

# 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
- GEN/BAT MASTER SWITCH ..... ON
- (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
- FLAPS ..... CRUISE
- GEN/BAT MASTER SWITCH ..... 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
- OAT 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 ..... SECURE
- CHOCK ..... REMOVE
- LEFT MAIN LANDING GEAR ..... CHECK
- STALL WARNING ..... 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 SUMP, 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
- POSITION & STROBE LIGHT ASSEMBLY .....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 ..... SET
- BAGGAGE NET .....ATTACH
- FOD INSPECTION .....PERFORM

### BEFORE ENGINE START

1. RUDDER PEDALS ..... ADJUSTED
2. SAFETY BELTS ..... FASTENED AND ADJUSTED
3. PARKING BRAKE ..... SET (HOLD TOE BRAKES)
4. GEN/BAT MASTER SWITCH ..... ON
5. CANOPY ..... CLOSED AND LOCKED
6. CANOPY WARNING LIGHT ..... EXTINGUISHED
7. IGNITION SWITCH ..... OFF (INSERT KEY)
8. (NIGHT ONLY) INST & MAP LIGHTS ..... AS REQUIRED
9. (DAY ONLY) STROBE LIGHTS ..... ON
10. (NIGHT ONLY) POSITION LIGHTS ..... ON
11. SLIDING WINDOW ..... OPEN AND YELL "CLEAR"

### ENGINE START

- THROTTLE ..... FULL
- MIXTURE ..... FULL RICH
- FUEL PUMP ..... 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 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).  
CAUTION: Visually identify the nearest fire bottle and confirm that the propeller area is clear before cranking the 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 ..... ON
- PARKING BRAKE ..... RELEASE  
NOTE: Lean the mixture for taxi only if required to eliminate engine roughness at high density altitudes.

### TAXI

1. BRAKES ..... CHECK
2. FLIGHT CONTROLS ..... POSITION FOR WIND
3. 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  
NOTE: Do not exceed 1800 rpm until oil temperature is ≥ 100° F.

- 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
16. 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-stop-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
7. 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
3. AIRSPEED & 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 LDG 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)
- GEN/BAT MASTER SWITCH ..... OFF

### POSTFLIGHT INSPECTION

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