

## 10 LEFT ENGINE, PROP & LANDING GEAR

Left engine nacelle.....	VISUAL INSPECTION
Auxiliary Tank.....	<b>CLOSED &amp; LOCKED</b>
Engine oil level.....	MAX 8 QTS MIN 4 QTS VFR MIN 6 QTS IFR <b>OIL STICK &amp; DOOR SECURE</b>
EXHAUST.....	VISUAL INSPECTION
PROPELLER & SPINNER.....	VISUAL INSPECTION
Landing gear strut and lock.....	VISUAL INSPECTION, sufficient (typically 4cm / 1.6")
Down and uplock switches (3x).....	VISUAL INSPECTION
Tire wear, tread depth .....	VISUAL INSPECTION
Tire, wheel, brake.....	VISUAL INSPECTION
Brake line connection.....	VISUAL INSPECTION
Landing gear door .....	VISUAL INSPECTION

## 11 LEFT WING (Leading Edge)

Entire wing surface.....	VISUAL INSPECTION
Fuel tank filler .....	<b>CLOSED &amp; SECURE</b>
Fuel tank vent.....	VISUAL INSPECTION
Fuel tank air outlet (lower surface) .....	VISUAL INSPECTION
Fuel tank drain.....	SAMPLE

## 12 LEFT WING TIP

Winglet .....	VISUAL INSPECTION
Tie Down.....	REMOVED

## 13 LEFT WING (AFT)

Left aux fuel tank.....	SAMPLE
Left nacelle underside.....	VISUAL INSPECTION
Aux fuel tank vent outlet .....	VISUAL INSPECTION
Inboard flap condition & linkage .....	VISUAL INSPECTION
Outboard flap, linkage, safety pins .....	VISUAL INSPECTION
Aileron hinges, linkage, safety pins .....	VISUAL INSPECTION
Aileron paddle .....	SAMPLE
Static dischargers .....	VISUAL INSPECTION

**N4197D**  **DA42-L360**

# Preflight Checklist

## 1 CABIN

HOBBS.....	CHECK
Certs/Documents/AFM.....	CHECK
Control Lock.....	REMOVED
Fuel Selectors (Left & Right).....	ON
Throttles.....	Free, Adjust Friction, Idle
Prop Levers.....	FULL FWD
Mixture Levers.....	CUT OFF
Landing Gear Selector.....	DOWN (Pilot Side)
Manual Gear Extension.....	PUSHED IN
Alternate Static Source.....	CLOSED
Alternators Left & Right.....	ON
Pitot Heat.....	OFF (CoPilot Side)
Alternate Air.....	CLOSED
Flaps.....	UP
Circuit Breakers.....	IN
ELT.....	ARMED

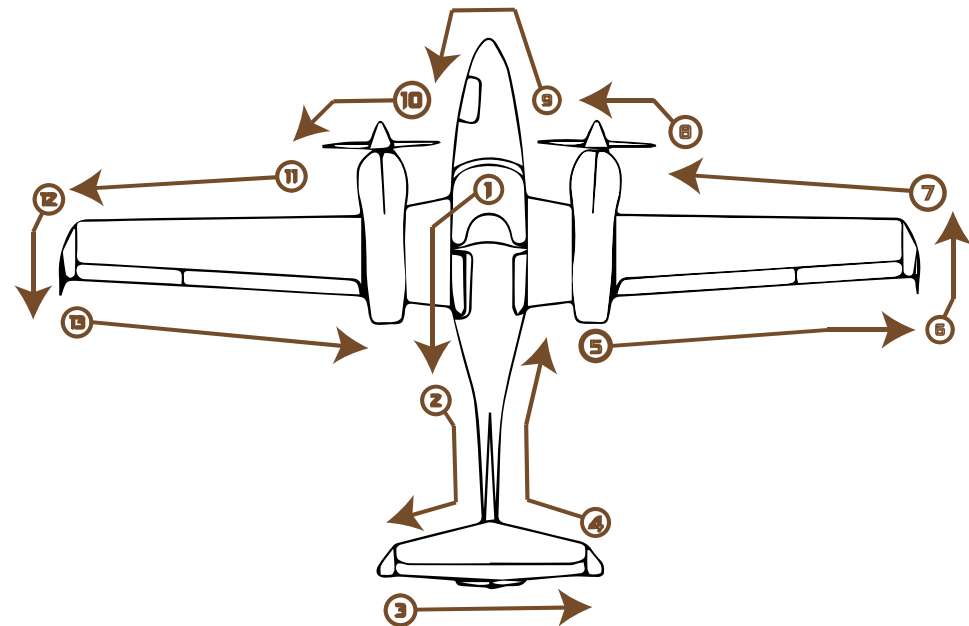
Fuel & Oil (Visual Check)

