

**Cessna 172S**

**N5303T**

**Preflight Inspection Cockpit**

Aircraft Docs (AROW)	<b>Check</b>
Weight & Balance	<b>Check</b>
Control Wheel Lock	<b>Remove</b>
Hobbs Meter	<b>Check</b>
Ignition Switch	<b>Off</b>
Avionics Power Switch	<b>Off</b>
Master Switch	<b>On</b>
Fuel Quantity Indicators	<b>Check</b>
Lights	<b>On/Check</b>
Pitot Heat (if using)	<b>On/Check</b>
Lights (except beacon)	<b>Off</b>
Pitot Heat	<b>Off</b>
Flaps	<b>Extend</b>
Annunciator Panel	<b>Test</b>
Master Switch	<b>Off</b>
Alternate Static Source	<b>Off</b>
Fuel Selector	<b>Both</b>
Fuel Shutoff Valve	<b>On</b>

**Fuselage & Empennage**

Baggage Door	<b>Closed</b>
Autopilot Static Source	<b>Open</b>
Horizontal Stabilizer	<b>Check</b>
Elevator	<b>Check</b>
Trim Tab	<b>Check</b>
Vertical Stabilizer	<b>Check</b>
Rudder	<b>Check</b>
Tail Tie Down	<b>Remove</b>
Antennas	<b>Check</b>

**Right Wing**

Flaps	<b>Check</b>
Aileron	<b>Check</b>
Wing Tip	<b>Check</b>
Leading Edge	<b>Check</b>
Wing Tie Down	<b>Remove</b>
Main Tire/Brake	<b>Check</b>
Fuel Sumps (5)	<b>Sample</b>
Fuel Quantity	<b>Check</b>
Fuel Cap	<b>Secure</b>

**Nose**

Engine Oil Level	<b>Check</b>
Fuel Sumps (3)	<b>Sample</b>
Propeller/Spinner	<b>Check</b>
Exhaust Pipe	<b>Check</b>
Alternator Belt	<b>Check</b>
Air Inlets	<b>Check</b>
Air Filter	<b>Check</b>
Nose Wheel/Strut	<b>Check</b>
Static Source	<b>Open</b>

**Left Wing**

Fuel Sumps (5)	<b>Sample</b>
Fuel Quantity	<b>Check</b>
Fuel Cap	<b>Secure</b>
Pitot Tube	<b>Open</b>
Fuel Vent	<b>Open</b>
Stall Warning	<b>Open</b>
Wing Tie Down	<b>Remove</b>
Leading Edge	<b>Check</b>
Wing Tip	<b>Check</b>
Aileron	<b>Check</b>
Flap	<b>Check</b>
Main Wheel/Brake	<b>Check</b>

**Before Engine Start**

Preflight	<b>Complete</b>
Passenger Brief	<b>Complete</b>
Seats/Belts	<b>Adjust/Lock</b>
Doors	<b>Closed/Locked</b>
Brakes	<b>Test/Set</b>
Circuit Breakers	<b>Check In</b>
Lights/Electrical	<b>Off</b>
Avionics Master	<b>Off</b>
Fuel Selector	<b>Both</b>
Fuel Shutoff	<b>On</b>

**Starting Engine**

**\*\*IF ENGINE WARM DO NOT PRIME\*\***

**Starting Engine Cold Prime Procedure**

Aux. Pump on 2-3 seconds & Mixture	<b>Rich</b> until fuel flow indication, then
Mixture	<b>Idle Cut Off</b>
Auxiliary Pump	<b>Off</b>
Ignition	<b>Start</b>
Mixture	<b>Rich</b>
Throttle	<b>1000 RPM</b>
Oil Pressure	<b>Check</b>
Ammeter	<b>Positive</b>
Avionics Master	<b>On</b>
Radios	<b>Set</b>
Flaps	<b>Retract</b>
Mixture	<b>Lean</b>
Heading Indicator	<b>Set</b>
Weather/ATIS	<b>Obtain</b>
Altimeter	<b>Set</b>

