

# DA20-C1 NORMAL PROCEDURES

## ABBREVIATED FLIGHT CREW CHECKLIST



Challenge-and-response items are highlighted and marked with an asterisk

### CABIN INSPECTION

- CANOPY.....UNDAMAGED CLEAN
- AIRCRAFT FORMS.....REVIEW
- KEYS.....ATTACH TO HOOK
- REGISTRATION & AIRWORTHINESS CERT.....CHECK
- AIRCRAFT FLIGHT MANUAL.....ACCESSIBLE
- SURVIVAL KIT & ELT.....CHECK
- TAC.....CHECK
- STRUCTURAL TEMPERATURE (if OAT>38°C).....CHECK
- FLIGHT CONTROL LOCK.....REMOVE, STOW
- FLIGHT CONTROLS.....FREE, CORRECT
- PARKING BRAKE.....SET
- MIXTURE.....FREE, IDLE CUTOFF
- THROTTLE.....FRICTION ADJUSTED, FREE, IDLE
- ALTERNATE AIR.....FREE, OFF
- CABIN HEAT.....FREE, OFF
- FLOOR/DEFROST LEVER.....FREE
- FUEL SHUTOFF VALVE.....ON
- GENBAT MASTER SWITCH.....CHECK, OFF
- (NIGHT ONLY) INST & MAP LIGHTS.....CHECK, OFF
- STROBE & LANDING LIGHTS.....CHECK, OFF
- (NIGHT ONLY) TAXI & POSITION LIGHTS.....CHECK, OFF
- TRIM.....TEST BOTH DIRECTIONS, SET NEUTRAL
- START WARNING LIGHT.....PUSH TO TEST
- CANOPY & GEN WARNING LIGHTS.....ILLUMINATED
- CIRCUIT BREAKERS.....CHECK
- FUEL QUANTITY GAUGE.....CHECK
- AMMETER & VOLTMETER.....CHECK
- CO DETECTOR.....CHECK
- FLAPS.....CHECK ALL POSITIONS & INDICATOR LIGHTS
- GENBAT MASTER SWITCH.....CRUISE
- CHOCK.....OFF

### NOSE INSPECTION

- OIL QUANTITY.....CHECK (4.5 – 6 QTs)
- OIL FILLER CAP & DOOR.....SECURE
- INLET & OUTLET Baffles.....AS REQUIRED
- COWLINGS (RIGHT SIDE).....CHECK
- AIR INTAKES.....CHECK
- BAFFLE SEAL ORIENTATION.....CHECK
- ALTERNATOR BELT.....CHECK
- PROPELLER & SPINNER.....CHECK
- NOSE GEAR.....CHECK
- COWLINGS (LEFT SIDE).....CHECK
- OIL SENSOR.....CHECK
- CHOCK.....REMOVE

### LEFT WING INSPECTION

- RESCUE HAMMER.....SECURE
- FIRE EXTINGUISHER.....CHARGED, SECURE
- FUEL QUANTITY.....MEASURE WITH DIPSTICK
- FUEL FILLER CAP.....SECURE
- FUEL DIPSTICK.....REMOVE
- CHOCK.....CHECK
- LEFT MAIN LANDING GEAR.....CHECK
- PITOT-STATIC PROBE.....CHECK
- TIE-DOWN.....REMOVE
- LANDING & TAXI LIGHT COVER.....CHECK
- WING LEADING EDGE.....CHECK
- ENTIRE WING SURFACE.....CHECK
- POSITION & STROBE LIGHT ASSEMBLY.....CHECK
- WINGTIP (TRAILING EDGE NEXT TO AILERON).....CHECK
- AILERON, BAL WEIGHT, INSPECTION PANEL.....CHECK
- FLAP & INSPECTION PANEL.....CHECK

## FUSELAGE & EMPENNAGE INSPECTION

- FUEL TANK VENT.....CHECK
- TANK PUMP, FILTER BOWL.....CHECK FUEL SAMPLES
- MAINTENANCE FUEL DRAINS.....CHECK
- EXTERNAL ANTENNAS.....CHECK
- FUSELAGE (LEFT SIDE).....CHECK
- TIE-DOWN.....REMOVE
- TAIL SKID.....CHECK
- RUDDER, VERTICAL STABILIZER.....CHECK
- ELEVATOR, HORIZONTAL STABILIZER.....CHECK
- FUSELAGE (RIGHT SIDE).....CHECK

### RIGHT WING INSPECTION

- FLAP & INSPECTION PANEL.....CHECK
- AILERON, BAL WEIGHT, INSPECTION PANEL.....CHECK
- WINGTIP (TRAILING EDGE NEXT TO AILERON).....CHECK
- ENTIRE WING SURFACE.....CHECK
- WING LEADING EDGE.....CHECK
- TIE-DOWN.....REMOVE
- CHOCK.....REMOVE
- RIGHT MAIN LANDING GEAR.....CHECK
- PARKING BRAKE.....RELEASE
- AIRCRAFT.....ROLL (CHECK BOTTOM OF TIRES)
- PARKING BRAKE.....ATTACH
- BAGGAGE NET.....PERFORM
- FOD INSPECTION.....PERFORM

