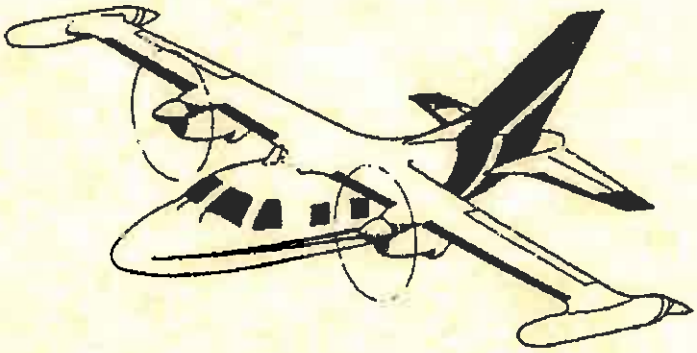
PROFESSIONAL FLIGHT



TRAINING, L.C.

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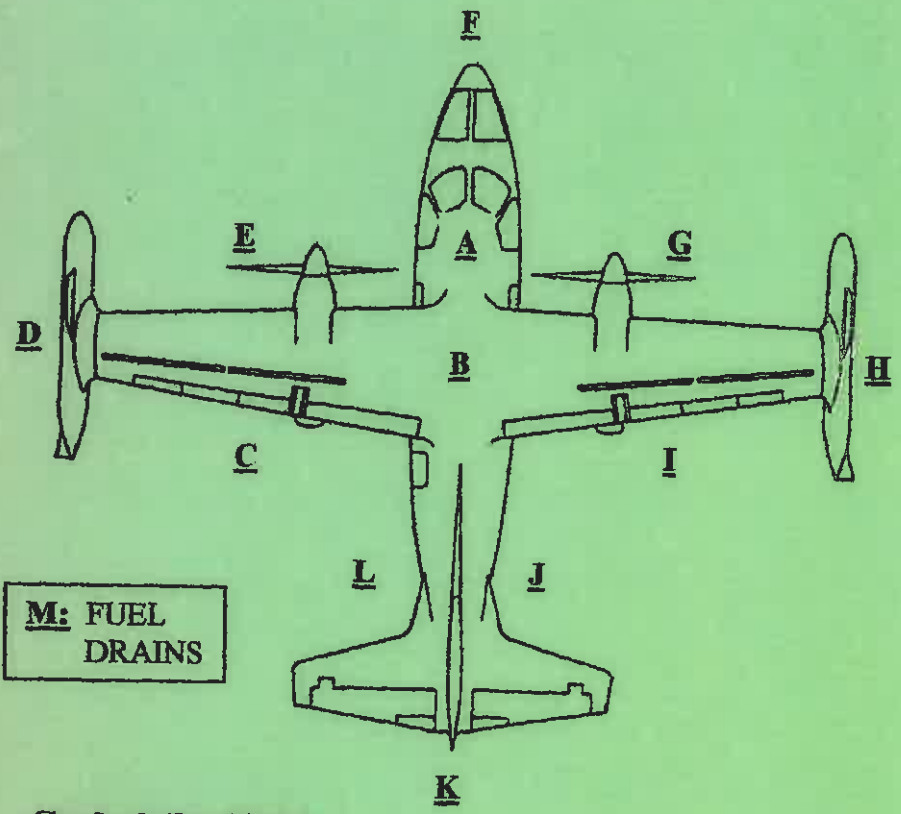
SHAWN McDONELL

PREFLIGHT CHECKLIST
SOLITAIRE & MARQUISE



Cockpit Preflight
(Area A)

1. Emer Gear Handle..... Down & Safetied
2. Parking Brake..... As Required
3. Gear Selector Switch..... Down
4. Control Lock..... Removed
5. Circuit Breakers..... Set
6. Radio Masters..... Off
7. Auto-Ignition Switches.....Off

****For Training Purposes Only****

(Area A Cont)

8. Battery Key Switch..... On
9. Battery Voltage..... 22 V Min
10. Inverters (Main/Standby)..... Check/On
11. 200 Amp Bus Tie C/B..... (System Test)..... Check
12. Battery Isolation Switches..... (System Test)..... Check
13. Battery Temps. (NiCad Batteries)..... Check
14. Master Switch..... Guard Safetied
15. Static Air Source..... Normal
16. Overhead Indicator Lights..... Test
17. Lights..... Normal/Dim/As Required
18. Instruments/Panel Lights..... As Required
19. Fire "T" Handle Lights..... Test
20. Warning Lights..... Test
21. Radio Freq. (Com/Nav)..... Set
22. Audio Panel (Speaker/Phone)..... Set
23. Transponder..... STBY
24. Prop Sync..... Off
25. Fuel Quantity..... Check
26. Stall Warning..... Test
27. Panel Indicator Lights..... Test
28. Fuel Quantity Gauges..... Test
29. Fuel Low Level Test Switch..... Test
30. Auto Ignition..... Off
31. Outer Fuel Pumps..... Test
32. Defog Warning..... Test
33. Cabin Air..... Off
34. Flaps..... 5° then 20°
35. Press to Test..... 40°
36. Trim Tabs..... Check
37. Gear Poss. Ind..... 3 Green/Press to Test Unsafe
38. Trim Ail Select..... Guard Safetied
39. Fuel Transfer Switches..... Test/Off
40. Main Fuel Valves..... Test
41. Inverter..... Off
42. Battery Key Switch..... Off

