

ATLANTA FLYING CLUB









Piper Archer PA-28-181

Normal and Emergency Checklists

SPEED REFERENCE

V _{NE}	154 KIAS
V _{NO}	125 KIAS
V _{SO}	45 KIAS
V _{S1}	50 KIAS
V _R	60 KIAS
V _R SHORT FIELD	55 KIAS
V _X	64 KIAS
V _Y	76 KIAS
V _A	113 KIAS
V _{FE}	102 KIAS
BEST GLIDE	76 KIAS

ATC LIGHT GUN SIGNALS

Color & Type	On the Ground	In Flight
Steady Green 	Cleared for takeoff	Cleared to land
Flashing Green 	Cleared to taxi	Return for landing
Steady Red 	STOP	Give way, continue circling
Flashing Red 	Taxi clear of the runway	Airport unsafe, do not land
Flashing White 	Return to starting point	N/A
Alt. Red / Green 	Exercise extreme caution	Exercise extreme caution

PREFLIGHT INSPECTION - COCKPIT

Required Documents	AVAILABLE
Airworthiness Certificate	
Registration	
Radio License (int'l)	
Operating Reference (POH)	
Weight & Balance	
Maintenance Status	CHECKED
Hobbs & Tach Meters	CHECKED
Control Lock	REMOVED
Avionics Master	OFF
Circuit Breakers	CHECK IN
Propeller Area	CLEAR
Ignition Switch	OFF
BATT Master	ON
Fuel Quantity	CHECKED
Annunciator Panel	PUSH TO TEST
Pitot Heat	CHECK
Flaps	EXTEND FULL
All Lights	ON & CHECK
All Lights (except beacon)	OFF
BATT Master	OFF

PREFLIGHT INSPECTION – EXTERNAL

RIGHT WING

Flap & Aileron	CHECKED
Wing Tip & Leading Edge	CHECKED
Tie Down	REMOVED
Fuel Level	CHECKED
Fuel Cap	SECURED
Fuel Strainer	CHECKED
Strut, Tire and Brake	CHECKED

NOSE

Engine Cooling Air Inlets	CHECKED
Propeller & Spinner	CHECKED
Air Filter	CLEAR

Nose Wheel & Strut	CHECKED
Engine Oil	6-8 QTS
Windshield	CHECKED

LEFT WING

Leading Edge & Wing Tip	CHECKED
Fuel Level	CHECKED
Fuel Cap	SECURED
Fuel Strainer	CHECKED
Stall Warning Opening	CLEAR
Pitot Mast Cover	REMOVED
Pitot Mast / Static Port	CHECKED
Tie Down	REMOVED
Aileron and Flap	CHECKED
Strut, Tire and Brake	CHECKED

EMPENNAGE

Tie Down	REMOVED
Stabilator & Trim Tab	CHECKED
Baggage Door	CLOSED

BEFORE STARTING ENGINE

Preflight Inspection	COMPLETE
Seat Position	ADJUST
Seatbelts	SECURED
Doors	CLOSED
Passengers	BRIEF
1) Seatbelts / shoulder harnesses	
2) Personal electronic devices off	
3) Air vents / comfort	
4) Fire extinguisher location / operation	
5) Door operation	
6) Emergency procedures & egress	
Parking Brake	PULL ON
Flaps	UP
Mixture	CUT OFF
Throttle	IDLE

STARTING ENGINE

Fuel Tank Selector	L or R TANK
Propeller Area	CLEAR
BATT Master	ON
FIN Strobe	ON

NORMAL START

Mixture	FULL RICH
Throttle	1/4" OPEN
Fuel Pump	ON
Ignition Switch	START
ALT Switch	ON
Throttle	800-1000RPM
Oil Pressure	CHECKED
Fuel Pump	OFF
Mixture	LEAN

FLOODED START

Throttle	FULL FORWARD
Master Switch	ON
ALT Switch	ON
Fuel Pump	OFF
Mixture	CUT OFF
Ignition Switch	START
Mixture	ADVANCE RICH
Throttle	RETARD
Oil Pressure	CHECK
Fuel Pump	OFF
Mixture	LEAN

BEFORE TAXI

Electrical System	VERIFY AMPS/VOLTS
Avionics Master	ON
Engine Gauges	CHECK GREEN
GPS Database	VERIFY DATE
Fuel Quantity	CHECK
Radios	SET & CHECK
FMS & Weather	SETUP / OBTAIN
Altimeter	SET
Transponder	CHECK ALT
Flight Instruments	CHECK & BRIEF
1) Airspeed, ZERO	
2) Attitude Indicator, IN-LINE WITH HORIZON	
3) Altimeter, WITHIN 75FT OF FIELD ELEVATION	
4) Turn coordinator, LEVEL AND BALL CENTERED	
5) Vertical speed indicator, ZERO	
6) Heading indicator, CHECKED WITH COMPASS	
Taxi Clearance	OBTAIN IF REQUIRED
Taxi Light	ON
NAV Light	ON
Parking Brake	RELEASED
Taxi Area	CLEAR
Brakes	TEST

