

<b>PREFLIGHT</b>	
Aircraft Documents.....	ON BOARD
Fire Extinguisher.....	CHARGED & SECURE
Structural Temperature Indicator.....	CHECK
Tie Downs.....	REMOVED/ON-BOARD
Flight Control Lock.....	REMOVE
Rudder Pedals.....	ADJUSTED & LOCKED
Parking Brake.....	ON
Magnetos.....	OFF
Avionics Master Switch & Electrics.....	OFF
GEN/BAT Master Switch.....	ON
Fuel Quantity.....	CHECK
Flaps.....	LDG
Warning Lights.....	ON
GEN/BAT Master Switch.....	OFF

<b>EXTERIOR INSPECTION</b>	
<b>LEFT WING</b>	
Left Main Landing Gear.....	CHECK
Stall Warning.....	CHECK
Pitot-Static Probe.....	CLEAN, HOLES-OPEN
Lights.....	VISUAL CHECK
Aleiron, Wing Flap.....	VISUAL CHECK
<b>FUSELAGE</b>	
Fuel Tank Vent.....	CHECK
Fuel Drains.....	DRAIN WATER
Maintenance Fuel Drains.....	NO LEAKS
Fuel Quantity.....	VISUAL INSPECTION
Antennas.....	VISUAL INSPECTION
<b>TAIL</b>	
Stabilizers and Control Surfaces.....	CHECK
<b>RIGHT WING</b>	
Aleiron, Wing Flap.....	VISUAL CHECK
Lights.....	VISUAL CHECK
Left Main Landing Gear.....	CHECK
<b>NOSE</b>	
Oil.....	CHECK LEVEL ( 6-4 QUARTS)
Cowling.....	VISUAL INSPECTION
Air Intakes.....	CLEAR
Propeller.....	CLEARANCE MIN 25 CM
Propeller Blades.....	CHECK
Spinner.....	VISUAL INSPECTION
Nose Gear.....	CHECK

<b>BEFORE STARTING ENGINE</b>	
Parking Brake.....	ON
Brake Pressure.....	CHECK
Baggage.....	STOWED & SECURED
Seatbelts.....	FASTENED & ADJUSTED
Flight Controls.....	FREE & CORRECT
Canopy.....	CLOSED & SECURE
Circuit Breakers.....	CHECK
Fuel Shut-off Valve.....	ON ( PUSH IN & LOCK)
Throttle.....	FREE/IDLE
Throttle Friction.....	CHECK
Alternate Air.....	OFF
GEN/BAT Master Switch.....	ON
Avionics Master Switch & Radio.....	ON
ATC Clearance.....	RECEIVED
Avionics Master Switch & Radio.....	OFF
Altimeter.....	SET QNH
Generator Warning Light.....	ILUMINATE
Canopy Warn. Light.....	OFF (PRESS/CHECK)

<b>ENGINE START</b>	
Strobe/Position Lights.....	ON
Throttle.....	IDLE
Mixture.....	FULL RICH
Brakes.....	HOLD
Fuel Pump.....	ON
Fuel Prime.....	ON
Throttle.....	FULL (3-7 SEC) THEN IDLE ¼ INCH
Propeller Area.....	CLEAR
Starter.....	ENGAGE (MAX 30 SEC)
Throttle.....	800 - 1000 RPM
Oil Pressure.....	CHECK
Fuel Prime.....	OFF
Avionics Master Switch.....	ON
Engine instruments.....	CHECK

<b>FLOODED/WARM ENGINE START</b>	
Strobe/Position Lights.....	ON
Mixture.....	FULL RICH
Brakes.....	HOLD
Fuel Pump.....	OFF
Fuel Prime.....	OFF
Throttle.....	HALF OPEN
Propeller Area.....	CLEAR
Starter.....	ENGAGE
Throttle.....	ADJUST 1000 RPM
Oil Pressure.....	CHECK
Avionics Master Switch.....	ON
Engine instruments.....	CHECK

<b>AFTER STARTING ENGINE</b>	
Cabin Heat and Defrost.....	AS REQUIRED
Flaps.....	CHECK/CRUISE
Transponder.....	STBY
Radios/NAV/GPS.....	SET
Fuel Pump.....	ON
Fuel Pressure.....	CHECK > 3.5 PSI
Engine Instruments.....	CHECK
Trim Indicator.....	NEUTRAL

<b>TAXI</b>	
Parking Brake/Taxi light.....	OFF/ON
Brakes/Flight Instruments.....	CHECK

<b>RUN UP POSITION</b>	
Parking Brake/Taxi light.....	ON/OFF
Mixture.....	FULL RICH
Throttle.....	1700 RPM
Oil Temp.....	GREEN (170° - 220°F)
Oil Pressure.....	NORMAL (30-60 PSI)
Alternator Load (Ammeter).....	CHECK
Vacuum Gauge (KPX/KWH only).....	CHECK
Mixture Lean Function.....	CHECK
Magnetos.....	CHECK (150 RPM ± 50 each)
Alternate Air.....	ON/OFF ( NO RPM DROP)
Throttle.....	MAX/IDLE THEN 1000 PRM
Engine instruments.....	GREEN
Warning Lights.....	NO ILUMINATE
Take-Off Briefing.....	COMPLETED