****For Training Purposes Only****

(Area A Cont)

43. Oxygen System..... Check
44. Fire Extinguisher..... Charged

Cabin
(Area B)

1. Interior..... Gen Condition
2. Emergency Exit..... Secure
3. Oxygen Masks..... Available
4. Oxygen Cylinder..... Open/Full
5. First Aid Kit..... Check
6. Documents..... Check

Exterior Preflight

1. Windshield Cover..... Remove
2. Engine Plugs..... Remove
3. Pitot Covers..... Remove
4. Ram Air Inlet Plug..... Remove
5. Rudder Lock..... Remove

(Area C)

1. Cabin Door..... Inspect
2. Door Bleed Air Ports..... Inspect
3. Door Seals..... Inspect
4. LH Tire..... Inspect
5. LH Brake Assembly..... Inspect
6. LH Gear Assembly..... Inspect
7. LH Gear Doors..... Inspect
8. Gear Door Switch..... (Solitaire)..... Guard Safetied
9. LH Flap Well..... Inspect
10. LH Bleed Air Line..... Inspect
11. LH Flap & Ail Trim Tabs..... Inspect
12. LH Engine Exhaust & Oil Cooler..... Inspect
13. LH Static Wicks..... Inspect

(Area D)

1. LH Fuel Dump (if installed)..... Inspect
2. LH Tip Tank..... Inspect
3. LH Tip Tank Cap..... Inspect
4. LH Nav/Strob Light Assembly..... Inspect
5. LH Sniffle Valve..... Inspect
6. LH Taxi Light..... Check

(Area E)

1. LH Leading Edge Boots..... Inspect
2. LH Engine Cowling..... Open
   a. Oil Leaks..... Check
   b. Fuel Leaks..... Check
   c. Bleed Air Lines..... Secure
   d. Oil Filter Bypass..... Check
   e. Igniter Plugs..... Secure
3. LH Engine Oil Level..... Check
4. LH Engine Cowling..... Secure
5. LH Propeller..... Inspect
6. LH Prop Spinner..... Inspect
7. LH Engine Intake..... Inspect
8. LH Oil Cooler Intake..... Inspect
9. Ice Light..... Inspect

(Area F)

1. LH Static Ports..... Inspect
2. LH Pitot Tube..... Inspect
3. LH Landing Light..... Inspect
4. Pilot's Windows..... Inspect
5. Pilot's Windshield Wiper..... Inspect
6. Steering Linkage..... Connect
7. Nose Wheel Tires..... Inspect
8. Nose Gear Doors..... Inspect

(Area F/Cont.)

9. Shimmy Dampener..... Inspect
10. Nose Gear Assembly..... Inspect
11. Radome..... Inspect
12. RH Pitot Tube..... Inspect
13. RH Landing Light..... Inspect
14. Co-Pilot's Windows..... Inspect
15. Co-Pilot's Windshield Wiper..... Inspect
16. RH Static Ports..... Inspect

(Area G)

1. Fuel Pressure Reg. Exhaust Tube..... Inspect
2. RH Engine Cowling..... Open
   a. Oil Leaks..... Check
   b. Fuel Leaks..... Check
   c. Bleed Air Lines..... Secure
   d. Oil Filter Bypass..... Check
   e. Igniter Plugs..... Secure
3. RH Engine Oil Level..... Check
4. RH Engine Cowling..... Secure
5. RH Propeller..... Inspect
6. RH Prop Spinner..... Inspect
7. RH Engine Intake..... Inspect
8. RH Oil Cooler Intake..... Inspect
9. RH Leading Edge Boots..... Inspect
10. Lift Transducer..... Inspect

(Area H)

1. RH Taxi Light..... Check
2. RH Sniffle Valve..... Inspect
3. RH Nav/Strobe Light Assembly..... Inspect
4. RH Tip Tank Cap..... Inspect
5. RH Tip Tank..... Inspect
6. RH Fuel Dump (if installed)..... Inspect

(Area I)

1. RH Static Wicks..... Inspect
2. RH Flap & Ail Trim Tabs..... Inspect
3. RH Flap Well..... Inspect
4. RH Bleed Air Line..... Inspect
5. RH Engine Exhaust & Oil Cooler..... Inspect
6. RH Boost Pump Vent Line..... Inspect
7. Emergency Exit..... Secure
8. RH Tire..... Inspect
9. RH Brake Assembly..... Inspect
10. RH Gear Assembly..... Inspect
11. RH Gear Doors..... Inspect
12. Gear Door Switch..... (Marquise)..... Guard Safetied

(Area J)

1. Ram Air Intake..... Inspect
2. Air Cycle Machine Exhaust..... Inspect
3. Vertical Stabilizer & Boot..... Inspect
4. RH Side of Fuselage Gen Cond..... Inspect
5. RH Horizontal Stabilizer & Boot..... Inspect

(Area K)

