Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
1242	EGPWM: Software - Input Processing - SPP - Alternate Mode 4B Select	External	Non-fatal	GPW INOP, TERRAIN INOP is Annunciated AND "TERR-INOP" is displayed	Default setting used for Mode 4
1243	EGPWM: Software - Input Processing - SPP - Display Orientation	External	Non-fatal	GPW INOP, TERRAIN INOP is Annunciated AND "TERR-INOP" is displayed	Default setting used, may possibly cause loss of Horizontal Display
1244	EGPWM: Software - Input Processing - Date and Time	External	Non-fatal	None	None
1245	EGPWM: Software - Input Processing - EGPWM SDI	External	Non-fatal	None	None
1246	EGPWM: Software - Input Processing - Data Load Command Link	External	Non-fatal	Failed Data Load of EGPWM	Failed Data Load of EGPWM
1247	EGPWM: Software - Input Processing - BITE Mode Word	External	Non-fatal	None	None
1248	EGPWM: Software - Input Processing - Flight Leg	External	Non-fatal	None	None
1249	EGPWM: Software - Input Processing - Flight Path - #1	External	Non-fatal	No terrain information on VD image.	No terrain information on VD image.
1250	EGPWM: Software - Input Processing - Flight Path - #2	External	Non-fatal	No terrain information on VD image.	No terrain information on VD image.

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
1251	EGPWM: Input Discrete Faults - Flap Position Discrete Fault - Flaps Stuck Up	External	Non-fatal	None	None
1252	EGPWM: Input Discrete Faults - Flap Position Discrete Fault - Flap Input Stuck Down	External	Non-fatal	GPW INOP	System will perform as if Flaps are down
1253	EGPWM: Input Discrete Faults - Flap Override Switch Stuck On	External	Non-fatal	GPW INOP	System will perform as if Flaps are down
1254	EGPWM: Input Discrete Faults - Gear Switch Fault - Gear Stuck Up	External	Non-fatal	None	None
1255	EGPWM: Input Discrete Faults - Gear Switch Fault - Gear Stuck Down	External	Non-fatal	GPW INOP	System will perform as if Gear is down
1256	reserved				
1257	EGPWM: Function - System Status - Envelope Modulation INOP	External	Non-fatal	ENVELOPE MODULATION INOP	For affected AESU, Modes 1, 2, 4 and 5 alert curves are not optimized
1258	EGPWM: Function - System Status - Mode 1 INOP	External	Non-fatal	MODE 1 INOP	Loss of Mode 1 of GPWS function in affected AESU
1259	EGPWM: Function - System Status - Mode 2 INOP	External	Non-fatal	MODE 2 INOP	Loss of Mode 2 of GPWS function in affected AESU

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
1260	EGPWM: Function - System Status - Mode 3 INOP	External	Non-fatal	MODE 3 INOP	Loss of Mode 3 of GPWS function in affected AESU
1261	EGPWM: Function - System Status - Mode 4 INOP	External	Non-fatal	MODE 4 INOP	Loss of Mode 4 of GPWS function in affected AESU
1262	EGPWM: Function - System Status - Mode 5 INOP	External	Non-fatal	MODE 5 INOP	Loss of Mode 5 of GPWS function in affected AESU
1263	EGPWM: Function - System Status - Terrain Awareness Not Available	External	Non-fatal	TERRAIN NOT AVAILABLE is Annunciated AND "TERR-NA" is displayed AND No TA&D Cautions /Warnings are issued AND No Terrain Background /Threats are displayed AND No Peaks data is displayed	Loss of Terrain Awareness and Display functionality in affected AESU
1264	EGPWM: Function - System Status - Terrain Awareness INOP	External	Non-fatal	TERRAIN INOP is Annunciated AND "TERR-INOP" is displayed AND No TA&D Cautions /Warnings are issued AND No Terrain Background /Threats are displayed AND No Peaks data is displayed	Loss of Terrain Awareness and Display functionality in affected AESU

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
1265	EGPWM: Function - System Status - Terrain Clearance Floor INOP	External	Non-fatal	Terrain Clearance Floor INOP	Loss of TCF functionality in affected AESU
1266	EGPWM: Function - EGPWS Monitor - GPW INOP	External	Non-fatal	GPW INOP	Loss of one or more GPWS modes in affected AESU
1267	EGPWM: Function - System Status - Terrain Awareness Voice Faulted	External	Non-fatal	TERRAIN INOP is Annunciated AND "TERR-INOP" is displayed AND No TA&D Cautions /Warnings are issued AND No Terrain Background /Threats are displayed AND No Peaks data is displayed	Loss of Terrain Awareness and Display functionality in affected AESU
1268	EGPWM: Function - System Status - GPWS Voice Faulted	External	Non-fatal	GPW INOP	Loss of one or more GPWS modes in affected AESU
1269	EGPWM: Function - System Status - EGPWM/IOM Ethernet Internal Test	External	Non-fatal	Loss of all EGPWM Functions for this AESU.	Loss of all EGPWM Functions for this AESU. No system impact since an alternate AESU is available.
1270	EGPWM: Software - Input Processing - FMS ANP	External	Non-fatal	None	None