**CHECK LISTS MARKED WITH THE THICK VERTICAL LINE ON THE LEFT SHOULD BE MEMORIZED**

<b>LINE UP</b>	
Parking Brake/Taxi/Landing Lights.....	OFF/ON
Gyro.....	CHECK
Trim Indicator.....	NEUTRAL
Fuel Pump.....	ON
Transponder.....	ALT
Flaps.....	T/O
Mixture.....	FULL RICH

<b>TAKE-OFF</b>	
Take-off power.....	SET
RPM.....	MIN 2000
Engine Gauges.....	CHECK
Rotation.....	44 KIAS
Climb speed.....	58 KIAS

<b>CLIMB</b>	
Throttle.....	FULL
Flaps.....	CRUISE
Landing/Taxi Light.....	OFF

<b>CRUISE</b>	
Cruise Power.....	SET
Fuel Pump.....	OFF
Altimeters.....	SET
Mixture.....	ADJUST

<b>DESCENT</b>	
Mixture.....	FULL RICH
Fuel Pump.....	ON
Throttle.....	AS REQUIRED

<b>FINAL</b>	
Mixture.....	FULL RICH
Flaps.....	LDG
Fuel Pump.....	ON
Landing/Taxi Light.....	ON
Approach Speed.....	.65 KIAS

<b>GO AROUND</b>	
Throttle.....	FULL POWER
Flaps.....	T/O
Airspeed.....	58 KIAS

<b>RUNWAY VACATED</b>	
Landing Light.....	OFF
Flaps.....	CRUISE
Transponder.....	STBY

<b>SHUT DOWN POSITION</b>	
Parking Brake/Taxi light.....	ON/OFF
Electrics & Avionics.....	OFF
Avionics Master Switch.....	OFF
Throttle.....	IDLE
Fuel Pump.....	OFF
Engine.....	COOLING
Mixture.....	CUT OFF
Strobe/Position Lights.....	OFF
Magnetos.....	OFF
GEN/BAT Master Switch.....	OFF
Tie Downs.....	AS REQUIRED

# EMERGENCY PROCEDURES

# DA-20 C1 KATANA

# SP-KWH SP-KPX SP-KWG

## ENGINE FAILURE DURING TAKE-OFF RUN

Throttle.....IDLE  
Brakes.....AS REQUIRED  
Flaps.....CRUISE  
Mixture.....CUT OFF  
Magnetos.....OFF  
GEN/BAT Master Switch.....OFF

## ENGINE FAILURE AFTER TAKE-OFF

### INSUFFICIENT ENGINE POWER

Airspeed.....60 KIAS  
Throttle.....FULL  
Mixture.....FULL RICH  
Alternate Air.....OPEN  
Fuel Shut-off Valve.....OPEN  
Magnetos.....BOTH  
Fuel Pump.....ON

### SHORTLY BEFORE LANDING

Mixture.....CUT OFF  
Fuel Shut-off Valve.....CLOSED  
Magnetos.....OFF  
Flaps.....AS REQUIRED  
GEN/BAT Master Switch.....OFF

## ENGINE FAILURE DURING FLIGHT

### ENGINE RUNNING ROUGHLY

Mixture.....FULL RICH  
Alternate Air.....OPEN  
Fuel Shut-off Valve.....OPEN  
Fuel Pump.....ON  
Magnetos.....L-BOTH-R-BOTH  
Throttle.....PRESENT POSITION  
No improvement....THROTTLE IDLE / LAND ASAP

## RESTARTING THE ENGINE WITH PROPELLER WINDMILLING

Airspeed.....73 KIAS  
Mixture.....FULL RICH  
Fuel Shut-off Valve.....OPEN  
Magnetos.....BOTH  
Fuel Pump.....ON  
Fuel Prime.....ON  
Throttle.....3/4 INCH FORWARD

### AFTER SUCCESSFUL RE-START

Oil Pressure.....CHECK  
Oil Temp.....CHECK  
Fuel Prime.....OFF  
Electrically Equipment.....ON IF REQUIRED

## RESTARTING THE ENGINE WITH PROPELLER AT FULL STOP

Airspeed.....73 KIAS  
Electrically Equipment.....OFF  
GEN/BAT Master Switch.....ON  
Mixture.....FULL RICH  
Fuel Shut-off Valve.....OPEN  
Fuel Pump.....ON  
Fuel Prime.....ON  
Throttle.....3/4 INCH FORWARD  
Magnetos.....START

### AFTER SUCCESSFUL RE-START

Oil Pressure.....CHECK

Oil Temp.....CHECK  
Fuel Prime.....OFF  
Electrically Equipment.....ON IF REQUIRED

