



# C-172N CHECKLIST (SEPT 2021)

## P.A.V.E.

- P**.....PERSONAL / PILOT  
Illness/Meds/Stress/Alcohol/Fatigue/Emotion
- A**.....AIRCRAFT  
Air Worth / Registration / Ops Limits / W&B  
Air Speed / Tach / Oil Press / Manifold Press /  
Altimeter / Temp Gauge / Oil Temp / Fuel  
Gauge / Land Gear Indicator / Anti-Collision /  
Mag Compass / ELT / Safety Belts
- V**.....ENVIRONMENT  
NOTAMS / WX / Known ATC / Runway Length  
/ Alternates / Fuel Req / TO+Lnd Data / (TFR)
- E**.....EXTERNAL  
Invulnerability / Impulse / Macho / Get Home

## PREFLIGHT INSPECTION

- WX/NOTAM/TFR.....CHECK
- FRAT.....COMPLETE
- Weight/Balance.....COMPUTE
- Aircraft Binder.....OBTAIN
- Gust Locks.....REMOVE X 2

## Cabin

- Ignition Switch.....OFF
- Avionics Master.....OFF
- Master.....ON
- Fuel Quantity.....CHECK
- Flaps.....EXTEND
- External Lights.....CHECK, then OFF
- Pitot Heat.....CHECK, then OFF
- Master.....OFF
- Baggage.....RESTRAINED
- FOD.....CHECK
- Fire Extinguisher.....IN GREEN
- Walk Around.....PERFORM

## PRE-START

- Passenger Brief.....S.A.F.E.T.Y
- Pre-flight Inspection.....COMPLETE

- Tiedown/Chocks/Towbar.....OUT
  - Baggage Door.....SECURE
  - Seats.....ADJUST/LOCK
  - Safety Belts.....FASTENED/SECURE
  - Fuel Selector.....BOTH
  - Avionics Master.....OFF
- CAUTION:**  
**Off to prevent avionics damage**
- Brakes.....TEST and HOLD
  - Circuit Breakers.....CHECK IN
  - Loose Items.....STOWED

## ENGINE START

- Mixture.....RICH
- Carb Heat.....COLD
- Primer (2-6, 0 if warm)....IN/LOCKED
- Masters (Batt + Alt) .....ON
- Beacon.....ON
- Throttle.....OPEN 1/8 INCH
- Prop Area....."CLEAR PROP"
- Ignition Switch.....START  
-- (Throttle ADJUST to 1000 RPM)
- Oil Pressure.....CHECK  
-- **(30" Summer / 60" Winter)**
- Starter.....DISENGAGED

## AFTER START

- Avionics Master.....ON
- NAV Lights.....ON
- Headset.....ON
- COMMS.....AS REQ'D
- PSM ATIS: 132.05 GRND: 120.95**
- Altimeters.....SET x 2
- XPDR.....ALT
- Flight Instruments.....CHECK
- Flaps.....UP
- Flight Plan.....OBTAIN / LOAD



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## TAXI

- Airport Diagram.....AS REQ'D
- Taxi Light.....ON
- Taxi Area.....CLEAR
- Brakes.....TEST
- Taxi Clearance.....OBTAIN
- During Taxi.....VERIFY  
-- Flight Instrument move in turns  
-- Flt Controls Turn Into/Dive Away

## CROSSWIND ROT'S

30° = 50% / 45° = 75% / 60° = 100%

### VFR Day Min Equipment

- Air Speed / Tach / Oil Press / Manifold Press /  
Altimeter / Temp Gauge / Oil Temp / Fuel Gauge  
/ Land Gear Indicator / Anti-Collision / Mag  
Compass / ELT / Safety Belts

### VFR Night Min Equipment

- Fuses/CB's (Spares) / Landing Light / Anti-  
Collision Lights (Beacon / Stobes) / Positions  
Lights (NAV) / Source of Electricity