**Before Takeoff**

Brakes	<b>Set/Check</b>
Doors/Windows	<b>Closed/Locked</b>
Seats/Belts	<b>Adjust/Lock</b>
Flight Controls	<b>Free/Correct</b>
Fuel Selector	<b>Both</b>
Fuel Quantity	<b>Check</b>
Mixture	<b>RICH</b>
Flight Instruments	<b>Set</b>
Elevator Trim	<b>Set/Takeoff</b>
Throttle	<b>1800 RPM</b>
Magnetos	<b>Check 150/50</b>
Vacuum Gauge	<b>Check</b>
Engine Instruments	<b>Check</b>
Annunciator Panel	<b>Clear</b>
Ammeter	<b>Positive</b>
Throttle	<b>Idle Check</b>
Throttle	<b>1000 RPM</b>
Friction Lock	<b>Adjust/Lock</b>
Radios/Avionics	<b>Set</b>
Flaps	<b>Set 0° - 10°</b>
Lights	<b>As Required</b>
Transponder	<b>Set/Altitude</b>
NAV/GPS Switch	<b>Set</b>
Autopilot	<b>Off</b>
Brakes	<b>Release</b>

**Normal Takeoff**

Flaps	<b>Set 0° - 10°</b>
Mixture	<b>RICH</b>
Throttle	<b>Full Open</b>
Elevator Trim	<b>Rotate 55 kts</b>
Climb Speed	<b>70-80 kts</b>
Flaps	<b>Retract</b>

**Enroute Climb**

Airspeed	<b>70-85 kts</b>
Throttle	<b>Full Open</b>
Mixture	<b>Rich</b>

**Cruise**

Power	<b>As Required</b>
Mixture	<b>Lean</b>
Trim & Lights	<b>As Required</b>

**Descent**

Weather/ATIS	<b>Obtain</b>
Altimeter	<b>Set</b>
Fuel Selector	<b>Both</b>
Power	<b>As Required</b>
Mixture	<b>Rich</b>
Lights	<b>As Required</b>
Radios/Avionics	<b>Set</b>

**Before Landing**

Seats/Belts	<b>Adjust/Lock</b>
Fuel Selector	<b>Both</b>
Mixture	<b>Rich</b>
Autopilot	<b>Off</b>

**Normal Landing**

Flaps	<b>As Required</b>
Approach Speed	<b>65-75 Flaps Up</b>
	<b>60-70 Flaps Dn</b>
Brakes	<b>As Required</b>

**After Landing**

Flaps	<b>Up</b>
Lights	<b>As Required</b>

**Secure Aircraft**

Lights	<b>Off</b>
Avionics Master	<b>Off</b>
Mixture	<b>Idle Cut Off</b>
Ignition	<b>Off</b>
Master	<b>Off</b>
Control Lock	<b>Install</b>

Hobbs **Record**  
 Doors/Windows **Closed/Locked**  
 Tie Downs **Secure**

**Short Field Takeoff**

Flaps **10°**  
 Taxi **Max Runway**  
 Brakes **Apply**  
 Throttle **Full Open**  
 Mixture **Rich**  
 Brakes **Release**  
 Lift Off **51 KIAS**  
 Climb Speed **56 KIAS**  
 Flaps **Retract**

**Short Field Landing**

Flaps **30°**  
 Speed Over Obstacle **61 KIAS**  
 Power **Reduce**  
 Touchdown **Mains First**  
 Brakes **Apply**  
 Flaps **Retract**

**Balked Landing**

Throttle **Full Open**  
 Flaps **Retract to 20°**  
 Climb Speed **60 KIAS**  
 Flaps **Retract**

**Engine Failure Takeoff Roll**

Throttle **Idle**  
 Brakes **Apply**  
 Flaps **Retract**  
 Mixture **Idle Cut Off**  
 Ignition Switch **Off**  
 Master Switch **Off**