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
1271	EGPWM: Software - Input Processing - GPWS Inhibit Switch	External	Non-fatal	GPWS cannot be inhibited using the GPWS Inhibit Switch.	For affected AESU, GPWS cannot be inhibited using the GPWS Inhibit Switch.
1272	EGPWM: Software - Input Processing - Terrain Inhibit Switch	External	Non-fatal	Terrain Awareness and TCF alerts cannot be inhibited using the Terrain Inhibit Switch.	For affected AESU, Terrain Awareness and TCF alerts cannot be inhibited using the Terrain Inhibit Switch.
1273	EGPWM: Software - Input Processing - IOM Operational State	External	Non-fatal	None	None
1274	EGPWM: Software - Input Processing - All Latitude Faulted	External	Non-fatal	TERRAIN NOT AVAILABLE is Annunciated AND "TERR-INOP" is displayed AND TERRAIN INOP is Annunciated AND No Terrain Background /Threats are displayed AND No Peaks data is displayed. ENVELOPE MODULATION INOP	Loss of Terrain Awareness and Display functionality in affected AESU. For affected AESU, Modes 1, 2, 4 and 5 alert curves are not optimized.

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
1275	EGPWM: Software - Input Processing - All Longitude Faulted	External	Non-fatal	TERRAIN NOT AVAILABLE is Annunciated AND "TERR-INOP" is displayed AND TERRAIN INOP is Annunciated AND No Terrain Background /Threats are displayed AND No Peaks data is displayed. ENVELOPE MODULATION INOP	Loss of Terrain Awareness and Display functionality in affected AESU. For affected AESU, Modes 1, 2, 4 and 5 alert curves are not optimized.
1276	EGPWM: Software - Input Processing - All Altitude Rate Faulted	External	Non-fatal	GPW INOP, TERRAIN NOT AVAILABLE is Annunciated AND "TERR-INOP" is displayed AND TERRAIN INOP is Annunciated AND No Terrain Background /Threats are displayed AND No Peaks data is displayed.	Loss of all EGPWM Functions for this AESU. No system impact since an alternate AESU is available.
1277	EGPWM: Software - Input Processing - All Glideslope Deviation Faulted	External	Non-fatal	GPW INOP (on ground only), ENVELOPE MODULATION INOP	Loss of GPWS mode 5 in affected AESU. For affected AESU, Modes 1, 2, 4 and 5 alert curves are not optimized.

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
1278	EGPWM: Software - Input Processing - All True Track Faulted	External	Non-fatal	TERRAIN NOT AVAILABLE is Annunciated AND "TERR-INOP" is displayed AND TERRAIN INOP is Annunciated AND No Terrain Background /Threats are displayed AND No Peaks data is displayed.	Loss of Terrain Awareness and Display functionality in affected AESU.
1279	EGPWM: Software - Input Processing - All Ground Speed Faulted	External	Non-fatal	TERRAIN NOT AVAILABLE is Annunciated AND "TERR-INOP" is displayed AND TERRAIN INOP is Annunciated AND No Terrain Background /Threats are displayed AND No Peaks data is displayed.	Loss of Terrain Awareness and Display functionality in affected AESU.
1280	EGPWM: Software - Input Processing - All Radio Altitude Faulted	External	Non-fatal	GPW INOP	Loss of GPWS modes in affected AESU. Loss of PDA (TCF) functionality in affected AESU.
1281	EGPWM: Software - Input Processing - All Altitude Faulted	External	Non-fatal	GPW INOP	Loss of one or more GPWS modes in affected AESU

