

Fly Corps Aviation – Skyhawk 172N – N40ER

–Interior Preflight–

Hobbs & Tach Inspection Time.....Check
 AROW Documents.....Check
 Control Wheel Lock.....Remove
 Fuel Selector (**Check All Positions**).....Both
 Trim.....Set T/O
 Mixture.....Idle Cut-Off
 Throttle.....Idle
 Interior Lights.....Off
 Switches.....Off
 Circuit Breakers.....In
 Avionics.....Off
 Magnetos.....Off
 Master Switch.....On
 Fuel Quantity Indicators.....Check
 Flaps (**Clear First**).....Extend
 Lights & Pitot Heat.....Check then Off
 Master Switch.....Off

–Exterior Preflight–

Aft Fuselage (**Left side**).....Check
 ELT Antenna.....Check
 Horizontal Stab and Elevator.....Check
 Tail Tie Down.....**Remove**
 Vertical Stab & Rudder.....Check
 VOR Antennas.....Check
 Trim Tab.....Check
 Aft fuselage (**Right side**).....Check
 Right Wing Flap & Aileron.....Check
 Right Wingtip Condition & Lights.....Check
 Right Wing Leading Edge.....Check
 Right Wing Tie Down.....**Remove**
 Right Wing Strut.....Check
 Right Main Gear Assembly.....Check
 Right Wing Lower Surface.....Check
Fuel Sump (1).....Sample
Right Wing Fuel Quantity.....Check
Right Wing Fuel Filler Cap...Secure/Vent Open
 Right Wing Upper Surface.....Check
 Oil Quantity.....4-6 Quarts
 Pull Fuel Strainer.....Check
 Cowling.....Secure
 Exhaust.....Check
 Engine Cooling Air Inlets.....Clear
 Propeller & Spinner.....Check
 Alternator Belt.....(Push DON'T Pull).....Check
 Air Filter.....Check

Nose Wheel Strut & Tire.....Check
 Static Port.....Check
Left Wing Fuel Quantity.....Check
Left Wing Fuel Filler Cap.....Secure
 Left Wing Upper Surface.....Check
 Left Wing Leading Edge.....Check
 Pitot Cover.....Removed
 Pitot Tube.....Check
 Stall Warning Vane.....Check
 Fuel Tank Vent.....Check
 Left Wing Strut.....Check
 Left Wing Tie Down.....**Remove**
 Landing and Taxi Lights.....Check
 Left Wingtip Condition & Lights.....Check
 Left Aileron & Wing Flap.....Check
 Left Main Gear Assembly.....Check
 Left Wing Lower Surface.....Check
Fuel Sump (1).....Sample
 Door.....Check
 Baggage Door.....Check
Last Look: Tie-Downs, Chocks, Fuel Caps

–Before Start–

Preflight Inspection.....Complete
 Seats/Belts.....Adjusted & Locked
 Cabin Door.....Closed & Latched
 Passengers.....Secured & Briefed
 Brakes.....Set & Hold

–Engine Start–

Fuel Selector.....Both
 Mixture.....Rich
 Throttle.....Push ¼ inch
 Carb Heat.....Check Off
 Master Switch.....On
 Beacon.....On
 Primer.....1-3 Strokes.....Secure.....Check
 Area.....**CLEAR PROP**
 Starter.....Engage
 Throttle.....1,000 RPM
Engine Gauges.....In the Green
 Mixture.....Pull Out 1 Inch
 Avionics.....On

–Before Taxi–

Flaps.....Up
 Navigation Lights.....On
 Circuit Breakers.....Recheck In
 Flight Instruments.....Set

GPS.....Direct or Flt Plan.....Entered
 ATIS/AWOS.....(KSAV 123.75).....Set
 BARO Pressure in Altimeter.....Set
 Obtain Clearance.....(KSAV 119.55).....Set
 Transponder.....Squawk Code/Alt
 Taxi Clearance.....(KSAV 121.9).....Brief Route

–Taxi–

Parking Brake.....Off
 Brakes.....Test
 Attitude Indicator.....**Less than 5° Bank**
 Heading Indicator.....**Direction of Turn**
 Turn Coordinator.....**Bank Towards/Ball Away**

–Before Take Off–

Brakes.....Set/Hold
 Fuel Selector.....Both
 Trim.....Set for Take-Off
 Flight Controls.....Free & Correct
 Mixture.....Rich
 Throttle.....1700 RPM
 Magnetos.....Check Left/Right (125/50)
 Amperes.....Apply Load
Engine Gauges.....In the Green
 Carb Heat.....On
 Throttle.....Idle then 1,000 RPM
 Carb Heat.....Off
 Circuit Breakers.....In
 Pitot Heat.....As Required
 Flight Instruments.....Check
 Doors/ Window.....Closed
 Take-Off Briefing.....Complete

–Normal Take-Off–

Take-Off Clearance...(KSAV 119.1)....Complete
 Flaps.....Up
 Fuel Selector.....Both
 Mixture.....Rich
 Strobes.....On as Required
 Landing Light.....On
 Throttle.....Smoothly Advance
Engine Gauges.....In the Green
 Rotate.....55 KIAS
 Climb (Vx).....59 KIAS
 Climb(Vy).....73 KIAS

–Climb–

Flaps.....Retract at Safe Altitude
 Airspeed.....80 KIAS

Power.....Full
 Mixture.....Lean above 3000

–Cruise–

Power.....2300 RPM
 Fuel Selector.....Alternate L/R every 30 min
 Mixture.....Lean above 3000
 Landing Light.....Off
 Pitot Heat.....As Required

