

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION <b>FLIGHT PLAN</b>		(FAA USE ONLY) <input type="checkbox"/> PILOT <input type="checkbox"/> VNR <input type="checkbox"/> STOPOVER			TIME STARTED	SPECIALIST INITIALS
1. TYPE	2. AIRCRAFT IDENTIFICATION	3. AIRCRAFT TYPE/SPECIAL EQUIPMENT	4. TRUE AIRSPEED	5. DEPARTURE POINT	6. DEPARTURE TIME	
VFR					PROPOSED (Z)	ACTUAL (Z)
IFR			KTS			
DVFR						7. CRUISING ALTITUDE
8. ROUTE OF FLIGHT						
9. DESTINATION (Name of airport and city)		10. EST. TIME ENROUTE		11. REMARKS		
		HOURS	MINUTES			
12. FUEL ON BOARD		13. ALTERNATE AIRPORT(S)		14. PILOT'S NAME, ADDRESS & TELEPHONE NUMBER & AIRCRAFT HOME BASE		15. NUMBER ABOARD
HOURS	MINUTES					
				17. DESTINATION CONTACT/TELEPHONE (OPTIONAL)		
16. COLOR OF AIRCRAFT		CIVIL AIRCRAFT PILOTS. FAR Part 91 requires you file an IFR flight plan to operate under instrument flight rules in controlled airspace. Failure to file could result in a civil penalty not to exceed \$1,000 for each violation (Section 901 of the Federal Aviation Act of 1958, as amended). Filing of a VFR flight plan is recommended as a good operating practice. See also Part 99 for requirements concerning DVFR flight plans.				

FAA Form 7233-1 (8-82)

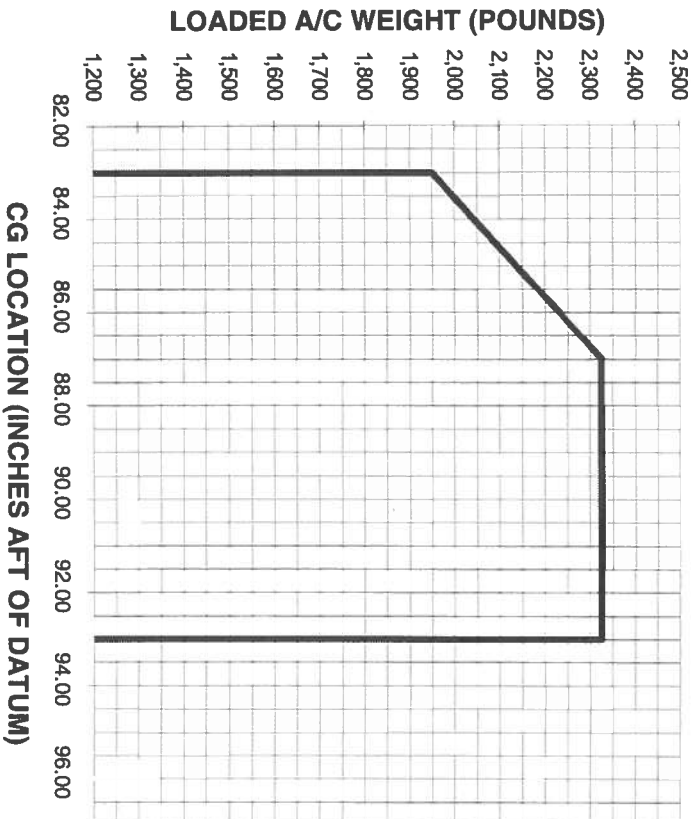
CLOSE VFR FLIGHT PLAN WITH \_\_\_\_\_ FSS ON ARRIVAL

CG LOCATION	Weight (lbs)	Arm (in)	Moment (in-lbs)
	1477.8	86.8	128214
		95.0	
		80.5	
		118.1	
		142.8	
TOTAL			

