

United Flight Systems



N1966F - C172N NORMAL OPERATIONS

BEFORE START ENGINE

HOBBSRECORD
 PREFLIGHT INSPECTION COMPLETE
 A.R.R.O.W. CHECK
 AIRPORT DIAGRAMAVAILABLE
 PASSENGER BRIEF S.A.F.E.T.Y.
 Seat & Seat Belts, Air, Fire, Exit/Emergencies,
 Traffic & Talking, Your Questions?
 SEATS & SEAT BELTS..... LOCKED / FASTENED
 MASTER (bat & alt) OFF
 AVIONICS MASTER OFF
 FUEL SELECTOR BOTH
 CIRCUIT BREAKERS CHECK
 CARB HEAT OFF
 THROTTLE..... CLOSED
 MASTER (bat & alt) ON
 BEACON..... ON
 NAV LIGHTS AS REQ

ENGINE START

BRAKES SET / HOLD
 MIXTURE RICH / FULL FWD
 COLD ENGINE (max 6 pumps) PRIME AS REQ
 THROTTLE..... CLOSED / 1/8 IN
 PROP AREA CLEAR PROP
 STARTER (8-10 seconds max) ENGAGE
****WHEN ENGING STARTS****
 THROTTLE..... 1000 – 1200 RPM
 OIL PRESSURE..... CHECK
 MIXTURE LEAN

AFTER START

AVIONICS MASTER ON
 HEATER / DEFROST AS REQ
 HEADSETS ON / CHECK
 AMPS OUTPUTCHECK
 GPS DATABASE CURRENCY CHECK / ENT
 GPS / OBS TEST CHECK / ENT
 COMS SET / ATIS
 ALTIMETERSSET
 CLEARANCE (If IFR).....OBTAIN
 GPS.....ENTER WPT/FPL/APR AS REQ
 CDI KEY..... (as req. for departure) VLOC/GPS
 NAVS SET / COURSE
 FLIGHT INSTRUMENTSCHECK / SET
 TRANSPONDER SET CODE / ALT MODE
 FLAPSCHECK / UP

TAXI

Do Not Ride Brakes
 AIRPORT DIAGRAMAVAILABLE
 TAXI CLEARANCE..... OBTAIN / BRIEF
 TAXI AREA (left & right) CLEAR
 BRAKES..... RELEASE / CHECK
 FLIGHT INSTRUMENTSCHECK
 Check in turns.
 STERILE COCKPIT.....NO NONESSENTIAL TALKING

****Pre-Takeoff Emergency Brief****

Engine Failure on runway
 THROTTLE..... IDLE
 BRAKES APPLY
 STOP STRAIGHT AHEAD
 Engine Failure After Rotation
 THROTTLE..... IDLE
 PITCH FOR BEST GLIDE 65
 CONTINUE STRAIGHT AHEAD
 At or above 1000ft AGL – Turn around point
 TURN TO AIRPORT

RUN UP

BRAKES SET / HOLD
 DOORS CLOSE / LOCKED
 FUEL GAUGES / QTY.....CHECK
 FUEL SELECTOR BOTH
 MIXTURE (below 3000' MSL) FULL FWD
 THROTTLE 1700 RPM
 MAGNETOS..... (125 max drop, mas diff. 50) CHECK
 OIL TEMPERATURE & PRESSURE.....CHECK
 SUCTION CHECK
 AMPSCHECK
 CARB HEAT.....ON / VERIFY DROP
 THROTTLE IDLE
 CARB HEAT..... OFF
 THROTTLE 1000 RPM
 MIXTURE LEAN
 FLIGHT CONTROLS FREE / CORRECT
 TRIMSET
 BRAKESRELEASE

BEFORE TAKEOFF

****TAKE OFF / EMERGENCY PLAN** BRIEF**
 FLAPSSET FOR TAKEOFF
 FLIGHT INSTRUMENTSCHECK
 DOORS CLOSE / LOCKED
 SEATBACKS SECURE
 SEATS & SEAT BELTS LOCKED / FASTENED
 Final items when #1 for takeoff

L Flow – Left to Right

WINDOWSCLOSED / LOCKED
 ENGINE GAUGESCHECK
 PRIMER LOCKED
 MASTER (bat & alt) ON
 LANDING LIGHT ON
 STROBE AS REQ
 CARB HEAT..... OFF
 MIXTURESET
 TRANSPONDER VERIFY ALT / SET
 FLAPSVERIFY SET
 TRIMSET
 FUEL SELECTOR BOTH

TAKE OFF

THROTTLE..... FULL
 ROTATE 55 KTS
 YOKE..... APPLY BACK PRESSURE / ESTABLISH CLIMB
 CLIMB..... 70 - 80 KTS
 V_X - 59 KTS / V_Y - 73 KTS

AFTER TAKEOFF

Above 1000 AGL

CRUISE CLIMB 70 - 85 KTS
 THROTTLE..... FULL
 FLAPS UP CHECK
 MIXTURE LEAN ABOVE 3000' MSL

CRUISE

THROTTLE..... SET
 2300-2400 RPM LOCAL / 75% BHP FOR XC
 ENGINE / SYSTEM INSTRUMENTS CHECK
 LANDING LIGHT..... OFF
 MIXTURE LEAN