–Descent–

Engine Gauges.....In the Green
 Approach Briefing.....Complete
 Fuel Selector.....Both
 Mixture.....Rich
 Descent Power.....Set
 Carb Heat.....As Needed

–Before Landing–

Fuel Selector.....Both
 Mixture.....Rich
 Landing Light.....On
 Magnetos.....Both
 Flaps.....As Desired
 Airspeed.....55-65 (Flaps Down)

–After Landing–

Strobe Lights.....Off
 Landing Light.....Off
 Trim.....Reset
 Mixture.....Lean 1 Inch
 Flaps.....Up
 Taxi Clearance.(KSAV 121.9).....As Required
 Flight Plan.....Close

–Shutdown–

Throttle.....1500 RPM for 5 Sec
 Throttle.....1000 RPM
 Avionics.....Off
 Nav Lights.....Off
 Mixture.....Idle Cut-Off
 Magnetos.....Off
 Throttle.....Idle
 Master Switch.....Off
 Control Lock.....Install
 Fuel Selector.....Off
 Seat Belts.....Secure
 Windshield Shade.....Installed
 Pitot Cover.....Install
 Tie-Down Straps (3).....Tight

Fly Corps Aviation – Skyhawk 172N – N40ER

–Short Field Take Off–

Flaps.....**NO OBSTACLE**.....Up
 Brakes.....Applied
 Mixture.....Full Rich
 Throttle.....Full
 Engine Gauges.....**In the Green**
 Brakes.....Release
 Rotate.....55 KIAS
 Obstacle Climb.....Vx 59 KIAS

–When Clear of Obstacles–

Flaps.....Up
 Climb.....Vy 73 KIAS

–Short Field Landing–

Fuel Selector.....Both
 Mixture.....Full Rich
 Landing Light.....On
 Engine Gauges.....**In the Green**

Flaps.....40°
 Final Approach.....60 KIAS
 Touch Down.....Smoothly
 Brakes.....Applied

–Do NOT Skid Tires–

Flaps.....Up

–Soft Field Take Off–

–Maintain Back Pressure on Yoke–

Flaps.....10°
 Yoke.....Full Aft
 Mixture.....Full Rich
 Throttle.....Smoothly Apply Full
 Engine Gauges.....**In the Green**
 Rotate.....55 KIAS

–Remain in Ground Effect –

Climb to 200FT AGL.....Vx 59 KIAS
 Flaps.....Up
 Normal Climb.....Vy 73 KIAS

–Engine Fail on Take Off–

Throttle.....Idle
 Brakes.....Apply
 Mixture.....Idle Cut-Off
 Ignition.....Off
 Master Switch.....Off

–Immediately After Take Off–

Airspeed.....65 KIAS (Flaps Up)
 Mixture.....Idle Cut-Off
 Fuel Selector.....Off
 Ignition Switch.....Off
 Wing Flaps.....As Required
 Cabin Doors.....Unlatch
 Land.....As Briefed

–In Cruise Flight Restart Procedure–

Airspeed.....65 KIAS (Flaps Up)
 Landing Area.....Identify
 Fuel Selector.....Both
 Throttle.....Adjust
 Mixture.....Rich
 Ignition Switch.....Both/Start
 If Propeller Stopped

–Forced Landing Without Power–

Transponder.....7700
 Mayday.....121.5 (Time Permitting)
 Seats/Belts.....Upright/Locked
 Airspeed.....65 KIAS (Flaps up)
 Landing Area.....Pilot Option
 Fuel Selector.....Off
 Mixture.....Idle Cut-Off
 Ignition.....Off
 Flaps.....30° (recommended)
 Master Switch.....Off
 Doors.....Unlatch
 Cockpit/Passengers.....Prepare

–Engine Fire During Start–

Cranking.....Continue

If Engine Starts:

Throttle.....1700 RPM for 3 minutes
 Engine.....Shutdown & Inspect

If Engine Does NOT Start:

Throttle.....Full
 Mixture.....Idle Cut-Off
 Cranking.....Continue
 Fuel Selector.....Off
 Fire Extinguisher.....Obtain
 Engine.....Secure
 Master Switch.....Off
 Ignition.....Off
 Brakes.....Off

–Evacuate & Extinguish Fire If Able–

–Engine Fire In Flight–

Mixture.....Idle Cut-Off
 Fuel Selector.....Off
 Master Switch.....Off
 Heat & Air.....Off
 Airspeed.....100 KIAS

–Execute Forced Landing without Power–

–Electrical Fire in Flight–

Master Switch.....Off
 Vents/Cabin Air.....Closed
 Avionics Master.....Off
 Switches.....(Except Ignition).....Off
 Fire.....Extinguish
 Vents.....Open

When fire is out

IF electrical power is necessary:

Master Switch.....On
 Circuit Breakers.....Check/Do Not Reset
 Switches.....One at a Time.....On
 Aircraft.....Inspect for Damage

–Wing Fire–

Navigation Lights.....Off
 Strobe Lights.....Off
 Pitot Heat.....Off

–Always Check POH for Other Emergency Checklists–

–V SPEEDS –

V_R.....55 KIAS
 V_{SO}.....41 KIAS
 V_{S1}.....47 KIAS
 V_X.....59 KIAS
 V_Y.....73 KIAS
 V_{FE}.....85 KIAS
 V_A.....97 KIAS @ 2300 lbs
 V_{NO}.....128 KIAS
 V_{NE}.....160 KIAS
 V_G (Best Glide).....65 KIAS
 Oil.....4-6qts
 Max Take-Off.....2300 LBS
 Max Landing Weight.....2300 LBS

Fly Corps Aviation – Skyhawk 172N – N40ER