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
1282	EGPWM: Software - Input Processing - Geometric Altitude Inputs Faulted	External	Non-fatal	TERRAIN NOT AVAILABLE is Annunciated AND "TERR-INOP" is displayed AND TERRAIN INOP is Annunciated AND No Terrain Background /Threats are displayed AND No Peaks data is displayed.	Loss of Terrain Awareness and Display functionality in affected AESU. Loss of PDA (RFCF) functionality in affected AESU.
1283	EGPWM: Software - Input Processing - Horizontal Display Range Faulted	External	Non-fatal	TERRAIN NOT AVAILABLE is Annunciated AND "TERR-INOP" is displayed AND TERRAIN INOP is Annunciated AND No Terrain Background /Threats are displayed AND No Peaks data is displayed.	Loss of Terrain Awareness and Display functionality in affected AESU.
1284	EGPWM: Software - Input Processing - Horizontal Display Mode Faulted	External	Non-fatal	TERRAIN NOT AVAILABLE is Annunciated AND "TERR-INOP" is displayed AND TERRAIN INOP is Annunciated AND No Terrain Background /Threats are displayed AND No Peaks data is displayed.	Loss of Terrain Awareness and Display functionality in affected AESU.
1285	EGPWM: VD High Latitude	External	Non-fatal	VD Output is Supressed	Loss of Vertical Display terrain and weather

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
1286	EGPWM: Terrain Off Tier	External	Non-fatal	VD Output is Supressed	Loss of Vertical Display terrain and weather
1287	EGPWM: Software - Input Processing - Fault Request (from IOM to EGPWM)	External	Non-fatal	None	None
1288-2000	reserved				
TPL Module Tests					
2001	TPL RAM test	Internal	Fatal	TPL applications don t start	Loss of TCAS and XPDR
2002	TPL 1030 TX Frequency	Internal	Non-fatal	TCAS Fail	Loss of TCAS
2003	Power Supply Interrupted > 200 ms in-air	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, Loss of XPDR
2004	Reserved				
2005	TPL Bias Ctl Chan 1 Hi	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2006	TPL Bias Ctl Chan 2 Hi	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2007	TPL Bias Ctl Chan 3 Hi	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2008	TPL Bias Ctl Chan 4 Hi	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2009	TPL Bias Ctl Offset Voltage	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2010-2013	Reserved				

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
2014	TPL Bottom Antenna Element 1 Fail	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2015	TPL Bottom Antenna Element 2 Fail	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2016	TPL Bottom Antenna Element 3 Fail	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2017	TPL Bottom Antenna Element 4 Fail	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2018	TX Cal Delta 24 or 31 Bot (Fail Antenna)	Internal	Non-fatal	TCAS fail	Loss of TCAS
2019-2021	Reserved				
2022	TPL DM 12 volt monitor	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2023	TPL DM -12 volt monitor	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2024	TPL DM 1.5 volt monitor	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2025	TPL DM 2.5 volt monitor	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2026	TPL DM 3.3 volt monitor	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2027	TPL DM 28 volt monitor	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2028	TPL DM -40 volt monitor	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
2029	TPL DM 5 volt monitor	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2030	TPL DM ATCRBS Loop Around	Internal	Non-fatal	TCAS fail	Loss of TCAS
2031	TPL DM BIT ADC Fault	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2032	Reserved				
2033	TPL DM CPU ECC Multi-bit Fault	Internal	Fatal	TCAS fail, XPDR fail	Loss of TCAS, Loss of XPDR
2034	TPL DM Invalid Configuration Data	Internal	Fatal	TCAS fail, XPDR fail	Loss of TCAS, Loss of XPDR
2035-2036	Reserved				
2037	TPL DM Mode S Loop Around	Internal	Non-fatal	TCAS Fail	Loss of TCAS
2038	TPL DM ref 2.5	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2039	TPL DM SDRAM Data	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2040	TPL DM SP DPSK Loop Around Fail	Internal	Non-fatal	TCAS Fail	Loss of TCAS
2041	TPL DM SP Mode Decode (Mode C)	Internal	Non-fatal	TCAS Fail	Loss of TCAS
2042	TPL DM SP Mode Decode (Mode S)	Internal	Non-fatal	TCAS Fail	Loss of TCAS
2043	TPL DM SP Reply Bearing FIFO	Internal	Non-fatal	TCAS Fail	Loss of TCAS
2044	TPL DM SP Reply Data FIFO	Internal	Non-fatal	TCAS Fail	Loss of TCAS

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
2045	TPL DM SP Squitter Bearing FIFO	Internal	Non-fatal	TCAS Fail	Loss of TCAS
2046	TPL DM SP Squitter Data FIFO	Internal	Non-fatal	TCAS Fail	Loss of TCAS
2047	TPL RX Cal Fault Bot 1088, (monitor Receiver Sensitivity / MTL Performance)	Internal	Non-fatal	None	None
2048	TPL RX Cal Fault Bot 1090, (monitor Receiver Sensitivity / MTL Performance)	Internal	Non-fatal	TCAS Fail	Loss of TCAS
2049	TPL RX Cal Fault Bot 1092, (monitor Receiver Sensitivity / MTL Performance)	Internal	Non-fatal	None	None
2050	TPL RX Cal Fault Top 1088, (monitor Receiver Sensitivity / MTL Performance)	Internal	Non-fatal	None	None
2051	TPL RX Cal Fault Top 1090, (monitor Receiver Sensitivity / MTL Performance)	Internal	Non-fatal	TCAS Fail	Loss of TCAS
2052	TPL RX Cal Fault Top 1092, (monitor Receiver Sensitivity / MTL Performance)	Internal	Non-fatal	None	None
2053	MOVED				
2054	TPL Synthesizer Initialization	Internal	Fatal	TCAS Fail, XPDR Fail	Loss of TCAS, Loss of XPDR
2055	Reserved				