1. RH Elevator..... Inspect
2. RH Elevator Trim Tab..... Inspect
3. RH Elevator Trim Tab Connecting Rod..... Inspect
4. Rudder..... Inspect
5. Empenage Static Wicks..... Check
6. Rudder Trim Tab & Connecting Rod..... Inspect
7. LH Elevator..... Inspect
8. LH Elevator Trim Tab..... Inspect
9. LH Elevator Trim Tab Connecting Rod..... Inspect

(Area L)

1. LH Horizontal Stabilizer & Boot..... Inspect
2. LH Side of Fuselage Gen Cond..... Inspect
3. Air Cycle Machine Intake..... Inspect
4. GPU Access Door..... Secure
5. LH Boost Pump Vent Line..... Check
6. Pressure Regulator Exhaust Tube..... Inspect

(Area M)

1. Fuel Drains..... Sump
   a. Main Tank (Found in Wing Root – 1 per side)
   b. Boost Pump (Found in Wing Root – 1 per side)
   c. Main Filler Tank (1 per side)
   d. Fuel Filter (1 per side)
   e. Outer Tank (2 per side)
   f. Tip Tank (4 per side)

NOTE

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NORMAL PROCEURES
SOLITAIRE & MARQUISE

Before Engine Start:

1.	Passengers	Briefed
2.	Cabin Door	Locked
3.	Seat Belts & Shoulder Harness	Fasten
4.	Seats	Adjusted
5.	Weight & Balance	Computed
6.	Takeoff Data	Computed
7.	Circuit Breakers	Set
8.	Radio Masters	Off
9.	Generator Switches	Off
10.	Auto Ignition Switches	Off
11.	Battery Key Switch	On
12.	Inverter	On
13.	Annunciator Lights	Checked
14.	Lights	As Required
15.	Fuel Quantity	Check
16.	Main Fuel Valves	Open
17.	Fuel Transfer Switches	Off
18.	Feather Valve Test (Systems Test)	Check
19.	SRL Switches (Both)	On
20.	Run-Crank-Stop Switches (Both)	Run
21.	Condition Levers	Taxi
22.	Power Levers	½" Forward of Ground Idle

Starting Engines:

1. Battery Select Switch..... Parallel or Series
2. Battery Voltage ..... (Battery Start)..... 22 Volts Min.
   (GPU Start)..... 28.5 Volts
3. Start Select Switch..... Left or Right
4. Props..... Clear & On Locks
5. N.T.S. Test..... (System Test)..... Check
6. Start Switch..... Press & Hold to 10%
7. Engine Instruments..... Check
8. Engine Start..... Accomplished
9. Engine RPM..... 76.5%
10. Cabin Air Selector Switch..... As Desired
11. G.P.U. Start..... Repeat #2 thru #10
12. Battery Start..... (System Test)..... Recharge Batteries
13. Next Engine..... Repeat #3 thru #10

After Engine Start:

1. G.P.U..... Disconnect
2. Start Select Switch..... Air Start & Safe
3. 200 Amp Bus Tie..... (System Test)..... Check
4. Generators..... On
5. Generator Load..... Check
6. Radio Master Switches..... On
7. Oil Temperature..... In Green Arc
8. Overspeed Governor..... (System Test)..... Test
9. SRL Computers..... (System Test)..... Test
10. Delta P/P..... (System Test)..... Test
11. Start Locks..... Disengage

Taxi:

1.	Lighting	As Required
2.	Parking Brake	Off
3.	Fuel Transfer Switches	Auto
4.	Brakes	Check
5.	Steering	Check
6.	Flaps	As Desired
7.	Flight Controls	Check
8.	Flight Instruments	Check
9.	Instrument Vacuum	Check

Before Takeoff:

1.	Circuit Brakers	Check
2.	Annunciator Panel	Check
3.	Nav/Comm/Transponder	Check & Set
4.	Flight Instruments	Check
5.	Engine Instruments	Check
6.	Anti-Ice Systems	As Required
7.	Lights	As Required
8.	Cabin Signs	On
9. *	Condition Levers	Takeoff & Land
10. *	Flaps	Set for Takeoff
11. *	Trim Tabs	Set for Takeoff
12.	Auto Ignition Test	Test
13. *	Auto Ignition	Auto or Continuous
14.	Cabin Air Selector Switch	RAM
15.	Generator Load	Check

Takeoff:

1.	Brakes	As Needed
2.	Power Levers.... (100% Tq or 650°C Max)	Set
3.	Computed V_R	Rotate

After Takeoff:

1. Landing Gear ..... Up
2. Airspeed ..... Accelerate
3. Flaps ..... 5°/Up
4. Cabin Air Selector Switch ..... As Required
5. Power ..... Set
6. Pressurization ..... Check/Set
7. Engine Instruments ..... Check
8. Prop Sync ..... As Desired
9. Anti/De-Ice Systems ..... As Required

Climb:

1. Power ..... Set
2. Airspeed ..... Check
3. Auto Ignition ..... As Required
4. Anti/De-Ice Systems ..... As Required
5. RPM ..... Set
6. Engine Instruments ..... Check
7. Lights ..... As Required

Climb Checks:

1. Lights ..... As Required
2. Altimeters ..... (FL180 – 29.92) ..... Check
3. Pressurization ..... Check
4. Oxygen & Crew Masks ..... Check
5. Fuel Balance & Transfer ..... Check
6. Windshield Heat ..... Low
7. Generator Load ..... Check