To reduce delay if fuel/oil is needed

**Call SunAir (805) 389-9301**

## 1 CABIN (continued)

MASTER SWITCH.....	<b>ON</b>
(NOTE HYD PUMP WILL PRESSURIZE)	
TACH.....	VERIFY
Fuel Quantity.....	CHECK
Gear Warning Test Switch.....	TEST
Stall & Pitot Heat (if REQ.).....	ON
Strobe / Position / Land - Lights...ON	
Aircraft Lights.....	CHECK
Stall Warning.....	CHECK
Stall & Pitot Heat.....	CHECK
Lights / Stall & Pitot Heat.....	OFF
MASTER SWITCH.....	<b>OFF</b>



## ② FUSELAGE (PILOT SIDE)

Wing root.....	ABSENCE OF HYDRAULIC FLUID
Antennas.....	INSPECT
Static source.....	INSPECT

## ③ EMPENNAGE (TAIL)

Tail skid and lower fin (left side) .....	VISUAL INSPECTION
Tie down.....	Check Clear
Vertical fin.....	VISUAL INSPECTION
Stabilizer & tip.....	VISUAL INSPECTION
Static discharger.....	VISUAL INSPECTION
Elevator surface, hinges, trim tab.....	VISUAL INSPECTION
Rudder surface & trim tab .....	VISUAL INSPECTION
Stabilizer tip & static discharger.....	VISUAL INSPECTION
Stabilizer surface .....	VISUAL INSPECTION
Vertical fin (right side).....	VISUAL INSPECTION
Tail skid & lower fin (right side) .....	VISUAL INSPECTION

## ④ FUSELAGE (COPILOT SIDE)

Fuselage surface.....	VISUAL INSPECTION
Antennas.....	VISUAL INSPECTION
Static source (if installed).....	NO BLOCKAGE

## ⑤ RIGHT WING (AFT)

Right aux fuel tank.....	SAMPLE
Right nacelle underside.....	VISUAL INSPECTION
Aux fuel tank vent outlet .....	VISUAL INSPECTION
Inboard flap condition & linkage .....	VISUAL INSPECTION
Outboard flap, linkage, safety pins .....	VISUAL INSPECTION
Aileron hinges, linkage, safety pins .....	VISUAL INSPECTION
Aileron paddle .....	CLEAR / NO FOREIGN OBJECTS
Static dischargers .....	VISUAL INSPECTION

## ⑥ RIGHT WING TIP

Winglet .....	VISUAL INSPECTION
Tie Down.....	REMOVED

## ⑦ RIGHT WING (Leading Edge)

Entire wing surface.....	VISUAL INSPECTION
Fuel tank filler .....	CLOSED & SECURE
Fuel tank vent.....	VISUAL INSPECTION
Fuel tank air outlet (lower surface) .....	VISUAL INSPECTION
Fuel tank drain.....	SAMPLE

## ⑧ RIGHT ENGINE, PROP & LANDING GEAR

Right engine nacelle.....	VISUAL INSPECTION
Auxiliary Tank.....	CLOSED & LOCKED
Engine oil level.....	MAX 8 QTS MIN 4 QTS VFR MIN 6 QTS IFR OIL STICK & DOOR SECURE
Exhaust.....	VISUAL INSPECTION
Propeller & Spinner.....	VISUAL INSPECTION
Landing gear strut and lock.....	VISUAL INSPECTION, sufficient height (typical visible piston length at least 4cm / 1.6")
Down and uplock switches (3x).....	VISUAL INSPECTION
Tire wear, tread depth .....	VISUAL INSPECTION
Tire, wheel, brake.....	VISUAL INSPECTION
Brake line connection.....	VISUAL INSPECTION
Landing gear door .....	VISUAL INSPECTION

## ⑨ FRONT FUSELAGE & NOSE LANDING GEAR

OAT sensor .....	VISUAL INSPECTION
Nose landing gear strut .....	VISUAL INSPECTION, sufficient (typically 4cm / 1.6")
Down & uplock switches.....	VISUAL INSPECTION
Tire wear, tread depth.....	VISUAL INSPECTION
Tire, wheel.....	VISUAL INSPECTION
Tire-to-rim slip marks (if installed) .....	VISUAL INSPECTION
Gear door and linkage.....	VISUAL INSPECTION
Chocks .....	REMOVE (if installed)
Steering bar.....	REMOVED AND STOWED
Nose baggage doors (left & right) .....	CLOSED & SECURE

