

# WINFC Arrow – N8991E

## Preflight

<b>CABIN</b>	
Control Lock	REMOVED
Gear Handle	DOWN
Flaps	EXTEND
Trim	SET
Throttle	CLOSED
Propeller Control	FULL FWD
Mixture	CUTOFF
Radio Master	OFF
Master Switch	ON
Fuel Quantity	CHKD
BCN	ON/CHKD
Annunciator Lights	CHKD
Master Switch	OFF
POH/AROW	CHKD

<b>R WING</b>	
Flaps	CHKD
Control Surfaces	CHKD
Wing Tip/Surfaces	CHKD
Fuel Quant/Cap	CHK/SECURE
Fuel Drain/Vent	SAMPLE/CLEAR
Main Gear/Strut	CHKD
Tie-Down/Chocks	REMOVED
Cabin Air Intake	CLEAR

<b>NOSE</b>	
Windshield	CHKD
Oil Quant (6-8qts)	CHKD
Prop/Spinner	CHKD
Engine Cowling	CHKD
Tire/Strut	CHKD
Air Intake/Filter	CHKD
Fuel Drain	SMAPLED

<b>L WING</b>	
Cabin Air Intake	CLEAR
Main Gear/Strut	CHKD
Fuel Drain/Vent	SAMPLE/CLEAR
Fuel Quant/Cap	CHK/SECURE
Tie-Down	REMOVED
Pitot Static Mast	CHKD
Stall Warning	CHKD
Wing Tip/Surface	CHKD
Control Surfaces	CHKD
Flaps	CHKD

<b>EMPENNAGE</b>	
Antennas	CHKD
BCN	CHKD
Control Surfaces	CHKD
Tie-Down	REMOVE

## Pre Start

Seats/Belts/Harness	FSTN/ADJ
Parking Brake	SET
Circuit Breakers	IN
Radio Master	OFF
Electrical Equip	OFF

## Start

Fuel Selector	L OR R TANK
Throttle	OPEN ½"
Propeller Control	FULL FWD
Master Switch	ON
Fuel Pump/Pres	ON/CHKD
BCN	ON
Prime:	
Mixture	RICH
After Fuel Flow Ind.	
Mixture	CUTOFF
Propeller Area	CLEAR
- START -	
Throttle	1250 RPM
Oil Pressure	CHKD
Fuel Pump	OFF

## Abnormal Starts

<b>FLOODED START:</b>	
Throttle	FULL OPEN
Fuel Pump	OFF
Mixture	CUTOFF
- START -	
<b>HOT START:</b>	
<i>Same as Normal Except:</i>	DO NOT PRIME

## Pre Taxi

Radio Master	ON
Radios	SET
ATIS	COPIED
Att/Head/Alt	SET/XCHKD
GPS	ON
Flaps	UP
Nav/Ldg Lights	AS RQD
<b>TAXI:</b>	
Brakes	CHKD
Turn Coordinator	CHKD

### Engine Run-up

Parking Brake	SET
Door/Window	CLSD/LCH
Controls	FREE/CORRECT
Fuel Selector	FULL TANK
Mixture	RICH
Alternate Air	CHKD
Throttle	2000 RPM
Eng Instruments	CHKD
Magnetos	CHKD
Propeller Cont.	CHKD
<i>Decrease 400rpm x3</i>	
Load Meter	CHKD
Suction Gauge	CHKD
Throttle	1250 RPM

### Magneto Burn-Out

Throttle	2000 RPM
Ignition	BOTH
Mixture	LEAN
<i>Wait 1 Minute:</i>	
Mixture	RICH
Maanetos	CHKD

### Before Takeoff

Departure Brief	
RWY Direction	
Obstructions	
Vr=65 Vx=85/96	Vy=95/100
Engine Failure	Mg=100/105
Fuel Pump	ON
Mixture	RICH
Flaps	SET
Trim	SET
Attitude/Heading	SET
Altimeter	SET/XCHKD
Radio/Transponder	SET
<i>When cleared for takeoff:</i>	
Landing Light	ON
Transponder	ALT

### Climb

Gear (<125 mph)	UP
Flaps	UP
Passing 500 AGL:	
Power	25"/2500
Mixture	12 GPH

### Cruise

Power	24"/2400
Mixture	10 GPH
Fuel Pump	OFF

### Descent

Seats/Belts/Harn	FSTN/ADJ
Mixture	RICH
Destination Weather	CHKD
Altimeter	SET
Comm/Nav	SET

### Landing

Gear (< 150 mph)	DOWN
Fuel Pump	ON
Fuel Selector	FULL TANK
Mixture	RICH
Propeller Control	FULL FWD
Landing Light	ON