Cruise:

1. Power ..... Set
2. Engine Instruments ..... Monitor
3. Generator Load ..... Check
4. Fuel Balance & Transfer ..... Check

Descent:

1. Cabin Altitude Selector ..... Set
2. Fuel Transfer Switches ..... Tips Manual or Off
3. Altimeters ..... Set
4. Anti/De-Ice Systems ..... As Required
5. Lights ..... As Required

Approach & Landing:

1. Cabin Altitude Diff. Pressure ..... Check for Zero
2. Anti/De-Ice Systems ..... As Required
3. Lights ..... As Required
4. Cabin Signs ..... On
5. Windshield Heat ..... As Required
6. Auto Ignition ..... Auto or Continuous
7. Landing Gear ..... Down
8. Prop Sync ..... Off
9. Flaps ..... 5°
10. Auto Pilot/Yaw Damper ..... Off
11. Fuel Transfer Switches ..... Balanced/Off
12. Landing Gear ..... Check 3 Green
13. Power ..... 20% Tq or Greater
14. Condition Levers ..... Takeoff & Land
15. Flaps ..... 20°
16. Airspeed ..... (Computed) ..... Check

After Touchdown:

1. Power Levers ..... Flight Idle
2. Power Levers .....(At or Below 90 Kts) ..... Ground Idle
3. Power Levers ..... Reverse
4. Power Levers ..... Ground Idle
5. Auto Ignition Switches ..... Off
6. Condition Levers ..... Taxi

After Landing:

1. Anti/De-Ice Systems ..... Off
2. Lights ..... As Required
3. Radar/Transponder ..... Off/Standby
4. Flaps ..... Up
5. Trim Tabs ..... Set

Engine Shutdown:

1. Parking Brake ..... As Desired
2. Cabin Air Selector Switch ..... Off
3. Lights ..... As Required
4. Radio Master Switches ..... Off
5. Power Levers ..... Ground Idle
6. Run-Crank-Stop Switches ..... Crank
7. Run-Crank-Stop Switches .... Stop & Hold Until 50% RPM
8. Power Levers ..... Reverse Until 20% RPM
9. Power Levers ..... Ground Idle
10. Generator Switches ..... Off
11. Inverter Switch ..... Off
12. Main Fuel Valves ..... Closed
13. Fuel Transfer Switches ..... Off
14. Cabin Signs ..... Off
15. Battery Key Switch ..... Off
16. Main Fuel Valves ..... Open

Engine Shutdown: (Cont.)

17. Control Lock..... Install
18. Cockpit/Cabin Lights..... Off
19. Oxygen Valves..... Closed
20. Ground Plugs..... As Desired

NOTE

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ABNORMAL PROCEDURES
SOLITAIRE & MARQUISE

SRL System Failure:

1. SRL Switches..... Off
2. Consult Chart For..... EGT & Monitor
3. Land..... As Soon As Practical

Tip Tank Auto Transfer Failure:

1. Fuel Transfer Switch..... Manual
2. Fuel Quantity Indicators..... Monitor
3. Fuel Usage..... Maintain Balance

Outer Tank Auto Transfer Failure:

1. Fuel Transfer Switches..... Off
2. Outer Pump Manual Switch..... Manual
3. Fuel Quantity Indicators..... Monitor
4. LH & RH Outer Fuel EMP Lights..... Illuminate
5. Outer Pump Manual Switch..... Off

Outer Tank Transfer Pump Failure:

Auto Transfer Mode:

1. Fuel Transfer Switch..... Off (Failed Side)
2. If Annunciator Remains Illuminated
   Fuel Transfer Control C.B..... Disengaged (Failed Side)
3. Fuel Balance..... Monitor

Manual Transfer Mode:

1. Outer Pump Switch..... Off
2. Fuel Transfer Control C.B..... Disengaged (Failed Side)
3. Outer Pump Switch..... Manual
4. Fuel Balance..... Monitor

****For Training Purposes Only****

Heated Windshield Failure:

1. Windshield Heat Switch..... Off (Failed Side)

Trim Aileron Failure:

1. Trim Aileron Select Switch..... LH or RH
2. Trim Aileron Control Switch..... Retrim

Trim Aileron Runaway:

1. Maintain Lateral Control..... With Spoiler and Rudder
2. Trim Aileron Select Switch..... LH or RH

If Runaway Continues

3. Trim Aileron Select Switch..... Select Other Position
4. Trim Aileron Control Switch..... Retrim

Normal Static Source Failure:

1. Static Source Select Valve..... Alternate

Electric Turn & Bank Failure:

Pilots Turn & Bank Failure

1. Indicator Warning Flag..... Visible
2. Annunciator/Warning Light..... Illuminates
3. Turn & Bank Circuit Breaker..... Disengage
4. Remainder Of Flight..... Use Alternate Turn & Bank *(Co-Pilots)*

Co-Pilot Turn & Bank Failure

1. Annunciator/Warning Light..... Illuminates
2. Indicator Warning Flag..... Visible
3. Turn & Bank Circuit Breaker..... Disengage
4. Remainder of Flight..... Use Alternate Turn & Bank *(Pilots)*