## DESCENT

Throttle Levers.....AS REQUIRED  
 Propeller Levers.....1800 - 2700 RPM  
 Mixture Levers.....AS REQUIRED  
 (Maintain 1450 EGT or LESS)  
 [NOTE: When reducing power CHT should not change by more than 50F/MIN]

## APPROACH

Landing Lights.....AS REQUIRED  
 Gear Warning Horn.....TEST  
 Fuel Selectors.....check ON  
 Fuel Pumps.....ON  
 Landing Gear.....DOWN  
 CONFIRM THREE GREEN  
 Elevator/Rudder Trim.....AS NEEDED

## LANDING

Airspeed.....85 KIAS  
 Flaps.....DOWN/APPROACH  
 Mixture.....BEST POWER  
 Prop Levers.....HIGH RPM  
 Throttle Levers.....AS NEEDED  
 Landing Gear.....THREE GREEN  
 Final Speed.....85 KIAS (MIN)

## AFTER LANDING

Runway.....CLEAR  
 Throttle Levers.....IDLE  
 Pitot Heat.....OFF  
 Fuel Pumps.....OFF  
 Flaps.....UP  
 Lights.....AS REQ.

## SHUT DOWN

Parking Brake.....SET  
 Throttle.....1000 RPM  
 AV Master.....OFF  
 Mixture Controls.....CUT OFF  
 Ignition (LH/RH).....OFF & OUT  
 G1000 TACH.....RECORD  
 Electric Master.....OFF

		Airspeed		IAS	Remarks
VA	Maneuvering speed	>3400 lbs (1542 kg)	126	KIAS	Do not make full or abrupt control surface movements above this speed
		up to 3400 lbs (1542 kg)	120	KIAS	
VFE	Max. flaps extended speed	LDG	111	KIAS	Do not exceed these speeds with the given flap setting
		APP	137	KIAS	
VLE	Max. landing gear extended speed		194	KIAS	Do not exceed this speed with the landing gear extended
VLO	Max. landing gear operating speed	Extension	VLOE	194	Do not operate the landing gear above this speed
		Retraction	VLOR	156	
VMCA	Minimum control speed airborne		65	KIAS	With one engine inoperative, keep airspeed above this limit
VNE	Never exceed speed in smooth air		194	KIAS	Do not exceed this speed in any operation
VNO	Max. structural cruising speed		155	KIAS	Do not exceed this speed except in smooth air, and then only with caution
VSSE	Minimum Control Speed for Safe single engine training		80	KIAS	Minimum speed authorized in case of one engine intentionally inoperative/idle (training purposes)
VYSE	Best Rate-of-Climb Speed		90	KIAS	Best rate-of-climb speed on one engine

- LANDING WITHOUT FLAPS NOT AUTHORIZED  
 - LANDINGS OVER 3748 LBS NOT AUTHORIZED

## GO-AROUND

Throttle Levers.....MAX PWR  
 Airspeed.....85 KIAS  
 Landing Gear.....UP  
 (Check unsafe light off)  
 Flaps.....UP  
 Airspeed.....90 KIAS  
 (Proceed to **CLIMB** checklist)

## POST-FLIGHT

HOBBS Meter.....RECORD  
 Chocks / Tie Down.....SECURE  
 Parking Brake.....RELEASED

**N4197D**  **DA42-L360**

# Normal Operations Checklist

## BEFORE STARTING ENGINE

Pre-Flight Inspection.....COMPLETE  
 Passengers.....BRIEFED  
 Doors.....SECURED  
 Rudder Pedals...ADJUSTED & LOCKED  
 Seat Belts.....ON  
 Throttle Levers.....IDLE  
 Prop Levers.....FULL FORWARD  
 Mixture Levers.....IDLE/CUT OFF  
 Parking Brake.....SET  
 Avionics Master.....OFF  
 Gear Selector.....VERIFY DOWN  
 Master Swtich.....ON  
 (NOTE HYD PUMP WILL PRESSURIZE)  
 Elevator Backstop.....TEST & VERIFY  
 CO Alert.....TESTED  
 G1000.....POWERED UP  
 Fuel Quantity & Calculator.....SET  
 Strobe Lights.....ON  
 >>>Proceed to Starting Engine<<<