BEFORE TAKEOFF (RUN UP)

Parking Brake	SET
Cabin Doors & Windows	CLOSED
Seatbelts	SECURED
Elevator Trim	SET TO TAKEOFF
Flight Controls	FREE & CORRECT
Fuel Pump	ON

Mixture	RICH
Throttle	2000 RPM
Magneto Check	R-BOTH-L-BOTH
Max RPM drop of 175, max difference between R / L is 50	
Vacuum	CHECK
Engine Indicators	CHECK GREEN
Ammeters and Voltmeters	CHECK
Carb Heat	CHECK
Fuel Pump	OFF
Fuel Pressure	CHECK
Throttle	CHECK IDLE
Throttle	800RPM

Clearance	OBTAIN IF REQUIRED
FMS / GPS Flight Plan	CHECK & SET
Altitude Select	SET
Heading	SET
Transponder	VFR or CODE

Departure Briefing

COMPLETE

This will be a VFR / IFR departure to _____
(Who) will be performing the takeoff.

Type of takeoff to be performed, flaps set.

Review V speeds (V_R , V_X , and V_Y /Climb).

Runways in use, planned takeoff runway.

Review takeoff distances, abort if not off by _____

Review positive exchange of flight controls.

Review emergency procedures:

- 1) Any malfunction before V_R :
Idle power, abort straight ahead
- 2) Any malfunction after V_R with runway:
Abort / land straight ahead
- 3) Engine malfunction after V_R without runway and below 500ft AGL:
Select suitable landing area ahead, fuel off, mixture cut off, master off, mags off, release door latch.
- 4) Engine malfunction above 500ft AGL:
Best glide airspeed of 76 KIAS, select landing area, possible return to airport.

Parking Brake

RELEASED

NORMAL TAKEOFF

Trim	SET
Flaps	UP / 10° IF REQ'D
Mixture	FULL RICH
Doors & Window	CLOSED
Landing Light	ON
Strobe Lights	ON
Fuel Pump	ON

Traffic	FINAL CLEAR
Departure Runway	VERIFY
Throttle	FULL
Airspeed Indicator	VERIFY
Engine Gauges	CHECK GREEN
Rotate V _R	60 KIAS
Airspeed V _Y	76 KIAS

CLIMB – 500FT AGL

Airspeed V _Y	76 KIAS
Flaps	UP
Engine Gauges	CHECK GREEN

CRUISE

Fuel Pump	OFF
Taxi Light	OFF
Landing Light	OFF
Throttle	SET
Mixture	LEAN
FMS / GPS	REVIEW

CRUISE POWER SETTINGS

2200RPM – 25" MP – 12.5GPH

2200RPM – 28" MP – 14.5GPH

2300RPM – 30" MP – 16.5GPH

2400RPM – 33" MP – 20.0GPH

PRE-MANEUVER CHECKLIST

Emergency Landing Area	CONFIRM
Seatbelts	SECURED
Fuel Tank Selector	CHANGE
Mixture	AS REQUIRED
Landing Light	ON
Fuel Pump	ON
Clearing Turns	PERFORM

FUEL TANK CHANGE

Fuel Pump	ON
Fuel Tank Selector	CHANGE
Fuel Flow	CHECK
Fuel Pump	OFF

DESCENT

Weather	OBTAIN
Seatbelts	SECURED
Mixture	ADJUST
Altimeter	SET
ALT Select	SET
Instruments / Radios	SET
Approach / Pattern Entry	BRIEF
1) Approach Name / Airport	
2) Frequency / Course	
3) Minimums / Airport and TDZE Elevations	
4) Missed Procedure / MSA	
5) Notes	
6) Highest Obstacle / Terrain Review	
7) Lighting	
8) Crosswind Component	
9) Runway Length Available	
10) Airport Diagram	
11) Destination on Field / Taxi Route	

BEFORE LANDING

Seatbelts	SECURED
Fuel Tank Selector	CHANGE
Mixture	RICH
Flaps (<110 KIAS)	SET 10°
Landing Light	ON
Taxi Light	ON
Fuel Pump	ON

LANDING

Airspeed	75 KIAS
Flaps	SET 25°
Airspeed	65 KIAS
Flaps	SET 40°

GO AROUND

Throttle	FULL
Airspeed	64 KIAS
Flaps	SET 25°
Positive Climb Rate	
Flaps	SET 10°
<i>Above 500 AGL</i>	
Flaps	UP
Airspeed	76 KIAS

AFTER LANDING

Fuel Pump	OFF
Strobe Lights	FIN STROBE
Taxi Light	ON
Landing Lights	OFF
Flaps	UP
Mixture	LEAN

