

# DA20-C1 ABBREVIATED CHECKLIST

## EMERGENCY PROCEDURES, 14 JUNE 2007



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

### EMERGENCY GROUND EGRESS

**WARNING:** Do not attempt egress until after the engine has been shut down and the aircraft has come to a complete stop.

1. PARKING BRAKE ..... SET
2. HEADSET & SAFETY BELTS ..... REMOVE
3. CANOPY ..... UNLOCK, OPEN
4. EVACUATE AIRPLANE IMMEDIATELY

### STARTER RELAY FAILURE

1. THROTTLE ..... IDLE
2. MIXTURE ..... IDLE CUTOFF
3. IGNITION SWITCH ..... OFF
4. GEN/BAT MASTER SWITCH ..... OFF

### ELECTRICAL MALFUNCTION

**NOTE:** If the battery is fully charged, expect approximately 30 minutes of battery power with a discharge load of 20 amperes.

#### LOW VOLTAGE ON THE GROUND

1. NON-ESSENTIAL ELECTRICAL CONSUMERS ..... OFF
2. RETURN TO PARKING

#### LOW VOLTAGE DURING FLIGHT/GEN FAILURE

1. NON-ESSENTIAL ELECTRICAL CONSUMERS ..... OFF
2. LAND AS SOON AS CONDITIONS PERMIT  
----- IF GEN WARNING LIGHT ILLUMINATED -----
3. GEN/BAT MASTER SWITCH ... CYCLE GEN SIDE (OFF, ON)
4. GEN CIRCUIT BREAKER ..... RESET IF TRIPPED
5. GEN CNTRL CIRCUIT BREAKER ..... RESET IF TRIPPED  
----- IF GENERATOR IS STILL OFFLINE -----
6. AMMETER & VOLTMETER ..... MONITOR

#### TOTAL ELECTRICAL POWER FAILURE

1. BATTERY CIRCUIT BREAKER ..... RESET IF TRIPPED
2. GEN/BAT MASTER SWITCH ..... CHECK ON  
----- IF ELECTRICAL POWER IS NOT RESTORED -----
3. GEN/BAT MASTER SWITCH ..... OFF
4. LAND AS SOON AS CONDITIONS PERMIT

### FLAP MALFUNCTION

1. FLAP SWITCH ..... CHECK POSITION
2. FLAP POSITION INDICATOR LIGHTS ..... CHECK
3. FLAPS ..... VISUALLY CHECK POSITION
4. INSTRUMENT PANEL LIGHT RHEOSTAT ..... OFF  
----- WHEN AIRSPEED AND ALTITUDE PERMIT -----
5. FLAPS CIRCUIT BREAKER ..... RESET IF TRIPPED
6. FLAP SWITCH ..... CHECK ALL POSITIONS
7. LAND AS SOON AS CONDITIONS PERMIT

**NOTE:** Final approach speed with flaps CRUISE is 65 KIAS.

## FIRE

### ENGINE FIRE ON THE GROUND

1. FUEL SHUTOFF VALVE ..... OFF
2. CABIN HEAT ..... OFF
3. MIXTURE ..... IDLE CUTOFF
4. IGNITION SWITCH ..... OFF
5. GEN/BAT MASTER SWITCH ..... OFF
- 6. EMERGENCY GROUND EGRESS

### ELECTRICAL FIRE ON THE GROUND

1. GEN/BAT MASTER SWITCH ..... OFF
2. THROTTLE ..... IDLE
3. MIXTURE ..... IDLE CUTOFF
4. IGNITION SWITCH ..... OFF
5. CANOPY ..... UNLOCK, OPEN
6. FIRE EXTINGUISHER ..... DISCHARGE AS REQUIRED
- 7. EMERGENCY GROUND EGRESS

### ENGINE FIRE DURING FLIGHT

1. FUEL SHUTOFF VALVE ..... OFF
2. CABIN HEAT ..... OFF
3. FUEL PUMP ..... OFF
4. AIRSPEED ..... 73 KIAS

**NOTE:** If a suitable landing area is available and can be safely reached, airspeed may be increased to help extinguish the fire. Do not exceed airspeeds for structural limitations.

- 5. FORCED LANDING

### ELECTRICAL FIRE DURING FLIGHT

1. GEN/BAT MASTER SWITCH ..... OFF
2. AIR VENTS AND WINDOWS ..... OPEN
3. FIRE EXTINGUISHER DISCHARGE IF SMOKE CONTINUES

**CAUTION:** If the fire extinguisher is used, the cabin must be ventilated.

4. LAND AS SOON AS CONDITIONS PERMIT  
----- LINES 5-17 ONLY IF ELECTRICAL PWR ESSENTIAL & FIRE IS OUT -----
5. AVIONICS MASTER SWITCH ..... OFF
6. ELECTRICALLY POWERED EQUIPMENT ..... OFF
7. ALL CIRCUIT BREAKERS ..... PULL

**CAUTION:** Restore electrical power systematically, allowing time to monitor the system voltmeter and ammeter between the reconnection of loads. Watch carefully for smoke.

