PIPER PA-28-140
CHECKLIST

PRE FLIGHT

(Interior)

1. INSPECTIONS-------Annual/ELT/AD/XPDR
2. DOCS --------Airworthiness/Reg/POH/W&B
3. TACH TIME----------RECORD
4. CONTROL LOCK----------REMOVE
5. FLAPS----------EXTEND
6. TRIM----------OPERATIONAL CHECK

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7. IGNITION SWITCH----------OFF
8. ALL ELECTRICAL SWITCHES---------OFF
9. MASTER SWITCH (Prop Area Clear)--ON
10. FUEL QUANTITY----------CHECK
11. LIGHTS---------CHECK (Day or Night Ops)
12. PITOT HEAT----------CHECK
13. MASTER SWITCH & IGNITION--------OFF

(Exterior)

1. RIGHT / LEFT WING----------INSPECT
   a. FLAP / AILERON
   b. TIP/ LIGHT
   c. LEADING EDGE / TOP / BOTTOM
   d. FUEL QTY / SUMP / VENT
   e. MAIN GEAR / STRUT / BRAKES
   f. PITOT STATIC (LEFT)
   g. STALL WARNING (LEFT)

Tire PSI
All: 24

2. NOSE----------INSPECT
   a. WINDSHIELD
   b. OIL LEVEL———-6-8quarts
   c. FUEL / OIL LEAKS
   d. CONDITION / SECURITY
   e. ENG AIR INLET / ALT BELT
   f. PROPELLER / SPINNER
   g. CARBURETOR AIR INLET
   h. COWLING
   i. BRAKE FLUID
   j. FUEL STRAINER
   k. NOSE GEAR

3. FUSELAGE / EMPENNAGE----INSPECT
   a. TOP / SIDE / BOTTOM
   b. ANTENNAS
   c. STABILATOR
   d. ANTI-SERVO TAB
   e. RUDDER

ENGINE START

1. PARKING BRAKE----------SET
2. SEATS ----------LOCKED
3. SEAT BELTS--------BRIEFED/FASTENED
4. FLAPS----------UP
5. CIRCUIT BREAKERS----------CHECK-IN
6. ELECTRICAL EQUIP ----------OFF

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7. FUEL TANK----------SELECT
8. MASTER SWITCH (Battery + Alt)-------ON
9. FUEL PUMP----------ON
10. BEACON (ANTI-COLL) LIGHT----------ON
11. CARB HEAT----------OFF
12. MIXTURE----------RICH
13. THROTTLE----------OPEN 1/8 to 1/4 inch

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14. PRIME----------AS REQ---IN & LOCKED
15. IGNITION----------BOTH
16. PROP AREA----------CLEAR
17. ENGINE----------START

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18. THROTTLE----------800 to 1000 rpm
19. OIL PRESSURE (w/in 30 Sec)-----CHECK
20. FUEL PUMP---------OFF & Verify Pressure

TAXI

1. MIXTURE----------LEAN FOR TAXI
2. RADIOS / AVIONICS---------SET AS REQ
3. TRANSPONDER ---SQUAWK VFR(1200)
4. ATIS-ASOS-WXBRIEF----------REVIEW
5. FLIGHT Instruments--- SET & MONITOR
6. BRAKES & STEERING----------TEST

GROUND RUN-UP

1. BRAKES----------SET
2. FLIGHT Instruments--------CHECK & SET
3. CIRCUIT BREAKERS----------CHECK-IN
4. RADIOS / AVIONICS----------AS REQ
   a. IFR CHECKLIST----------AS REQ

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5. FUEL SELECTOR--------FULLEST TANK
6. MIXTURE----------RICH
7. THROTTLE----------2000 rpm
8. MAGNETOS-----CHECK(175max drop<50diff)
   ----------SMOOTH OPERATION
9. CARB HEAT-------TEST, Note RPM Drop
10. ENGINE INSTRUMENTS----------CHECK
11. SUCTION ---------- 5inches +/-
12. ALTERNATOR -------CHECK FOR LOAD
13. THROTTLE----------LOW IDLE CHECK
    a. ---AND W / CARB HEAT
    b. -RETURN TO 800-1000

BEFORE TAKEOFF

If it doesn't LOOK, SOUND or FEEL right-----GET IT CHECKED OUT BEFORE YOU GO!