### IFR Min Equipment

- Generator (Alternator) / Radio/Nav appropriate  
for flight / Attitude / Ball (Inclinometer) / Clock /  
Altimeter (Pressure Sensitive) / Rate of Turn /  
Dir Gyro / VOR (30)

## ENGINE RUNUP

**PSM TWR: 128.4**

- Brakes.....HOLD
- Seat/Harness.....CHECK SECURE
- Door/Windows.....CLOSED/LOCKED
- Flight Controls.....FREE/CORRECT
- Elevator Trim.....TAKEOFF
- Flight Instruments.....SET
- Radios.....SET
- Fuel Selector.....BOTH

- Run Up Area.....CLEAR BEHIND
- Throttle.....1700 RPM  
-- Magnetos...**125 MAX/50 DIFF**  
-- Carb Heat.....CHK RPM DROP  
-- Ammeter...CHK(Land Lt/Flaps)  
- Engine Instruments...IN LIMITS
- Throttle.....CHECK IDLE
- Throttle.....1000 RPM
- Throttle Friction.....ADJUST
- Primer.....IN/LOCKED

## PRE-TAKEOFF BRIEF

RWY / DEPT / FIX / HDG / ALT / SPD

### Engine Fail/Abnormal on T/O Roll

- Throttle IDLE / Stop St-Ahead
- Ref ENG Fail – Reject Checklist

### Engine Fail: Liftoff w/ RWY remain

- Airspeed..**65 (Up) / 60 (10-Full)**
- Throttle.....IDLE
- Land.....MAX BRAKING

### Airborne: Insufficient Runway

- Airspeed..**65 (Up) / 60 (10-Full)**
- Landing Area.....SELECT
- Mixture.....IDLE CUT OFF
- Fuel Shutoff Valve.....CLOSED
- Ignition Switch.....OFF
- Flaps.....A/R
- Master.....OFF
- Land.....MIN AIRSPEED
- 180 Min ALT / Turn Direction ?
- Takeoff ROT: 70% Spd / 50% Rwy



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## BEFORE TAKEOFF

**DEPT: 125.05**

Pre-Takeoff Brief.....COMPLETE  
Carb Heat.....COLD  
Mixture.....RICH  
Elevator Trim.....TAKEOFF  
Flaps.....UP  
Doors/Windows...CLOSED+LOCKED  
XPDR.....SET  
Strobes.....ON (taking the active)  
Land Lt.....ON (cleared for T/O)

### NORMAL TAKEOFF

Throttle.....FULL (2280-2400 RPM)  
Rotate.....55 KIAS  
Climb.....73 KIAS (Vy)

### SHORT FIELD TAKEOFF

Flaps.....UP  
Carb Heat.....COLD  
Brakes.....APPLY  
Throttle.....FULL  
Brakes.....RELEASE  
Elevator.....SLIGHT TAIL LOW  
Climb....59 KIAS (Vx) until OBST Clr

### SOFT FIELD TAKEOFF

Flaps.....10°  
Elevator Control.....TAIL LOW  
After Lift Off.....LEVEL FLIGHT  
-- Attain Vx or Vy as Req'd  
Flaps.....RETRACT SLOW > 60 KIAS

## ENROUTE CLIMB (> 1000' AGL)

Airspeed.....80 – 85 KIAS  
Throttle.....FULL OPEN  
Mixture.....FULL RICH (Lean>3K)

## CRUISE

Power.....2200-2700 RPM (55-75%)  
Mixture.....LEAN  
-- Power.....Lean to Peak RPM  
Fuel Selector.....LEFT/RIGHT A/R  
Lights (External).....A/R  
CRUISE ROT (%HP/RPM/TAS/GPH)  
4K: 75% = 2550 / 117kts / 8.5gph  
4K: 55% = 2200 / 96kts / 6.6gph  
6K: 75% = 2600 / 119kts / 8.6gph  
6K: 55% = 2300 / 101kts / 6.4gph