8. BATTERY CIRCUIT BREAKER ..... RESET
9. GEN/BAT MASTER SWITCH (BAT SIDE ONLY) ..... ON
10. GEN CIRCUIT BREAKER ..... RESET
11. GEN CNTRL CIRCUIT BREAKER ..... RESET
12. GEN/BAT MASTER SWITCH ..... ON
13. AVIONICS MASTER CIRCUIT BREAKER ..... RESET
14. AVIONICS MASTER CNTRL CIRCUIT BREAKER ..... RESET
15. AVIONICS MASTER SWITCH ..... ON
16. ANY CIRCUIT BREAKERS ..... RESET IF REQUIRED
17. ELECTRICALLY POWERED EQUIPMENT ..... AS REQUIRED

### CABIN FIRE IN FLIGHT

1. GEN/BAT MASTER SWITCH ..... OFF
2. AIR VENTS AND WINDOWS ..... OPEN
3. CABIN HEAT ..... OFF
4. FIRE EXTINGUISHER ..... DISCHARGE AS REQUIRED

**CAUTION:** If the fire extinguisher is used, the cabin must be ventilated.

5. LAND AS SOON AS CONDITIONS PERMIT

### DEPARTING A PREPARED SURFACE

1. CONTROL STICK ..... FULL AFT
2. MIXTURE ..... IDLE CUTOFF
3. IGNITION SWITCH ..... OFF
4. GEN/BAT MASTER SWITCH ..... OFF
- 5. EMERGENCY GROUND EGRESS

## ABORT

1. THROTTLE ..... IDLE
2. BRAKES ..... AS REQUIRED
3. FLAPS ..... CRUISE  
----- LINES 4-7 AS REQUIRED -----
4. MIXTURE ..... IDLE CUTOFF
5. IGNITION SWITCH ..... OFF
6. GEN/BAT MASTER SWITCH ..... OFF
- 7. EMERGENCY GROUND EGRESS

### ENGINE MALFUNCTION IN FLIGHT

#### SUFFICIENT RUNWAY REMAINING TO LAND

1. AIRSPEED ..... 60 KIAS
2. FLAPS ..... LDG  
----- LINES 4-7 AS REQUIRED -----
3. LAND ON REMAINING RUNWAY
4. MIXTURE ..... IDLE CUTOFF
5. IGNITION SWITCH ..... OFF
6. GEN/BAT MASTER SWITCH ..... OFF
- 7. EMERGENCY GROUND EGRESS

#### INSUFFICIENT ENGINE POWER AFTER TAKEOFF

1. AIRSPEED ..... 60 KIAS
2. THROTTLE ..... FULL
3. MIXTURE ..... FULL RICH
4. FUEL SHUTOFF VALVE ..... ON
5. IGNITION SWITCH ..... BOTH
6. FUEL PUMP ..... ON
7. ALTERNATE AIR ..... ON

----- IF SUFFICIENT ENGINE POWER IS RESTORED -----

- 8. PRECAUTIONARY EMERGENCY LANDING  
----- IF SUFFICIENT ENGINE POWER NOT RESTORED -----
- 9. FORCED LANDING

**WARNING:** If adequate engine performance cannot be restored immediately, prepare for an emergency landing. If possible, land straight ahead, avoiding obstacles.

#### ENGINE RUNNING ROUGHLY

1. MIXTURE ..... FULL RICH
2. ALTERNATE AIR ..... ON
3. FUEL SHUTOFF VALVE ..... ON
4. FUEL PUMP ..... ON
5. IGNITION SWITCH ..... CYCLE (L, BOTH, R, BOTH)
6. THROTTLE ..... PRESENT POSITION  
----- IF NO IMPROVEMENT -----
7. THROTTLE ..... MINIMUM REQUIRED POWER
- 8. PRECAUTIONARY EMERGENCY LANDING

#### OIL PRESSURE LOSS, BELOW GREEN ARC

1. OIL TEMPERATURE ..... CHECK  
----- IF OIL TEMPERATURE IS NORMAL -----
- 2. PRECAUTIONARY EMERGENCY LANDING  
----- IF OIL TEMPERATURE IS RISING -----
3. THROTTLE ..... MINIMUM REQUIRED POWER
4. PREPARE FOR ENGINE FAILURE & FORCED LANDING

#### FUEL PRESSURE LOSS

1. FUEL PUMP ..... ON
- 2. PRECAUTIONARY EMERGENCY LANDING

#### ENGINE STOPPAGE

1. AIRSPEED ..... 73 KIAS
2. LANDING SITE ..... SELECT, TURN FOR ELP INTERCEPT
- 3. ENGINE RESTART (IF WARRANTED)

**CAUTION:** Diverting attention to engine restart is not recommended below 800' AGL (Low Key altitude), as primary attention must be on safely executing a forced landing.

