Colorado Flight Center

DA20-C1 CHECKLIST

(Revised on 9.13.2024)

PREFLIGHT - Cabin

1. Structural Temperature Ind.....CHECK
2. Airplane Documents .....ARROW
3. Flight Control Lock .....REMOVED
4. Flight Controls .....CHECK
5. Ignition Key .....PULLED OUT
6. Cabin Heat .....FREE
7. Parking Brake .....FREE
8. Throttle .....FREE, IDLE
9. Mixture .....FREE, IDLE CUTOFF
10. GEN/BAT Master.....ON
11. Gen & Canopy Warning Lights.....LIT
12. Fuel Quantity .....SUFFICIENT
13. Engine Gauges.....CHECK
14. Ammeter.....CHECK VOLTMETER
15. Circuit Breakers.....PRESSED IN
16. Map Light.....OPERATIONAL
17. Instrument Lights.....OPERATIONAL
18. Trim.....NEUTRAL
19. Wing Flaps Indicator.....CHECK, EXTEND
20. Trim/ Flap Ind. Lights.....OPERATIONAL
21. Exterior Lights .....AS REQUIRED
22. GEN/BAT Master Switch .....OFF
23. Foreign Object Inspection .....DONE
24. Fire Extinguisher .....CHECK
25. Rescue Hammer .....CHECK
26. Baggage .....NET ATTACHED
27. Canopy .....CLEAN, UNDAMAGED

PREFLIGHT - Left Main Gear

1. Landing Gear Strut .....CHECK
2. Wheel Fairing .....CHECK
3. Tire Pressure (33 psi / 2.3 bar.....CHECK
4. Tire, Wheel, Brake .....CHECK
5. Wheel Chocks .....REMOVE

PREFLIGHT - Left Wing

1. Entire Wing .....CHECK
2. Stall Warning .....CHECK
   (suck on opening)
3. Pitot-Static Probe.....CLEAN HOLE OPEN
4. Tiedown .....REMOVE
5. Taxi and Landing Lights .....CHECK
6. Wing Tip, Pos. Lights, Strobe.....CHECK
7. Aileron Balancing Weight .....CHECK
8. Aileron/Inspection Panel .....CHECK
9. Wing Flap/Inspection Panel .....CHECK

PREFLIGHT - Fuselage

1. Skin .....CHECK
2. Fuel Tank Vent .....CHECK
3. Fuel Drains .....DRAIN WATER
4. Structural Temperature Ind.....CHECK
5. MxFuel Drains .....NO LEAKS
6. Fuel Quantity .....CHECK
7. Antennas .....CHECK

PREFLIGHT - Empennage

1. Stabilizers & Control Surfaces.....CHECK
2. Tie down .....REMOVE
3. Fixed Tab on Rudder.....CHECK

PREFLIGHT - Right Wing

1. Entire Wing .....CHECK
2. Wing Flap + Inspection Panel .....CHECK
3. Aileron + Inspection Panel .....CHECK
4. Aileron Balancing Weight .....CHECK
5. Wing Tip, Pos. Lights, Strobe .....CHECK
6. Tie down .....REMOVE

PREFLIGHT - Right Main Gear

1. Landing Gear Strut .....CHECK
2. Wheel Fairing .....CHECK
3. Tire Pressure (33 psi /2.3 bar).....CHECK
4. Tire, Wheel, Brake .....CHECK
5. Wheel Chocks .....REMOVE

PREFLIGHT - Nose Area

1. Oil .....CHECK LEVEL
   (Max level is 6 US quarts)
   (Min level is 4 US quarts)
2. Cowling .....CHECK
3. Air Intakes .....CLEAR
4. Prop.....CHECK
5. Prop Blades .....CHECK FOR DAMAGE
6. Spinner .....CHECK
7. Nose Gear .....CHECK
8. Wheel Fairing .....CHECK
9. Tire Pressure (26 psi/1.8 bar).....CHECK
10. Tire and Wheel.....CHECK
11. Wheel Chocks.....REMOVE

BEFORE ENGINE START

1. Pedals ..... ADJUST, LOCK
   (pull T-grip straight back)
2. Canopy.....CLOSE/SECURE

3. PASSENGER BRIEFING

Seat Belts/Position.....CHECK
Air Vents/Environment.....CHECK
Fire Extinguisher.....CHECK
Exits/Emergency Plan.....BRIEF
Talking/Traffic Scanning..... BRIEF
Your Questions.....DISCUSS