WARRIOR

**GENERIC WEIGHT AND BALANCE**

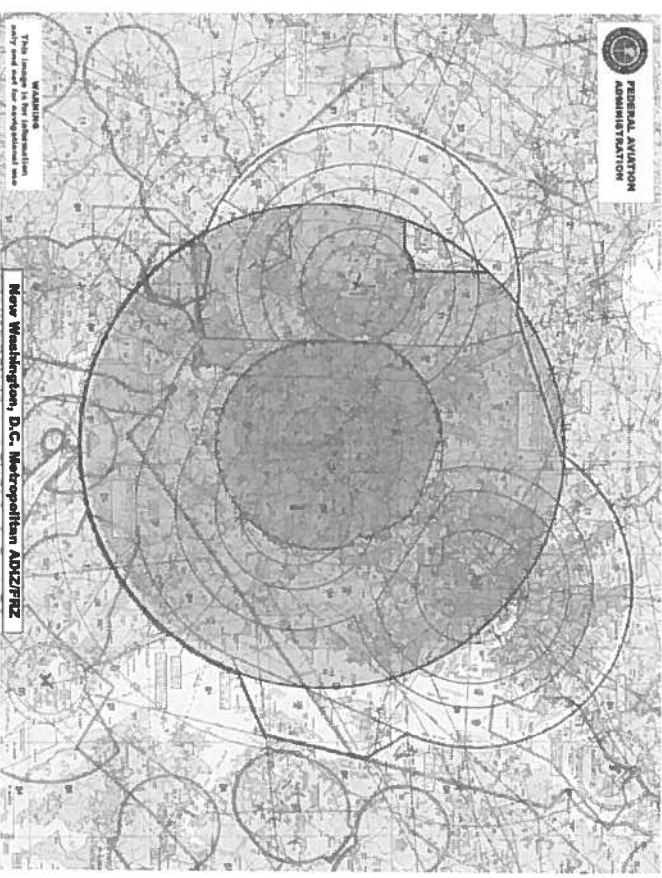
Normal\_CG\_Envelope





**Washington TFR**

**NO PART 91 OR 135 OPERATIONS**



**Washington SFRA**

**ATC COMMUNICATIONS AND SQUAWK CODE  
REQUIRED**

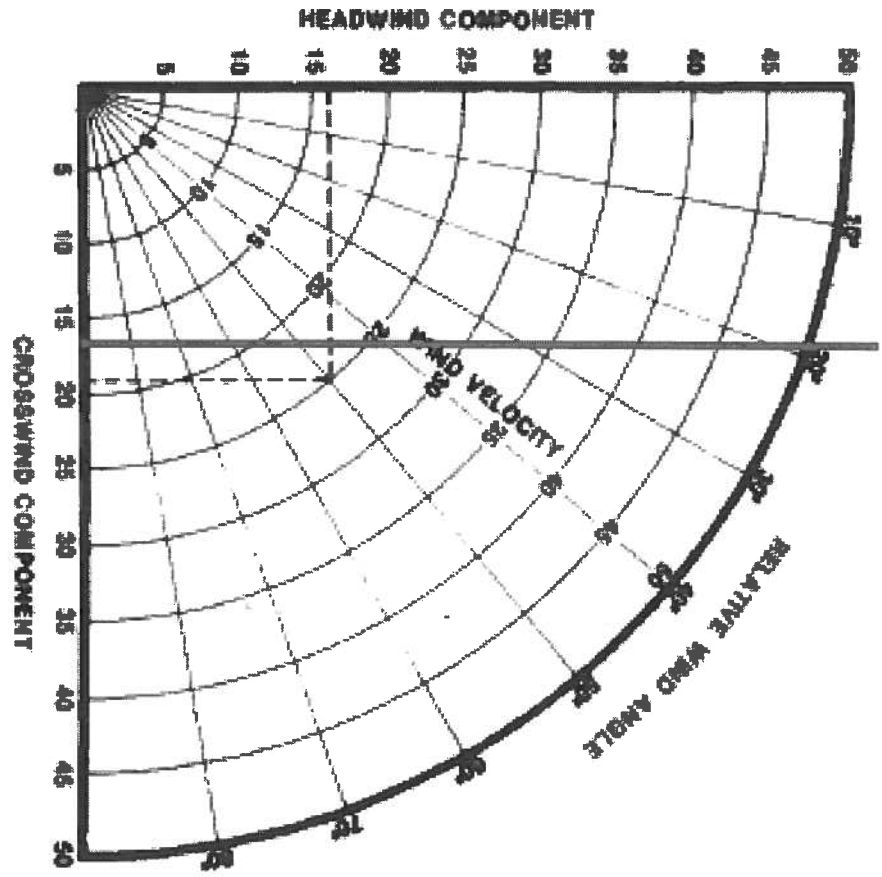
**FSS: 1-800-992-7433 (for SFRA flight plan)**