**Engine Failure After Takeoff**

Airspeed **70 kts (Flaps Up)**  
**65 kts (Flaps Dn)**  
 Mixture **Idle Cut Off**  
 Fuel Shutoff Valve **Off**  
 Ignition **Off**  
 Flaps **As Required**

Master Switch **Off**  
 Cabin Doors **Unlatch**  
 Land **Straight Ahead**

**Engine Failure Flight**

Airspeed **68 KIAS**  
 Fuel Shutoff Valve **On**  
 Fuel Selector **Both**  
 Aux Fuel Pump **On**  
 Mixture **Rich**  
 Ignition **Both**  
 Ignition to Start if Prop is Stopped  
 Aux Fuel Pump **Off**

**Forced Landing No Power**

Seats/Belts **Adjust/Lock**  
 Airspeed **70 kts-Flaps Up**  
**65 kts-Flaps Dn**  
 Mixture **Idle Cut Off**  
 Fuel Shutoff Valve **Off**  
 Ignition Switch **Off**  
 Flaps **As Required**  
 Master Switch **Off**  
 Doors **Unlatch**  
 Touchdown **Tail Low**  
 Brakes **As Needed**

**Engine Fire On Ground**

Ignition **Cont. Cranking**  
**If Engine Starts**  
 Power **1800 RPM**  
**After A Few Minutes**  
 Engine **Shut Down**  
**If Engine Fails to Start**  
 Throttle **Full Open**  
 Mixture **Idle Cut Off**  
 Cranking **Continue**  
 Fuel Shutoff Valve **Off**  
 Aux Fuel Pump **Off**  
 Fire Extinguisher **Activate**  
 Master Switch **Off**  
 Ignition Switch **Off**  
 Airplane **Evacuate**  
 Fire Extinguisher **Activate**

**Engine Fire During Flight**

Mixture **Idle Cut Off**  
 Fuel Selector Valve **Off**  
 Aux Fuel Pump **Off**  
 Master Switch **Off**  
 Cabin Heat/Vents **Off**  
 Airspeed 100 kts or > to Extinguish Fire  
 Forced Landing **Execute**

**Electrial Fire in Flight**

Master Switch **Off**  
 Cabin Heat/Vents **Closed**  
 Fire Extinguisher **Activate**  
 Avionics Switch **Off**  
 All Other Switches **Off**  
 Ventilate Cabin When Fire Is Out

**IF FIRE OUT**

Master Switch **On**  
 Circuit Breakers **Check**  
 Do Not Reset Faulted Breakers  
 Radio Switches **Off**  
 Avionics Switch **On**  
 Radios/Electrical **On**  
 Turn on Switches One at a Time  
 Until the Short Circuit Is Localized

**Low Voltage In Flight**

Avionics Switch **Off**  
 Alternator Breaker **Check**  
 Master Switch **Off (Alternater Side Only)**  
 Master Switch **On**  
 Low Voltage Annunciator **Check Off**  
 Avionics Switch **On**  
**If Low Voltage Illuminates Again:**  
 Alternator **Off**  
 Electrical Load **Reduce**

**Terminate Flight When Practical**

**Ammeter Shows Excessive Rate of Chg**

Alternator **Off**  
 Nonessential  
 Electrical Equip **Off**  
**Terminate Flight When Practical**

**V Speeds (KIAS)**

Vg	<b>68</b>
Vr	<b>55</b>
Vs	<b>48</b>
Vso	<b>40</b>
Vx (Sea Level)	<b>62</b>
Vx (10, 000 Ft)	<b>67</b>
Vy (Sea Level)	<b>74</b>
Vy (10,000 Ft)	<b>72</b>
Vfe	
10°	<b>110</b>
20°- 30°	<b>85</b>
Va	
2550	<b>105</b>
2200	<b>98</b>
1900	<b>90</b>
Vno	<b>129</b>
Vne	<b>163</b>