### After Landing

Flaps	UP
Fuel Pump	OFF
Transponder	STBY
Landing Light	AS REQ

### Shutdown

Brakes	APPLIED
Throttle	1500 RPM
Radio Master	OFF
Electrical Equip	OFF
Throttle (after 15 sec)	IDLE
Mixture	CUTOFF
Master Switch	OFF
Ignition Switch	OFF
<i>After fueling:</i>	
Controls	LOCKED
Tie Downs	SECURED
Doors	LOCKED

# Emergency Procedures

## Engine Failure

Airspeed	105mph/TRIM
Landing Site	LOC/TURN TO
<b>Altitude Permitting</b>	
Fuel Pump	ON
Fuel Selector	CHG TANK
Ignition	BOTH
Mixture	RICH
Alternate Air	ON
Propeller Control	FULL DECR
<i>If Unimproved Surface</i>	
Gear Handle	UP
<i>If Improved Surface</i>	
Gear Handle	DOWN
<i>If Engine Fails to Restart:</i>	
Seat Belts/Harn	FASTEND
Squawk	7700
Radio	121.5 MADAY
Doors	UNLATCHED
<b>Engine Secure:</b>	
Mixture	CUTOFF
Ignition	OFF
Fuel Selector	OFF
Master Switch	OFF
Flaps	FULL DOWN

## Eng Fire On Start

Starter	CRANK
<i>If Engine Starts:</i>	
Power	2000 RPM
Engine	SECURE
<i>If No Start:</i>	
Starter	CONT CRANK
<b>Engine Secure:</b>	
Master Switch	OFF
Ignition	OFF
Fuel Pump	OFF
Fuel Selector	OFF

## Electrical Fire

Master Switch	OFF
Cabin Vents	OPEN
Cabin Heat	OFF
Land ASAP	

## Engine Fire

Throttle	CLOSE
Mixture	CUTOFF
Fuel Selector	OFF
Fuel Pump	OFF
Ignition	OFF
Master Switch	OFF
Cabin Heat/Def	OFF
Dive To Extinguish	
Execute Eng Failure	Procedures

## Wing Fire

Fuel Selector	OTHER TANK
Nav Lights	OFF
Pitot Heat	OFF
Slip Away From Fire	

## Cabin Fire

Master Switch	OFF
Cabin Vents/Heat/Air	OFF

## Icing Encounter

Change Direction/Alt.	
Pitot Heat	ON
Alternate Air	ON
Cabin Heat/Defrost	ON
Power	INCR
<i>Land ASAP</i>	
Flaps	UP
Approach Airspeed	> 90 mph

## Spin Recovery

Throttle	IDLE
Ailerons	NEUTRAL
Rudder	FULL OPP DIR
Control Wheel	FULL FWD
<i>When Rotation Stops:</i>	
Rudder	NEUTRAL
Return to Level Flight	

### Engine Roughness

Alternate Air	ON
Mixture	ADJ
Fuel Pump	ON
Fuel Selector	SWITCH TANK
Engine Instruments	CHK
Ignition	L/R/BOTH

### High Oil Temp

Note Oil Pressure  
Land ASAP

### Low Oil Pressure

Land ASAP  
*If Rise In Temp:*  
Power REDUCE  
Execute Force Landing  
Anticipate Eng Failure

### Low Fuel Pressure

Fuel Pump ON  
Fuel Selector FULL TANK

### Load Meter Full Chrg

Alt Switch OFF  
Electrical Load REDUCE  
Land ASAP

### ALT Light (Alternator Failure)

Alt Switch OFF  
Electrical Load REDUCE  
Alternator CB CHECK IN  
Alt Switch ON  
*If Alt Fails To Reset*  
Land ASAP  
*If Night Or IMC*  
Get VFR And Land ASAP

### Turbulence Encounter

Airspeed < 131 mph  
Seat Belts/Harn TIGHTEN  
Loose Items SECURE

### Gear Unsafe

Master Switch ON  
Landing Gear CB CHKD  
Panel Lights OFF  
Gear Ind. Bulbs CHKD  
Airspeed < 100  
Gear Handle DOWN  
*If Gear Fails To Ind.*  
Emg. Gear Lever DOWN  
*If Gear Fails To Ind.*  
Yaw the Aircraft SIDE TO SIDE  
*If Fuel Permits*  
Obtain A Visual Check From Another  
A/C or Control Tower

### Prop Overspeed

Throttle RETARD  
Oil Pressure CHKD  
Prop Control FULL DECR  
THEN RESET  
Airspeed REDUCE  
Throttle SET <2700RPM

### Emergency Descent

Throttle IDLE  
Prop Control FULL INC  
Mixture RICH  
Angle Of Bank 45°  
Airspeed < 131 mph

### Open Door

Airspeed < 100 mph  
Cabin Vents CLOSE  
Window OPEN  
Door RE-CLOSE

### Aborted Takeoff

Throttle IDLE  
Brakes APPLY  
Flaps UP  
*If Leaving Runway:*  
Mixture CUTOFF  
Ignition OFF  
Master Switch OFF