### BEFORE ENGINE START

- RUDDER PEDALS.....ADJUSTED
- SAFETY BELTS.....FASTENED AND ADJUSTED
- PARKING BRAKE.....SET (HOLD TOE BRAKES)
- GENBAT MASTER SWITCH.....ON
- CANOPY.....CLOSED AND LOCKED
- CANOPY WARNING LIGHT.....EXTINGUISHED
- IGNITION SWITCH.....OFF (INSERT KEY)
- (NIGHT ONLY) INST & MAP LIGHTS.....AS REQUIRED
- (DAY ONLY) STROBE LIGHTS.....ON
- (NIGHT ONLY) POSITION LIGHTS.....ON
- SLIDING WINDOW.....OPEN AND YELL 'CLEAR'

### ENGINE START

- THROTTLE.....FULL
- MIXTURE.....FULL RICH
- FUEL PUMP.....FULL RICH ON
- FUEL PRIME.....ON 12 OR 8 FULL SECONDS, THEN OFF  
NOTE: If engine is cold (at ambient temperature), prime 12 seconds.  
If engine is warm (above ambient temperature), prime 8 seconds.
- THROTTLE.....1/4 OR 1/2 INCH FORWARD OF IDLE  
NOTE: If engine is cold, set throttle 1/4 inch (reducing throttle to IDLE may help start a cold engine). If engine is hot, set throttle 1 inch (advancing throttle slightly may help start a hot engine).
- IGNITION SWITCH START (RELEASE AS ENGINE FIRES)  
CAUTION: Do not engage the starter if the propeller is moving. Serious engine damage can result. If the key is released during cranking, wait for the propeller to stop before re-engaging the starter.  
CAUTION: Do not crank the engine more than 10 sec. at a time. After cranking 30 sec. total, wait 3-5 minutes before re-attempt.  
NOTE: If the engine starts briefly and then dies, return to line 1 of the checklist to re-prime for a full 8 or 12 seconds.  
NOTE: If flooded, crank the engine with the fuel pump off, and then turn the fuel pump back on immediately after the engine starts.

- THROTTLE.....1000 RPM
- START WARNING LIGHT.....EXTINGUISHED
- GEN WARNING LIGHT.....EXTINGUISHED
- AMMETER & VOLTMETER.....CHECK
- OIL PRESSURE.....CHECK (> 10 PSI)

## BEFORE TAXI

- AVIONICS MASTER SWITCH.....ON
  - TRANSPONDER.....SET CODE STBY
  - ATIS.....OBTAIN
  - AVIONICS & NAVIGATION EQUIPMENT.....SET
  - FLIGHT INSTRUMENTS.....SET AND CHECK
  - (NIGHT ONLY) TAXI LIGHT.....RELEASE
  - PARKING BRAKE.....RELEASE
- NOTE: Lean the mixture for taxi only if required to eliminate engine roughness at high density altitudes.

### TAXI

- BRAKES.....CHECK
- FLIGHT CONTROLS.....POSITION FOR WIND
- GYROSCOPIC INSTRUMENTS & COMPASS.....CHECK

### RUNUP

- PARKING BRAKE.....SET
  - THROTTLE.....IDLE
  - MIXTURE.....FULL RICH
  - MIXTURE.....CHECK FOR RPM RISE, THEN FULL RICH
  - THROTTLE.....1700 RPM
  - MAGNETOS.....CHECK (25-150 DROP, 50 MAX DIFF)  
NOTE: To clear minor spark plug fouling: ignition BOTH; confirm oil temp ≥ 100° F; throttle 2200 rpm; lean mixture to peak rpm and hold up to 30 seconds; then mixture to full rich and return to line 5.
  - VACUUM GAUGE.....CHECK (4.5 – 5.5)
  - ENGINE GAUGES.....CHECK
  - CIRCUIT BREAKERS.....CHECK
  - THROTTLE.....FULL RPM CHECK (≥2000)
  - MIXTURE.....LEAN FOR TAKEOFF
- CAUTION: Do not lean the mixture above 75% rated power.

- THROTTLE.....IDLE, RPM CHECK 975 MIN
  - FLAPS.....T/O
  - TERRAIN/OBSTACLE WARNING.....INHIBIT IF REQUIRED
  - TRIM.....NEUTRAL
  - FLIGHT CONTROLS.....CHECK FREE
  - TAKEOFF BRIEFING.....PERFORM
  - TAS.....SET
  - PARKING BRAKE.....RELEASE
- NOTE: Departing aircraft may exit TAS page after Climb Checklist.

### BEFORE TAKEOFF

- STROBE & LANDING LIGHTS.....ON
  - FLAPS.....T/O
  - TRANSPONDER.....ALT
  - TAKEOFF TIME.....NOTE
- NOTE: After full-step-taxi-back, lean mixture for takeoff at full throttle.

