

Silver Express

(305) 255-8753

PA 28R-201 Piper Arrow

Normal Checklist For training purposes only



AIRCRAFT ACCEPTANCE

Maintenance Status.....CHECK
Hobbs/Tach.....CHECK
A.R.R.O.W.....CHECK
Weight and Balance.....Within Limits
Weather.....Suitable

PREFLIGHT INSPECTION

COCKPIT:

Control Wheel.....RELEASE
Circuit Breakers.....IN
Electricals/Avionics.....OFF
Magneto Switch.....OFF
BATT MAST Switch.....OFF
Mixture.....IDLE CUT OFF
Pitot/Static.....DRAIN, CLOSE
TRIM.....CHECK, SET NEUTRAL
BATT MAST Switch.....ON
Fuel Gauges.....CHECK
Annunciator Panel.....CHECK
Lights.....CHECK
Pitot Heat.....CHECK
Stall Horn.....CHECK
BATT MAST Switch.....OFF
Flaps.....EXTEND

RIGHT WING:

Static Wings.....CHECK
Flaps/Hinges.....CHECK
Aileron/Hinges.....CHECK
Wing tip/Lights.....CHECK
Leading edge.....CHECK
Fuel Quantity (Visual).....CHECK
Fuel Samp.....DRAIN, CHECK
Fuel Vent.....CLEAR
Main Gear Strut.....(2 .50 in) PROPER
Tire.....CHECK

Brake Block and Disk.....CHECK
Fresh Air Inlet.....CLEAR

NOSE SECTION:

Oil Level (Min 6 qts).....CHECK
Cowling.....SECURE
Propeller/Spinner.....CHECK
Alternator Belt.....CHECK TENSION
Air Inlets.....CHECK
Landing Light.....CHECK
Nose Gear Strut.....(2.75 in) PROPER
Nose Wheel Tire.....CHECK
Fuel Strainer.....DRAIN, CHECK

LEFT WING:

Reverse order of right wing
Pitot Head.....HOLE CLEAR

FUSELAGE:

Antennas.....CHECK
Static Ports (L & R).....CLEAR
Fresh Air Inlet.....CLEAR
Stabilator and trim Tab.....CHECK
Rudder.....CHECK

BEFORE STARTING ENGINE

Flaps.....0'
Passenger Briefing.....COMPLETE
Seat Belts.....FASTEN
Brakes.....SET
Alternate Air.....CLOSE
Propeller.....FULL FORWARD
Fuel Selector.....ON LOWEST TANK
Avionics.....OFF

STARTING ENGINE (Cold & Hot)

(For engine flooded / ext power start, see
Abnormal Check List)

Throttle.....1/2 in OPEN
BATT MAST Switch.....ON
Alternator.....ON
Lights.....AS REQUIRED
Fuel Pump.....ON
Mixture...RICH (cold) then IDLE CUT-OFF

Prop Area....."CLEAR"

Starter (Max 10 sec).....ENGAGE
Mixture...RICH (cold); ADVANCE (hot)
Throttle.....1000 RPM
Oil Pressure.....CHECK
Fuel Pump.....OFF
Fuel Pressure.....CHECK
Alternator Output.....CHECK
Annunciator Panel.....CHECK
Mixture.....LEAN TO STOP
Comm/Nav.....ON/SET
Transpondeur.....STANDBY
Circuit Breakers.....CHECK IN

TAXI CHECK

Taxi Area.....CLEAR
Parking Brake.....RELEASE
Brakes.....CHECK
Steering.....CHECK
Flight Instruments.....CHECK

GROUND CHECK

Parking Brake.....SET
Fuel selector.....ON FULLEST TANK
Mixture.....FULL RICH
Propeller.....FULL FORWARD
Throttle.....2000 RPM
Engine Instruments.....IN LIMITS
Vacuum (4.8 to 5.1).....IN LIMITS
Magnetos (Max drop 175/Max diff 50)...CHECK
Propeller.....EXERCICE 3 times
Alternate Air.....CHECK
Annunciator Panel...PRESS-TO-TEST
Throttle.....IDLE
Standby Vacuum.....CHECK
Throttle.....1000 RPM
Mixture.....LEAN TO STOP

BEFORE TAKEOFF

Flight Controls.....FREE/ CHECK
Flaps.....AS REQUIRED
Electric Trim.....OFF
TRIM.....SET
Flight Instruments.....CHECK/SET
Comm/Nav.....SET/IDENT

Takeoff Briefing.....COMPLETE

Door & Window.....SECURE

AFTER CLEARED ONTO RUNWAY

Time Off.....NOTE

Approach.....CLEAR

Parking Break.....RELEASE

Mixture.....RICH

Transponder.....ALT

Fuel Pump.....ON

Landing Light (Strob at night).....ON

Pitot Heat.....AS REQUIRED

AFTER TAKEOFF

VSI and Positive R of C.....CHECK

No More RW.....GEARS UP

Flaps (passing 78 kts).....10'