## GLIDING

Flaps.....CRUISE  
Airspeed.....73 KIAS  
Glide ratio.....11:1

## EMERGENCY LANDING

### INSUFFICIENT ENGINE POWER

Airspeed ( Flaps CRUISE) .....64 KIAS  
Airspeed ( Flaps T/O) .....60 KIAS  
Airspeed ( Flaps LDG) .....55 KIAS  
Fuel Shut-off Valve.....CLOSED  
Mixture.....IDLE CUT-OFF  
Magnetos.....OFF  
Safety Belts.....SECURED  
Radio.....TRANSMIT  
Flaps.....AS REQUIRED  
GEN/BAT Master Switch.....OFF

## ENGINE FIRE DURING ENGINE-START-UP ON THE GROUND

Fuel Shut-off Valve.....CLOSED  
Cabin Heat.....CLOSED  
Mixture.....IDLE CUT-OFF  
GEN/BAT Master Switch.....OFF  
Magnetos.....OFF  
Evacuation.....IMMEDIATELY

## ENGINE FIRE DURING FLIGHT

Fuel Shut-off Valve.....CLOSED  
Cabin Heat.....CLOSED  
Airspeed.....73 KIAS  
Fuel Pump.....OFF  
Emergency Landing.....PERFORM

## ELECTRICAL FIRE INCLUDING SMOKE DURING FLIGHT

GEN/BAT Master Switch.....OFF  
Cabin Air.....OPEN  
Fire Extinguisher.....USE IF SMOKE CONTIN  
Avionics Master Switch.....OFF  
Electrically Equipment.....OFF  
Circuit Breakers.....PULL ALL  
Circuit Breaker.....PUSH BATTERY  
GEN/BAT Master Switch.....ON BAT 1/2 ONLY  
Circuit Breaker.....PUSH GEN  
Circuit Breaker.....PUSH GEN CONTROL  
GEN/BAT Master Switch.....ON  
Circuit Breaker.....PUSH AVIONICS  
Circuit Breaker.....PUSH AVIONICS MASTER  
Avionics Master Switch.....ON  
Circuit Breaker.....PUSH REQUIRED SYSTEMS  
Radio.....ON

### LAND AS SOON AS POSSIBLE

CHECK LISTS MARKED WITH THE THICK VERTICAL LINE ON THE LEFT SHOULD BE MEMORAZIED

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BASED ON DA20-C1 AFM Rev 28

## ELECTRICAL FIRE INCLUDING SMOKE ON THE GROUND

GEN/BAT Master Switch.....OFF  
**IF ENGINE RUNNING**  
Throttle.....IDLE  
Mixture.....CUT OFF  
Fuel Shut-off Valve.....CLOSED  
Magnetos.....OFF  
Canopy.....OPEN  
Fire Extinguisher.....USE IF REQUIRED

## CABIN FIRE DURING FLIGHT

GEN/BAT Master Switch.....OFF  
Cabin Air.....OPEN  
Cabin Heat.....CLOSED  
Fire Extinguisher.....USE IF REQUIRED

### LAND AS SOON AS POSSIBLE

## STARTER RELAY FAILURE

### STARTER LIGHT REMAINS ILLUMINATED

Throttle.....IDLE  
Mixture.....CUT OFF  
Magnetos.....OFF

### MAINTENANCE ACTION IS REQUIRED

## ELECTRICAL POWER FAILURE

Circuit Breaker.....RESET  
GEN/BAT Master Switch.....ON  
**IF POWER NOT RESTORED**  
GEN/BAT Master Switch.....OFF  
**LAND AT NEAREST SUITABLE AIRPORT**

## GENERATOR FAILURE

### GENERATOR LIGHT ILLUMINATED

GEN Master Switch.....OFF-ON  
Circuit Breaker.....GEN RESET  
Circuit Breaker.....GEN CONTROL RESET  
**IF UNSUCCESSFUL**  
Electrical load.....REDUCE  
**LAND AT NEAREST SUITABLE AIRPORT**

## AIRSPEED FOR SAFE OPERATION

Best Rate-of-Climb Sp (V<sub>y</sub>) CRUISE.....75 KIAS  
Best Angle-of-Climb Sp (V<sub>x</sub>) CRUISE.....60 KIAS  
Best Rate-of-Climb Speed (V<sub>y</sub>) T/O.....68 KIAS  
Best Angle-of-Climb Speed (V<sub>x</sub>) T/O.....57 KIAS  
Max Flaps Extended T/O Sp (V<sub>FE T/O</sub>).....100 KIAS  
Max Flaps Extended LDG Sp (V<sub>FE LDG</sub>).....78 KIAS  
Normal Operating Speed (V<sub>NO</sub>).....118 KIAS  
Landing Final App Speed LDG.....55 KIAS  
Best Glide Angle Speed.....73 KIAS  
Maneuvering Speed (V<sub>A</sub>).....106 KIAS  
Max Demo Crosswind.....20 KIAS