V Speeds	KDWH Frequencies
V _R55	Ground..... 121.8
V _Y73	Tower..... 118.4
V _X59	Unicom 122.95
V _{FE}85	West Practice.. 123.5
V _A 80-97	ATIS..... 128.375
V _{NO}127	Hou App NW ... 119.7
V _{NE}158	Hou App SW.... 123.8
V _G65	Max Demo Xwind 15

DESCENT

For XC use

ATIS / AWOSCHECK
 APPROACH BRIEFINGCOMPLETE
 ALTIMETER.....SET
 CARB HEAT AS REQ
 THROTTLE AS REQ
 MIXTURE SLIGHTLY ENRICH

APPROACH (15NM FROM AIRPORT)

ATIS / AWOSCHECK
 APPROACH BRIEFINGCOMPLETE
 ALTIMETER.....CHECK
 FUEL SELECTOR..... BOTH
 MIXTURE SLIGHTLY ENRICH
 PARKING BRAKE OFF
 LANDING LIGHT..... ON

When direct to IAF or Vectored

FLIGHT & NAV Instruments..... SET / IDENT
 CDI KEY..... VLOC / GPS
 AIRSPEED 90 KTS

BEFORE LANDING CHECKLIST

G.U.M.P.S.

FUEL SELECTOR..... BOTH
 MIXTURESET FOR ALT / FULL RICH
 CARB HEAT ON
 POWER..... AS REQ
 SEAT BELTS / SWITCHES.....CHECK
 FLAPS (V_{FE} 85) AS REQ

GO AROUND / MISSED APPROACH

"Cram, Climb, Clean, Click, Call"

THROTTLE FULL
 CARB HEAT OFF
 FLAPS 20 IMMEDIATELY
 PITCH 60 KTS / PITCH FOR CLIMB
 FLAPS 10 POS RATE, OBST CLEARED, 60 KTS
 FLAPS UP AFTER REACHING SAFE ALT 65 KTS
 Fly assigned or published heading & altitude

AFTER LANDING

When aircraft is stopped

GROUND OR ASSIGNED FREQ.....CHECK
 FLAPS UP
 CARB HEAT..... OFF
 MIXTURE LEAN
 TAXI CLEARANCE..... OBTAIN / BRIEF

SHUTDOWN

CALL FOR FUEL @ KDWH 122.95
 TRANSPONDER 1200 / VFR
 AVIONICS MASTER..... OFF
 THROTTLE 1000 RPM
 MIXTURE CUTOFF

When Propeller stops

MAGNETOS..... OFF
 MASTER SWITCH..... OFF
 ELECTRICAL SWITCHES..... OFF
 FUEL SELECTOR..... LEFT or RIGHT
 HOBBS / TACH..... RECORD

Secure aircraft, tiedown and walk around.

Note and record squawks

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This checklist is for reference. It is not intended to replace the POH / AFM.

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C172N - PREFLIGHT

CABIN

Walk up to aircraftINSPECT FOR DAMAGE
Oil Level..... CHECK
Pitot Tube Cover REMOVE
HOBBS.....RECORD
POHIN-AIRCRAFT
UFS clip board and keysIN-AIRCRAFT
Check ListIN-AIRCRAFT
Air Worthiness Certificate.....IN-AIRCRAFT
Registration.....IN-AIRCRAFT
GPS Reference GuideIN-AIRCRAFT
Weight and Balance CHECKED
Parking Brake SET
Control Lock REMOVE
Magneto Switch OFF
Avionics Switch OFF
Circuit Breakers.....IN

POWER

Master Switch (Batt) ON
Fuel Qty (R & L) CHECK
Avionics ON
Avionics Fan (If Installed) VERIFY ON
GPS data base VERIFY CURRENT
Avionics Switch OFF
Flaps (Extend One Notch at a Time)..... VERIFY
Beacon ON
Navigation Lights..... ON
Taxi/Landing Lights ON
Pitot Heat..... ON

VERIFY LIGHTS, PITOT HEAT, STALL WARNING

POWER - CONTINUED

Navigation Lights OFF
Taxi/Landing Lights OFF
Pitot Heat..... OFF
Master Switch OFF
Elevator Trim Control..... TAKEOFF
Fuel Selector Valve..... BOTH
Alternate Static Air Valve ON / OFF
Fire ExtinguisherCHECK

LEFT Fuselage

Left Tire.....CHECK
Left Brake..... SECURE/WEAR INDICATOR
Left Brake Line NO LEAKS
Left Main Gear StrutSECURE
Baggage Door.....CLOSED
Antennas.....SECURE
Body STRAIGHT

LEFT ELEVATOR

Control SurfaceCHECK
Counterbalance WeightSECURE
Static Wicks (If Installed).....SECURE

RUDDER

Tail Tiedown..... REMOVE
Antennas.....SECURE
Static Wicks (If Installed).....SECURE