## Normal Start

**STARTING ENGINE (Cold)**  
 (Per Engine / Started Individually)  
 Throttle Lever.....(3 cm / 1.2" FWD)  
 Fuel Pump.....ON  
 Mixture.....RICH (5 sec.)  
 Then LEAN  
 Fuel Pump.....OFF  
 Throttle Lever.....(1 cm / 0.5" FWD)  
 >>>>CLEAR POPELLER AREA<<<<  
 Ignition Switch.....START  
 When Engine Fires:  
 Mixture.....move to full RICH  
 Throttle Lever.....1000 RPM  
 Oil Pressure.....Check  
 Ammeter.....Check  
 Annunciator Panel.....Check

## Hot Start

**STARTING ENGINE (Hot)**  
 (Per Engine / Started Individually)  
 Throttle Lever.....(3 cm / 1.2" FWD)  
 Fuel Pump.....ON  
 Mixture.....RICH (2 sec.)  
 Then LEAN  
 Fuel Pump.....OFF  
 Throttle Lever.....(1 cm / 0.5" FWD)  
 >>>>CLEAR POPELLER AREA<<<<  
 Ignition Switch.....START  
 When Engine Fires:  
 Mixture.....move to full RICH  
 Throttle Lever.....1000 RPM  
 Oil Pressure.....Check  
 Ammeter.....Check  
 Annunciator Panel.....Check

## Flooded Start

**STARTING ENGINE (Flooded)**  
 (Per Engine / Started Individually)  
 Fuel Pump.....OFF  
 Mixture.....IDLE/ CUT OFF  
 Throttle Lever.....50% OPEN  
 >>>>CLEAR POPELLER AREA<<<<  
 Ignition Switch.....START  
 When Engine Fires:  
 Throttle Lever...PULL TOWARD IDLE  
 Mixture.....move to full RICH  
 Throttle Lever.....SET 1000 RPM  
 Oil Pressure.....CHECK  
 Ammeter.....CHECK  
 Annunciator Panel.....CHECK

**PRE-TAXI**

Avonics Master.....**ON**  
 Aircraft Lights.....AS REQUIRED  
 Attitude Indicator.....CAGE  
 Parking Brake.....RELEASE  
 Break Check.....CHECKED  
 Fuel Pumps.....**ON**  
 Fuel Selector.....CROSSFEED (LH/RH)  
 [NOTE: Simultaneous crossfeed only  
 authorized during ground run to test]  
 ATIS/ASOS.....CHECK  
 Fuel Selector.....ON (LH/RH)  
 Fuel Pumps.....**OFF**  
 Taxi Clearance.....CONFIRM

**ENGINE RUN UP**

Annunciators.....CHECK  
 Circuit Breakers.....CHECK  
 Elevator Trim.....SET to T/O  
 Yaw Trim.....NEUTRAL  
 Fuel Selectors.....check ON (LH/RH)  
 Flaps.....Check Function...then UP  
 Flight Controls.....Free & Correct  
 Engine Oil Temp.....at least 100F  
 Fuel Pumps.....**ON**  
 Mixture.....RICH (Below 5000ft)  
 Throttle Levers.....2200 RPM  
 Magneto.....L - BOTH - R - BOTH  
 Max RPM Drop 175 RPM  
 Max Difference 50 RPM  
 Propeller Levers.....CYCLE  
 (Pull to max drop 500 RPM)  
 - Cycle 3x - Drop in RPM  
 - Rise in Manifold  
 - Drop in Oil Pressure  
 Throttle Levers.....1500 RPM  
 Propeller Lever L/R...FEATHER CHECK  
 (Do Not Allow More than  
 300 RPM Drop)  
 Throttle Levers.....IDLE CHECK  
 Then 1000 RPM  
 Alternate Air.....Confirm CLOSED

**TAKEOFF**

Takeoff Clearance....RECIEVED (if req.)  
 Aircraft Lights.....ON  
 Fuel Pumps.....ON  
 Mixture.....RICH (or best pwr)  
 Propeller Levers.....HIGH RPM  
 >>>>>>Taxi Into Position<<<<<<<<  
 Breaks.....HOLD  
 Throttle Levers.....2200 RPM  
 Engine Performance.....CHECK  
 >>>>>>Release Brakes<<<<<<<<<<<  
 Airspeed.....ACTIVE  
 Rotate.....VR = 78 KIAS

