

C172N - Long Island Flying

(revised 04/11/2023)

(training purposes only - see appropriate POH for official procedures)

PASSENGER BRIEFING

- 1 Seats & Seat Belts
- 2 Head Sets
- 3 Doors & Evacuation
- 4 Traffic - Vents - Motion Sickness

PRE-START

- 1 Pre-Flight ----- DONE
- 2 Seats & Belts ----- as required
- 3 Doors / Windows ---- SECURE
- 4 Controls ----- Free/Correct
- 5 Avionics ----- OFF
- 6 Circuit Breakers ----- IN
- 7 Alternate Static ----- OFF
- 8 Fuel Selector ----- BOTH

STARTING ENGINE

- 1 Carb heat ----- OFF
 - 2 Mixture ----- RICH
 - 3 Primer (clockwise) ----- 2x or 1x (if warm)
 - 4 Battery Master ----- ON
 - 5 Beacon & Strobes ---- ON
 - 6 Propeller Area ----- CLEAR
 - 7 Toe Brakes ----- HOLD
 - 8 Throttle ----- OPEN 1/8th
-
- 9 Ignition ----- START
 - 10 Throttle ----- 1000 rpm
 - 11 Oil Pressure ----- CHECK
 - 12 Ammeter ----- CHECK

PRE-TAXI & TAXI

- 1 Flaps ----- UP
- 2 Mixture ----- as required
- 3 Nav Lights (ADSB?) -- as required
- 4 Other Lights ----- as required
- 5 Avionics ----- ON
- 6 ATIS ----- RECORDED
- 7 Instruments ----- SET
- 8 Clearance ----- RECORDED
- 9 X-ponder ----- as required
- 10 Brakes ----- CHECK
- 11 Flight Instruments ---- CHECK

PRE-TAKEOFF RUN-UP

- 1 Brakes ----- as required
- 2 Doors / Windows ----- SECURE
- 3 Controls ----- FREE
- 4 Primer ----- LOCKED
- 5 Fuel Quantity ----- NOTE
- 6 Mixture ----- RICH
- 7 Elevator Trim ----- T/O
- 8 Fuel Selector ----- BOTH
- 9 Throttle ----- 1700 rpm
- 10 Engine Gauges ----- CHECK
- 11 Ammeter ----- CHECK
- 12 Suction Gauge ----- CHECK
- 13 Mag CHECK ----- <125 & 50
- 14 Carb heat ----- ON (drop)
- 15 Throttle ----- IDLE
- 16 Carb heat ----- OFF
- 17 Throttle ----- 1000 rpm
- 18 Throttle Friction ----- ADJUST

TAKEOFF BRIEFING (TYPE-WINDS-RWY)

V-speeds (V_R - 55, V_Y - 73, V_X - 59)
Emergencies - Best Glide 65

HOLDING SHORT

- 1 Radios (coms, nav, gps) ----- SET
- 2 Flight Instruments ----- CHECK
- 3 Seat, belts, doors ----- SECURE
- 4 Primer ----- LOCKED
- 5 Key ----- BOTH
- 6 Lights ----- as required
- 7 Carb heat ----- OFF
- 8 Mixture ----- as required
- 9 Flaps ----- as required
- 10 Transponder ----- as required
- 11 Final approach ----- CLEAR

CLEARING MAGNETOS (if needed)

- 1 Key ----- Both
- 2 Throttle (hold brakes) ----- 2200
- 3 Mixture-Lean (30 Sec) -> Rich
- 4 Throttle ----- 1700
- 5 Magnetos ----- CHECK

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500' CHECK

- 1 Engine Gauges ----- GREEN
- 2 Flaps ----- VERIFY UP
- 3 Clear Area ----- CHECK

1000' CHECK

- 1 Landing Light ----- OFF
- 2 Cruise Climb ----- 70-85

CRUISE CHECK

- 1 Power ----- 2300 RPM
- 2 Trim ----- as required
- 3 Lights ----- as required
- 4 Fuel Selector ----- as required
- 5 Mixture (lean) ----- >3000' only

DESCENT

- 1 ATIS ----- RECORD
- 2 Inst & avionics ----- ADJUST
- 3 Throttle ----- as required
- 4 Mixture ----- as required
- 5 Carb heat ----- as required

PRE-LANDING

- 1 Fuel Selector ----- ON
- 2 Mixture ----- RICH
- 3 Carb heat ----- ON
- 4 Ignition ----- BOTH
- 5 Primer ----- IN & LOCKED
- 6 Seat Belts ----- SECURE
- 7 Lights ----- as required

BALKED LANDING

- POWER UP** & carb heat off
- PITCH UP** (55kts initially)
- CLEAN UP** - flaps 20* & 55kts

TALK UP

- Verify Aircraft is Cleaned up
- ? Sidestep runway for visibility

AFTER LANDING

- 1 Carb heat ----- OFF
- 2 Transponder ----- STANDBY
- 3 Flaps ----- UP
- 4 Lights (ldg / taxi) ----- as required

ENGINE SHUT DOWN

- 1 Avionics ----- OFF
- 2 Magnetos ----- CHECK
- 3 Throttle ----- IDLE
- 4 Mixture ----- ICO
- 5 Ignition Key ----- OFF / OUT
- 6 Lights ----- as required
- 7 Battery Master ----- OFF

