

United Flight Systems



N919TC - C172S / NAV III (G1000)

NORMAL OPERATIONS

BEFORE START ENGINE

HOBBS.....RECORD
 PREFLIGHT INSPECTION..... COMPLETE
 A.R.R.O.W. CHECK
 AIRPORT DIAGRAM.....AVAILABLE
 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
 FUEL SHUTOFF VALUE.....IN
 CIRCUIT BREAKERS..... CHECK
 THROTTLECLOSED
 STANDBY BATT..... ARM
 PFD and ENGINE INDICATIONS NO RED X's
 BUS E VOLTS CHECK 24 VOLTS
 M BUS VOLTS CHECK < 1.5 VOLTS
 BATT S AMPS.....CHECK DISCHARGE
 STBY BATT ANNUNCIATORS..... CHECK
 MASTER (bat & alt) ON
 BEACON ON
 NAV LIGHTS..... AS REQ

ENGINE START

BRAKES..... SET / HOLD
 FUEL PUMP ON
 MIXTURE RICH / FULL FWD (5 SEC)
 FUEL PUMP OFF
 THROTTLE ¼ IN OPEN
 PROP AREA..... CLEAR PROP
 STARTER..... (8-10 seconds max) ENGAGE
 MIXTURE ADVANCE SMOOTHLY

WHEN ENGING STARTS

THROTTLE 1000 – 1200 RPM
 OIL PRESSURE CHECK
 MIXTURE LEAN
 AMPS M BATT & BATT S CHECK

AFTER START

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

TAXI

Do Not Ride Brakes

AIRPORT DIAGRAM.....AVAILABLE
 TAXI CLEARANCE..... OBTAIN / BRIEF
 TAXI AREA (left & right) CLEAR
 BRAKES..... RELEASE / CHECK
 FLIGHT INSTRUMENTSCHECK

Check in turns.

STERILE COCKPITNO NONESSENTIAL TALKING

Pre-Takeoff Emergency Brief

Engine Failure on runway
 THROTTLEIDLE
 BRAKESAPPLY
 STOP STRAIGHT AHEAD
 Engine Failure After Rotation
 THROTTLEIDLE
 PITCH FOR BEST GLIDE65
 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 1800 RPM
 MAGNETOS..... (125 max drop, mas diff. 50) CHECK
 OIL TEMPERATURE & PRESSURE.....CHECK
 VACUUM.....CHECK
 AMPSCHECK
 THROTTLE IDLE
 THROTTLE 1000 RPM
 MIXTURE LEAN
 FLIGHT CONTROLS FREE / CORRECT
 TRIMSET
 BRAKESRELEASE

BEFORE TAKEOFF

****TAKE OFF / EMERGENCY PLAN** BRIEF**
 FLAPS SET 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
 LANDING LIGHT ON
 STROBE AS REQ
 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 - 62 KTS / V_Y - 74 KTS

AFTER TAKEOFF

Above 1000 AGL

CRUISE CLIMB 75 - 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 _Y 74	Tower..... 118.4
V _X62	Unicom 122.95
V _{FE}85	West Practice.. 123.5
V _A 90-105	ATIS..... 128.375
V _{NO}129	Hou App NW ... 119.7
V _{NE}163	Hou App SW.... 123.8
V _G68	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 GPS / NAV1 / NAV2
 AIRSPEED 90 KTS

BEFORE LANDING CHECKLIST

G.U.M.P.S.

