

## STATS

Full fuel .....40 gal useable  
 Oil .....4-6 qts      **N738SP .....1445.9@39.6**  
 Gross wt (nl).....2300 lb      Payload(full fuel).....615lb  
 Gross wt (utility).....2000 lb

## POWER SETTINGS

*Please refer to POH for thorough pre-flight planning*

| Altitude    | Power(%) | Fuel flow (GPH) | RPM  | KTIAS |
|-------------|----------|-----------------|------|-------|
| 2000(11°C)  | 75       | 8.4             | 2500 | 116   |
| 2000(11°C)  | 67       | 7.5             | 2400 | 111   |
| 2000(11°C)  | 60       | 6.7             | 2300 | 105   |
| 4000(7°C)   | 75       | 8.4             | 2550 | 118   |
| 4000(7°C)   | 71       | 8.8             | 2500 | 115   |
| 4000(7°C)   | 64       | 7.1             | 2400 | 110   |
| 6000(3°C)   | 75       | 8.4             | 2600 | 120   |
| 6000(3°C)   | 67       | 7.6             | 2500 | 115   |
| 6000(3°C)   | 60       | 6.8             | 2400 | 109   |
| 8000(-1°C)  | 75       | 8.4             | 2650 | 122   |
| 8000(-1°C)  | 71       | 8.0             | 2600 | 120   |
| 8000(-1°C)  | 64       | 7.2             | 2500 | 114   |
| 10000(-5°C) | 71       | 8.0             | 2650 | 122   |

## LIGHT GUN SIGNALS

| TOWER SIGNALS     | ON GROUND           | IN FLIGHT           |
|-------------------|---------------------|---------------------|
| Steady Green      | Cleared for takeoff | Cleared to land     |
| Flashing Green    | Cleared to taxi     | Return for landing  |
| Steady Red        | Stop                | Yield and circle    |
| Flashing Red      | Taxi clear of area  | Unsafe-Do not land  |
| Flashing White    | Return to start     | N/A                 |
| Alt Red and Green | Use extreme caution | Use extreme caution |

## PREFLIGHT

Required Certificates (AROW).....LOCATE  
 Control Lock .....REMOVE  
 Pitot Tube ..... REMOVE COVER  
 Master Switch..... ON  
 Pitot Heat..... ON  
 Fuel Gauges.....CHECK  
 Flaps ..... LOWER  
 Nav/Landing Lights/Strobes.....CHECK  
 Circuit Breakers.....CHECK  
 Beacon.....ON  
 Pitot Tube .....CHECK/WARM  
 Master Switch.....OFF  
 Mag Switch .....OFF

### INTERIOR ITEMS

Circuit Breakers.....CHECKED  
 Alternate Static.....CHECKED  
 Tach log ..... COMPLETE  
 VOR check .....CURRENT

### EXTERIOR ITEMS

#### FRONT

Static Air Source (pilot side).....CHECK  
 Air Filter Intake .....CHECK  
 Front Cowl .....CHECK  
 Prop And Spinner.....CHECK  
 Nose Wheel Assembly.....CHECK  
 Oil Level 4-6 Qt's.....CHECK  
 Fuel Strainer..... DRAIN

#### RIGHT/LEFT WING

Fuel Qty & Cap.....CHECK  
 Wing Sump ..... DRAIN  
 Wing Leading Edge.....CHECK  
 Wing Tie-Down.....UNTIE  
 Wing Tip and Fuel Vent (left wing).....CHECK  
 Aileron and Flap .....CHECK  
 Gear Assembly.....CHECK

### EMPENNAGE

Rudder and Elevator.....CHECK  
 Tail Tie-down.....UNTIE

### FUSELAGE

Baggage Door .....CHECKED

## STARTING

Tow Bar..... STOWED  
 Passenger Brief.....COMPLETED  
 Seats & Seat Belts ..... ADJUST & LOCK  
 Doors..... SECURE  
 Fuel Selector .....BOTH  
 Mixture ..... RICH  
 Throttle ..... OPEN ¼ INCH  
 Carb Heat .....COLD  
 Electrical Switches .....Rotating Beacon ON, Rest OFF  
 Brakes .....SET  
 Prime .....(3 times engine cold, 1 time warm engine)  
 Avionics Master.....OFF  
 Master/Alternator Switch ..... ON  
 Prop..... CLEAR  
 Mag Switch .....START  
 Engine .....IDLE@1000 RPM  
 Engine Oil Pressure.....CHECK