**Potomac TRACON: 1-866-429-5882 (squawk code)**

# AIRSPEEDS FOR SAFE OPERATION (Knots)

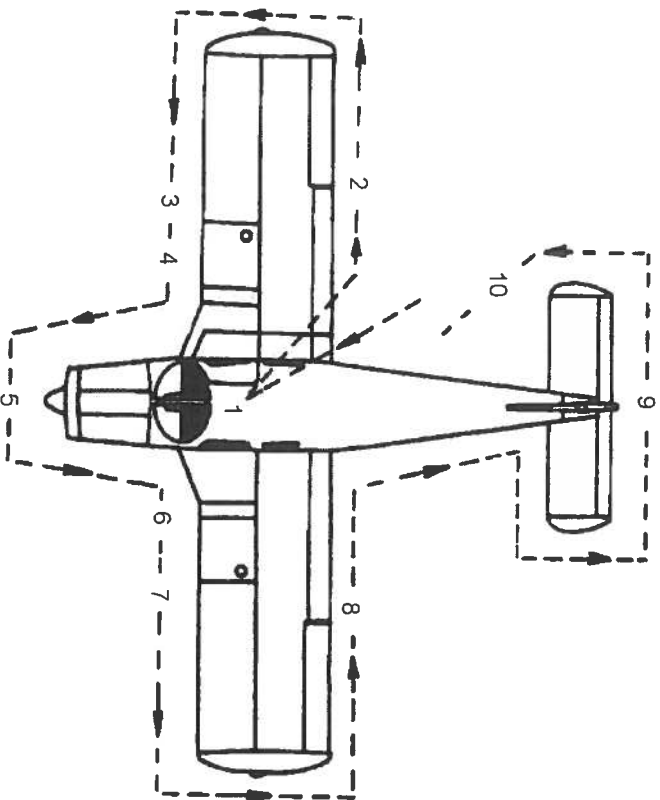
V <sub>SO</sub>	44
V <sub>SI</sub>	50
V <sub>R</sub>	55
V <sub>X</sub>	63
V <sub>Y</sub>	79
V <sub>F</sub>	103
V <sub>A</sub> (MGW)	111
V <sub>NO</sub>	126
V <sub>NE</sub>	160
V <sub>ref</sub> (flaps up) (flaps down)	70 63
V <sub>Best Glide</sub>	73
<b>Max Demonstrated Crosswind</b>	<b>17</b>

**Crosswind Component Chart**



Maximum demonstrated crosswind component 17 kt

## PREFLIGHT INSPECTION



Electric Fuel Pump.....OFF  
 Stall Warning Horn.....CHECK  
 Lights.....CHECK  
 Battery Master Switch.....OFF  
 Circuit Breakers.....CHECK  
 Rudder Trim.....NEUTRAL  
 Flaps.....DOWN/EXTEND  
 Elevator Trim.....SET TAKEOFF

### RIGHT WING

Flap and Aileron.....CHECK  
 Wing Tip, Light and Leading Edge.....CHECK  
 Tiedown, Chocks.....REMOVE  
 Fuel Vent.....CLEAR  
 Fuel Sump.....DRAIN  
 Fuel Quantity.....CHECK  
 Wheel Strut, Tire, Brakes.....CHECK

### NOSE

Oil.....CHECK  
 Engine Compartment.....CHECK  
 Cowling, Intakes, Spinner, Propeller.....CHECK  
 Nosewheel Strut, Tire, Linkage.....CHECK  
 Landing Light.....CHECK  
 Chocks, Towbar, Plugs, Preheater.....REMOVED  
 Fuel Sump.....DRAIN  
 Windshield.....CHECK

### LEFT WING

Wheel Strut, Tire, Brakes.....CHECK  
 Fuel Vent.....CLEAR  
 Fuel Sump.....DRAIN  
 Fuel Quantity.....CHECK  
 Tiedown, Chocks.....REMOVE

### COCKPIT

Ignition Key.....ON DASH  
 Hobbs, Tach Times.....NOTE  
 Publications (ARROW).....CHECK  
 Control Lock.....REMOVED  
 Auto Pilot.....OFF  
 Flight Instruments.....CHECK/SET  
 Transponder.....SET CODE  
 Primer.....IN/LOCKED  
 Throttle.....CLOSED  
 Mixture.....IDLE/CUTOFF  
 Carburetor Heat.....OFF  
 Avionics Master.....OFF  
 Battery Master Switch.....ON  
 Electric Fuel Pump.....ON  
 Fuel Pressure and Engine Gauges.....CHECK