4. Parking Brake .....SET
5. Fuel Shut-off Valve.....OPEN
6. Circuit Breakers.....CHECK PRESSED IN
7. Avionics Master Switch .....OFF
8. GEN/BAT Master Switch .....ON
9. Canopy Unlock Warning Light.....OFF
10. Exterior Lights .....AS REQUIRED
11. Inst. Panel Lighting.....AS REQUIRED

ENGINE START

1. Throttle.....IDLE
2. Mixture .....FULL RICH
3. Toe Brakes .....HOLD
4. Propeller Area .....CLEAR
5. Fuel Pump .....ON
6. Fuel Prime .....ON
7. COLD START - Throttle.....FULL
   (prime for 5-10 sec min)
8. HOT START - Throttle.....FULL
   (prime for 1-3 sec min)
9. Throttle .....IDLE to 1⁄4 inch OPEN
10. Ignition Switch.....START
11. Starter Warning Light.....LIT
12. Throttle.....1000 ± 25 RPM
13. Fuel Prime .....OFF
14. Engine Instruments .....CHECK
15. Mixture.....LEAN FOR TAXI

BEFORE TAXI

1. Avionics Master Switch.....ON
2. Flight Instruments and Avionics.....SET
3. Warn. Lights/Gen/Canopy/Start.....PUSH
4. ATIS/AWOS/ASOS.....OBTAIN
5. Altimeter.....SET
6. Heading Indicator.....SET
7. Flaps.....UP
8. Parking Brake.....RELEASE
9. Brakes.....CHECK
10. Throttle.....AS REQUIRED

RUN UP

1. Brakes.....APPLY
2. Safety Belts.....FASTENED
3. Canopy.....CLOSED & LOCKED
4. Fuel Pressure .....CHECK
5. Fuel Quantity Indicator .....CHECK
6. Flight Controls .....FREE/CORRECT
7. Oil Temp. .....75° MINIMUM
8. Throttle .....1700 RPM
9. Mixture.....BEST POWER
10. Magnetos.....CHECK
    (25-150 max drop, 50 max difference)
11. Alt. Load .....CHECK
12. Oil Pressure .....30-60 PSI
13. Vacuum Gauge .....IN GREEN RANGE
14. Throttle.....CHECK IDLE (975 RPM)
15. Throttle .....1000 RPM
16. Parking Brake ..... RELEASE

PRE-TAKEOFF

1. Flaps.....T/O
2. Lights.....AS REQUIRED
3. Trim.....NEUTRAL
4. Departure Brief.....COMPLETE

TAKEOFF

1. Throttle .....FULL
2. Elevator (@start of roll) .....NEUTRAL
3. Directional Control ..... maintain w/rudder
4. Rotate .....44 KIAS
5. Climb Speed (50 ft. obstacle).....58 KIAS

CLIMB

1. Mixture .....BEST POWER
2. Throttle .....FULL
3. Wing Flaps (400 ft AGL) .....CRUISE
4. Airspeed .....75 KIAS
5. Trim .....ADJUST
6. Engine Gauges .....CHECK

CRUISE

1. Fuel Pump..... OFF
2. Throttle .....AS REQUIRED
3. Mixture.....lean 25° F rich of peak EGT
4. Trim .....AS REQUIRED

DESCENT

1. Flight Instruments and Avionics....ADJUST
2. ATIS/AWOS/ASOS.....OBTAIN
3. Fuel Pump .....ON
4. Mixture.....ENRICHEN
5. Throttle .....AS REQUIRED

TO ACHIEVE FAST DESCENT:
Throttle .....IDLE
Wing Flaps .....CRUISE
Airspeed .....118 KIAS

LANDING APPROACH

1. Seat Belts .....FASTENED
2. Lights .....AS REQUIRED
3. GEN/BAT Master Switch .....CHECK ON
4. Ignition Switch .....CHECK BOTH
5. Fuel Pump .....CHECK ON
6. Mixture .....SET
7. Throttle .....AS REQUIRED
8. Airspeed .....MAX. 78 KIAS
9. Wing Flaps .....T/O
10. Trim .....AS REQUIRED
11. Wing Flaps .....LDG
12. Approach Speed .....55 KIAS

