# **Beech Baron**

# Preflight Inspection Cockpit

Airplane Documents	On Board
Ignition Key	pulled out
Electrical Equipment	Off
Magnetos	Off
Alternator Switches	Off
Mixture and Throttle	Idle Cutoff
Propeller	Full FWD
Gear Selector	Down
Circuit Breakers	Check
Battery Switch Key	On
Annunciator Panel Lights	Check
Fuel Quantity	Check
Flaps	Extend to Ldg
Lights, Pitot heat, stall vane	Check
Lights, Pitot heat	Off
Battery Switch Key	Off

#### **Exterior Check**

Surfaces & Controls	Inspect
Fuel Quantity and Quality	check
Caps, Drains, Vents	Inspect
Engines, Oil, Belts	Inspect
Propellers	Inspect
Air Intakes	Inspect
Exhaust System	Inspect
Cowl Flaps	Check open
Gear, Tires, Brakes	Inspect
Antennas	<b>Check Security</b>
Baggage Door	Inspect
Fianl Walk Around	Visual check

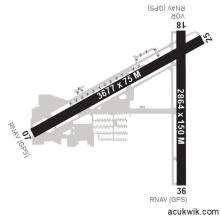
# **Interior Check**

Passenger Brief	Inspect
Hobbs reco	rd on hobbs sheet
Fuel Selector	Test all positions
Fuel	Mains
Alternate Static	Off
Flap	Inspect
<b>Emergency Gear Crank</b>	Free
Pitot-Static Probe	Inspect
Stall warning	Check Unblocked
Landing/Taxi Light(s)	Inspect

# N8960M

KSPG Frequencies:	
ASOS	118.87
Ground	121.80
Tower	127.40
Departure/ Approach	119.65

St. Petersburg (SPG)



# **Starting Engine**

Seats	Locked
Circuit Breakers	In
Rudder Pedals	Set
Avionics	Off
Autopilot	Off
Cowl Flaps	Open
Beacon	On
Brakes	Set

#### 1st Engine start (left)

Linging start (icit)	
Mixture	Rich
Prop	full fwd
Left Throttle	1/4" (if hot -full)
Prop	Clear
Battery Key	On
Left Fuel Pump	Hi for 4 / Off
Left (top) Magneto	Start
Throttle	set 1000rpm
Oil Pressure	Check
Left Alternator	On
2 <sup>nd</sup> Engine Start	
Mixture	Rich

# Mixture Rich Prop full fwd Right Throttle 1/4" (if hot -full) Prop Clear

Prop Clear
Right Fuel Pump Hi for 4 / Off
Right (bottom) Magneto Start
Right Throttle set 1000rpm
Oil Pressure Check
Right Alternator On

# **Beech Baron**

# Pre taxi / Taxi

Seat Belts	On
Flaps	Up
Avionics	On
ATIS/AWOS	Obtain
Altimeter	Set
Taxi lights	as req
Brakes	release / test
Xfeed	test both main and aux
Al	Check
HSI / Compass	Check
Turn Coordinator	Check
Flight Controls	Free and Correct
Fuel Selector Valves	Main

## **Run Up**

Brakes	Set
Elevator Trim	Set for TAKEOFF
Flight Controls	Free and Correct
Fuel Selector Valves	Main Tanks
Mixture	Rich
Propeller	Full FWD
Throttle 2200RPM	cycle Props
Throttle 1700 RPM	check magnetos
Engine Gauges	Check (Green)
Throttle 1500 RPM	Feather test
Gyro Pressure	Check (Green)
Amps / Volts/ Alternators	Check
Throttle	Idle, then 1000rpm
Circuit Breakers	In
Auto Pilot	Test and Off
Friction Lock	Adjust

## **Normal Takeoff**

Departure Brief	Briefed
Flaps	Up
Cowl Flaps	Open
Props	full fwd
Mixture	Best power
Fuel Pumps	Off
If 90 degrees C	AT Fuel pups low
Doors/Windows	Closed
Lights	As required
Throttle	2000 rpm - check all green
Throttle	Full
Rotate	84kts

#### Climb

Gear	tab brakes, then Up
Oil Temp and Pressu	ire Green
Fuel Pump	as req
Throttle	25 MP
Props	2500 RPM
Lights	As required

# N8960M

### Cruise

Fuel	Proper tanks
Throttle	Set for cruise
Propeller	2200rpm - 2400rpm
Mixture	Lean for best power
Fuel Pump	off
Trim .	Set