(Avoid damage to main landing gear, firmly apply brakes before raising gear)

Climb Established.....GEAR UP

**CLIMB**

Airspeed.....90 KIAS  
 Engine Instruments.....GREEN  
 Fuel Pumps.....OFF  
 Throttle Levers.....25" MFP  
 RPM Levers.....2500 RPM  
 Mixture.....1450 EGT  
 Trim.....AS NEEDED

**CRUISE**

Throttle Levers.....(SEE CHART)  
 Propeller Levers.....(SEE CHART)  
 Mixture Levers.....1450 EGT  
 Fuel Tank

**Auxiliary Fuel Tank Operation**

-When main tanks reach 17 GAL or less set both AUX PUMPs to on until full  
 -Always operate both pumps at the same time to avoid an imbalance

Maintain:

CHT between 150F and 400F  
 OIL 165F and 220F

[Note: When Fuel Selector is moved between ON and CROSSFEED the corresponding fuel pump must be on]

% of maximum take-off		45%				55%			65%			
RPM		2000	2200	2400	2600	2000	2200	2400	2000	2200	2400	
Fuel Flow		7.0	7.2	7.5	7.7	7.0	7.2	7.5	7.9	8.2	8.5	
Pressure Alt (ft)	ISA		Manifold Pressure (MP)				Manifold Pressure (MP)			Manifold Pressure (MP)		
	[°C]	[°F]										
1000	13	55	23.6	22.2	21.0	20.0	23.6	22.2	21.0	26.4	24.5	23.2
2000	11	52	23.3	21.9	20.7	19.6	23.3	21.9	20.7	26.0	24.2	22.9
3000	9	48	23.0	21.6	20.4	19.2	23.0	21.6	20.4	25.7	23.8	22.6
4000	7	45	22.7	21.1	20.1	18.8	22.7	21.1	20.1	25.4	23.5	22.3
4500	6	43	22.5	21.0	20.0	18.7	22.5	21.0	20.0	-	23.3	22.1
5000	5	41	22.3	20.9	19.8	18.5	22.3	20.9	19.8		23.1	22.0
5500	4	40	22.2	20.8	19.7	18.4	22.1	20.7	19.6		23.0	21.9
6000	3	38	22.0	20.6	19.5	18.3	22.0	20.6	19.5		22.8	21.7
6500	2	36	21.9	20.5	19.4	18.2	21.8	20.4	19.4		-	21.6
7000	1	34	21.7	20.3	19.3	18.0	21.7	20.3	19.3			21.4
7500	0	33	21.5	20.2	19.2	17.9	21.5	20.1	19.1			21.2
8000	-1	31	21.3	20.0	19.0	17.7	21.3	20.0	19.0			21.0
8500	-2	29	21.2	19.9	18.9	17.6	21.2	19.8	18.8			20.8
9000	-3	27	21.1	19.7	18.7	17.5	21.1	19.7	18.7			20.7
9500	-4	25	21.0	19.6	18.6	17.4	-	19.5	18.5			-
10000	-5	23	-	19.4	18.4	17.3		19.4	18.4			
10500	-6	21		19.3	18.3	17.2		19.3	18.3			
11000	-7	19		19.1	18.1	17.0		19.1	18.1			
11500	-8	18		19.0	18.0	17.0		-	18.0			
12000	-9	16		-	17.8	16.9			17.8			
12500	-10	14			17.7	16.7			17.7			

Area shaded grey are the recommended Manifold Pressure values from AFM.

**SINGLE ENGINE TRAINING**

Feathering may be simulated by setting the power of the 'failed' engine to 11-14 MP and prop at high RPM (valid from sea level to 5000 ft)

Avoid risks and harm to engine by starting and stopping in flight.

**⚠ ENGINE FAILURE DURING FLIGHT ⚠**

AIRSPPEED.....**90 KIAS** (continued)  
**MIXTURE LEVERS.....FULL FWD** **FLAPS.....UP**  
**PROPELLER LEVERS.....FULL FWD** **INOPERATIVE ENGINE**  
**THROTTLE LEVERS.....FULL FWD** **IDENTIFY - DEAD FOOT**  
**GEAR.....UP** **VERIFY - REDUCE THROTTLE**