Pilot Tube and Static Port.....CHECK  
Leading Edge, Wing Tip and Light.....CHECK  
Aileron and Flap.....CHECK

## FUSELAGE

Skin Condition.....CHECK  
Antennas.....CHECK

## EMPENNAGE

Stabilator.....CHECK  
Anti Servo Tab.....CHECK  
Rudder.....CHECK  
Lights.....CHECK  
Tiedown.....REMOVED  
Baggage Area.....SECURE

## BEFORE ENGINE START

Doors and Windows.....SECURED  
Seats, Belts, Harnesses.....SECURED  
Fuel Selector.....FULLEST TANK  
Flaps.....UP  
Brakes.....TEST AND SET  
Carburetor Heat.....OFF  
Review Type of Start Checklist.....COMPLETE  
Primer.....AS REQUIRED  
Throttle.....OPEN 1/4 INCH  
Mixture.....RICH  
Beacon.....ON  
Battery Master Switch.....ON  
Propeller Area.....CLEAR  
Keys.....IGN/START

### ENGINE START (COLD)

Prime.....3-4 STROKES

Primer.....IN AND LOCKED  
Throttle.....OPEN 1/4 INCH  
Mixture.....RICH  
Electric Fuel Pump.....ON  
Starter.....ENGAGE

## ENGINE START (HOT)

Primer.....IN AND LOCKED  
Throttle.....OPEN 1/4 INCH  
Mixture.....RICH  
Electric Fuel Pump.....OFF  
Starter.....ENGAGE

## ENGINE START (FLOODED)

Primer.....IN AND LOCKED  
Throttle.....FULL OPEN  
Mixture.....IDLE CUT-OFF  
Electric Fuel Pump.....OFF  
Starter.....ENGAGE  
Mixture.....ADVANCE AS  
ENGINE FIRES  
Throttle.....RETARD

## AFTER START/BEFORE TAXI

Throttle.....800-1000 RPM  
Mixture.....LEAN FOR TAXI  
Oil Pressure/Engine Gauges.....CHECK  
Alternator.....ON  
Fuel Pump.....OFF  
Fuel Pressure.....CHECK  
Lights.....AS REQUIRED  
Avionics Master/Radios.....ON/SET  
Transponder.....STANDBY/ON  
Control Position for Wind.....AS REQUIRED  
Brakes.....TEST ON  
PAVEMENT

## ENGINE RUN-UP

Nosewheel ..... CENTERED  
 Parking Brake ..... SET  
 Mixture ..... RICH  
 Throttle ..... 2000 RPM  
 Engine Instruments ..... CHECK  
 Magnetos ..... CHECK (175 MAX  
 DROP, 50 DIFF)  
 Primer ..... IN/LOCKED  
 Mixture ..... CHECK  
 Carburetor Heat ..... CHECK  
 Ammeter ..... CHECK  
 Circuit Breakers ..... CHECK IN  
 Suction Gauge ..... CHECK (4.8-5.2")  
 Annunciators ..... TEST  
 Throttle ..... IDLE THEN  
 1000 RPM  
 Flight Controls ..... FREE/CORRECT  
 Flight Instruments ..... CHECK/SET

## BEFORE TAKEOFF

Doors and Windows ..... CLOSED  
 Seats, Belts and Harnesses ..... SECURE  
 Takeoff Briefing ..... COMPLETE  
 Elevator Trim ..... SET TAKEOFF  
 Flaps ..... AS REQUIRED  
 Parking Brake ..... OFF  
 Mixture ..... RICH  
 Throttle Friction Lock ..... ADJUST  
 Electric Fuel Pump ..... ON  
 Radios ..... SET/CHECKED  
 Transponder ..... ALT  
 Lights ..... AS REQUIRED  
 Emergency Briefing ..... COMPLETE

## NORMAL TAKEOFF

Throttle ..... FULL OPEN  
 Engine Instruments ..... CHECK  
 Rotation Speed ..... 55 KIAS  
 Climb Speed ..... 79 KIAS