BALKED LANDING

1. Throttle .....FULL
2. Wing Flaps .....T/O
3. Airspeed .....58 KIAS

AFTER LANDING

1. Throttle.....AS REQUIRED
2. Wing Flaps.....CRUISE
3. Avionics .....AS REQUIRED
4. Exterior Lights.....AS REQUIRED

ENGINE SHUTDOWN

1. Throttle .....IDLE
2. Avionics Master Switch .....OFF
3. Lights.....OFF
4. Fuel Pump .....OFF
5. Mixture .....IDLE CUT-OFF
6. Ignition Switch .....OFF
7. GEN/BAT Master Switch.....OFF
8. Tiedowns/Wheel Chocks…AS REQUIRED

GUMPS

Gas (Fuel Shut off/Pump).....CHECK
Undercarriage ..... DOWN AND LOCKED
Mixture ..... SET
Power.....AS DESIRED
Switches/Seatbelts .....CHECK

V SPEEDS

Va.....106 KIAS
Vfe.....100 KIAS
Vfe (LDG).....78 KIAS
Vno.....118 KIAS
Vne.....164 KIAS
Vs.....44 KIAS
Vso.....40 KIAS
Vx T/O.....58 KIAS
Vx Cruise.....60 KIAS
Vy.....75 KIAS
Best glide.....73 KIAS

PATTERN SPEEDS

Downwind.....75 KIAS
Base.....65 KIAS
Final.....55 KIAS

LOCAL FREQUENCIES

ATIS.....118.55 MHz
Ground.....121.7 MHz
Tower.....118.1 MHz
Practice Area.....122.75 MHz
Flight Service.....122.6 MHz
Denver Center.....134.5 MHz
Denver Approach/Departure.....119.7 MHz

OFFICE # 970.254.0444

IF YOU ARE UNABLE TO RETURN TO GRAND JUNCTION WHEN EXPECTED/A LANDING IS REQUIRED AT ANOTHER AIRPORT DUE TO MECHANICAL ISSUES OR WEATHER, PLEASE CLOSE YOUR FLIGHT PLAN, THEN CALL YOUR INSTRUCTOR OR THE SCHOOL OFFICE/CHIEF FLIGHT INSTRUCTOR AS SOON AS PRACTICAL.

ENGINE FAILURE ON TAKEOFF

1. Throttle.....IDLE
2. Brakes.....AS REQUIRED
3. Flaps .....CRUISE
4. Mixture.....IDLE CUT-OFF
5. Ignition Switch .....OFF
6. GEN/BAT Master Switch .....OFF

ENGINE FAILURE AFTER TAKEOFF

(INSUFFICIENT ENGINE POWER)

1. Airspeed ..... 60 KIAS
2. Throttle .....FULL
3. Mixture .....FULL RICH
4. Alternate Air .....ON
5. Fuel Shut-off Valve .....OPEN
6. Ignition Switch .....BOTH
7. Fuel Pump .....ON

IF ADEQUATE ENGINE PERFORMANCE CANNOT BE RESTORED IMMEDIATELY, PREPARE FOR AN EMERGENCY LANDING. IF POSSIBLE, LAND STRAIGHT AHEAD, AVOIDING OBSTACLES.

DO NOT ENGAGE STARTER IF PROPELLER IS WINDMILLING. ENGINE DAMAGE MAY RESULT.

The propeller will continue to windmill as long as the airspeed is at least 60 KIAS.

RESTARTING ENGINE WITH PROP WINDMILLING

1. Airspeed (KIAS) ..... 73 KTS
2. Mixture .....FULL RICH
3. Fuel Shut-off Valve .....OPEN
4. Ignition Switch .....BOTH
5. Fuel Pump .....ON
6. Fuel Prime .....ON
7. Throttle .....3/4 IN

RESTARTING ENGINE WITH PROP FULL STOP

1. Airspeed .....73 KTS
2. Electrically Powered Equipment.....OFF
3. GEN/BAT Master Switch .....ON
4. Mixture .....FULL RICH
5. Fuel shut off valve .....OPEN
6. Fuel Pump .....ON
7. Fuel Prime .....ON
8. Throttle .....3/4 IN
9. Ignition Switch .....START

The engine may also be re-started by increasing the airspeed by pushing the airplane into a descent. A loss of 1000 ft/300 m altitude must be taken into account.
AN AIRSPEED OF 137 KIAS IS REQUIRED TO RESTART THE ENGINE.

