#### V-SPEEDS (KIAS)

VR (No Flaps) 55

VR (10º Flaps) 50

VR (25º Flaps) 47

VX (No Flaps) 63

VX (25º Flaps) 52

VY 79

VGlide 73

VS0 (landing config) 44

VS1 (clean) 50

VFE 103

VA 111-88

VNO 126

VNE 160

##### GROUND CHECK

Cabin doors secure

Seats / belts secure

Master switch ON

Avionics ON

Primer locked

Fuel selector fullest

Flight controls check

Flight instruments check

### RUN UP

**Throttle 2000 RPM**

Magnetos check

Max drop 175 RPM

Max diff 50 RPM

Vacuum 5” ± 1”Hg

Oil pressure check

Oil temperature check

Ammeter check

Air conditioner OFF

Annunciator panel test

Carburetor heat check

Fuel pump OFF

**Throttle 1000 RPM**

### TAKEOFF, BEFORE

Fuel selector fullest

Flaps 0-25º

Elevator trim takeoff

Mixture RICH

Carb heat OFF

Fuel pump ON

Transponder ALT

Radio check

### TAKEOFF, NORMAL

Flaps 10º

VR 45-55 KIAS

VY 79 KIAS

Flaps retract

### TAKEOFF, SHORT-FIELD

Flaps 25º

VR (Clear obstacle) 52 KIAS

VY 79 KIAS

Flaps retract

### TAKEOFF, SOFT-FIELD

Flaps 25º

Lift nose ASAP

VR 47 KIAS

VX (Clear obstacle) 52 KIAS

VY  79 KIAS

Flaps retract

# CLIMB

(VY) Best rate 79 KIAS

(VX) Best angle 63 KIAS

En route 87 KIAS

Fuel pump OFF

**CLOSE FLIGHTPLAN**

# DESCENT, NORMAL

Throttle 1500 RPM

Airspeed 111 KIAS

Mixture RICH

Carb heat as needed

# APPROACH, DOWNWIND

Fuel selector fullest

Mixture RICH

Carb heat cycle

Fuel pump ON

Air conditioner OFF

Throttle 1500 RPM

Airspeed in white arc <103 KIAS

Altitude 1000 AGL

Flaps 10º

Trim to 80 KIAS

# APPROACH, CROSSWIND

# Altitude 800 AGL

# Flaps 25º

# Trim to 70 KIAS

# APPROACH, FINAL

Altitude 500 AGL

Flaps 40º

Trim to 63 KIAS

# AFTER LANDING

Flaps retract

Carb heat OFF

Fuel pump OFF

Transponder STBY

# ENGINE STOP

Air conditioner OFF

Avionics OFF

Throttle closed

Mixture cutoff

Ignition switch OFF

Master switch OFF

# SECURING

Parking brake set

Control lock set

Wheel chocks set

Tie downs secure

###### **CLOSE FLIGHTPLAN**