No Flap Approach & Landing:

Downwind Leg

1. Before Landing Checklist..... Complete
2. Airspeed..... 150 KCAS Minimum
3. Landing Gear..... Down

Base Leg

4. Airspeed..... 140 KCAS Minimum
5. Landing Gear..... Check Down

Final Approach

6. Airspeed..... 1.25 Vsi But Not Below 115 KCAS

Emergency Exit Operation:

1. Manual Pressure Control Valve..... Full Decrease

When Cabin is Depressurized

2. Handle Access Cover..... Push In
3. Emergency Exit Door Handle.....
   .....Pull, Then Lift Door Up & Inward

Inadvertent Icing Encounter:

1. Anti-Ice Systems... On (Except Engine Air Intake Anti-Ice)
2. De-Ice..... As Required
3. Auto Ignition..... Continuous
4. LH Engine Air Intake Anti-Ice..... On

When proper operation of the LH engine is assured

5. RH Engine Air Intake Anti-Ice..... On

When proper operation of both engines is assured

6. Auto Ignition..... As Required

Procedures for Exiting Severe Icing Environment:

1. Immediately request priority handling from Air Traffic Control to facilitate a route or an altitude change to exit the severe icing conditions to avoid extended exposure to flight conditions more severe than those for which the airplane has been certificated.
2. Avoid abrupt and excessive maneuvering that may contribute to control difficulties.
3. Do not engage the autopilot.
4. If the autopilot is engaged, hold the control wheel firmly and disengage the autopilot.
5. If an unusual roll response, an uncommanded roll, or an unusual trim is observed, lower the nose (reduce the angle of attack) and allow the airspeed to increase before any reduction in engine power.
6. Do not extend flaps during extended operation in icing conditions. Operation with flaps extended can result in a reduced wing angle-of-attack, with the possibility of ice forming on the upper surface further aft on the wing than normal, possibly aft of the protected area.
7. If the flaps are extended, do not retract them until the airframe is clear of ice.
8. Report these weather conditions to Air Traffic Control.

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EMERGENCY PROCEDURES
SOLITAIRE & MARQUISE

NOTE: BOLD NUMBERED STEPS ARE MEMORY ITEMS.

Engine Shutdown Procedure:

1. **Identify Failed Engine By.....**
   .....Torque and other Engine Instruments
2. **Condition Lever..... (Failed Engine).....Emergency Stop**
3. **Power Lever..... (Failed Engine)..... Takeoff**
4. **Power Lever..... (Operating Engine)..... As Required**
5. **Roll Trim..... Set**
6. **Rudder Trim..... Set**
7. Cabin Air Selector Switch..... Operating Engine or RAM
8. Prop Sync..... Off
9. Auto Ignition.....(Failed Engine)..... Off
10. Generator..... (Failed Engine)..... Off
11. Generator Load..... Reduce to Essential Items
12. 200 Amp Bus Tie..... Check

CAUTION

Run-Crank-Stop Switch Must Remain in Run Position

Beta Light Illuminated In Flight:

No RPM, Yaw or Control Problem

1. Affected Engine..... Shutdown Prior to Landing

RPM, or Control Problem Exists

1. Affected Engine..... Shutdown Immediately
2. Land..... Single Engine

Airstart:

1. Airspeed ..... 100 to 180 KCAS
2. Altitude ..... Below 15,000 Feet
3. Prop Sync ..... Off
4. E G T ..... Below 200° C
5. Condition Lever ..... Minimum Cruise
6. Power Lever ..... ½" Forward of Flight Idle
7. Start Selector Switch ..... Air Start & Safe
8. Auto Ignition ..... Off
9. Run-Crank-Stop Switch ..... Run
10. Unfeather Switch ..... Press & Hold to 50%
11. Condition Lever ..... As Required
12. Power Lever ..... As Required
13. Generator ..... On
14. Auto Ignition ..... As Required
15. Cabin Air Selector Switch ..... Both

Auto-Ignition Relight Failure:

1. **Failed Engine E.G.T. & RPM ..... Check**
2. **Failed Engine Condition Lever ..... Emergency Stop**
3. **Failed Engine Power Lever ..... Takeoff**
4. Engine Shutdown Procedure ..... Complete

Driftdown Procedure:

1. Failed Engine ..... Secure
2. Operating Engine Power ..... As Required
3. Cabin Air Selector ..... Operating Engine

Engine Fire:

1. **Fire Handle..... (Affected Engine)..... Pull**
2. **Condition Lever... (Affected Engine)....Emergency Stop**
3. **Power Lever..... (Affected Engine)..... Takeoff**
4. **Power Lever..... (Operating Engine)..... As Required**
5. **Roll Trim..... Set**
6. **Rudder Trim..... Set**
7. Cabin Air Selector Switch..... Operating Engine or RAM
8. Prop Sync..... Off
9. Auto Ignition..... (Affected Engine)..... Off
10. Main Fuel Valve..... (Affected Engine)..... Closed
11. Generator..... (Affected Engine)..... Off
12. Generator Load..... Reduce to Essential Items
13. 200 Amp Bus Tie..... Check
14. Land..... As Soon As Possible