## SHORT FIELD TAKEOFF

Brakes ..... SET  
 Flaps ..... 25 DEGREES  
 Throttle ..... FULL OPEN  
 Engine Instruments ..... CHECK  
 Brakes ..... RELEASE  
 Rotation Speed ..... 50 KIAS  
 Climb Speed ..... 63/79 KIAS (V<sub>x</sub>/V<sub>y</sub>)  
 Flaps ..... RETRACT

## SOFT FIELD TAKEOFF

Flaps ..... 25 DEGREES  
 Yoke ..... FULL AFT  
 Throttle ..... FULL OPEN  
 Engine Instruments ..... CHECK  
 Flyoff Speed ..... SLOWEST ABLE  
 Climb Speed ..... 63/79 KIAS (V<sub>x</sub>/V<sub>y</sub>)  
 Flaps ..... RETRACT

## CLIMB (1000 FEET)

Airspeed ..... 79-87 KIAS  
 Lights ..... AS REQUIRED  
 Electric Fuel Pump ..... OFF  
 Transponder ..... ALT  
 Flaps ..... UP  
 Flight Plan (If Filed) ..... ACTIVATE

## CRUISE

Power ..... AS REQUIRED  
Mixture ..... LEAN  
Fuel Selector ..... AS REQUIRED\*

\* Change tanks 1 and 3 hours after takeoff; turn electric fuel pump on prior to changing tanks.

## BEFORE LANDING

Electric Fuel Pump ..... ON  
Fuel Selector ..... FULLEST TANK  
Mixture ..... RICH  
Carburetor Heat ..... AS REQUIRED  
Seats, Belts, and Harnesses ..... SECURE  
Lights ..... AS REQUIRED  
Autopilot ..... OFF

## NORMAL LANDING

Power ..... AS REQUIRED  
Flaps ..... AS REQUIRED  
Airspeed ..... 70 KIAS CLEAN  
63 KIAS FLAP DN  
Brakes ..... AS REQUIRED

## AFTER LANDING

Flaps ..... UP  
Electric Fuel Pump ..... OFF  
Transponder ..... STANDBY/ON  
Lights ..... AS REQUIRED

## SECURING AIRCRAFT

Throttle ..... 1000 RPM  
Radios ..... OFF  
Electrical Equipment (Except Beacon) ... OFF  
Mixture ..... IDLE CUT-OFF  
Magnetos ..... OFF  
Ignition Key ..... ON DASH  
Master Switch ..... OFF  
Control Lock ..... INSTALL  
Hobs/Tach Times, Fuel, Squawks ..... NOTE  
Chocks and Tiedowns ..... INSTALL  
Electric Preheater (Winter Operation) ... CONNECT  
Covers and Plugs ..... INSTALL  
Flight Plan (if Filed) ..... CLOSE

**NOTE:** The following performance charts were taken from a PA28-161 manual, which should generally reflect the performance seen in this aircraft with a 160 hp engine conversion.

## EMERGENCY PROCEDURES

### ENGINE FIRE DURING START

Starter.....CRANK ENGINE  
Mixture.....IDLE CUT-OFF  
Throttle.....OPEN  
Electric Fuel Pump.....OFF  
Fuel Selector.....OFF  
Aircraft.....ABANDON IF FIRE  
CONTINUES

### ENGINE FIRE IN FLIGHT

Mixture.....IDLE CUT-OFF  
Fuel Selector.....OFF  
Throttle.....CLOSED  
Electric Fuel Pump.....OFF  
Heater and Defroster.....OFF  
Proceed with power off landing procedure

### ELECTRICAL FIRE (SMOKE IN CABIN)

Master Switch.....OFF  
Vents.....OPEN  
Cabin Heat.....OFF  
Land as soon as practicable

### ENGINE FAILURE DURING TAKEOFF RUN

Throttle.....CLOSED  
Brakes.....APPLY

### ENGINE FAILURE DURING INITIAL CLIMB

Airspeed.....73 KIAS  
Mixture.....IDLE CUT-OFF  
Electric Fuel Pump.....OFF  
Fuel Selector.....OFF  
Ignition.....OFF  
Master Switch.....OFF  
Flaps.....AS REQUIRED

### ENGINE FAILURE IN FLIGHT

Airspeed.....73 KIAS  
Carburetor Heat.....ON  
Electric Fuel Pump.....ON  
Fuel Selector.....SWITCH TANKS  
Mixture.....FULL RICH  
Engine Gauges.....CHECK  
Ignition.....BOTH  
Starter.....ENGAGE