BEFORE YOU GO HOME

- 1 Hobbs & Tach ----- NOTE
- 2 Battery Master ----- OFF
- 3 Avionics or Radios ----- OFF
- 4 Control Lock ----- Right Side
- 5 Seat Belts ----- Secured
- 6 Belongings ----- Remove
- 7 Cowl Plugs ----- Inserted
- 8 Doors & Baggage ----- Locked
- 9 Tie downs/Chocks ----- Secured
- 10 Rudder Lock ----- Below Wicks
- 11 Ladders ----- Secured

V-SPEEDS

- V_{NE} - 160, V_{NO} - 128
- V_A (2300lbs) - 97
- V_{FE} (Flaps 10) - 110
- V_{FE} (Flaps 10-40) - 85
- V_S - 47
- V_{SO} - 41
- V_X (Flaps 10*+) - 55
- V_X (Flaps up) - 59
- V_Y - 73
- V_R - 55

- Best Glide (no flaps) - 65
- Approach - 60-70
- X-wind component - 15
- Useable Fuel (100LL) - 40 of 43

ENGINE FAILURE

- SPEED** --- BEST GLIDE / TRIM
- SPOT** --- LANDING AREA
- SPEC** ---
 - Primer ----- In & LOCKED
 - Ignition ----- VERIFY BOTH
 - Carb heat ----- ON
 - Mixture ----- RICH
 - Fuel-shutoff ----- VERIFY ON
 - Ignition ----- CYCLE MAGS

If restart successful:

- Oil pressure ----- CHECK
- Oil temp ----- CHECK
- Electrical equip ----- as required

If restart NOT successful:

FORCED LANDING

- Distress call - 121.5
 - Who, Where, # on board
 - "Committed to landing"
- Transponder ----- 7700
- Seat belt/harness ----- Tight

ENGINE SECURING

- Fuel shut-off ----- OFF
- Mixture ----- ICO
- Ignition ----- OFF
- Prior to impact
- Flaps ----- as required
- Battery Master ----- OFF
- Door latches ----- as required

LOSS OF OIL PRESSURE

- X-CHECK Oil Temp
- If **NORMAL** - Land ASAP
- If **RISING**- Reduce throttle to minimum required - Land ASAP
- Prepare for engine failure

STATIC SOURCE BLOCKED

- Alternate Static-ON (if equipped)
- Else - Break VSI
- Airspeed - see table in Sec 5

ENGINE FIRE - IN FLIGHT

- Mixture ----- ICO
- Fuel Shut-off ----- CLOSED
- Battery Master ----- OFF
- Cabin Heat ----- OFF
- Airspeed ----- 100 kts
- Prepare for Forced Landing**
- Emergency Descent ----- Consider

FIRE - ELECTRICAL

- Battery Master ----- OFF
- Avionics ----- OFF
- All switches ----- OFF
- Vents, Air, & Heat ----- CLOSED
- Fire Extinguisher ----- Consider
- Emergency Descent ----- Consider

If extinguished & power is needed

- Vents (open when fire is out)
- Battery Master ----- ON
- Circuit Breakers ----- CHECK
- Radio Switches ----- OFF
- Avionics ----- ON
- Radio switches ----- ON (1x1)
- Land as soon as possible

FIRE - IN CABIN

- Battery Master ----- OFF
- Cabin Air ----- OPEN
- Cabin Heat ----- CLOSED
- Fire Extinguisher ----- as required
- Land ASAP

ICING

- Leave area (turn, climb, descend)
- Pitot Heat ----- ON
- Carb heat ----- ON
- Cabin heat ----- ON
- Move control surfaces
- Increase Throttle (propeller icing)
 - (Sacrifice altitude for airspeed)

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OVER-VOLTAGE LIGHT

(Cross-check Ammeter)
Avionics Master ----- OFF
Battery Mstr (both) ---- OFF
Battery Master ----- ON
Over-Voltage Light --- OFF ?
Avionics Master ----- ON

If light re-illuminates, **Land ASAP**

Ammeter Shows Discharge

Alternator ----- OFF
Backup Radio/Elec --- OFF
Land ASAP -

SPIN RECOVERY

Power ----- IDLE
Aileron ----- NEUTRAL
Rudder ----- Fully Opposite
Elevator ----- Briskly Forward

After rotation has stopped

Rudder - NEUTRALIZE
Elevator - EASE BACK

ENGINE FIRE - START UP

Continue to crank engine

If engine starts:

Throttle - 1700 rpm
Shutdown - Inspect for damage

If engine fails to start:

Throttle FULL
Mixture ICO
Fuel Shut-off CLOSED

Continue to crank engine

Battery Master OFF
Ignition Switch OFF
Evacuate Airplane Immediately

LOST COMMS

Radio ON; Volume Set;
Correct frequency / alternates;
Circuit Breakers; alternator;
Mike / headset plugs
Range location;

Last ATC Alternate radio;

Cell Phone

If still not working -

Transponder - 7600
Maintain VFR - land ASAP
DAY - rock wings if receiving
NIGHT - flash lights if receiving

LIGHT GUN SIGNALS

	Ground	Air
Stdy Green	- Clrd takeoff	- Clrd to land
Flash Green	- Clrd to taxi	- Clrd for app
Stead Red	- Stop	- Give way-cir
Flash Red	- Clr rwy	- Don't Land
Red / grn	- Caution	- Caution
Fish White	- Return	

DIVERT to ALTERNATE

A - Alternate airport
B - Best guess heading
C - Change Altitude
D - Distance
E - Estimate time & fuel
F - Flight Plan & ATC
G - Ground (close flight plan)

LOST PROCEDURES

Confess (to yourself)
Control / Circle (last known...)
Climb
Cross Radials

Communicate to ATC
Comply
Conserve (fuel)