CAUTION

Run-Crank-Stop Switch Must Remain in Run Position

Fuel Boost Pump Failure:

1. Circuit Breaker..... Disengage
2. Land..... As Soon As Possible

Smoke & Fume Elimination:

1. **Oxygen Outlet Valve.....Open**
2. **Oxygen Masks..... Don & Use**

Known Source

1. **Faulty Circuit or System.....**
   .....Pull Circuit Breakers & Switch Off System

Unknown Source

1. **Room Lights..... As Required**
2. **Master Switch..... Emergency**
3. Battery Switches..... Both Isolate
4. Generator Switches..... Both Off
5. Inverter Switch..... Off
6. All Switches & Circuit Breakers..... Off or Disengaged
7. Master Switch..... Normal
8. Batteries, Generators & Inverter..... On

If Smoke or Odor Stops

9. Switches & Circuit Breakers for Essential Equipment.....
   .....On or Engage One at a Time

If Smoke or Odor Increases

10. Cabin Air Selector Switch.....RAM
11. Battery, Generator & Inverter..... Off
12. Manual Pressure Control Valve..... Full Decrease
13. Altitude..... High Speed Descent
14. Pilots Comm. Door .....Open
15. Emergency Exit..... Open (If Feasible)

If Smoke or Odor Persists

16. Land..... As Soon As Possible

Recycling of Landing Gear:

1. Airspeed..... 130 KCAS Maximum
2. Flaps..... 5°
3. Landing Gear Switch Down
   a. Three Green..... Illuminated
   b. Unsafe Light..... Extinguished

NOTE

If Unsafe Light Remains Illuminated; Do Not Perform Step 4
Go To Emergency Gear Extension

4. Landing Gear Switch Up
   a. Three Green..... Extinguished
   b. Unsafe Light..... Extinguished

Emergency Gear Extension:

1. Airspeed..... 130 KCAS Maximum
2. Flaps..... 5°
3. Landing Gear Circuit Breakers
   (Cont, LG Motor & Door Motor)..... Disengage
4. LDG POS Circuit Breaker..... Engaged
5. Landing Gear Switch..... Down
6. Landing Gear Emergency Handle.....
   .....Pull & Pump Until 3 Green
7. If Indicator Lights are Inoperative.....
   .....Continue Pumping Until Handle Cannot Be Moved

Cabin Pressure Low:

1. Oxygen..... Use If Necessary
2. Cabin Pressurization..... Check & Reset
3. Manual Pressure Control..... Valve Full Increase
4. Cabin Air Selector Switch..... Both or Operating Engine
5. If Pressure Remains Low .....
   .....Descend to Altitude Not Requiring Oxygen

Air Conditioning System Fail:

1. Cabin Pressurization..... (ACS Circuit Breaker)..... Check
2. Oxygen..... Use If Necessary
3. Descend..... High or Low Speed Descent
4. Cabin Air Selector Switch..... RAM

Defog Over Temp:

1. Defog Selector Valve..... Full Decrease
2. As Soon As Possible..... High or Low Speed Descent
3. Manual Pressure Control..... Full Decrease
4. Cabin Air Selector Switch..... RAM

Emergency Descent:

High Speed Descent

1. Power Levers..... Flight Idle
2. Condition Levers..... Takeoff Land
3. Airspeed..... V_{MO} (250 KCAS)

Low Speed Descent

1. Power Levers..... Flight Idle
2. Condition Levers..... Takeoff Land
3. Landing Gear..... Down (Below 170 KCAS)
4. Flaps..... 40° (Below 120 KCAS)
5. Airspeed..... V_{FE} (155 KCAS Maximum)

Battery Overheat:

120° F Amber Light Illuminates

1. If on Ground..... Monitor, Do Not Take Off
2. If in Flight..... Monitor
3. If Temp rises to140° F..... Isolate Battery

Battery Overheat: (Cont.)

150° F Red Light Illuminates

1. If on Ground..... Abort Takeoff
2. If in Flight..... Isolate Battery
3. If Temp Keeps Rising..... Land A.S.A.P.

Generator Failure:

1. Circuit Breakers... (GEN CONT & GEN FIELD).... Check
   Light Remains Illuminated
2. Generator Switch..... Reset, Then On
   Light Does Not Extinguish
3. Generator Switch..... Off
4. Generator Load..... Reduce to Essential Items
5. 200 Amp Bus Tie..... Check

Inverter Cycles On & Off:

1. Inverter Switch..... Off
2. Fuel Quantity..... Calculate
3. Operating Engine Instruments..... Monitor
4. Remainder of Flight..... Use Alternate Flight Instruments
5. Land..... As Soon As Possible

Inverter Failure:

1. Inverter Switch..... Select other Inverter
2. Circuit Breakers (Power & Cont) For Failed Inverter.....
   .....Disengage

Inverter Failure After Selecting Other Inverter:

1. Inverter Switch..... Off
2. Circuit Breakers (Power & Cont) For Failed Inverter.....
   .....Disengage
3. Fuel Quantity .....Calculate
4. Operating Engine Instruments..... Monitor
5. Remainder of Flight..... Use Alternate Flight Instruments
6. Land..... As Soon As Possible

Left Feeder Failure:

