



Bridgewater State University  
Arrow (PA28R) Normal Procedures Checklist

Arrow (PA28R) Normal Procedures Checklist, (Cont.)

PREFLIGHT	
CABIN	
Control Lock .....	REMOVE
AROW .....	CHECK
Hobbs & Tach .....	CHECK
Parking Brake .....	SET
All Switches .....	OFF/SAFE/NORMAL
Landing Gear Selector .....	DOWN
Fuel Quantity .....	CHECK
Fuel Selector .....	LOWEST TANK
Master Switch .....	ON
Annunciator Lights .....	TEST
Lights/Pitot Heat .....	ON
Check Lights/Pitot .....	WORKING
Stall Warning .....	CHECK
All Switches (Expt. Beacon) .....	OFF
Master Switch .....	OFF
Flaps .....	DOWN
RIGHT WING	
Baggage Door .....	SECURE
Flap .....	CHECK
Aileron .....	CHECK
Wing Tip .....	CHECK LIGHT
Wing Tie Down .....	UNTIE
Main Wheel .....	CHECK
Fuel Tank Sump .....	CHECK
Fuel Quantity .....	CHECK VISUALLY
Fuel Cap .....	SECURE
NOSE	
Engine Oil .....	CHECK
Nose Wheel & Strut .....	CHECK
Engine Cooling Vents .....	CHECK
Propeller & Spinner .....	CHECK
Landing Light .....	CHECK
Fuel Sump .....	CHECK
LEFT WING	
Fuel Sump .....	CHECK
Fuel Quantity .....	CHECK
Fuel Cap .....	SECURE
Main Wheel .....	CHECK
Fuel Vent .....	CHECK
Wing Tie Down .....	REMOVE
Pitot Tube Cover .....	REMOVE
Pitot Tube .....	CHECK
Wing Tip .....	CHECK LIGHTS
Static Source .....	CHECK
Aileron .....	CHECK
Flap .....	CHECK

EMPENNAGE	
Antennas .....	CHECK
Control Surfaces .....	CHECK
Rudder Gust Lock .....	REMOVE
Tail Tie- Down .....	REMOVE
Trim Tab .....	CHECK
BEFORE START	
Preflight Inspection .....	COMPLETE
Passenger Brief .....	COMPLETE
Seats & Seatbelts .....	LOCK
Door .....	CLOSED
Brakes .....	TEST FOR PRESSURE
Circuit Breakers .....	CHECK
All Switches .....	OFF/SAFE/NORMAL
Transponder .....	ALTITUDE
Landing Gear Selector .....	DOWN
ENGINE START	
Throttle .....	1/4" OPEN
Mixture .....	IDLE CUTOFF
Propeller Area .....	"CLEAR"
Master Switch .....	ON
Beacon .....	ON
Fuel Pump .....	ON, CHK PRESSURE
Fuel Pump .....	OFF
Warm Start .....	PRIME AS REQUIRED
COLD START ONLY	
Fuel Pump .....	ON
Mixture .....	FULL RICH
.....Note Fuel Flow	
Mixture .....	IDLE CUTOFF
Fuel Pump .....	OFF
Ignition Switch .....	START
Mixture .....	FULL RICH
AFTER START	
Throttle .....	1000 RPM
Oil Pressure .....	GREEN
Lights .....	AS REQUIRED
Avionics Master .....	ON
BEFORE TAXI	
Flaps .....	UP (VERIFY)
Mixture .....	LEAN FOR CONDITIONS
Radios, Avionics .....	SET
Transponder .....	ALTITUDE
Flight Instruments .....	SET
Flights Controls .....	FREE & CORRECT

TAXI	
Brakes .....	TEST
Flight Instruments .....	CHECK
RUN - UP	
Brakes .....	ON
Fuel Selector .....	FULLEST TANK
Mixture .....	RICH
Engine Gauges .....	GREEN
Throttle .....	2000 RPM
Mags .....	CHECK
Prop .....	EXERCISE
Engine Gauges .....	CHECK
Alt Air .....	CHECK
Throttle .....	IDLE
Throttle .....	1000 RPM
Mixture .....	LEAN FOR CONDITIONS
Departure Brief .....	COMPLETE
BEFORE TAKEOFF	
Fuel Pump .....	ON
Fuel Selector .....	FULLEST TANK
Ignition Switch .....	BOTH
Engine Gauges .....	GREEN
Elevator Trim .....	SET
Flaps .....	SET
Radios / Avionics .....	CHECK
NAV / GPS Switch .....	SET
TAKEOFF	
Mixture .....	RICH
Lights .....	ON
Transponder .....	ALTITUDE
V - SPEEDS --- MPH/IAS	
Vx .....	85 (Gr Dn) Va
Vx .....	96 (Gr Up) @ 2600 ..... 131
Vy .....	95 (Gr Up) @ 1800 ..... 96
Vy .....	100 (Gr Up) Vfe ..... 125
Vso .....	64 Vlo ..... 125
Vs1 .....	71 Vle ..... 150
Best Glide	105

