
- 4. Mixture.....SET
- 5. Cabin Altitude and Differential.....CHECK
- 6. Pressurization.....SET
- 7. Recognition Lights (if installed).....OFF

DESCENT / APPROACH

- 1. Approach Briefing.....COMPLETE
- 2. Fuel Selectors.....MAIN
- 3. Altimeters.....SET
- 4. Power.....SET
- 5. Anti-Ice.....AS REQUIRED
- 6. Mixtures.....ADJUST
- 7. Seat Belts and Shoulder Harnesses.....ON
- 8. Seat Backs.....UPRIGHT
- 9. Tables / Monitors.....STOWED
- 10. Lights.....AS REQUIRED
- 11. Cowl Flaps.....CLOSED

BEFORE LANDING

- 1. Heater.....COMBUSTION OFF
- 2. Exterior LightsAS REQUIRED
- 3. Seat Belt Light.....ON
- 4. Prop Sync.....OFF
- 5. Gear.....DOWN
- 6. Mixtures.....ADJUST
- 7. Props.....SET
- 8. Auto-PilotOFF
- 9. Yaw DamperOFF
- 10. Flaps.....AS REQUIRED
- 11. Spoilers.....DOWN
- 12. Cowl Flaps.....OPEN

AFTER LANDING

- 1. Cowl Flaps.....OPEN
- 2. Flaps.....UP
- 3. Trim Tab.....SET TO ZERO
- 4. Transponder.....STANDBY
- 5. Air Circulation.....AS REQUIRED
- 6. Boost Pumps.....OFF
- 7. Lights.....AS REQUIRED

SHUTDOWN

- 1. Flight Time.....DOCUMENT
- 2. Avionics/ Accessory Switches.....OFF
- 3. Air Circulators.....OFF
- 4. Seat Belt Light.....OFF
- 5. Mixtures.....IDLE CUT OFF
- 6. Magneto Switches.....OFF
- 7. Battery and Alternators.....OFF
- 8. Wheel Chocks.....INSTALLED

ENGINES

Continental TSIO 520-NB
 Oil Capacity 12 Quarts Add Oil Below 9 Qts
 Battery 24V Useable Fuel 163 Gallons
Mains 70 psi Nose 35 psi Max Diff 4.2 psi

WEIGHT & BALANCE ARM DATA

Nose Bags 350 MAX.....	71
Front Seats.....	137
Aft Facing Seats.....	175
Wing Lockers 400 MAX.....	266
Back Row Seats.....	218
Lav Seat.....	250
Rear Bags A 400 MAX.....	266
Rear Bags B 100 MAX.....	282
Fuel 978 Main.....	152
Fuel 63 Aux.....	164

CG Limits 160.2 to 159.18 at Full Weight
 See AFM for Lighter Weight Operations

RAMP WT	6800
MAX TAKEOFF WT	6765
MAX ZERO FUEL WT	6165
MAX LANDING WT	6430