1. Left Hand Windshield Heat..... Off
2. Audio..... To Speaker
3. Inverter Switch..... Standby
4. #1 Radio Master Switch..... Off
5. Left Feeder Control Circuit Breaker..... Check/Reset
6. 50 Amp Bus Tie..... Check/Reset
7. #1 Radio Master..... On
8. Generator Load..... Check

Right Feeder Failure:

1. Right Hand Windshield Heat..... Off
2. Audio..... Headset
3. Inverter Switch..... Main
4. #2 Radio Master..... Off
5. Right Feeder Control Circuit Breaker..... Check/Reset
6. 50 Amp Bus Tie..... Check/Reset
7. #2 Radio Master..... On
8. Generator Load..... Check

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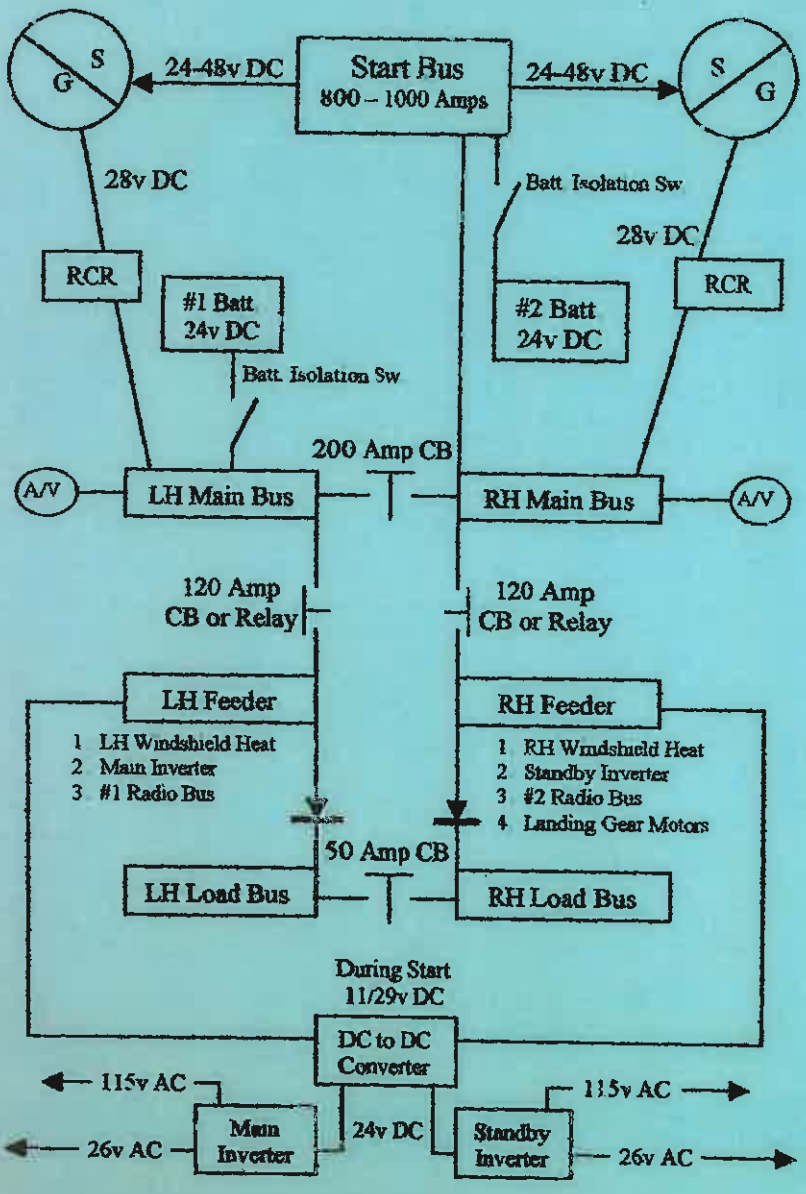
Electrical Schematic
Solitaire & Marquise



****FOR TRAINING PURPOSES ONLY****

D.C. POWER

LH FEEDER FAILURE

1. LH WINDSHIELD HEAT
2. MAIN INVERTER
3. #1 RADIO BUS
   - Headphones
   - #1 Com
   - #1 ILS
   - #1 ADF
   - #2 DME
   - Main Transponder
   - R-NAV
   - Radar Altimeter
   - Marker Beacons
   - Auto Pilot

RH FEEDER FAILURE

1. RH WINDSHIELD HEAT
2. STANDBY INVERTER
3. #2 RADIO BUS
   - Speakers
   - #2 Com
   - #2 ILS
   - #2 ADF
   - #1 DME
   - Standby Transponder
   - Radar
   - Telephone
4. LANDING GEAR MOTORS

A.C. POWER---INVERTERS

115v A.C. Power

Attitude Gyro
Auto Pilot
Flight Director
Radar
Pilot's Altimeter---SPZ 500
Main Fuel Quantity Gauge
#1 & #2 Compass Systems
NAV, ILS & ADF Needles
Integral Lighting
Trim Position Indicator Lights

Variations:

All Fuel Gauges
ACS Temperature Control
Torque Indicators

26v A.C. Power

Oil Pressure Indicators
Fuel Pressure Indicators

AIRCRAFT SYSTEMS TEST
SOLITAIRE & MARQUISE

Putting Props on the Locks before Engine Start:

1. Battery Key Switch..... On
2. Power Lever..... (Affected Engine).....Full Reverse
3. Unfeather Pump Button..... (Affected Engine).....Press
4. Hold power lever and unfeather pump button until prop is on the lock.
5. Unfeather Pump Button..... Release
6. Power Lever..... Ground Idle

Battery Check:

1. Battery Key Switch..... On
2. Check Battery Voltage..... 22 Volts Minimum

Battery Isolation & 200 Amp Bus Tie Check:

1. #1 Battery Switch..... Isolate
2. Battery Voltage..... On Both Volt Meters

200 Amp Bus Tie Satisfactory

3. #2 Battery Switch..... Isolate
4. Battery Voltage..... None
5. #1 Battery Switch..... On
6. Battery Voltage..... On Both Volt Meters

200 Amp Bus Tie Satisfactory

7. #2 Battery Switch..... On

Main Fuel Valve Check:

1. Battery Key Switch..... On
2. Right Fuel Valve Switch..... Close
   Note: Listen for valve activation.
3. Right Fuel Valve Switch..... Open
   Note: Listen for valve activation.
4. Repeat 1 thru 3 for left valve.

Feathering Valve Check:

1. Battery Key Switch..... On
2. Unfeather Pump Button..... Press
3. Beta Light..... Illuminated
4. Condition Lever..... Emergency Stop
5. Beta Light..... Extinguishes
6. Condition Lever..... Taxi
7. Beta Light..... Illuminates
8. Unfeather Pump Button..... Release
9. Repeat steps 1 thru 8 for other engine.

NTS Ground Check:

1. With check list completed..... Ready to start engines
2. Unfeather Pump Button..... Press & Hold
3. Beta Light..... Illuminates
4. Start Button..... Press & Hold until Ignition
5. Beta Light..... Extinguishes
6. Unfeather Pump/Start Button..... Release
7. Condition Lever.....(Max. EGT 770° C)..... Guard
8. Beta Light..... Illuminates by 40% RPM
9. Repeat 1 thru 8 for other engine

Supplemental NTS Gnd. Check

Recharge Batteries:

1. Inop Generator Switch..... On
2. Operating Generator Switch..... On
3. Amps..... Less than 100 Amps
4. Inop Generator Switch..... Off
5. Amps..... Do Not Exceed 200

Note: If amps exceed 200 amps, turn on inop generator.

6. Amps..... Less than 100 Amps
7. Operating Generator Switch..... Off
8. Other Engine..... Start

Bleed Air Valve Check:

1. Cabin Air Selector Switch..... Off
2. Engines..... Running
3. Overhead Vents..... No Air Flow
4. Cabin Air Selector Switch..... Left or Right Hand
5. Overhead Vents..... Air Flow
6. Cabin Air Selector Switch..... Both
7. Overhead Vents..... Air Flow Increases

Underspeed Governor Check:

1. Engines..... Running
2. Condition Levers..... Taxi
3. RPM..... 76.5%
4. Engine Oil Temperature..... In Green Arch
5. Condition Levers..... Takeoff & Land
6. RPM..... 96%

Overspeed Governor Check:

1. Engines..... Running
2. Engine Oil Temperature..... In Green Arch
3. Props..... On The Locks
4. Condition Levers..... Take Off & Land
5. Power Levers..... Advance to Maximum of 104.5% RPM

Note: Do Not Exceed 106% RPM for more than 5 seconds.

6. Power Levers..... Ground Idle
7. Condition Levers..... Taxi

SRL Test:

1. After overspeed governor test..... RPM 100%
2. SRL Switches..... Off
3. EGT..... Approximate 80° Decrease
4. Maximum Split Allowed..... 10°
5. SRL Switches..... On

Delta P/P Test:

1. After SRL Test..... RPM 100%
2. Delta P/P Switches..... Test Position
3. EGT..... Approximate 5° C Increase
4. Power Levers..... Ground Idle
5. Condition Levers..... Taxi

Prop Governor Check:

Prop Governor High

1. Condition Levers ..... Takeoff & Land
2. During Takeoff ..... RPM 100%

Prop Governor Low

1. In Cruise Flight ..... Cruise Power Set
2. Condition Levers ..... Minimum Cruise
3. RPM ..... Not Less Than 95%

NTS Airborne Test:

1. Altitude ..... At Least 5000' AGL
2. Airspeed ..... 160 knots 180
3. Condition Lever ..... Takeoff & Land 100%
4. RCS Switch ..... Crank Position
5. RCS Switch ..... Stop Position
6. Record Time ..... To Reach 35% RPM

Note: Recommended time should be less than 30 seconds but not to exceed 1 minute.

7. By 30% RPM ..... Condition lever to emergency stop
8. Emergency Check List ..... Engine Failure

Power lever "0" Thrust ..... Stabilize 1min

NOTE

THIS CHECKLIST IS FOR TRAINING PURPOSES ONLY. FOR FURTHER DETAIL, THE FAA APPROVED AIRPLANE FLIGHT MANUAL CHECKLIST WILL BE THE GOVERNING AUTHORITY.