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

GO AROUND / MISSED APPROACH

"Cram, Climb, Clean, Click, Call"

THROTTLEFULL
 FLAPS 20 IMMEDIATELY
 PITCH 65 KTS / PITCH FOR CLIMB
 FLAPS 10 POS RATE, OBST CLEARED, 70 KTS
 FLAPS UP... AFTER REACHING SAFE ALT, 75 KTS
 Fly assigned or published heading & altitude

AFTER LANDING

When aircraft is stopped

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

SHUTDOWN

CALL FOR FUEL @ KDWH 122.95
 TRANSPONDER 1200 / VFR
 ELECTRICAL SWITCHES..... OFF
 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

Revised 02/05/2020

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

United Flight Systems



C172S / NAV III - 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
G1000 Reference Guide ACCESSIBLE
Weight and Balance CHECKED
Parking Brake SET
Control Lock REMOVE
Magneto Switch OFF
Avionics Switch OFF
Circuit Breakers.....IN

POWER

STBY BATT Switch.....HOLD FOR 20 SEC, **GREEN**
Master Switch (Alt & Batt) ON
PFD – (Primary Flight Display)..... VERIFY ON
Fuel Qty (R & L) CHECK
Low Fuel Annunciators L & R**NOT** ON PFD
Oil Pressure AnnunciatorSHOWS ON PFD
Low Vacuum Annunciator.....SHOWS ON PFD
Avionics Switch (Bus 1) ON
Forward Avionics Fan..... VERIFY ON
Avionics Switch (Bus 1) OFF
Avionics Switch (Bus 2) ON
Aft Avionics Fan VERIFY ON
Avionics Switch (Bus 2) OFF
Low Volts Annunciator.....SHOWS ON PFD

POWER - CONTINUED

Beacon ON
Navigation Lights ON
Taxi/Landing Lights ON
Pitot Heat..... ON

VERIFY LIGHTS, PITOT HEAT, STALL WARNING

Navigation Lights OFF
Taxi/Landing Lights OFF
Pitot Heat..... OFF
Flaps (Extend One Notch at a Time) VERIFY
Master (Alt & Batt)..... OFF
Elevator Trim Control..... TAKEOFF
Fuel Selector Valve..... BOTH
Fuel Shut Off (PUSH IN) ON
Alternate Static Air Valve ON / OFF
Fire Extinguisher CHECK / **GREEN**

LEFT Fuselage

Left TireCHECK
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.....SECURE
Tail Tiedown..... REMOVE

RUDDER

Rudder SurfaceCHECK
Antennas.....SECURE
Static Wicks.....SECURE

RIGHT ELEVATOR

Control SurfaceCHECK
Elevator Trim Tab.....CHECK
Static Wicks.....SECURE
Counterbalance WeightSECURE

Right Fuselage

Body STRAIGHT
Right Main Gear Strut SECURE
Right TireCHECK
Right Brake..... SECURE/WEAR INDICATOR
Right Brake Line NO LEAKS

RIGHT WING

Flap.....CHECK
Aileron.....CHECK
Wing TipCHECK
Leading EdgeCHECK
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 SourceCHECK
Engine Oil Dipstick/Filler CapCHECK
****do not operate with less than 5 qts****
Engine Cooling Air Inlets CLEAR
Prop and SpinnerCHECK
Air FilterCHECK
Nosewheel Strut and TireCHECK
Static SourceCHECK
WindscreenCHECK (CLEAN)

LEFT WING

Leading EdgeCHECK
Wing Support Strut SECURE
Fuel QuantityCHECK VISUALLY
Fuel Filler Cap..... SECURE
Pitot Tube.....CHECK
Fuel Tank Vent CHECK POSITION
Tiedown REMOVE
Wing TipCHECK
Aileron.....CHECK
Flap.....CHECK
Fuel Drain Sumps DRAIN

N919TC - C172S / NAV III

EMERGENCY PROCEDURES

ENGINE FIRE DURING START ON GROUND

Magnetos switchSTART

IF ENGINE STARTS

Power 1800 RPM (for a few mins)

EngineSHUTDOWN (inspect for damage)

IF ENGINE FAILS TO START

Throttle FULL

Mixture IDLE CUTOFF

Magnetos.....START

Fuel SelectorOFF (pull out)