If unable to restart engine, proceed with power off landing procedure



## POWER OFF LANDING

Airspeed..... 73 KIAS  
 Throttle..... CLOSED  
 Mixture..... IDLE CUT-OFF  
 Ignition..... OFF  
 Master Switch..... OFF  
 Fuel Selector..... OFF  
 Seat belts and harnesses..... SECURE  
 Flaps..... AS REQUIRED  
 Door..... UNLATCH  
 Short Final Airspeed..... 63 KIAS

## ENGINE ROUGHNESS

Carburetor Heat..... ON  
 If roughness continues after one minute:  
 Carburetor Heat..... OFF  
 Mixture..... ADJUST  
 Electric Fuel Pump..... ON  
 Fuel Selector..... SWITCH TANKS  
 Engine Gauges..... CHECK  
 Magneto Switch..... L, THEN R, THEN BOTH

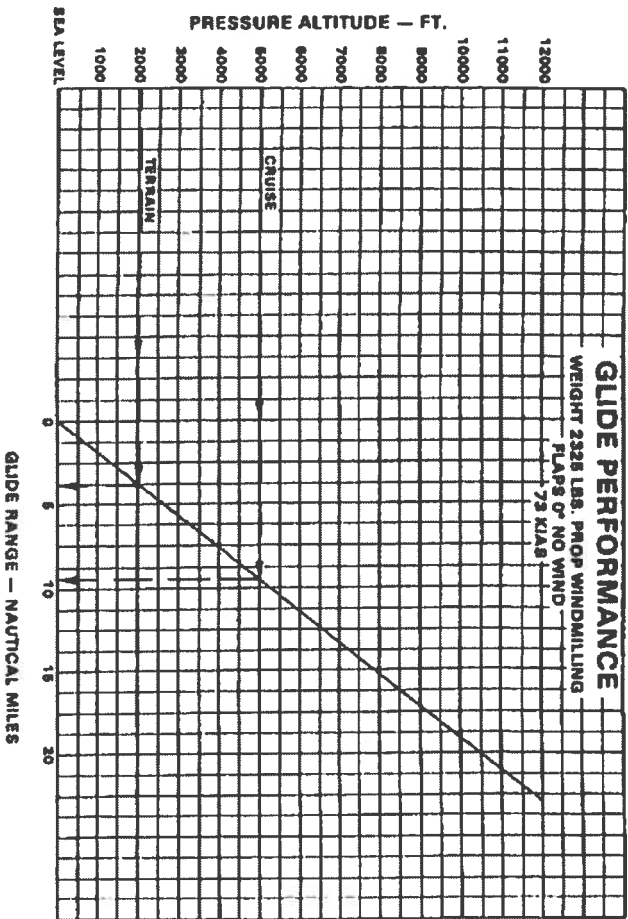
If operation satisfactory on either magneto, continue on that magneto at reduced power and full "RICH" mixture to first airport. Prepare for power off landing.

## LOSS OF FUEL PRESSURE

Electric Fuel Pump..... ON  
 Fuel Selector..... FULLEST TANK

## LOSS OF OIL PRESSURE AND/OR HIGH OIL TEMPERATURE

Land as soon as possible  
 Prepare for power off landing



## ELECTRICAL FAILURE (ALT LIGHT)

Ammeter ..... VERIFY ALT FAIL  
 ALT Switch ..... OFF  
 Electrical Load ..... REDUCE  
 Circuit Breakers ..... CHECK  
 ALT Switch ..... ON

If power is not restored, turn ALT switch OFF, reduce electrical load and land as soon as practicable.

## ELECTRICAL OVERLOAD

Electrical Load ..... REDUCE

If alternator loads are reduced:

ALT Switch ..... OFF

Land as soon as practicable

## SPIN RECOVERY

Throttle ..... IDLE  
 Ailerons ..... NEUTRAL  
 Rudder ..... FULL OPPOSITE  
 Control Wheel ..... FULL FORWARD  
 Rudder (when rotation stops) ..... NEUTRAL  
 Recover from dive

## OPEN DOOR

Airspeed ..... REDUCE  
 Cabin Vents ..... CLOSE  
 Storm Window ..... OPEN  
 Open door slightly, then pull closed and latch

