

INSIDE

Aircraft Papers -----ARROW
 Hobbs -----verify
 Fire Extinguisher -----check
 ELT -----check
 Baggage -----secure
 Windscreen -----check
 Controls -----check

Ignition Key -----OUT
 Switches / Breakers -----check

Battery Master Switch ----ON
 Fuel Quantity -----check
 Wing Flaps -----Down
 External Lights -----check
 Master Switch -----OFF

OUTSIDE

Fuel -----CHECK
 Oil -----CHECK

NOSE

Windscreen -----check
 Cowling & Screws -----check
 Muffler -----check
 Air Intakes & Cylinders -----check
 Alternator Belt -----check
 Propeller & Spinner -----check
 Air Filter -----check
 Nose Wheel -----check/30psi
 Chocks -----remove

LEFT SIDE

Transponder Antenna ----- check
 Gear Bolts ----- check
 Main Gear & Chock ----- check/30psi
 Fuel Vent ----- check
 Pitot Mast ----- clear

Wing Condition ----- check
 Tie down ----- remove
 Wing tip & lights ----- check
 Aileron ----- check
 Flap ----- check

FUSELAGE & EMPANNAGE

Aircraft Skin Condition ----- check
 Antennas ----- check
 Access Panels ----- check

Horizontal Stabilizer ----- check
 Trim tabs ----- check
 Rudder ----- check
 Skid Plate ----- check
 Tie down ----- remove

RIGHT SIDE

Flap ----- check
 Aileron ----- check
 Wing tip & lights ----- check
 Tie down ----- remove
 Wing Condition ----- check

Fuel Vents ----- check
 Gear Bolts ----- check
 Main Gear & Chock ----- check/30psi

PRE-START

Pre-flight inspection -----done
Passenger Briefing -----done
Seats & Safety belts -----as required
Controls -----check
Pitot Heat -----OFF
Alternate Static -----Normal
Switches / Breakers -----check
Fuel Selector -----as required
Canopy -----locked

STARTING ENGINE

Carb heat -----OFF
Mixture -----Rich

Battery master -----ON
Fuel Pump -----ON
Strobes -----ON
Primer -----as required
Throttle -----as required
Propeller area -----clear
Toe brakes -----HOLD
Ignition -----START

Throttle -----1000-1200
Oil Pressure -----check
Fuel Pump -----OFF
Field & Alt Switches -----ON

Flaps -----UP
Mixture -----as required
Lights -----as required

Avionics Master & Radios --ON
ATIS -----Recorded
Instruments -----SET
Clearance / Transponder ----as required

TAXI CHECK

Brakes -----check
Flight Instruments -----check

| | ATIS | CDEL | GND | TWR | A/D |
|-----|--------|--------|--------|-------|--------|
| ISP | 120.72 | 121.85 | 135.3 | 119.3 | 118.0 |
| BDR | 119.15 | | 121.75 | 120.9 | 124.07 |
| FOK | 119.92 | | 121.8 | 125.3 | |
| HWV | 119.62 | | | 122.8 | |

PRE-TAKEOFF RUN-UP

Primer ----- locked
Controls ----- free
Fuel Pump ----- ON
Flaps ----- UP
Trim ----- Takeoff
Mixture ----- RICH
Fuel Selector ----- switch

Brakes ----- HOLD
Throttle ----- 1700 rpm
Circuit Breakers ----- check
Engine Gauges ----- check
Suction Gauge ----- 5.0 +/- .1

Mag Check ----- ? 100 rpm
Carb heat ----- ON (drop)
Throttle ----- IDLE
Carb heat ----- OFF
Throttle ----- 1000 rpm
Throttle Friction ----- adjust
Takeoff Briefing ----- given
V_R-50, V_Y-65, V_X-62, V_A-108
Best Glide – 65

HOLDING SHORT

Radios ----- Set
Com 1&2 (vol) - Nav 1&2 GPS
Flight Instruments ----- check

Seats & Belts ----- secure
Canopy & Windows --- locked
Key ----- both
Carb Heat ----- OFF
Fuel Pump ----- ON
Mixture ----- as required
Trim ----- Takeoff
Flaps ----- UP

Transponder ----- Altitude
Lights ----- as required

Clearing Magnetos

Key ----- Both
Throttle ----- 2000
Mixture ----- Lean (30 sec)
Mixture ----- Rich
Throttle ----- 1700

500' CHECK

Engine gauges -----green
Clear area -----check

1000' CHECK

Fuel Pump -----OFF
Engine gauges -----green
Lights -----as required
Cruise climb -----as required

CRUISE

Engine gauges -----green
Fuel Selector-----as required
Heading Indicator-----as required

Throttle -----as required
Trim -----as required
Mixture -----as required
Lights -----as required