## WARM-UP AND TAXI

Avionics Power ..... ON  
Flaps ..... UP  
Garmin 430W Self-test COMPLETE.... Database CURRENT  
Radios ..... TUNED  
Directional Gyro ..... NORMAL  
Turn Coordinator ..... NORMAL  
Attitude Indicator ..... NORMAL

## BEFORE TAKEOFF

Run-UP Position ..... TAXI INTO WIND  
Brakes ..... SET  
Fuel Selector ..... BOTH  
Elevator Trim ..... CHECKED & SET  
Flaps ..... CHECKED & SET  
Controls ..... FREE & CORRECT  
Primer ..... IN AND LOCKED  
Engine ..... SET @ 1700 RPM  
Engine Instruments ..... CHECKED  
Ammeter ..... CHECKED  
Suction ..... IN GREEN  
Mags ..... MAX. DROP 125 RPM  
Carb Heat ..... COLD OR AS REQUIRED  
Engine ..... IDLE @ 1000 RPM  
Mixture ..... RICH  
DG, A/I, Altimeter ..... CHECKED & SET  
Clock ..... SET  
Fuel Gauges ..... CHECKED  
Seat/Shoulder Belts ..... SECURE

### Before Take Off

Strobe/Landing/NavLights ..... AS REQUIRED  
Transponder ..... ALT SETTING  
Takeoff Time ..... NOTED  
Brakes ..... RELEASE  
Doors ..... SECURE

## CRUISE

Engine Power ..... (See power settings) ..... SET  
Fuel Selector ..... PROPER TANK  
Mixture ..... LEAN  
Landing Light ..... OFF

## APPROACH/LANDING

Carb Heat ..... ON  
Fuel Selector ..... BOTH  
Mixture ..... RICH  
Landing Lights ..... ON  
Flaps ..... NONE  
Seat/Shoulder Belts ..... SECURE

## AFTER LANDING

Time On ..... NOTED  
Carb Heat ..... OFF  
Flaps ..... UP  
Strobe Lights ..... OFF  
Transponder ..... STANDBY  
Pitot Heat ..... OFF  
Landing Lights ..... OFF OR AS REQ'D

## SHUT DOWN

Transponder ..... Stby/SET TO 1200  
Avionics Master, Lights, Pitot Heat ..... OFF  
Engine ..... 1000 RPM  
Mixture ..... FULL LEAN  
Throttle ..... FULL CLOSED  
Mag Switch ..... OFF  
Master Switch ..... OFF  
Gust Lock ..... INSTALLED

## \*\*\* EMERGENCY PROCEDURES \*\*\*

### POWER LOSS IN FLIGHT

Best glide ..... 65 KIAS  
Landing site (note wind) ..... CHOOSE  
Fuel selector ..... BOTH  
Carb Heat ..... Pulled Out for ON  
Mixture ..... FULL RICH  
Magnetos ..... CHECK

### ELECTRICAL FIRE IN FLIGHT

Master ..... OFF  
Electrical loads ..... OFF  
Vents, heat, air ..... CLOSED/OFF  
If fire out, master ..... ON

### ENGINE FIRE DURING START

Engine ..... CRANK  
If start ..... RUN A FEW SECONDS, SHUTDOWN  
If no start ..... IDLE CUTOFF, FUEL SELECTOR OFF  
Throttle ..... FULL OPEN  
Engine ..... CONTINUE CRANKING  
Master ..... OFF  
Mags ..... OFF

*EVACUATE AND TAKE FIRE EXTINGUISHER*

### ENGINE FIRE IN FLIGHT

Mixture ..... FULL LEAN  
Fuel selector ..... OFF  
Master ..... OFF  
Cabin heat and air ..... OFF  
Airspeed ..... INCREASE TO EXTINGUISH

## V SPEEDS (KIAS)

Vx sea level ..... 60  
Vx 10,000' ..... 61  
Vy sea level ..... 73  
Vy 10,000' ..... 68  
Va (2300 lb) ..... 97  
Va (1950 lb) ..... 89  
Va (1600 lb) ..... 80  
Vfe (flaps 10°) ..... 110  
Vfe (full flaps) ..... 85  
Vne ..... 158  
Red line.RPM ..... 2700

**Best glide(2400 lb).....65**  
Normal TO ..... Vr59  
Soft field TO (10° flaps/50°) ..... 59  
Climb ..... 75-85  
Approach(flaps ↑) ..... 60-70  
Approach(flaps 30°) ..... 60-65  
Short field app(flaps 40°) ..... 60  
Max x-wind ..... 15