RIGHT ELEVATOR

Control SurfaceCHECK
Elevator Trim Tab.....CHECK
Static Wicks (If Installed).....SECURE
Counterbalance WeightSECURE

Right Fuselage

Body STRAIGHT
Right Main Gear StrutSECURE
Right Tire.....CHECK
Right Brake..... SECURE/WEAR INDICATOR
Right Brake Line NO LEAKS

RIGHT WING

FlapCHECK
AileronCHECK
Wing Tip.....CHECK
Leading Edge.....CHECK
Wing Support Strut SECURE
Fuel Tank Vent (if Installed) CHECK POSITION
Tiedown REMOVE
Fuel QuantityCHECK VISUALLY
Fuel Filler Cap SECURE
Fuel Drain Sumps..... DRAIN

NOSE

Sump Fuel Selector (belly) DRAIN
Static Source (If Installed)CHECK
Engine Oil Dipstick/Filler Cap.....CHECK
Fuel Strainer DRAIN
Engine Cooling Air Inlets..... CLEAR
Prop and SpinnerCHECK
Air FilterCHECK
Nosewheel Strut and TireCHECK
Static SourceCHECK
Windscreen..... CHECK (CLEAN)

LEFT WING

Leading Edge.....CHECK
Wing Support Strut SECURE
Pitot TubeCHECK
Fuel QuantityCHECK VISUALLY
Fuel Filler Cap SECURE
Fuel Tank Vent CHECK POSITION
Tiedown REMOVE
Wing Tip.....CHECK
AileronCHECK
FlapCHECK
Fuel Drain Sumps..... DRAIN

N1966F - C172N

EMERGENCY PROCEDURES

ENGINE FIRE DURING START ON GROUND

Cranking.....CONTINUE

IF ENGINE STARTS

Power 1700 RPM (for a few mins)
Engine.....SHUTDOWN (inspect for damage)

IF ENGINE FAILS TO START

Throttle..... FULL
Mixture IDLE CUTOFF
Cranking.....CONTINUE
Fire Extinguisher.....OBTAIN
Engine.....SECURE
Master OFF
Ignition OFF
Fuel Selector Valve OFF
Fire..... EXTINGUISH
Fire Damage.....INSPECT

ENGINE POWER LOSS DURING TAKEOFF RUN

Throttle..... IDLE
Brakes APPLY
Flaps RETRACT
Mixture IDLE CUTOFF
Ignition OFF
Master OFF

ENGINE FAILURE IMMEDIATELY AFTER TAKEOFF

Airspeed Flaps Up..... 65 KIAS
Airspeed Flaps Down 60 KIAS
Mixture IDLE CUTOFF
Fuel Selector Valve OFF
Ignition OFF
Flaps AS REQ
Master Switch..... OFF

ENGINE FAILURE DURING FLIGHT

RESTART

Airspeed..... 65 KIAS
Carb Heat ON
Fuel Selector Valve..... BOTH
Mixture RICH
Ignition..... BOTH
Primer IN AND LOCKED

FORCED LANDING WITHOUT POWER

Airspeed Flaps Up..... 65 KIAS
Airspeed Flaps Down 60 KIAS
Mixture IDLE CUTOFF
Fuel Selector Valve..... OFF
Ignition Switch OFF
Flaps.....AS REQ (full recommended)
Master Switch..... OFF
Doors..... UNLATCH PRIOR TO TOUCHDOWN
Touchdown SLIGHTLY TAIL LOW
Brakes APPLY HEAVILY

ENGINE FIRE IN FLIGHT

Mixture IDLE CUTOFF
Fuel Selector Valve..... OFF
Master..... OFF
Cabin HT and Cabin AIR OFF
Airspeed..... 100 KIAS
(if fire is not extinguished, increase glide speed to find an airspeed within airspeed limitations, which will provide an incombustible mixture)
Forced Landing..... EXECUTE
(refer to power off landing)

LOSS OF OIL PRESSURE/HIGH OIL TEMP

Land as soon as possible and investigate the cause. Prepare for power off landing.

AMMETER SHOWS EXCESSIVE RATE OF CHARGE

Alternator OFF
Alternator Circuit Breaker..... PULL
Nonessential Electrical Equipment OFF
Flight TERMINATE
(as soon as practical)

LOW VOLTS ANNUNCIATOR

Avionics..... OFF
Alternator Circuit Breaker..... CHECK IN
Master OFF (BOTH SIDES)
Master ON (BOTH SIDES)
Low Voltage Lights..... CHECK OFF
Avionics ON

LOW VOLTS ANNUNCIATOR REMAINS ON

Alternator OFF
Nonessential Radio & Electrical Equipment OFF
Flight TERMINATE
(as soon as practical)

SPIN RECOVERY

Throttle IDLE
Ailerons..... NEUTRAL
Rudder FULL OPPOSITE
to direction of rotation
Control Wheel..... BRISKLY FORWARD
(to break stall)
Recover NEUTRALIZE RUDDER,
RECOVER FROM DIVE