Flaps (passing 90 kts).....0'

Climb Speed (Above 1000ft AGL)...104 kts

Fuel Pump.....OFF

Fuel Pressure.....CHECK

CRUISE

Power.....22"/2400 RPM

Mixture.....ADJUST

Landing Light.....OFF

At least every 30 mn :

Fuel Pump.....ON

Fuel Tank.....OPPOSITE

Fuel Pump.....OFF

Engine Instruments.....CHECK

Flight Instruments.....CHECK

Comm/Nav.....SET/CHECK

DESCENT

Fuel Selector.....ON FULLEST TANK

Engine Instruments.....CHECK

Flight Instruments.....CHECK

Comm(ATIS)/Nav.....SET/CHECK

Seat belts.....FASTENED

Approach Briefing.....COMPLETE

Mixture.....AS REQUIRED

Landing Light.....ON

POWER OFF DESCENT

AIRSPEED.....79 kts

Mixture.....AS REQUIRED

Power (every 1000 ft).....VERIFY

BEFORE LANDING

Fuel Pump.....ON

Fuel Selector.....ON FULLEST TANK

Gears (below 129 KIAS).....3 GREENS

Flaps (Max 103 kts).....SET

Red, Blue, Greens.....CHECK

AFTER LANDING

Flaps.....0'

Mixture.....LEAN-TO-STOP

Transponder.....OFF

Fuel Pump.....OFF

Landing Light (and Strob at night)...OFF

Pitot Heat.....OFF

PARKING

Parking Brake.....SET

Avionics/Electricals.....OFF

Throttle.....FULL AFT

Mixture.....IDLE CUT OFF

Magnetos.....OFF

Lights.....OFF

Alternator.....OFF

BATT MAST Switch.....OFF

Trim.....NEUTRAL

Parking Brake.....RELEASE

Hobbs/tach.....RECORD

Squawks (if any).....RECORD

Flight Controls.....SECURE

Door/Window.....SECURE

Flight Plan (if applicable).....CLOSE

PRE-MANEUVERING

Landing Light.....ON

Engine Instruments.....CHECK

Flight Instruments.....CHECK

Fuel Pump.....ON

Mixture.....RICH

Minimum Safe Altitude.....VERIFY

Area.....CLEAR

POST-MANEUVERING

Landing Light.....OFF

Fuel Selector.....ON FULLEST TANK

Fuel Pump.....OFF

Mixture.....SET

Engine Instruments.....CHECK

Flight Instruments.....CHECK

V SPEEDS (KIAS)

V_{so}.....55

V_{s1}.....60

V_r (25' flaps).....65

V_r (0' flaps).....70

Glide (flaps down).....72

V_x (Gears down).....72

V_x (Gears up).....78

V_y (Gears down).....78

Glide (0' flaps).....79

V_y (Gears up).....90

Cruise Climb.....104

V_a.....96-118

V_{fe}.....103

V_{no}.....146

V_{ne}.....183

Max Demo Xwind.....17

V_{ref}:

Flaps 0'.....80

Flaps 10'.....79

Flaps 25'.....77

Flaps 40'.....75

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Abnormal/Emergency Checklist

For training purposes only

IN FLIGHT EMERGENCY

Glide.....79 KIAS
Landing Site.....SELECT
Spiral Pattern.....ESTABLISH
Proceed with *Restarting engine* or
Engine fire / securing engine

RESTARTING ENGINE (> 1500' AGL)

Fuel Selector...ON OPPOSITE TANK
Fuel Pump.....ON
Mixture.....FULL RICH
Alternate Air.....OPEN
Throttle.....OPEN ¼
Magnetos.....BOTH
Engine Instruments.....CHECK
Starter (Prop not windmilling)...ENGAGE
If power not restored refer to *Securing Engine*.

When power is restored:

Alternate Air.....CLOSE
Fuel Pump.....OFF
Engine Gauges.....CHECK
Nearest Airport.....SELECT

ENGINE FIRE / SECURING ENGINE

Throttle.....CLOSED
Mixture.....IDLE CUT-OFF
Fuel Selector.....OFF
Fuel Pump.....OFF
Magnetos.....OFF
Alternator.....OFF
Cabin Vents (engine fire).....CLOSED
Heater/Defroster (engine fire).....OFF
Propeller.....FULL AFT
Mayday.....TRANSMIT
Transponder.....7700

When committed to landing:

Gears.....DOWN
BATT MAST Switch.....OFF
Seat Belts.....SECURE

ENGINE ROUGHNESS

Mixture.....ADJUST
Alternate Air.....OPEN
Fuel Pump.....ON
Fuel Selector.....SWITCH TANKS
Engine Instruments.....CHECK
Magnetos.....L then R then Both
If operation is satisfactory on either magneto, continue on that magneto at reduced power and Full RICH mixture.
Nearest Airport.....SELECT