----- IF RESTART UNSUCCESSFUL OR UNWARRANTED -----

- 4. FORCED LANDING

## ENGINE RESTART

### PROPELLER STOPPED

1. AIRSPEED ..... 73 KIAS
2. ELECTRICALLY POWERED EQUIPMENT ..... OFF
3. GEN/BAT MASTER SWITCH ..... ON
4. MIXTURE ..... FULL RICH
5. FUEL SHUTOFF VALVE ..... ON
6. FUEL PUMP ..... ON
7. FUEL PRIME ..... ON
8. THROTTLE ..... 3/4 INCH FORWARD
9. ALTERNATE AIR ..... ON
10. IGNITION SWITCH ..... START  
----- AFTER SUCCESSFUL RESTART -----

11. OIL PRESSURE ..... CHECK
12. OIL TEMPERATURE ..... CHECK
13. FUEL PRIME ..... OFF
14. ELECTRICALLY POWERED EQUIPMENT ..... ON
- 15. PRECAUTIONARY EMERGENCY LANDING

**NOTE:** If starter is inoperative, the propeller can be forced to windmill by accelerating to 137 KIAS. Expect approximately 1,000 feet of altitude loss.

**CAUTION:** Do not engage starter if propeller is windmilling. Engine damage may result.

### PROPELLER WINDMILLING

1. AIRSPEED ..... 73 KIAS
2. MIXTURE ..... FULL RICH
3. FUEL SHUTOFF VALVE ..... ON
4. IGNITION SWITCH ..... BOTH
5. FUEL PUMP ..... ON
6. FUEL PRIME ..... ON
7. THROTTLE ..... 3/4 INCH FORWARD
8. ALTERNATE AIR ..... ON  
----- AFTER SUCCESSFUL RESTART -----

9. OIL PRESSURE ..... CHECK
10. OIL TEMPERATURE ..... CHECK
11. FUEL PRIME ..... OFF
- 12. PRECAUTIONARY EMERGENCY LANDING

### PRECAUTIONARY EMERGENCY LANDING

1. EMERGENCY LANDING PATTERN ..... INTERCEPT
2. SAFETY BELTS ..... FASTENED
3. FUEL PUMP ..... ON
4. FLAPS ..... AS REQUIRED
5. FINAL APPROACH AIRSPEED (FLAPS LDG) ..... 55 KIAS  
----- AFTER TOUCHDOWN -----

6. BRAKES ..... AS REQUIRED
7. FUEL SHUTOFF VALVE ..... OFF
8. MIXTURE ..... IDLE CUTOFF
9. IGNITION SWITCH ..... OFF
10. GEN/BAT MASTER SWITCH ..... OFF
- 11. EMERGENCY GROUND EGRESS

### FORCED LANDING

1. EMERGENCY LANDING PATTERN ..... INTERCEPT
2. SAFETY BELTS ..... FASTENED
3. FLAPS ..... AS REQUIRED
4. FINAL APPROACH AIRSPEED (FLAPS CRUISE) ..... 64 KIAS
5. FINAL APPROACH AIRSPEED (FLAPS T/O) ..... 60 KIAS
6. FINAL APPROACH AIRSPEED (FLAPS LDG) ..... 55 KIAS  
----- BEFORE TOUCHDOWN -----

7. FUEL SHUTOFF VALVE ..... OFF
8. MIXTURE ..... IDLE CUTOFF
9. IGNITION SWITCH ..... OFF
10. GEN/BAT MASTER SWITCH ..... OFF  
----- AFTER TOUCHDOWN -----

11. BRAKES ..... AS REQUIRED
- 12. EMERGENCY GROUND EGRESS

## TRIM MALFUNCTION

### STUCK TRIM

1. TRIM CIRCUIT BREAKER .....RESET IF TRIPPED
2. TRIM SWITCHES ..... DEPRESS BOTH DIRECTIONS
3. REPEAT LINE 2 AFTER 5 MINUTES
4. LAND AS SOON AS CONDITIONS PERMIT

**NOTE:** Expect full range of elevator travel but greater control forces.

### RUNAWAY TRIM

1. CONTROL STICK..... GRIP & MAINTAIN CONTROL
2. TRIM CIRCUIT BREAKER ..... PULL
3. TRIM SWITCHES..... CHECK IF DEPRESSED

----- IFCONDITION RESOLVED -----

4. TRIM CIRCUIT BREAKER ..... RESET
5. LAND AS SOON AS CONDITIONS PERMIT

**NOTE:** Full travel of elevator trim system takes 10 seconds.

## CONTROLLABILITY CHECK

1. CLIMB  $\geq 3000'$  AGL AT CONTROLLABLE AIRSPEED

**CAUTION:** Do not allow the aircraft to stall. If the aircraft becomes difficult to control or approaches a stall, lower the nose and increase power to recover. Rudder will assist ailerons to counter roll.