ENGINE FIRE DURING FLIGHT

1. Fuel Shut-off Valve .....CLOSED
2. Cabin Heat .....CLOSED
3. Airspeed .....73 KIAS

Airspeed is for best glide with flaps in CRUISE position. If a suitable landing area is available and can be safely reached, airspeed can be increased in an attempt to extinguish the fire. Do not exceed airspeeds given for structural limitations.

4. Fuel Pump.....OFF

ELECTRICAL FIRE INCLUDING SMOKE DURING FLIGHT

In the event of smoke or fire, prepare to land the aircraft w/o delay while completing fire suppression and/or smoke evacuation procedures. If it cannot be visually verified that the fire has been completely extinguished, whether the smoke has cleared or not, land immediately at the nearest airfield or landing site.

1. GEN/BAT Master Switch .....OFF
2. Cabin Air .....OPEN
3. Extinguisher…..ONLY IF SMOKE PRESENT

ELECTRICAL FIRE INCLUDING SMOKE ON THE GROUND

1. GEN/BAT Master..OFF IF ENGINE RUNNING
2. Throttle ..... IDLE
3. Mixture ..... IDLE CUTOFF
4. Fuel Shut-off Valve..... CLOSED
5. Ignition Switch ..... OFF
6. Canopy .....OPEN
7. Extinguisher.....DISCHARGE IF NEEDED

CABIN FIRE DURING FLIGHT

In the event of smoke or fire, prepare to land the aircraft w/o delay while completing fire suppression and/or smoke evacuation procedures. If it cannot be visually verified that the fire has been completely extinguished, whether the smoke has cleared or not, land immediately at the nearest suitable airfield or landing site.

1. GEN/BAT Master Switch .....OFF
2. Cabin Air .....OPEN
3. Cabin Heat .....CLOSED
4. Extinguisher.....DISCHARGE IF NEEDED
5. Land.....AS SOON AS POSSIBLE

IF THE FIRE EXTINGUISHER IS USED, THE CABIN MUST BE VENTILATED.

ICING

(UNINTENTIONAL FLIGHT INTO ICING AREA)

1. Leave icing area (through change of altitude or change of flight direction to reach area with higher outside air temp)
2. Continue to move control surfaces to maintain their moveability.
3. Alternate Air .....ON
4. Increase RPM to avoid icing of propeller blades (observe maximum RPM)
5. Cabin Heat .....ON DEFROST

ELECTRICAL POWER FAILURE

(TOTAL ELECTRICAL POWER FAILURE)

1. Battery Circuit Breaker .....RESET
2. GEN/BAT Master Switch .....ON
3. Master…....OFF IF POWER NOT RESTORED
4. If Unsuccessful……LAND AT BEST AIRPORT

GENERATOR FAILURE

1. GEN/BAT Master Switch……CYCLE OFF-ON
2. GEN C.B.....IF TRIPPED RESET
3. GEN.CONTROL C.B……IF TRIPPED RESET
4. If GEN can NOT be brought online, switch OFF all non-flight essential electrical consumers, monitor amps/volts, and land at the nearest suitable airport.

SECURING

1. Mixture.....IDLE CUT OFF
2. Fuel Shutoff Valve.....CLOSED
3. Ignition Switch.....OFF
4. Flaps.....AS REQUIRED
5. GEN/BAT Switch.....OFF

AIRCRAFT LIGHT GUN SIGNALS

COLOR & TYPE	GROUND	AIR
STEADY GREEN	Cleared for takeoff	Cleared to land
FLASHING GREEN	Cleared for taxi	Return for landing (to be followed by steady green)
STEADY RED	STOP!	Give way to other aircraft and continue circling
FLASHING RED	Taxi clear of runway in use	Airport unsafe, do not land
FLASHING WHITE	Return to starting point on airport	N/A
ALTERNATING RED/GREEN	Exercise extreme caution	

EMERGENCY SQUAWKS

HIJACK.....7500
LOST COMMS.....7600
EMERGENCY.....7700