BEFORE TAKEOFF

1. PASSENGER BRIEF----------COMPLETE
   Controls—Extinguisher—Talking--Door
2. T/O EMERGENCY BRIEF------COMPLETE
3. SEATS & BELTS----LOCKED / FASTENED

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4. CONTROLS----------FREE & CORRECT
5. FLAPS----------SET
   (Norm: 0 deg, Short/Soft 25 deg)
6. TRIM TAB----------SET

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7. MIXTURE----------RICH (T/O Below 3000 ft)
8. CARB HEAT----------OFF
9. WINDOW VENT----------CLOSED
10. DOOR ----------CLOSED / LATCHED
    (Vr: 55-60 mph, Vx 74 mph, Vy 85 mph)
11. FUEL PUMP----------ON
12. LANDING LIGHT----------ON
13. TRANSPONDER---------- ALT
14. TIME OFF----------RECORD

AFTER TAKEOFF

1. **+1000' AGL / Cruise Climb: 100 mph**
2. FLAPS----------UP (Verify)
3. FUEL PUMP----------OFF (Verify PSI)
4. LANDING LIGHT----------OFF
5. ENGINE INSTRUMENTS----------CHECK
6. MIXTURE----------LEAN AS REQ
   (Rich for Climb Below 5,000ft D-Alt)

CRUISE / DESCENT

1. THROTTLE----------AS REQ
2. MIXTURE----------LEAN AS REQ
3. **FUEL TANK----------SELECT AS REQ**
4. ENGINE INSTRUMENTS----------CHECK
5. FLIGHT INSTRUMENTS----------CHECK

V-SPEEDS

Vs0------54 mph
Vs1------63 mph
Vfe-----115 mph
Va------129 mph
Vno----140 mph
Vne----171 mph
Cruise Climb———-------100 mph
Traffic Pattern-------100 mph
Final (no Flaps)-------85 mph
Final (Full Flaps)-----76 mph
Vr: 55-60 mph, Vx 74 mph, Vy 85 mph
(Approach-No Flaps 85 mph / Full Flaps 76 mph)

Best Glide 83 mph (Max Gross)

For those "Oh Crap" Moments

T--Trim
P--Pick

F--Fuel
A--Air
S--Spark
T--Transmit

BEFORE LANDING

(Mid-Field Traffic Pattern----------100 mph)

1. SEATS / BELTS----LOCKED / FASTENED
2. FUEL PUMP----------ON
3. LANDING LIGHT----------ON
4. MIXTURE----------RICH
5. **FUEL TANK----------SELECT FULLEST**

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(Approach-No Flaps 85 mph / Full Flaps 76 mph)
→ → **GoAROUND--**Full Power Climb 74-85 mph
-- Flaps to 25 deg as req
--Obstacles Clear- Retract Flaps

AFTER LANDING

1. FLAPS----------UP
2. MIXTURE----------LEAN FOR TAXI
3. FUEL PUMP----------OFF
4. LANDING LIGHT----------OFF

SHUT DOWN

1. TRANSPONDER -----SQUAWK VFR(1200)
2. AVIONICS / ELECTRICAL EQUIP------OFF
3. MAGNETOS----------CHECK GROUNDING
4. THROTTLE----------800 to 1000 rpm
5. MIXTURE----------CUT-OFF
6. IGNITION----------OFF
7. MASTER SWITCH----------OFF

ENGINE FAILURE--DURING FLIGHT

1. AIRSPEED----------83 mph
2. LANDING SITE----------CHOOSE

RESTART / TROUBLESHOOTING

1. **FUEL TANK----------SELECT FULLEST**
2. PRIMER----------IN & LOCKED
3. FUEL PUMP----------ON
4. CARB HEAT----------ON
5. THROTTLE----------OPEN
6. MIXTURE ----------FULL RICH
7. IGNITION----------BOTH(START)

NO RESTART?--*EMERGENCY LANDING*

EMERGENCY LANDING

1. SEATS/BELTS----------UPRIGHT/SECURE
2. AIRSPEED----------**83 mph**(Flaps *up*)
   ----------**76 mph**(Flaps *down*)
3. **MIXTURE**----------IDLE CUT OFF
4. **FUEL**----------OFF
5. **IGNITION**----------OFF

SQUAWK ***7700***

MAYDAY- LAST CALLING OR **121.5**

6. **MASTER----OFF / DOORS---UNLATCH**

PIPER CHEROKEE
EMERGENCY PROCEDURES
SUPPLEMENT

ENGINE FIRE DURING START

Starter ..... crank engine
Mixture .....idle cut-off
Throttle ..... open
Electric fuel pump .....OFF
Fuel selector ..... OFF

Abandon if fire continues

ENGINE POWER LOSS DURING TAKEOFF

If sufficient runway remains:
……Land straight ahead.
If insufficient runway remains:
……Maintain safe airspeed
…Make only shallow turn to avoid obstructions
……..Flaps as situation required
If sufficient altitude has been gained:
Attempt a restart:
……,……Maintain safe airspeed
Fuel selector .....switch to tank containing fuel
Electric fuel pump ..... check ON
Mixture ..... check RICH
Carburetor heat ..... ON
If power is not regained:
……..Proceed with power off landing.