50% - 2300rpm – 4.9 gal/hr - 90 kts
60% - 2500rpm – 5.7 gal/hr - 95 kts
70% - 2700rpm – 6.7 gal/hr - 99 kts

DESCENT

ATIS & Instruments ---- SET
Radios ----- SET
Landing Briefing ----- given
Runway & Crosswind
TPA & Pattern Entry
Go Around - Power, Pitch, Clean, Talk

Throttle ----- as required
Carb heat ----- as required
Mixture ----- enrich

PRE-LANDING

Fuel Tank -----ON
Fuel Pump-----ON
Mixture -----Rich
Carb heat -----as required
Magnetos -----BOTH
Primer-----in & locked
Lights -----as required
Seat Belts -----secure

AFTER LANDING

Carb heat ----- OFF
Fuel Pump ----- OFF
Transponder ----- standby
Mixture ----- as required
Lights (ldg / taxi)----- as required
Flaps ----- UP

ENGINE SHUT DOWN

Avionics Master ----- OFF
KX-155 ----- OFF
Lights----- OFF

Magnetos ----- Check
Throttle ----- Idle
Mixture ----- ICO

Battery master ----- OFF
Ignition ----- Key Out
Field & Alternator ----- OFF

Before You Go Home

HOBBS & TACH ----- note
Battery Master ----- OFF
Avionics Master ----- OFF
Cabin Lights ----- OFF

Gas Card ----- IN Plane
Canopy Doors ----- Locked
Flight Plan ----- Closed
Tie Downs, Chocks, Cover
Keys ----- In Office

V- Speeds

| | |
|-----------------------------|-----------------|
| V _{NE} ----- | 143 |
| V _{NO} ----- | 108 |
| V _A (1692) ----- | 108 |
| V _{FE} ----- | 101 |
| V _S ----- | 48 |
| V _{SO} ----- | 30 |
| V _R ----- | 50 |
| V _X ----- | 62 (54 w/flaps) |
| V _Y ----- | 65 (56 w/flaps) |
| Best Glide ----- | 65 (no flaps) |
| X-WIND ----- | 25 |

Last Revised (11/04/09)

(Training purposes only – see appropriate POH for official procedures)

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ENGINE FAILURE

SPEED -- 65 / trim

SPOT ---- landing area

SPEC

Fuel Tank ----- Switch

Fuel Pump ----- ON

Mixture ----- Rich

Carb heat ----- ON

Key (mags) ----- Both

Primer ----- IN

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

Seat Belts ----- Secure

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

LOSS OF FUEL PRESSURE

Fuel Pump ----- ON

Fuel Selector ----- ON/change?

Land ASAP

ROUGH ENGINE

Carb Heat ----- ON

Fuel Pump ----- ON

Fuel Tank ----- check

Mixture ----- adjust

Magnetos ----- Both

Engine Gauges ----- check

ENGINE FIRE – IN FLIGHT

Mixture ----- ICO

Fuel Shut-off ----- CLOSED

Battery Master ----- OFF

Cabin Heat ----- OFF

Airspeed ----- 100 kts

Prepare for Forced Landing

Emergency Decent -- consider

FIRE – ELECTRICAL

Battery Master ----- OFF

Avionics ----- OFF

All switches ----- OFF

Vents, Air, ----- open

Cabin Heat ----- off

Fire Extinguisher ---- consider

Emergency Decent -- 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

ICING

Leave area (turn, climb, descend)

Pitot Heat ----- ON

Carb heat ----- ON

Cabin heat ----- ON

Throttle ----- MAX pwr

Flaps ----- Leave UP

Move control surfaces

Sacrifice altitude for airspeed

STATIC SOURCE BLOCKED

Alternate Static ----- ON

Else – Break VSI

AMMETER - overcharging

(Ammeter charging Full)

Alternator ----- OFF

Alternator Breaker -- OFF

Non-essential equip -- OFF

Land ASAP

Review Light Gun Signals

AMMETER - Failure/Discharging

Alt & Field Switches -Check ON

Alt Breaker -----Check ON

Alt & Field Breakers - Cycle

Radios & Av. Master- OFF

Lights/Elec Load ----reduce/OFF

Battery Master -----Cycle

Radios & Av. Master- ON

If still Discharging:

Lights/Elec Load ----reduce/OFF

Alt & Field Breakers - OFF

Avionics ----- reduce

(use COM 2 backup)

Land ASAP

Review Light Gun Signals

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 Signals

Stdy grn Clrd takeoff Clrd to land

Flsh grn Clrd to taxi Clrd for app

Stdy red Stop Give way-cir

Flsh red Clr rwy Unsafe-no ldg

Flsh wht Return

Red / grn Caution Caution

SPIN RECOVERY

Rudder ----- Fully opposite

Aileron ----- Neutral

Elevator ----- Briskly forward

Power ----- Idle

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 damages

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

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)