**TIME & ALTITUDE PERMIT?**

**Yes? - FIX**

NEAREST LANDING.....DIRECT TO  
 ELEV. & RUD. TRIM.....SET  
 FUEL QUANTITY.....CHECK  
 ALTERNATE AIR.....ON  
 INOP ENGINE:  
 FUEL SEL.....CROSSFEED  
 MIXTURE.....FULL FWD  
 FUEL PUMP.....ON  
 IGNITION SWITCH.....BOTH  
 THROTTLE.....1.5" OPEN  
 (If Restart Fails Proceed to Feather)

**No? - FEATHER**

INOP ENGINE:  
 THROTTLE.....FULL FWD  
 PROP.....FEATHER  
 MIXTURE.....CUT OFF  
 FUEL SEL.....OFF  
 FUEL PUMP.....OFF  
 IGNITION SWITCH.....OFF  
 ALTERNATOR SWITCH.....OFF  
 RAISE DEAD ENGINE.....UP TO 5°  
 ELEV. & RUD. TRIM.....SET

**Single Engine Ops**

FUEL CROSSFEED.....AS REQ.  
 POWER.....reduce if able

**⚠ AIR START UNFEATHERING ⚠**

AIRSPPEED.....90 KIAS (After Propeller Windmills)  
 INOP ENGINE: IGNITION.....BOTH  
 FUEL SELECTOR.....ON MIXTURE.....ADVANCE FWD  
 FUEL PUMP.....ON (If propeller does not windmill)  
 THROTTLE.....1" OPEN IGNITION.....START  
 ALTERNATE AIR.....IF REQ. (After Engine Start)  
 PROPELLER.....FULL FWD ALTERNATOR.....ON  
 PWR: 22" MP / 2200 RPM / 150°F CHT

**⚠ SINGLE ENGINE INOP LANDING CHECKLIST ⚠**

INOPERATIVE ENGINE.....SECURED (continued) Landing Assured?  
 SEATBELTS.....ON GEAR SELECTOR.....DOWN  
 OPERATIVE ENGINE FLAPS.....AS REQUIRED  
 FUEL SEL.....CROSSFEED AIRSPPEED.....85 KIAS  
 MIXTURE.....BEST PWR THROTTLE.....SLOWLY REDUCE  
 PROPELLER.....HIGH RPM RUDDER TRIM.....ADJUST  
 FUEL PUMP.....ON  
 GEAR WARNING HORN.....TEST  
 AIRSPPEED.....NORMAL / Vyse+10kias



**Emergency Procedures**

**ENGINE FAILURE DURING TAKEOFF (RUNWAY REMAINING)**

**During Ground Roll?**

THROTTLES.....IDLE IMMEDIATELY  
 MAINTAIN DIRECTIONAL CONTROL  
 Brakes, Engage, Dont Lock Wheels

**Airborne & Runway Remaning?**

78 KIAS & Gear Still Down?  
 THROTTLES.....IDLE IMMEDIATELY  
 MAINTAIN DIRECTIONAL CONTROL  
 LAND.....Straight Ahead  
 Brakes, Engage, Dont Lock Wheels

**⚠ INSUFFICIENT RUNWAY REMAINS? ⚠**

FUEL SELECTORS.....OFF  
 MIXTURE LEVERS.....IDLE/CUT OFF  
 IGNITION SWITCHES.....OFF  
 MASTER SWITCH.....OFF

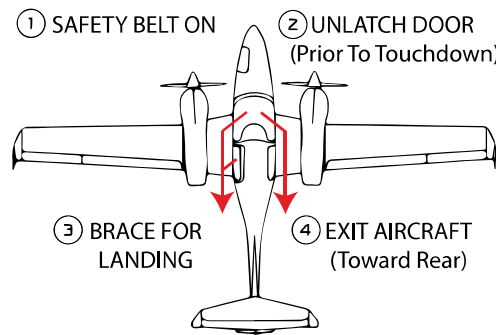
**ENGINE FAILUE DURING TAKEOFF (NO RUNWAY REMAINING)**

AIRSPPEED.....90 KIAS (checklist continued:)  
 RAISE DEAD ENGINE.....UP TO 5° INOPERATIVE ENGINE  
 MIXTUREs.....FULL FWD **IDENTIFY - DEAD FOOT**  
 PROPELLERs.....FULL FWD **VERIFY - REDUCE THROTTLE**  
 THROTTLEs.....FULL FWD **FEATHER - PROPELLER**  
 GEAR.....UP **CUT OFF - MIXTURE TO LEAN**  
 FLAPS.....UP Ball/Skid.....Half Ball to Good Engine  
 FUEL PUMPS.....ON ELEV. & RUD. TRIM.....SET  
 IGNITION SWITCHES.....BOTH AIRPORT.....RETURN  
**TIME PERMITTING (CONFIRM INOP ENGINE ONLY)**  
 FUEL SELECTOR.....OFF IGNITION SWITCH.....OFF  
 FUEL PUMP.....OFF ALTERNATOR SWITCH.....OFF