## IN RANGE / DESCENT

**PSM ATIS: 132.05**

ATIS.....CONFIRM  
Fuel.....ON/GOOD QTY  
Mixture.....RICH  
Carb Heat.....ON IF < 2100 RPM  
Descent.....1500 RPM (tech)  
Approach.....REVIEW/BRIEF/LOAD  
Min Alt.....CONFIRM  
Engine Instruments.....MONITOR

## APPROACH (APPROX 15 NM)

**PSM TWR: 128.4**

Approach.....BRIEFED/ACTIVATED  
Confirm Freqs / In-bound Crs / Mins are set  
Altimeters.....SET x 2  
Fuel Selector.....BOTH  
Taxi Light.....ON  
Flt / Nav Instruments.....SET  
Engine Instruments.....MONITOR  
Go-Around Proc.....REVIEW



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## BEFORE LANDING

Seat/Harness.....CHECK/LOCKED  
Engine Instruments.....IN LIMITS  
Fuel Selector.....BOTH  
Mixture.....RICH  
Carb Heat.....ON < 2100 RPM  
Landing Light.....ON

### BALKED LANDING / GO AROUND

Throttle.....FULL  
Attitude.....CLIMB  
Carb Heat.....COLD  
Flaps.....20°  
Airspeed.....55 KIAS  
Flaps.....10° UNTL OBST CLR  
Flaps.....RETRACT > 60 KIAS

## CROSSWIND ROT'S

30° = 50% / 45° = 75% / 60° = 100%

## LANDING

### NORMAL LANDING

Airspeed.....60 – 70 KIAS (Flaps UP)  
Flaps.....A/R < 85 KIAS  
Airspeed....55 – 65 KIAS (Flaps FULL)  
Touchdown.....MAINS FIRST  
Landing Roll.....LOWER NOSE gently  
Braking.....MINIMUM REQ'D

### SHORT FIELD LANDING

Airspeed.....60 – 70 KIAS (Flaps UP)  
Wing Flaps.....FULL < 85 KIAS  
Airspeed.....59 KIAS until flare  
Power.....IDLE as OBST is cleared  
Touchdown.....MAINS FIRST  
Wing Flaps.....UP  
Control Yoke.....FULL BACK  
Braking.....MAX (don't skid tires)

## SOFT FIELD LANDING

Airspeed.....60 – 70 KIAS (Flaps UP)  
Wing Flaps.....FULL < 85 KIAS  
Airspeed.....60 KIAS until flare  
Power....As Red'd, control descent  
Control Yoke....AFT (Hold nose off)  
Braking.....NONE / MINIMUM  
When Nose touch...YOKE FULL AFT  
Power.....AS REQ'D (keep rolling)

## AFTER LANDING

**PSM GRND: 120.95**

Carb Heat.....COLD  
Flaps.....UP  
Strobes....OFF (clearing the active)  
Landing Light.....OFF  
XPDR.....ALT  
Flt Controls....Turn Into/Dive Away

## SHUTDOWN / SECURE AIRPLANE

Throttle.....1000 RPM  
Parking Brake.....A/R  
Avionics Master.....OFF  
Taxi and NAV Lights.....OFF  
Mixture.....IDLE CUT OFF  
Ignition.....OFF  
Master Switch.....OFF

### When Prop Stops

Key.....REMOVE  
Elevator Trim.....SET TAKEOFF  
Fuel Selector.....LEFT or RIGHT  
Tach Time.....RECORD  
Hobbs.....RECORD  
Aircraft.....CHOCK AND SECURE  
Post Flt Walkaround.....COMPLETE  
Gust Locks.....INSTALL X 2  
Pitot Cover.....INSTALL



