FLIGHT PLAN EQUIPMENT

Aircraft Equipment ..... SBGR
Surveillance Equip CB1
Other Info PBN/B2C2D2

COCKPIT

Required papers .... check on board
Oxygen system ..... masks & hoses
Control wheel ..... release restraints
Gear handle ..... down
Circuit breakers ..... IN
All switches ..... OFF
Avionics ..... OFF
Mixture ..... idle cut-off
Induction air ..... operate
Flight controls ..... free & correct
Trim ..... neutral
Static system ..... drain
Alternate static valve ..... DOWN
Battery switch ..... ON
Interior lighting ..... ON and check
Annunciator panel ..... check
Flaps ..... extend
Fuel gauges ..... check quantity
Tach & Hobbs ..... record
Wshield heat ..... ON, warm?, OFF
Exterior lights ..... ON
Ice light ..... ON
Pitot heat ..... ON
Prop heat ..... ON, amps in blue arc

OUTSIDE

Pitot heat ..... warm
Prop heat ..... two blades warm
Ice light ..... operating
Exterior lights ..... operating

COCKPIT

Pitot, ~~Stall vane,~~ Prop heat ..... OFF
Exterior lights ..... OFF
Battery switch ..... OFF

EMPENNAGE

Antennas ..... check
Surface ..... uncontaminated
Left static port ..... clear
Alternate static ports ..... clear
Boots ..... intact
Elevator ..... check
Rudder ..... check
Static wicks ..... check
Tie down ..... remove
Right static port ..... clear

RIGHT WING

Surface ..... uncontaminated
Flap and hinges ..... check
Aileron and hinges ..... check
Static wicks ..... check
Wing tip ..... check
Fuel tank vent ..... clear
Boots ..... intact
Fuel cap ..... check supply, replace
Chock ..... remove
Main gear strut ..... 2.5 ± 0.25 in.
Tire ..... check
Brake block and disc ..... check
Fuel tank ..... sump

NOSE SECTION

Fuel filter ..... sump
Cowling ..... secure
Propeller and spinner ..... check
Engine baffle seals ..... check
Air inlets ..... clear
Alternator belt ..... taut
Chock ..... remove
Nose gear strut ..... 1.5 ± 0.25 in.
Nose wheel tire ..... check
Oil ..... 6qt, fill at 5.5
Dipstick ..... seated
Oil filler panel ..... latched
Tow bar ..... stowed securely

LEFT WING

Surface ..... uncontaminated
Fuel tank ..... sump
Fuel cap ..... check supply, replace
Baggage door .. closed and secured
Boots ..... intact
Chock ..... remove
Main gear strut ..... 2.5 ± 0.25 in.
Tire ..... check
Brake block and disc ..... check
Pitot head ..... holes clear
Fuel tank vent ..... clear
Wing tip ..... check
Static wicks ..... check
Aileron and hinges ..... check
Flap and hinges ..... check

SAME DAY CHECKLIST

Control lock ..... remove
Oil ..... 6qt, fill at 5.5
If fueled ..... sump three places
Fuel ..... check levels, caps

FUEL LEVELS

see fuel ..... 18 gal
covers bottom ..... 20 gal
covers stringer ..... 25 gal
bottom of hole ..... 30 gal
middle of hole ..... 40 gal

SPEEDS

V_A maneuvering … 135kt at 4100lb
V_G best glide 90kt
S_0 stall gear + full flaps 58kt
S_1 stall clean 69kt

WEIGHT

Max ramp 4118
Max takeoff..... 4000
Max landing 3900
Max bags / compartment 100
Empty weight 2804

SHUTDOWN

Tach ..... record
Fuel levels ..... record
Clock time.....record
Transponder ..... VFR
Radio master ..... OFF
Lights ..... OFF
Mixture ..... OFF
Mags ..... OFF
Alternator 1 & 2 ..... OFF
Battery master ..... OFF

TIEDOWN

Control wheel ..... secure restraints
Windshield reflector ..... install
Wheels ..... chock
Pitot cover, cowl plugs ..... install

SHORT FIELD TAKEOFF

Flaps ..... 20°
Brakes ..... apply
Throttle ..... FULL
Rotation 72kt

SHORT FIELD LANDING

Approach 77kt
Touchdown ..... numbers

COLD WEATHER START

At temps below 20°F continue priming while cranking until engine starts.
Aux fuel pump LOW only as necessary for smooth operation 1-3 minutes below 20°F