**ENGINE FIRE**

AFFECTED ENGINE  
 THROTTLE.....IDLE  
 PROPELLER.....FEATHER  
 MIXTURE.....CUT OFF  
 FUEL SELECTOR.....OFF  
 FUEL PUMP.....OFF  
 IGNITION SWITCH.....OFF  
 ALTERNATOR.....OFF  
 CABIN HEAT/DEFROST.....OFF  
**SEE: SINGLE ENGINE LANDING CHECKLIST**

**EVACUATION PLAN**





## Gear Malfunction

### MANUAL GEAR EXTENSION

Instrument Lights.....OFF  
 GEAR HORN/LIGHT.....TEST  
 Electric Master.....VERIFY ON  
 ALTERNATOR/VOLTS.....ON/CHECK  
 CIRCUIT BREAKER.....CHECK IN  
 (if landing gear is not down/locked)

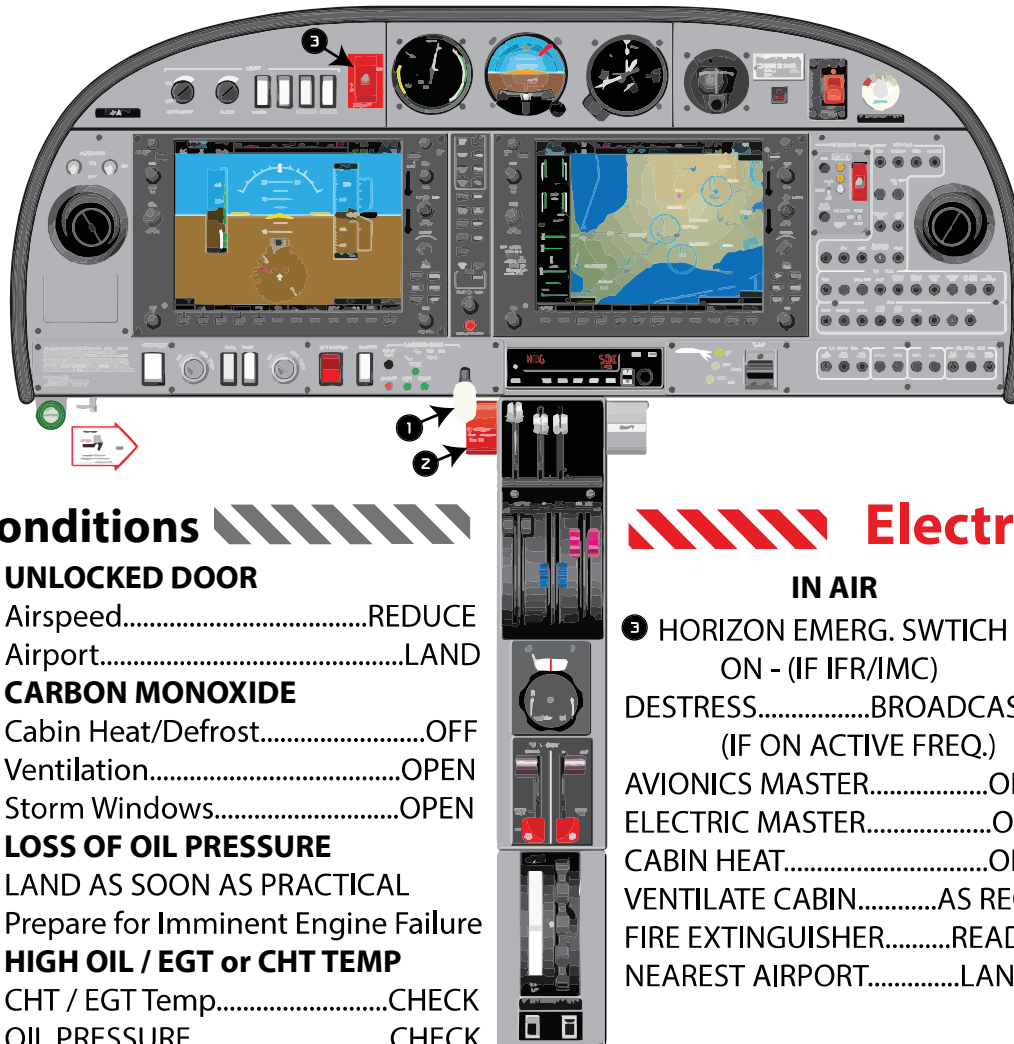
- 1 GEAR SELECTOR.....DOWN
- 2 MANUAL GEAR EXTENSION.....PULL  
 (if not yet down/locked, moderate  
 yaw/pitching to assist)