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## FIRES

### ENGINE FIRE DURING START

Cranking.....CONTINUE

### IF ENGINE STARTS

Power...1700 RPM for few minutes

Engine.....SHUTDOWN + INSPECT

### IF ENGINE FAILS TO STARTS

Throttle.....FULL OPEN

Mixture.....IDLE CUT OFF

Cranking.....CONTINUE

Fire Extinguisher.....OBTAIN

Engine.....SECURE

-- Master Switch.....OFF

-- Ignition Switch.....OFF

-- Fuel Selector.....OFF

Fire.....EXTINGUISH

### ENGINE FIRE – IN FLIGHT

Mixture.....IDLE CUT OFF

Fuel Selector.....OFF

Master Switch....OFF

Air Vents.....CLOSED

Cabin Heat.....CLOSED

Airspeed.....**100 KIAS**

-- Do not exceed **Vne (158 KIAS)**

Radio.....MAYDAY on **121.5**

XPDR.....**7700**

**WARN: DO NOT RESTART ENGINE**

Forced Landing.....PERFORM

### ELECTRICAL FIRE – IN FLIGHT

Master Switch.....OFF

Avionics Master.....OFF

All Other Switches.....OFF

-- **LEAVE IGNITION ON**

Air Vents/Cabin Heat.....CLOSED

Fire Extinguisher.....ACTIVATE

Land.....AS SOON AS **POSSIBLE**

### WARNING

After using extinguisher, vent cabin

### IF ELEC POWER ESSENTIAL

Master Switch.....ON

Circuit Breakers...CHECK TO ISOLATE

-- DO NOT RESET POPPED BREAKER

Electrics.....1 AT TIME, CHK BREAKER

Air Vents.....OPEN w/FIRE OUT

### CABIN FIRE

Master.....OFF

Vents / Cabin Heat.....CLOSED

Extinguisher.....ACTIVATE

### WARNING

After using extinguisher, vent cabin

Land.....AS SOON AS **POSSIBLE**

### WING FIRE

Lights/Strobes.....OFF

Pitot Heat.....OFF

Side Slip.....PERFORM

Land.....AS SOON AS **POSSIBLE**



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## ENGINE

### ENGINE FAILURE – REJECT

Throttle.....IDLE

Brakes.....APPLY

Flaps.....RETRACT

Mixture.....IDLE CUT OFF

Ignition Switch.....OFF

Master Switch.....OFF

Takeoff ROT...70% Spd NLT 50% Rwy

### ENGINE FAILURE - AFTER TAKEOFF

Airspeed.....**65 (Up) / 60 (10-Full)**

**Engine Fail: Liftoff w/ RWY remain**

-- Airspeed..**65 (Up) / 60 (10-Full)**

-- Throttle.....IDLE

-- Land.....MAX BRAKING

### **Airborne: Insufficient Runway**

-- Airspeed..**65 (Up) / 60 (10-Full)**

-- Landing Area.....SELECT

-- Mixture.....IDLE CUT OFF

-- Fuel Shutoff Valve.....CLOSED

-- Ignition Switch.....OFF

-- Flaps.....A/R

-- Master.....OFF

-- Land.....MIN AIRSPEED

-- Tech: 180 MIN ALT / Dir o Turn

TOLD ROT...70% Spd NLT 50% Rwy

### ENGINE FAIL / RESTART IN FLIGHT

Airspeed.....**65 KIAS**

Best Place to Land.....CHOOSE

Carb Heat.....ON

Fuel Selector.....BOTH

Mixture.....RICH

Ignition Switch.....BOTH / START

Primer.....IN and LOCKED

### IF ENGINE DOES NOT START

Forced Landing.....PERFORM

### PARTIAL POWER / RUN ROUGH

-- Carb Ice?.....CARB HEAT ON

-- Spark Plug?.....MIXTURE LEAN

-- Mag Malf?.....IGNITION L or R

### ABNORMAL OIL PRESS / TEMP

RPM.....REDUCE MIN NECESSARY

Precautionary Landing....PERFORM

### POH NOTES

- Check other Engine instruments

- Low Press and Normal Temp

-- Pressue Guage Malfucntion

-- Relief Valve Malfunction

-- Land as soon as **PRACTICAL**

- Low Press and High Temp

-- Loss of engine oil

-- **Engine Fail possible imminent**

-- Land as soon as **POSSIBLE**



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## DESCENT / LANDING

### EMERGENCY DESCENT

Throttle.....IDLE  
 Yoke.....Bank 30° - 45°  
 Speed.....INCREASE  
 -- Do not exceed **Vne (158 KIAS)**  
 Throttle.....(every 1,000 ft) CLEAR

