

C172N - Long Island Flying

(revised 05/31/2020)

(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 & Strokes ----- 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 (ADS-B?) -- 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-RNWX)

- 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

- 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

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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	- Cld takeoff	- Cld to land
Flash Green	- Cld to taxi	- Cld for app
Stead Red	- Stop	- Give way-cir
Flash Red	- Cld 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)