

SOFIA Engine Run Ground Operations – Low Power

- **Saturday August 12, 2006**
 - **Engine Run Ground Operations Coordination**
 - Followed the SOFIA Jet Runup Handbook (SJRH) and Checklists for Guidance
 - Reviewed L3 Maintenance Document Completions
 - Coordinated All Engine Runs with CNW Operations Department (Waco Airfield)
 - All Engines Runs Under Fire Protection of the L3 Fire Department
 - Two Large Firefighting Trucks Qualified to Fight B747 Fires
 - L3 Fire Department Medical Response Team Oversight
 - Completed L3 Critical Task Briefing - Attended by
 - NASA Maintenance and QA
 - L3 Maintenance and QA
 - USRA Maintenance and Flight Operations
 - DCMA
 - L3 Fire Department
 - L3 Safety
 - Completed Emergency Evacuation Course for Those Who Did Not Attend Original July Class
 - **Dry Motored – 3 Engines**
 - Tested Pneumatic and Avionics Systems
 - Motored Engines with External Ground Power
 - Motored Number 1, 2 and 3 Engines
 - Checked for Starter Valve Operation
 - Checked for N1 Rotation
 - Checked for N2 Rotation
 - Opened Cowlings and Checked for Leaks



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- **Saturday August 12, 2006**
 - **Wet Motored – 3 Engines**
 - Motored Engines with External Ground Power
 - Opened All Ignition Circuit Breakers
 - Motored Number 1, 2 and 3 - Applied Fuel
 - Cleared Engines of Residual Fuel
 - Opened Cowlings and Checked for Leaks
- **Monday August 14, 2006**
 - Tested Pneumatic and Avionics Systems
 - Tested Hydraulic Systems
 - Dry Motored Number 4 Engine
 - Wet Motored Number 4 Engine
 - Started All Four Engines and Checked Ground Idle
 - Tested and Deployed all Thrust Reversers
 - Opened Cowlings and Checked for Leaks



SOFIA Engine Run Ground Operations – High Power

- **Tuesday August 15, 2006**
 - Engine Idle Adjustments
 - UAL GEM Team on Board for Engine High Power Runs
 - UAL Studied Engine Data from Previous Idle Runs
 - UAL Adjusted Engine Idle Settings
 - Awaiting Emergency Escape Slides for High Power Tests
 - Awaiting Telescope Cooling Requirements from DSI
 - Awaiting Telescope Floating Requirements from DSI
- **Friday August 18, 2006**
 - Awaiting Parts and Engine High Power Data Requirement Procedures
 - ECS Testing in Progress
 - Two Main Door Slides Installed in the Afternoon
 - Engine Maintenance Documentation Complete For SOFIA Engines
 - Telescope Checklist for Taxi Completed
 - Deferred High Power Runs until Saturday – Maintenance Duty Hours



SOFIA Engine Run Ground Operations – High Power

- **Saturday August 19, 2006**
 - High Power Runs – Engine Trimming
 - L3 Critical Task Briefing
 - Reviewed Maintenance Data with All Participants
 - Reviewed Emergency Evacuation Procedures for Engine Runs and Taxi
 - Reviewed Firefighting Stations – Two Trucks
 - Engine Runs Required Several Adjustments Cycles to Complete Trimming of All Engines
 - UAL Adjusted Engine Part Power Settings – Part Power Stops – 1.30 EPR
 - Removed Part Power Stops after Trimming - Engines Developed Full -7J Power
 - Exercised Aircraft Systems during Engine Trimming
 - All Control Surfaces
 - Positioned Flaps at 20 Degrees
 - Checked Avionics Systems
 - Checked Warning and Caution Lights
 - Checked Pneumatic Systems
 - Checked Hydraulic Systems
 - Checked Electrical Systems



SOFIA Engine Run Ground Operations – High Power

- **Saturday August 19, 2006**
 - Low Speed Taxi
 - Taxied SOFIA at CNW Airport -Waco
 - Taxied on Runway 35R to End
 - Turned Around on North Runup Area
 - Taxied on Runway 17L to End
 - Parked SOFIA on Taxiway “G” for L3 Tow
 - Firefighting Truck Followed SOFIA During Taxi
 - Exercised Aircraft Systems during Taxi
 - All Control Surfaces
 - Positioned Flaps at Various Settings
 - Checked Brakes
 - Checked Nose Gear Steering
 - Checked Body Gear Steering
 - Checked Anti Skid
 - Check Engines at Full Power while Stopped on the Runway before taxi back
- **Successfully Completed Engine Runs/Taxi**