2. FUEL PUMP .....ON
3. SAFETY BELTS ..... FASTENED
4. ESTABLISH STRAIGHT-AND-LEVEL FLIGHT
5. SLOW TO MCA OR TOUCHDOWN SPEED, WHICHEVER IS HIGHER, IN 5-KNOT INCREMENTS

**CAUTION:** Stabilize the aircraft at each consecutive airspeed for several seconds. This will allow MCA to be safely reached without losing control of the aircraft.

**NOTE:** Normal touchdown speeds are 45 KIAS (flaps LDG), 50 KIAS (flaps T/O), and 55 KIAS (flaps CRUISE).

6. PLAN A POWER-ON, STRAIGHT-IN APPROACH
7. PLAN FOR NORMAL FINAL APPROACH SPEED OR MCA + 10 KNOTS, WHICHEVER IS HIGHER.
8. PLAN TO TOUCH DOWN AT OR ABOVE MCA.
9. DO NOT REDUCE FINAL APPROACH SPEED UNTIL VERY CLOSE TO THE RUNWAY.

## SPIN RECOVERY

1. THROTTLE ..... IDLE
2. RUDDER ..... FULL (OPPOSITE TO SPIN DIRECTION)
3. CONTROL STICK ..... EASE FORWARD
4. RUDDER ..... NEUTRAL WHEN ROTATION STOPS
5. FLAPS ..... CRUISE
6. CONTROL STICK ..... PULL CAUTIOUSLY

**CAUTION:** Recover to level flight cautiously to avoid inducing a secondary stall, but do not allow the airspeed to exceed 164 KIAS.

## ICING

1. LEAVE ICING AREA ..... CHANGE HDG AND/OR ALTITUDE
2. CONTROL SURFACES ..... MOVE CONTINUOUSLY
3. ALTERNATE AIR ..... ON
4. THROTTLE ..... INCREASE RPM TO REDUCE PROP ICE
5. CABIN HEAT ..... ON, DEFROST
6. LAND AS SOON AS CONDITIONS PERMIT

**CAUTION:** Icing on the leading edge of the wings increases stall speed. Expect errors of indicated airspeed, altitude, rate of climb, and stall warning.

## AVIONICS MALFUNCTION

### TRANSMITTER FAILURE

1. CHECK RADIO FREQUENCY & VOLUME
2. CHECK MIC & HEADSET JACKS
3. USE ALTERNATE MIC OR HEADSET IF AVAILABLE

### RECEIVER FAILURE

1. CHECK TRANSCEIVER DISPLAY FOR STUCK MIC
2. DEACTIVATE SQUELCH
3. CHECK HEADSET JACKS IF SQUELCH NOT HEARD
4. ACTIVATE CABIN LOUD SPEAKER

### TOTAL AVIONICS FAILURE

1. RESET/MONITOR AVIONICS MASTER CIRCUIT BREAKER IF TRIPPED
2. TOGGLE AVIONICS MASTER SWITCH
3. IF AVIONICS REMAINS OFFLINE, PULL AVIONICS MASTER CONTROL CIRCUIT BREAKER

## LANDING WITH DEFECTIVE TIRE

### MAIN GEAR

1. FLY NORMAL FINAL APPROACH WITH FLAPS LDG
2. LAND ON SIDE OF RWY CORRESPONDING TO GOOD TIRE
3. TOUCH DOWN ON GOOD TIRE (WING SLIGHTLY LOW)
4. LOWER NOSEWHEEL IMMEDIATELY AFTER TOUCHDOWN
5. DEFLECT CONTROL STICK FULLY TOWARD GOOD TIRE
6. USE BRAKING ON GOOD TIRE FOR DIRECTIONAL CONTROL
7. MIXTURE ..... IDLE CUTOFF
8. IGNITION SWITCH ..... OFF
9. GEN/BAT MASTER SWITCH ..... OFF
- 10. EMERGENCY GROUND EGRESS

### NOSE GEAR

1. FLY NORMAL APPROACH AND LANDING
2. MIXTURE ..... IDLE CUTOFF
3. IGNITION SWITCH ..... OFF
4. GEN/BAT MASTER SWITCH ..... OFF
- 5. EMERGENCY GROUND EGRESS

## GLIDING

1. FLAPS ..... CRUISE.
2. AIRSPEED (1764 LBS) ..... 73 KIAS

**NOTE:** With a glide ratio of 11:1, the airplane moves forward 1.8nm for every 1,000 feet of altitude loss.