SECURING AIRCRAFT

Parking Brake	SET
Throttle	IDLE
Avionics Master	OFF
Mixture	CUT OFF
Ignition Switch	OFF
Master Switch	OFF
Taxi Light	OFF
FIN Strobe	OFF
Control Lock	INSTALL
Window	CLOSED
Pitot Mast Cover	INSTALL
Tie Downs	INSTALL
Cowl Plugs	INSTALL
Flight Plan	CLOSED

ENGINE FIRE DURING START

Ignition	HOLD START
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IF ENGINE STARTS:

Mixture	CUT OFF
Throttle	FULL FORWARD
Fuel Pump	OFF
Fuel Tank Selector	OFF
Ignition	OFF

IF ENGINE DOES NOT START:

Ignition	HOLD START
Mixture	CUT OFF
Throttle	FULL FORWARD
Fuel Pump Switch	OFF
Ignition Switch	RELEASE
Master Switch	OFF
Fire Extinguisher	OBTAIN
Aircraft	EVACUATE
Fire	EXTINGUISH

ENGINE FAILURE DURING TAKEOFF

Throttle	IDLE
Brakes	APPLY
Mixture	CUT OFF
Magneto	OFF
Master Switch	OFF

ENGINE FAILURE AFTER TAKEOFF

Airspeed	BEST GLIDE
Flaps Up	76 KIAS
Land	STRAIGHT AHEAD

IF SUFFICIENT ALTITUDE FOR RESTART:

Mixture	CHECK RICH
Fuel Pump	CHECK ON
Fuel Tank Selector	CHANGE
Magnetos Switches	CHECK ON
Flaps	AS REQUIRED
Carb Heat	ON
Cabin Door	UNLATCH

ENGINE FAILURE DURING FLIGHT

Airspeed – Best Glide	76 KIAS
Fuel Pump	ON
Mixture	RICH
Fuel Tank Selector	CHANGE
Carb Heat	ON
Primer	IN & LOCKED
Engine Gauges	CHECK
Magneto Switches	CHECK ON
Ignition Switch (If Prop Stopped)	START

POWER OFF EMERGENCY LANDING

Airspeed	
Flaps Up	76 KIAS
Throttle	IDLE
Mixture	CUT OFF
Ignition Switch	OFF
Fuel Tank Selector	OFF
Radio Call 121.5	MAY DAY
Transponder	7700
Seats & Seat Belts	SECURE
Flaps	AS REQUIRED
Master Switch	OFF
Cabin Door	UNLATCHED

ENGINE FIRE IN FLIGHT

Fuel Tank Selector	OFF
Throttle	IDLE
Mixture	CUT OFF
Fuel Pump	OFF
Cabin Heat and Air	OFF
Master Switch	OFF
Airspeed	100+ KIAS
Emergency Landing	EXECUTE

CABIN FIRE IN FLIGHT

BATT Master	OFF
ALT Switch	OFF
Cabin Vents	CLOSED
Cabin Heat and Air	OFF
Fire Extinguisher	ACTIVATE
Cabin	VENTILATE

ELECTRICAL FIRE IN FLIGHT

Master Switch	OFF
Cabin Vents	OPEN
Cabin Heat and Air	OFF
Fire Extinguisher	ACTIVATE
Radio Switch	OFF
Electrical Switches	OFF
Cabin	VENTILATE
IF FIRE IS OUT AND ELECTRICAL IS NEEDED:	
Circuit Breakers	CHECK
Master Switch	ON
Radio Switches	OFF

WING FIRE

Landing Light	OFF
NAV Lights	OFF
Strobe Lights	OFF
Pitot Heat	OFF
Side Slip (fire away)	EXECUTE
Emergency Landing	EXECUTE

ICING

The Piper Archer is not equipped for flight into known icing. If icing is encountered, you should make a level 180° turn to exit.

Pitot Heat	ON
Cabin Heat	ON FULL
Defroster	OPEN
Cabin Air	ADJUST
Throttle	INCREASE

Stall speed increases with ice buildup, plan approach speed at 75+ KIAS with ice buildup.

Flaps	UP
Landing	EXECUTE

AMMETER EXCESSIVE CHARGE

Ammeter Full Scale	CHECK
ALT Switch	OFF
Non-Essential Electrical	OFF
Land	ASAP

LOSS OF FUEL PRESSURE

Electric Fuel Pump	ON
Fuel Selector	CHECK / SWITCH

ALTERNATOR FAILURE

Verify Failure	CHECK BAT MASTER
Electrical Load	REDUCE
Alternator Circuit Breaker	CHECK
ALT Switch	OFF, THEN ON
Land	ASAP

HIGH OIL TEMPERATURE

Land	ASAP
Prepare for Power Off Landing	

LOSS OF OIL PRESSURE

Land	ASAP
Prepare for Power Off Landing	

ENGINE ROUGHNESS

Carb Heat	ON
If engine roughness continues after 1 minute:	
Carb Heat	OFF
Mixture	ADJUST
Fuel Pump	ON
Fuel Selector	SWITCH
Engine Gauges	CHECK
Magneto Switch	“L” then “R”
Magneto Switch	BOTH
Prepare for Power Off Landing	