

<u>START</u>	
Hobbs & tach	BOOK
Passenger briefing	
Seat belts	
Shoulder harness	
Doors	
Windows	
No smoking	
Egress	
+Xcg of flight controls	
Destination	
Fuel selector	BOTH
Trim	SET
Mixture	IN
Throttle	SET
Carb heat	IN
Circuit breakers	IN
All lights	OFF
Nav/ADSB	OFF
Beacon	ON
Field	OFF
Avionics master	OFF
Master switch	ON
Primer	AS REQ
Propeller area	CLEAR
Start (push key in)	
Engine gauges	CHECK
Field	ON
Check volts	14+
Avionics master	ON
Nav/ADSB	ON
Set Xpndr	ALT / 1200
Avionics	SET
Altimeter	±75
Start checklist	COMPLETE

<u>RUNUP</u>	
Mag check	1600, 100 drop, 50 match
Suction	4+
Carb heat	Idle
Flight instruments	SET
Controls & trim	CHECK
GPS	Destination
Nav/ADSB	ON
Transponder	ON
Lights	ON
Emergency procedures	
47 kts at ½ takeoff distance	
land remaining runway	
straight ahead ±30°	
hard turn, flaps as needed	

<u>TAKEOFF</u>	
<u>Normal</u>	
Climb	68-78
<u>Short Field</u>	
Flaps	10°
Rotate	50 / 52 / 68

<u>CRUISE</u>	
Landing light	OFF
Power	SET
Trim	ADJUST
Mixture	LEAN
Flight instruments	CHECK
Engine instruments	CHECK

<u>Transponder</u>	
Emergency	7700
NORDO	7600
Hijack	7500
VFR (normal)	1200

<u>PREFLIGHT</u>	
Paperwork	
Control lock	REMOVE
Fuel selector	BOTH
Left fuel sump	
Right fuel sump	
Gascolator sump	
Oil	6+
Right fuel tank	DIP
Left fuel tank	DIP
Baggage door	LOCKED
Tail tiedown	
Control surfaces	
Right aileron	
Right wingtip	
Right tiedown	
Right main wheel	
Propeller & spinner	
Landing lights	
Air filter	
Nose gear	BOUNCE
Static port	
Pitot	
Fuel vent	
Stall warning port	
Left tiedown	
Left wingtip	
Left aileron	
Left main wheel	
<i>Night / IFR</i>	
Master switch	ON
IFR Pitot heat	WARM
Taxi light	
Landing light	
Strobes & nav lights	
Instrument lights	
Master switch	OFF

X-wind	12 kts
Best Glide	68 kts
V_{SO}	51 kts
V_{FE}	87 kts
V_{NO}	122 kts
V_{NE}	139 kts
V_A	100 @ 2250#
V_X	52 kts
V_Y	68 kts
Fuel	39 gal usable
Tires	35 / 23 psi

Takeoff Performance

Increase distance 10% for each 15° C above STP for particular altitude.
 Increase distance 10% for each 25° F above STP for particular altitude.

Flaps Up, Hard Surface		Sea Lev1, 15° C Sea Lev1, 59° F		2500 ft, 10° C 2500 ft, 50° F		5000 ft, 5° C 5000 ft, 41° F	
Gross Wt	Head Wind	Ground Run	50' Obst.	Ground Run	50' Obst.	Ground Run	50' Obst.
1900	0	560	1000	675	1185	820	1420
	13	335	675	415	805	515	980
	26	165	400	210	490	275	610
2250	0	825	1430	995	1710	1220	2100
	13	520	995	640	1205	795	1500
	26	280	625	355	770	455	985

Cruise and Range Data

Standard Atmospheric Conditions, no wind.
 39 gal. fuel, no reserve, gross wt. 2250 lbs.
Rich Mixture

Altitude	RPM	%BHP	TAS	gal. / hr.	End. hr.	Range nm
2500	2700	91	118	12.6	3.1	365
	2600	81	112	11.1	3.5	391
	2500	72	107	10.1	3.9	413
	2400	64	102	9.2	4.2	430
	2300	57	96	8.5	4.6	439
	2200	50	90	7.8	5.0	452
	2100	45	85	7.2	5.4	460
5000	2700	84	116	21	3.2	378
	2600	76	112	10.9	3.6	400
	2550	71	109	10.4	3.8	408
	2500	67	106	9.9	3.9	417
	2400	60	99	9.1	4.3	425
	2300	54	95	8.4	4.6	439
	2200	47	90	7.7	5.1	452
2100	42	84	7.1	5.5	465	

<u>APPROACH</u>	
Wx	COPY
Altimeter	SET
DG	CHECK
Landing light	ON
Mixture	IN
Carb heat	OUT

<u>ENGINE LOSS</u>	
Airspeed	68
Fuel selector	BOTH
Mixture	IN
Carb heat	OUT
Ignition switch	BOTH
Primer	IN & LOCKED

<u>LANDING</u>	
No Flaps	60-70
Normal	56-65
Short field 40°	52

<u>LANDING W/O POWER</u>	
Airspeed	68
Fuel selector	OFF
Mixture	OUT
Ignition switch	OFF
Flaps	AS REQ
Master switch	OFF
Door	UNLATCH

<u>CLEANUP</u>	
Flaps	UP
Carb heat	IN
Xpndr	1200
Lights	AS REQ

<u>ENGINE FIRE</u>	
Fuel selector	OFF
Mixture	OUT
Throttle	OUT
Airspeed	120 / AS REQ
Cabin heat	CLOSED
Outside vents	OPEN

<u>SHUTDOWN</u>	
All lights	OFF
Nav/ADSB	OFF
Avionics master	OFF
Field	OFF
Mixture	OUT
Master switch	OFF
Ignition switch	OFF
Hobbs & tach	BOOK
Control lock	IN
Flight plan	CLOSE

<u>ELECTRICAL FIRE</u>	
Master switch	OFF
Ignition switch	ON
Other switches	OFF
Cabin heat	CLOSED
Outside vents	OPEN
Fire extinguisher	USE

Signal	Ground	Air
green	takeoff	land
flash grn	taxi	return
red	stop	give way
flash red	exit rwy	unsafe
Flashwht	return	
red / grn	caution	

<u>CABIN FIRE</u>	
Master switch	OFF
Cabin heat	CLOSED
Outside vents	CLOSED