### FORCED LANDING – NO POWER

Airspeed.....**65 (Up) / 60 (10-Full)**  
 Mixture.....IDLE CUT OFF  
 Fuel Shutoff.....OFF  
 Ignition Switch.....OFF  
 Flaps.....A/R  
 Radio.....MAYDAY on **121.5**  
 XPDR.....**7700**

### FINAL APPROACH

Airspeed.....**60 KIAS**  
 Flaps.....DOWN (Land assured)  
 Master Switch.....OFF  
 Doors.....UNLATCH  
 Seat/Harness.....CHECK SECURE

### PRECAUTION APPROACH / LAND

Airspeed.....**60 KIAS**  
 Flaps.....20°  
 Landing Field.....OVERFLY  
 Avionics + Electrics.....OFF  
 Flaps.....30°  
 Master Switch.....OFF  
 Doors.....UNLATCH  
 Seat/Harness.....CHECK SECURE  
 Touchdown.....TAIL LOW  
 Ignition Switch.....OFF  
 Brakes.....APPLY HEAVILY

### LOSS OF BRAKE

Landing Spot.....LONG RUNWAY

#### NOTE

X-Wind from Inop brake side  
 Touch Down.....MIN AIRSPEED  
 When Stop.....SHUTDOWN ENGINE

#### NOTE

Good Brake (Drag) in the middle

### FLAT MAIN TIRE

Approach.....NORMAL  
 Touch Down.....GOOD TIRE FIRST

#### NOTE

Flat Tire (Drag) in the middle

## ELECTRICAL

#### NOTE

- Monitor Ammeter + Low Volt Light

### EXCESSIVE RATE OF CHARGE

- > 2 needle with > 30 min of flight  
 Alternator Switch.....OFF  
 Alternator Circuit Breaker.....PULL  
 Non Essential Elec Equip.....OFF  
 Land.....AS SOON AS **PRACTICAL**

### INSUFFICIENT RATE OF CHARGE

- Ammeter shows discharge  
 - Low Voltage Light Illuminated  
 Avionics Master.....OFF  
 Alternator Circuit Breaker.....CHK IN  
 Batt + Alt Master.....OFF, THEN ON  
If Low Volt Light goes out  
 Avionics Master.....ON  
If Low Volt Light stays illuminated  
 Alternator.....OFF  
 Non-essential Elecs.....OFF  
 Battery.....CONSERVE  
 -- Flaps and Land Light for landing

## ELECTRICAL (CONT)

### G5 ATTITUDE FAILURE (Red X and Yellow “Attitude Fail”)

Standby Instruments.....USE  
 VFR Conditions.....SEEK  
 Land.....AS SOON AS PRACTICAL

### G5 HDG / MAGNETOMETER FAIL (Red X and Yellow “HDG”)

Magnetic Compass.....USE

#### NOTE

If G5 has valid GPS signal, HSI will display GPS track info in magenta

### G5 GPS FAILURE (“DR” or “LOI” on HIS lower left)

If Alt Nav Available (ILS, VOR).....USE

If no Alt Nav source available

Dead Reckoning “DR” displayed  
 Amber CDI Info.....USE  
 VFR Conditions.....SEEK

Loss of Integrity “LOI” displayed  
 VFR Conditions.....SEEK

### G5 ATTITUDE “ALIGNING”

#### NOTE

If “ALIGNING” appears during flight and attitude remains displayed, attitude is OK for IMC conditions. Recommend maintain wings level to reduce time for system to align

### G5 “ALIGNING / WINGS LEVEL”

Standby Instruments.....USE  
 -- Maintain Wings Level  
 VFR Conditions.....SEEK

### G5 GAD-29B LOSS OF POWER

#### NOTE:

Heading and course datum unavailable to autopilot. GPS flight plan course info may be displayed on the HSI and “VFR” will be displayed in amber text on the HSI. “GPSS” will be displayed in amber if GPSS mode is selected.