FIRE IN FLIGHT

Source of fire ..... check
Electrical fire (smoke in cabin):
Master switch ..... OFF
Vents ..... open
Cabin heat ..... OFF
Land as soon as practicable.
Engine fire:
Fuel selector ..... OFF
Throttle ..... CLOSED
Mixture ..... idle cut-off
Fuel selector ..... OFF
Electric fuel pump ..... check OFF
Heater and defroster ..... OFF
……..Proceed with power off landing.

LOSS OF OIL PRESSURE

……Land as soon as possible.
……Prepare for power off landing.

LOSS OF FUEL PRESSURE

Electric fuel pump ..... ON
Fuel selector ..... check on full tank

HIGH OIL TEMPERATURE

……Land at nearest airport.
……Prepare for power off landing.

ALTERNATOR FAILURE

……..Verify failure.
…….. Reduce electrical load.
Alternator circuit breakers ..... check
All switch ..... OFF (for 1 second), then on
If no output:
All switch ..... OFF
……Reduce electrical load.
……..Land as soon as practical.

SPIN RECOVERY

Throttle ..... idle
Ailerons ..... neutral
Rudder .... full opposite to direction of rotation
Control wheel ..... full forward
Rudder ..... neutral (when rotation stops)
Control wheel ..... as required
…….. to smoothly regain level flight altitude

OPEN DOOR

If both upper and lower latches are open. the door will trail slightly open and airspeeds will be reduced slightly.

To close the door in flight:

Ensure a Safe Altitude!
Slow airplane to 100 MPH IAS (87 KTS IAS)
Cabin vents ..... close
Storm window ..... open
If upper latch is open ..... .latch
If lower latch is open ..... open top latch,
……push door further open and
……close rapidly.
……Latch top latch.

A slip will help latching.

Piper Cherokee 180hp
N1185X, N32816
FOR REFERENCE ONLY
Monitor Airspeed / Fuel Usage

Engine: Lycoming O-360-A4(M/A), 180 Hp
Propeller: Sensenich 76EM8S5-0-60

FUEL FLOW

Best Power (100° Rich of Peak EGT)

55% Power----------7.8 gph
65% Power----------9.0 gph
75% Power----------10.5 gph

Best Economy (Peak EGT)

55% Power----------6.3 gph
65% Power----------7.6 gph
75% Power----------8.8 gph

DENSITY ALTITUDE vs RPM

D-Alt	55%	65%	75%
0000 FT	2130	2300	2440
1000 FT	2150	2320	2460
2000 FT	2170	2350	2480
3000 FT	2200	2370	2510
4000 FT	2220	2400	2530
5000 FT	2240	2420	2560
6000 FT	2260	2440	2580
7000 FT	2280	2470	2610
8000 FT	2310	2500	2360
9000 FT	2330	2520	2660
10000 FT	2350	2550	-------
11000 FT	2370	2570	-------
12000 FT	2400	2590	-------

Piper Cherokee 160hp
N9855W, N701DT
FOR REFERENCE ONLY
Monitor Airspeed / Fuel Usage

Engine: Lycoming O-320-D3G, 160 Hp
Propeller: Sensenich 76EM8S5-0-58/60

FUEL FLOW

Best Power (100° Rich of Peak EGT)

55% Power----------7.8 gph
65% Power----------8.8 gph
75% Power----------10.0 gph

Best Economy (Peak EGT)

55% Power----------6.6 gph
65% Power----------7.5 gph
75% Power----------8.5 gph

DENSITY ALTITUDE vs RPM (N9855W)

D-Alt	55%	65%	75%
0000 FT	2190	2340	2480
1000 FT	2220	2360	2500
2000 FT	2240	2380	2530
3000 FT	2260	2410	2550
4000 FT	2280	2430	2570
5000 FT	2310	2450	2590
6000 FT	2330	2470	2620
7000 FT	2360	2500	2640
8000 FT	2380	2520	2660
9000 FT	2400	2520	-------
10000 FT	2420	2560	-------

DENSITY ALTITUDE vs RPM (N701DT)

D-Alt	55%	65%	75%
0000 FT	2110	2260	2400
1000 FT	2130	2280	2420
2000 FT	2150	2300	2450
3000 FT	2170	2330	2470
4000 FT	2190	2350	2490
5000 FT	2230	2370	2510
6000 FT	2250	2390	2540
7000 FT	2360	2420	2560
8000 FT	2280	2440	2580
9000 FT	2320	2440	-------
10000 FT	2340	2480	-------