### GEAR-UP LANDING CHECKLIST

(applies if landing gear fully retracted)  
 APPROACH .....NORMAL  
 THROTTLE LEVERS.....IDLE  
 (if situation allows reduce risk of fire)  
 FUEL SELECTORS.....OFF  
 MIXTURE LEVERS.....LEAN  
 IGNITION SWITCHES.....OFF  
 MASTER SWITCH.....OFF

### LANDING GEAR MALFUNCTION

-RED WARN GEAR UNSAFE LIGHT:  
 Landing Gear is in neither the final  
 up or down and locked position.  
 -GEAR WARN SOUNDS:  
 Gear is not Down and Locked  
 MP is below 14" on one or both eng.



## Electrical Issues

### COMPLETE ELECTRICAL FAILURE

Circuit Breakers.....Verify IN  
 3 Horizon Emerg. Switch (IMC).....ON  
 Cycle ALT Switches LH/RH ...Once Each  
 Voltage in red still indicated?  
 LH/RH ALT.....ON  
 Electrical Load.....REDUCE

### LOW VOLTAGE ANNUNCIATION

("VOLTS" annunciator is to be expected with an  
 electrical load on the system and a low RPM  
 setting. If this is the case, Master Switches DO  
 NOT need to be recycled )  
 Avionics (Bus 1 & 2).....OFF  
 Alt. Circuit Breaker.....Check IN  
 Master Switch .....OFF (Both Sides)  
 Master Switch.....ON (Both Sides)  
 "VOLTS" Annunciator.....Verify OFF  
 Avionics Master.....ON  
 If "VOLTS" illuminates again:  
 Alternator.....OFF  
 Nonessential Electrical Items.....OFF  
 LAND AS SOON AS PRACTICAL

### EXCESSIVE CHARGE / OVER VOLT

Alternators (Left or/and Right)....OFF

## Unusual Conditions

### SPIN RECOVERY

Power.....Idle  
 Rudder.....Opposite of Rotation  
 Ailerons.....Neutral  
 Elevator.....Forward / Break Stall  
 (when rotation stops)  
 Rudder.....Neutral  
 Elevator.....Increase Carefully

### INADVERTANT ICING CONDITIONS

Autopilot.....OFF  
 Pitot Heat.....ON  
 Cabin Heat.....ON  
 Propeller Levers.....HIGH RPM  
 Alternate Air.....ON  
 If pitot heat fails or faults:  
 Alternate Static.....OPEN  
 Aircraft.....DEPART ICING

### UNLOCKED DOOR

Airspeed.....REDUCE  
 Airport.....LAND

### CARBON MONOXIDE

Cabin Heat/Defrost.....OFF  
 Ventilation.....OPEN  
 Storm Windows.....OPEN

### LOSS OF OIL PRESSURE

LAND AS SOON AS PRACTICAL  
 Prepare for Imminent Engine Failure  
**HIGH OIL / EGT or CHT TEMP**  
 CHT / EGT Temp.....CHECK  
 OIL PRESSURE.....CHECK  
 MIXTURE.....ENRICHEN  
 POWER.....REDUCE  
 CLIMB RATE.....REDUCE/LEVEL OUT  
 AIRCRAFT.....LAND

## Electrical FIRE

### IN AIR

3 HORIZON EMERG. SWITCH  
 ON - (IF IFR/IMC)  
 DISTRESS.....BROADCAST  
 (IF ON ACTIVE FREQ.)  
 AVIONICS MASTER.....OFF  
 ELECTRIC MASTER.....OFF  
 CABIN HEAT.....OFF  
 VENTILATE CABIN.....AS REQ.  
 FIRE EXTINGUISHER.....READY  
 NEAREST AIRPORT.....LAND

### ON GROUND

MASTER SWITCH.....OFF  
 THROTTLE LEVERS.....IDLE  
 MIXTURE LEVERS.....CUT OFF  
 IGNITION SWITCHES.....OFF  
 CANOPIES.....OPEN  
 AIRPLANE.....EVACUATE