GPSS Mode.....DESELECT  
 Lateral GPS Course.....only in VMC

### GARMIN 430

### “RAIM POSITION WARNING”

#### NOTE:

System will flag and no longer provide GPS Nav guidance. Revert to VOR / ILS receiver or alternate means of navigation.

### “RAIM NOT AVAILABLE”

#### NOTE:

Enroute/terminal/approach Phase:

Either continue to use GPS or revert to alternate means of Nav. If continue to use GPS, position must be verified every 15 minutes using the 430’s VOR/ILS receiver or other IFR approved Nav system.

#### Final Approach Segment:

GPS Nav will continue for up to 5 minutes with approach CDI sensitivity (.3nm). After 5 minutes, system will flag and no longer provide course guidance with approach sensitivity. Missed approach course guidance may still be available with 1nm CDI sensitivity by executing the missed



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## FLIGHT CONTROLS

### LOSS OF ELEVATOR CONTROL

Horizontal Flight.....TRIM  
 Airspeed.....**60 KIAS**  
 Flaps.....20°

#### **NOTE**

Do not change Trim setting.  
Control glide with power only

### IN LANDING FLARE

Trim.....FULL NOSE UP  
 Throttle.....REDUCE SLOWLY  
 -- Horizontal attitude touchdown

#### **WARNING**

Nose down moment from power reduction is adverse factor and airplane may hit on the nose wheel

#### wheel

Throttle.....IDLE AT TOUCHDOWN

### SPINS

Throttle.....IDLE  
 Ailerons.....NEUTRAL  
 Rudder.....FULL OPPOSITE  
 After rudder reaches full stop  
 Elevator.....BRISKLY FORWARD  
 Hold inputs until spin stops, then  
 Rudder.....NEUTRALIZE  
 Dive.....RECOVER

### INFLIGHT OVERSTRESS

Throttle.....REDUCE  
 Airspeed.....**65 - 75KIAS**  
 Flaps.....UP  
 Land.....AS SOON AS PRACTICAL

## WEATHER

### UNINTENTIONAL FLT INTO ICING

Pitot Heat.....ON  
 Icing Area.....LEAVE ASAP  
 Cabin Heat.....ON  
 RPM.....INCREASE  
 Carb Heat.....AS REQUIRED  
 Mixture.....LEAN FOR MAX RPM  
 Flaps.....LEAVE RETRACTED  
 ATC.....ADVISE

### LANDING

Slip.....A/R for FWD VISABILITY  
 Airspeed.....**65 – 75 KIAS**  
 Touchdown.....LEVEL

### CAUTION

**Ice increases stall speed. Carry extra speed on final. Stall warning horn may not function.**

### SEVERE TURBULENCE

Airspeed.....< **127 KIAS**  
 <**100 KIAS** Personal Discomfort  
 Attitude.....LEVEL FLIGHT

### STATIC SOURCE BLOCKAGE

Alternate Static Source.....PULL ON  
 Airspeed.....CALIBRATION TABLE  
 -- POH Section 5

## SULLY MANEUVER

### DITCHING

Approach.....AS REQ'D  
 -- Hi Wind/Hvy Sea: INTO WIND  
 -- Lt Wind/Hvy Swell: PARALLEL  
 Airspeed.....**65 (Up) / 60 (10-Full)**  
 Flaps.....20° - 30°  
 Radio.....MAYDAY on **121.5**  
 XPDR.....**7700**  
 Descent.....300 FT/MIN AT **55 KIAS**  
 Doors.....UNLATCH  
 Ignition Switch.....OFF  
 Seat/Harness.....CHECK SECURE  
 Touchdown.....LEVEL ATTITUDE  
 -- @300 ft/min descent  
 Face.....CUSHION  
 Airplane.....EVACUATE