CLIMB	
Landing Gear .....	UP
Flaps .....	UP
Power .....	SET
Mixture .....	SET
Fuel Pump .....	OFF
CRUISE	
Power .....	SET
Mixture .....	LEAN
Lights .....	AS REQUIRED
DESCENT	
Throttle .....	SET
Mixture .....	SET
Altimeter .....	SET
Seats & Seatbelts .....	SECURE
Lights .....	ON
BEFORE LANDING	
Fuel Pump .....	ON
Fuel Selector .....	FULLEST TANK
Landing Gear .....	DOWN
Mixture .....	RICH
Prop .....	FORWARD
AFTER LANDING	
Elevator Trim .....	SET
Flaps .....	RETRACT
Transponder .....	ALTITUDE
Fuel Pump .....	OFF
Mixture .....	LEAN FOR CONDITIONS
Lights .....	AS REQUIRED
SHUT DOWN	
Brakes .....	SET
Throttle .....	1000
Transponder .....	STANDBY
Avionic Master .....	OFF
Mag. Check .....	Ground / Both
Mixture .....	IDLE CUTOFF
Ignition Switch .....	OFF
Master Switch .....	OFF
All Switches (except beacon) .....	OFF
Control Lock .....	INSTALL
Pitot Tube Cover .....	INSTALL
Hobbs & Tach .....	RECORD
Cover .....	INSTALL



**ENGINE FAILURES**

**DURING TAKE OFF ROLL**

Throttle..... IDLE  
Brakes .....APPLY  
Flaps.....RETRACT  
Mixture ..... IDLE CUTOFF  
Ignition ..... OFF  
Master Switch ..... OFF

**IMMEDIATELY AFTER TAKEOFF**

Airspeed.....105  
Landing Gear ..... DOWN  
Throttle..... OFF  
Master Switch ..... OFF  
Ignition Switch..... OFF  
Flaps..... AS REQUIRED  
Fuel Selector..... OFF  
Mixture ..... IDLE CUTOFF

**DURING FLIGHT (Restart)**

Airspeed.....105  
Fuel Pump..... ON  
Fuel Selector.....OPPOSITE TANK  
Mixture ..... RICH  
Alt Air ..... ON  
Engine Gauges ..... CHECK  
Ignition Switch..... CHECK

**FORCED LANDINGS**

Airspeed.....105  
Prop ..... FULL DECREASE  
Throttle..... OFF  
Master Switch ..... OFF  
Ignition Switch..... OFF  
Flaps..... AS REQUIRED  
Fuel Selector..... OFF  
Mixture ..... IDLE CUTOFF  
Fuel Pump..... OFF  
Seat Belts..... SECURE  
Brakes .....APPLY HEAVILY

**FIRES**

**DURING START**

If Engine Starts-  
Power ..... 1700 for a few sec  
Engine .....SHUTDOWN

If Engine Fails to Start-  
Mixture ..... IDLE CUTOFF  
Throttle..... FULL OPEN  
Cranking..... CONTINUE

**ENGINE FIRE INFLIGHT**

Fuel Selector..... OFF  
Throttle..... CLOSE  
Mixture ..... IDLE CUTOFF  
Cabin Heat ..... OFF  
Defroster ..... OFF  
Land ..... IMMEDIATELY

**ELECTRICAL FIRE**

Master Switch ..... OFF  
Vents ..... OPEN  
Cabin Heat..... OFF  
Land ..... AS SOON AS PRACTICABLE

**CABIN FIRE**

Master Switch ..... OFF  
Vents/Cabin Air/Heat .....CLOSED  
Fire Extinguisher .....ACTIVATE  
Vents/Cabin Air/Heat ..... OPEN  
Land .....ASAP

**WING FIRE**

Lights Switches ..... OFF  
Pitot Heat SW ..... OFF  
Fuel Selector..... OPPOSITE FIRE

**ELECTRICAL POWER SUPPLY  
SYSTEM MALFUNCTIONS**

**ALTERNATOR FAILURE**

Nonessential Elec Equip ..... OFF  
Alternator Circuit Breaker .....CHECK  
Alternator Switch ..... OFF (For 1 sec)  
Alternator Switch ..... On  
If Ammeter remains 0 .....LAND ASAP

**PROP OVERSPEED**

Throttle ..... CLOSE  
Oil Pressure .....CHECK  
Prop ..... FULL DECREASE  
Then set if any control available  
Airspeed ..... REDUCE  
Throttle ..... BELOW 2700

**MANUAL GEAR EXTENTION**

Master Switch ..... ON  
Circuit Breakers .....CHECK  
Panel Lights ..... OFF  
Gear Indicator Bulbs.....CHECK  
Airspeed ..... BELOW 100  
Gear Selector ..... DOWN  
Emergency Gear Lever ..... DOWN  
If gear fails to lock down, yaw airplane