Fuel Pump.....OFF

Magnetos.....OFF

STBY BATT.....OFF

MasterOFF

ENGINE POWER LOSS DURING TAKEOFF RUN

Throttle IDLE

Brakes APPLY

ENGINE FAILURE IMMEDIATELY AFTER TAKEOFF

Airspeed Flaps Up70 KIAS

Airspeed Flaps Down65 KIAS

Mixture IDLE CUTOFF

Fuel Selector ValveOFF

Magnetos.....OFF

Flaps..... AS REQ (full recommended)

STBY BATT.....OFF

Master Switch.....OFF

Cabin Door UNLATCH

Land STRAIGHT AHEAD

ENGINE FAILURE DURING FLIGHT

RESTART

Airspeed.....68 KIAS

Select Field..... FLY TO IT

Fuel Shutoff ON / PUSH IN

Fuel Selector Valve BOTH

Fuel Pump.....ON

Mixture RICH

Magnetos (prop windmilling) BOTH

Magnetos (prop stopped).....START

Fuel Pump.....OFF

POWER OFF LANDING

Seat Backs..... MOST UPRIGHT POSITION

Seats and Seat BeltsSECURE

Airspeed Flaps Up..... 70 KIAS

Airspeed Flaps Down 65 KIAS

Mixture IDLE CUTOFF

Fuel Shutoff Value OFF (pull out)

Magnetos OFF

Flaps AS REQ (full recommended)

STBY BATT..... OFF

Master OFF (when landing is assured)

Doors UNLATCH PRIOR TO TOUCHDOWN

Touchdown.....SLIGHTLY TAIL LOW

Brakes.....APPLY HEAVILY

ENGINE FIRE IN FLIGHT

Mixture IDLE CUTOFF

Fuel Shutoff ValveOFF

Auxiliary Fuel Pump..... OFF

Master OFF

Cabin Vents OPEN (as needed)

Cabin HT and Cabin AIROFF (push in)

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 LandingEXECUTE

(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.

EXCESSIVE FUEL VAPOR

Fuel Pump..... ON

MixtureADJUST

Fuel Selector SELECT OPPOSITE TANK

Fuel Pump..... OFF

(after fuel flow has stabilized)

AUTOPILOT / ELECTRIC TRIM FAILURE

Control Wheel GRASP FIRMLY (regain control)

A/P TRIM DISC buttonPRESS & HOLD

(throughout recovery)

Trim Controls..... ADJUST MANUALLY

AUTOPILOT Circuit Breaker OPEN (pull out)

A/P TRIM DISC button RELEASE

HIGH VOLTS ANNUNCIATOR

Master ALT Only OFF

Electrical Load REDUCE IMMEDIATELY

Avionics Switch (BUS 1) OFF

Pitot Heat..... OFF

Beacon Light OFF

Landing Light OFF

Taxi Light..... OFF

Nav Lights OFF

Strobe Lights..... OFF

Cabin Power 12V OFF

Com1 and Nav1 TURN TO ACT FREQ

Avionics Switch (BUS 2) .. KEEP ON IF IMC

LOW VOLTS ANNUNCIATOR

Master SwitchALT ONLY OFF

Alternator Circuit Breaker CHECK IN

Master Switch ALT and BATT OFF

Low Volts AnnunciatorCHECK OFF

M BUS Volts..... 27.5 MINIMUM

M BATT Amps CHECK CHARGING

LOW VOLTS ANNUNCIATOR REMAINS ON

Master SwitchALT ONLY OFF

Electrical Load REDUCE IMMEDIATELY

Avionics SWITCH BUS 1 OFF

Lights OFF

Pitot Heat OFF

Cabin PWR 12V..... OFF

Com1 and Nav1 TUNE TO ACT FREQ

Avionics Switch (BUS 2)..... KEEP ON IF IMC

SPIN RECOVERY

Throttle IDLE

Ailerons NEUTRAL

Rudder..... FULL OPPOSITE

to direction of rotation

Control WheelBRISKLY FORWARD

(to break stall)

Recover NEUTRALIZE RUDDER,

RECOVER FROM DIVE