#### **Pre-landing checklist**

Fuel selector	Fullest tank
Mixture	Full Rich below 5000'
Fuel Pump	Off
If 90 degrees	OAT fuel pump low
Engine Instruments	Green
ATIS/AWOS/ASOS	Checked
Altimeter	Set

# **Final Approach**

Flight instruments	Checked & Set
Radios	Set
Autopilot	Off
GUMPS	Check
Landing light	On (IFR or Night)
Flaps	as required
Airspeed	90-95 kts
Gear	Double check

# **After landing**

Flaps	Up
Cowl Flaps	Open
Fuel Pump	as required
Strobe light	Off
Mixture	Lean for taxi

#### **Shut Down**

Avionics	Off
Lights	Off
Fuel Pumps	Off
Throttle	1000 RPM
Mixture	Cut-off
Mags	Off
Alternators and Battery	Off
Key	Remove
Hobbs	Record

# **Beech Baron**

	V-Speeds	
Rotate	$V_{\rm r}$	59
Normal Climb Out	V	107-122
Best angle (Sea Level)	V <sub>x</sub>	84
Best rate (Sea Level)	V <sub>y</sub>	107
Maneuver	Va	157
Norm. oper. range		52-129
Flaps	$V_{fe}$	113
Maneuver max	V <sub>no</sub>	181
Never exceed	$V_{ne}$	224
Stall (clean)	Vs	78
Stall (landing configuration)	$V_{so}$	68
Final Approach	Flaps	90
	No flaps	97
Min Control Speed	VMCA	78
One engine inop speed	Vsse	84
Steep Turns	20" MP	71.1.2.1101
Emergency Decent	Idle power, gear down	Pitch for 140 kts, 30°- 40° degrees bank
		degrees sunk
Signal	On Ground	In Flight
Steady Green	Takeoff	Land
Flashing Green	Taxi	Return to land
Steady Red	Stop	Give way
Flashing Red	Clear runway	Do not land
Flashing <b>white</b>	Return to ramp	
Red/Green alternating	WARNING - USE	
	CAUTION	

# N8960M

# **Engine Failure**

#### ON TAKEOFF

Power IDLE
Brakes APPLY
Centerline MAINTAIN
Mixture CUT OFF if necessary
Mags OFF
Ignition OFF

#### One Engine AFTER TAKEOFF

Yoke push forward

Power up / Clean Up

Airspeed 100kts (blue line)
Directional Control Maintain with rudder

(step on the ball)

Flaps Up
Gear Up
Landing Straight ahead if possible

If you can maintain positive control of the airplane, stay in the pattern and do a normal landing without feathering... if you can not maintain blue line:

Identify Dead foot, dead engine
Verify Close proper throttle
Prop Feather
5 degree bank into good engine, ½ ball

towards good engine

#### One Engine DURING FLIGHT

Airspeed min 100 KIAS (blue line)
Power up / Clean Up

Throttle as needed Flaps / Gear Identify dead foot, dead engine Verify Close proper throttle Propeller **Feather** Mixture cut-off Cowl Flaps close on dead engine Alternator Off on dead engine Off on dead engine Magnetos Fuel Selector Off on dead engine

#### **Emergency Decent**

Throttle IDLE
Gear Down
Bank max 30°- 40°
Speed pitch for 140

# **Beech Baron**

# **High Manifold**

Throttle reduce Mixture Adjust

### **Engine Roughness**

 Magnetos
 Check

 Mixture
 Rich

 Throttle
 Full

 Fuel Pump
 On

# **Engine Fire on ground**

Mixture Idle Cutoff
Continue cranking affected engine
Fuel Selector Off
Battery / Alternator Off
Other Engine Shut Down
Airplane Evacuate

## **Engine Fire during flight**

Fuel selector Off to affected engine
Mixture Idle Cutoff
Prop Feather
Aux Fuel Pump Off
Alternator, Magneto Off
Airspeed Pitch to 153 to
extinguish fire and land asap

#### **Manual Gear Extension**

Airspeed Reduce (100-120kts)
Pull Landing gear circuit breaker
Lower landing gear lever
Hand crank approxim. 50 times CCW
If electrical system ok, verify gear lights and horn

# **Electrical fire**

All electrical devices

If fire is out
Batt / Alt on if critical
turn on appliances one at a time
Storm Window

Open if necessary

# N8960M