ELECTRICAL FIRE (smoke in cabin)

BATT MAST Switch.....OFF
Alternator.....OFF
Cabin Vents.....OPEN
Heater/Defroster.....OFF
Nearest Airport.....SELECT

EMERGENCY DESCENT

Mixture.....FULL RICH
Propeller.....FULL FORWARD
Throttle.....IDLE
Pitch Attitude.....SET
Airspeed.....129 KIAS
(Max 1000' loss for training purposes)

SPIN RECOVERY

Throttle.....IDLE
Ailerons.....NEUTRAL
Rudder.....FULL OPPOSITE
Elevator.....FULL FORWARD
When rotation stops:
Rudder.....NEUTRAL
Elevator.....AS REQUIRED

OPEN DOOR

Airspeed.....87 KIAS
Cabin Vents.....CLOSE
Storm Window.....OPEN

**LOSS OF OIL PRESSURE /
HIGH OIL TEMPERATURE /
HIGH OIL PRESSURE**

Mixture.....RICH
Throttle.....REDUCE
Nearest Airport.....SELECT
Prepare for *Securing Engine*

LOSS OF FUEL PRESSURE

Fuel Pump.....ON
Fuel Selector.....OPPOSITE TANK
Nearest Airport.....SELECT
Prepare for *Securing Engine*

ELECTRICAL FAILURE

Alternator Annunciator Light
Illuminated...LOAD METER CHECK

If Load Meter shows zero:

Alternator.....OFF
Electrical Load.....REDUCE
Circuit Breakers.....CHECK/RESET
Alternator.....ON

If power not restored:

Alternator.....OFF
Electrical Load.....REDUCE
Nearest Airport.....SELECT
Prepare for *Loss of Comm/Nav*

ELECTRICAL OVERLOAD

Alternator.....ON
BATT MAST Switch.....OFF
Electrical Load.....REDUCE

If alternator loads are reduced:

Electrical Load.....REDUCE TO MIN
Nearest Airport.....SELECT

If alternator loads are not reduced:

Alternator.....OFF
BATT MAST Switch AS REQUIRED
Nearest Airport.....SELECT

LOSS OF COMMUNICATION

Frequency and Volume.....CHECK
Transponder.....7600
In VFR conditions:
Nearest Airport.....SELECT
Altitude.....TPA+500
Twrd Apt..Comply with *ATC LIGHTS*
In IFR conditions:
Route...ASSIGNED/CLEAR/EXPECT
Altitude.....HIGHEST
Leave Clearance Limit.....EFC/ETA

ATC LIGHT GUN SIGNALS

	In Flight	On the Ground
Steady Green	Clear to Land	Clear to Take off
Flashing Green	Return to Land	Clear to Taxi
Steady Red	Give Way	Stop
Flashing Red	Apt Unsafe	Taxi clear of RWY
Flashing White	N/A	Return
Alt Green/Red	Caution	Caution

ENGINE FIRE ON THE GROUND

Mixture.....IDLE CUT-OFF
Throttle.....OPEN
Fuel Selector.....OFF
Fuel Pump.....OFF
If engine is not running:
Starter.....ENGAGE
When flames out:
Magnetos.....OFF
BATT MAST Switch.....OFF
Aircraft.....EVACUATE
Fire Extinguisher.....LOCATE

FLOODED ENGINE START

Mixture.....IDLE CUT-OFF
Throttle.....CLOSED
BATT MAST Switch.....ON
Alternator.....ON
Fuel Pump.....OFF
Starter.....ENGAGE
When engine fires:
Mixture.....FULL RICH
Throttle.....1000 RPM
Proceed with normal *Engine Start*

EXTERNAL POWER START

BATT MAST Switch.....OFF
Alternator.....OFF
Electricals.....OFF
Terminals.....CONNECT
External Power Plug.....INSERT
Proceed with normal start.
Throttle...LOWEST POSSIBLE RPM
External Power Plug.....REMOVE
BATT MAST Switch.....ON
Alternator.....ON
Ammeter.....CHECK
Oil Pressure.....CHECK

MANUAL GEAR EXTENSION

BATT MAST Switch.....ON
Alternator.....ON
Circuit Breakers.....CHECK
Nav Lights (day).....OFF
Gear Indicator Bulbs.....CHECK
Airspeed.....87 KIAS
Gear Circuit Breaker (Training only).OFF
Gear Selector.....DOWN
Emergency lever.....HOLD DOWN
If gear has still failed to lock down, yaw the aiplane abruptly from side to side with the rudder.

GEAR UP LANDING

Refer to SECURING ENGINE and touchdown should be made at the lowest possible airspeed with full flaps.

PROPELLER OVERSPEED

Throttle.....OVERSPEED
Oil Pressure.....CHECK
Propeller.....RPM REDUCED
Airspeed.....REDUCE
Nearest Airport.....SELECT

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