### CLIMB

- THROTTLE.....FULL
  - FLAPS.....CRUISE
  - AIR SPEED.....70 KIAS
  - ENGINE GAUGES.....CHECK
- NOTE: After go-around or touch-and-go, lean mixture for climb after safely airborne in a positive climb.
- NOTE: Accomplish the Climb Checklist at 400' AGL.

### CRUISE / LEVEL-OFF

- THROTTLE.....AS REQUIRED
  - FLAPS.....CRUISE
  - FUEL PUMP.....OFF
  - TAXI & LANDING LIGHTS.....OFF
  - TERRAIN/OBSTACLE WARNING.....ENABLED
  - ENGINE GAUGES.....CHECK
  - MIXTURE.....LEAN FOR CRUISE
- NOTE: Establish steady-state cruise flight prior to leaning for cruise. Item 7 may be omitted if immediately followed by Before Maneuvering checklist, or if exiting a training area < 7nm from the arrival airfield.
- NOTE: Accomplish the Cruise/Level-Off Checklist (leveling off at final departure altitude). Also accomplish this checklist (leveling off at the area exit altitude prior to exiting a training area's lateral boundaries).

## BEFORE MANEUVERING

- AREA BOUNDARIES & OBSTACLES.....IDENTIFY
  - FL TOUCHDOWN POINT & LDG DIRECTION.....IDENTIFY
  - CLEARING TURNS.....PERFORM
  - FUEL PUMP.....ON
  - MIXTURE.....FULL RICH
- NOTE: Lean the mixture for area work only if required to eliminate engine roughness at high density altitudes.

CAUTION: Verify fuel pump ON and mixture full rich before any low-throttle operation where engine speed could fall below 1400 rpm.

### DESCENT / APPROACH

- ATIS.....OBTAIN
  - AVIONICS & NAVIGATION EQUIPMENT.....SET
  - TERRAIN/OBSTACLE WARNING.....INHIBIT IF REQUIRED
  - HEADING & ATTITUDE INDICATORS.....SET
  - ALTIMETER.....SET
  - APPROACH BRIEFING.....PERFORM
  - SAFETY BELTS.....FASTENED
  - (NIGHT ONLY) TAXI LIGHT.....ON
  - LANDING LIGHT.....ON
- Items 10 & 11 are required prior to low-throttle descent

- FUEL PUMP.....ON
  - MIXTURE.....FULL RICH
- NOTE: Descending from high density altitudes, the mixture may need to be enriched incrementally to prevent engine roughness.
- NOTE: Complete items 1-9 prior to exiting a training area < 18nm out.
- NOTE: Complete all items 1-11 no later than 5nm out on the arrival.
- NOTE: Display TAS page at 1 or 2 mile range prior to pattern entry.

### BEFORE LANDING

- FUEL PUMP.....ON
- MIXTURE.....FULL RICH
- AIR SPEED & FLAP SETTING.....CONFIRM

### GO-AROUND

- THROTTLE.....FULL
  - FLAPS.....T/O
  - AIR SPEED.....66 KIAS
- NOTE: Apply full throttle and adjust pitch attitude to arrest the descent prior to retracting the flaps from L/Ds to T/O.

### AFTER LANDING

- (NIGHT ONLY) STROBE LIGHTS.....OFF
- LANDING LIGHT.....OFF
- FLAPS.....CRUISE
- TRANSPONDER.....STBY
- TRIM.....NEUTRAL
- LANDING TIME.....NOTE

NOTE: At high density altitudes, lean the mixture for taxi only if required to eliminate engine roughness.

### ENGINE SHUTDOWN

- PARKING BRAKE.....SET
- AVIONICS MASTER SWITCH.....OFF
- FUEL PUMP.....OFF
- THROTTLE.....IDLE
- MIXTURE.....IDLE CUTOFF
- TAXI POSITION STROBE, MAP & INST LIGHTS.....OFF
- IGNITION SWITCH.....OFF (KEYS ATTACH TO HOOK)
- GENBAT MASTER SWITCH.....OFF

### POSTFLIGHT INSPECTION

- PARKING BRAKE.....RELEASE
- AIRCRAFT.....ROLL TO INSPECT TIRES & PARK
- PARKING BRAKE.....FLY CTRL LOCK.....INSTALL
- CHOCKS, TIE-DOWNS, FLT CTRL LOCK.....RELEASE
- PARKING BRAKE.....FASTEN
- SAFETY BELTS & BAGGAGE NET.....FASTEN
- AIRCRAFT FORMS.....COMPLETE AND ATTACH KEYS
- FUEL TESTER & TAC.....REMOVE AND ACCOUNT FOR
- PERSONAL ITEMS.....CLEAN, CLOSE AND LOCK
- CANOPY.....WALK AROUND/DAMAGE INSPECTION...PERFORM
- 360° WALK AROUND/DAMAGE INSPECTION...PERFORM