FLOODED START

start with full throttle/zero mixture
retard throttle
advance mixture slowly

BEFORE STARTING ENGINE

Empty seats .. belts fastened snugly
Doors ..... latched, four green
Passenger briefing belts, both exits
Seat position ..... locked
Parking brake ..... set
Radios ..... OFF
Alternators ..... ON
Cabin altitude ..... filed elev.+1000
Cabin altitude rate ..... 8 o'clock
Cabin pressure control ..... set
Cabin dump switch ..... OFF
Induction air ..... primary
Belts/harness ..... fastened
Clock time ..... record

STARTING ENGINE

Battery switch ..... ON
Exterior lights ..... ON
Mag switches ..... ON
Aux. fuel pump ..... OFF
Mixture ..... full RICH
Prop control ..... full INCREASE
Throttle ..... full FORWARD
Primer ... < 100°F: ON 3s, wait 10s
Prop area ..... CLEAR
Throttle ..... ¼ – ½" OPEN
Starter ..... engage
Throttle ..... 1000 RPM
Oil pressure ..... check
Mixture ..... lean
Radio master ..... ON
Alternator 1 & 2 ..... check
Vacuum 1 & 2 ..... check
Fuel selector ..... desired tank
Annunciator panel … all off / all on
Autopilot ..... test
Flight plan ..... programmed
Flaps ..... retract
Headset ANC ..... ON

TAXIING

ATIS ..... obtain
Taxi clearance ..... obtain
Altimeter ..... set
Compass ..... matches HSI
Transponder ..... code & alt

RUNUP ("GROUND CHECK")

Parking brake ..... set
Seat backs ..... upright
Seats ..... adjusted & locked
Flight controls ..... free and correct
Annunciator panel ..... press to test
Battery switch ..... ON
Alternators ..... ON
Pressurization controls ..... set
ASI, AI, ALT, CDI ..... check
Fuel selector ..... proper tank
Aux. fuel pump ..... OFF
Engine gauges ..... check
Induction air ..... primary
Door ..... latched
Mixture ..... full RICH
Prop control ..... full INCREASE
Throttle 2000
Magnetos …… drop <150±50 RPM
Vacuum 1 & 2 …. 4.8 to 5.0 in. Hg.
Volt/ammeter ..... check
Oil temp ..... > 100°F
Oil pressure ..... check
Propeller ….. exercise, INCREASE
Deice boots ..... test
Pitot, wshield, stall ….. check amps
Prop heat ..... blue arc
Throttle …….. idle, then 1000 RPM
Flaps ..... 10°
Trim ..... ¼" forward of neutral
Parking brake ..... released

BEFORE TAKEOFF

Stall warn heat …. AS REQUIRED
off above 5°C
Windshield heat . . AS REQUIRED
Prop heat ..... AS REQUIRED
Air conditioner ..... OFF
Clock time ..... record
Pressurization ctrls …… as required
Flaps ..... 10°
Prop control ..... full INCREASE

DEPARTURE

Mixture ..... full RICH
Pitot heat ..... ON
Lights ..... ON
Transponder ..... set
Flaps-mixture-prop flow..... check

Rotate 77kt
Gear ..... up after committed
Flaps ..... up clear obstacles
V_X best angle 90kt
V_Y best rate 110kt
Cooling climb 130kt

CLIMB

Mixture ..... full RICH
Prop control ..... full INCREASE
Throttle ..... full OPEN
Max MP .... 38” (35” above 24000)
CHTs ..... <380°F (max 460°F)

CRUISE

Throttle ..... 28” MP
Prop control ..... 2300 RPM
Mixture 50 LOP <1600 TIT ~14gph
Pressure ..... set cruise altitude

ENTERING ICING

Induction air ..... ~~ALTERNATE~~
Pitot heat ..... ON
Stall, prop, windshield heat ..... ON
Defrost knob ..... OUT
Vent/Defog switch … ON if desired
Ice detection light ..... ON
Surface de-ice ..... as needed
do not operate below -40°C
Cycle prop ..... as needed
Ammeter ..... monitor
Cycle elevator ..... periodically
Min airspeed 130kt
Landing with ice on protected surfaces ..... no flaps, +10-15kt

DESCENT

Cabin pressure …. dest elev + 1000
Compute descent angle ..... 1.4°

APPROACH

Brief.....

ATIS	Altimeter
Approach	Avionics
Altitude	Airspeed

V_{LO} ..... 170kt down, 130kt up
V_{LE} ..... 200kt max
Instrument approach . 110kt, 20MP
Glideslope intercept .....
..... gear DOWN, flaps 10°
Enter pattern .....
… 22” MP, 2600 RPM, 130kt clean
Final 80-85kt
Pressure ..... field elev + 1000
Mixture ..... INCREASE
Prop ..... INCREASE
Final, short field 77kt

AFTER LANDING

Flaps ..... RETRACT
Deice equipment ..... OFF
Mixture ..... lean
Lights ..... OFF
Transponder ..... VFR