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
2056	TPL Top Antenna Element 1 Fail	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2057	TPL Top Antenna Element 2 Fail	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2058	TPL Top Antenna Element 3 Fail	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2059	TPL Top Antenna Element 4 Fail	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2060	TX Cal Delta 24 or 31 Top (Fail Antenna)	Internal	Non-fatal	TCAS fail,	Loss of TCAS
2061	TPL TRM 6.2 volt monitor	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2062	TPL Top Bottom Antenna Phase Error (Unit Fail)	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2063	TPL TRM 3.3 volt monitor	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2064	TPL TRM 5 volt monitor	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2065	TPL TRM -5 volt monitor	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2066	TPL TRM 7 volt monitor	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2067	TPL TTM 2.5 volt monitor	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2068	TPL TTM 3.3 volt monitor	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
2069	TPL TTM 3.3 volt reference monitor	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2070	TPL TTM 30 volt reference monitor	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2071	TPL TTM 32 volt element 1 monitor	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2072	TPL TTM 32 volt element 2 monitor	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2073	TPL TTM 32 volt element 3 monitor	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2074	TPL TTM 32 volt element 4 monitor	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2075	TPL TTM 6 volt bias monitor	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2076	TPL TTM 6 volt monitor	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2077	TPL TTM -8 volt monitor	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2078	TPL TX Output Power Low Channel 1	Internal	Non-fatal	TCAS fail	Loss of TCAS
2079	TPL TX Output Power Low Channel 2	Internal	Non-fatal	TCAS fail	Loss of TCAS
2080	TPL TX Output Power Low Channel 3	Internal	Non-fatal	TCAS fail	Loss of TCAS
2081	TPL TX Output Power Low Channel 4	Internal	Non-fatal	TCAS fail	Loss of TCAS

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
2082	TPL DM CPU MCE PCI SP Fault	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2083	TPL DM CPU MCE PCI IO Fault	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2084	TPL DM CPU MCE PCI Unknown Fault	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2085	TPL DM CPU Memory Refresh Overflow Fault	Internal	Fatal	TCAS fail, XPDR fail	Loss of TCAS, Loss of XPDR
2086	TPL DM CPU Memory Select Fault	Internal	Fatal	TCAS fail, XPDR fail	Loss of TCAS, Loss of XPDR
2087	TPL DM CPU Processor Transaction Fault	Internal	Fatal	TCAS fail, XPDR fail	Loss of TCAS, Loss of XPDR
2088	TPL DM CPU Processor Unknown Fault	Internal	Fatal	TCAS fail, XPDR fail	Loss of TCAS, Loss of XPDR
2089	TPL DM SDRAM Program	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2090	TPL DM SP Missing EOI	Internal	Non-fatal	TCAS fail	Loss of TCAS
2091	moved				
2092	TPL TTM Power Leveling, (monitor VSWR)	Internal	Non-fatal	TCAS fail	Loss of TCAS
2093	TPL TTM Power Attenuation Monotonocity	Internal	Non-fatal	TCAS fail	Loss of TCAS
2094	TPL TX Cal Bot Fault (monitor TCAS Transmit Frequency)	Internal	Non-fatal	TCAS fail	Loss of TCAS

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
2095	TPL TX Cal Top Fault (monitor TCAS Transmit Frequency)	Internal	Non-fatal	TCAS fail	Loss of TCAS
2096	SIFM 6.1V XPDR TX	Internal	Non-fatal	XPDR Fail, TCAS Fail	Loss of TCAS, possible loss of XPDR
2097	SIFM 5V XPDR Log	Internal	Non-fatal	XPDR Fail, TCAS Fail	Loss of TCAS, possible loss of XPDR
2098	SIFM 5V TCAS Log	Internal	Non-fatal	TCAS fail	Loss of TCAS
2099	SIFM 5V_DIG	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2100	SIFM 6.1V TCAS TX	Internal	Non-fatal	TCAS fail	Loss of TCAS
2101	SIFM 5V XPDR IF	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2102	SIFM 5V TCAS IF	Internal	Non-fatal	TCAS fail	Loss of TCAS
2103	SIFM 5V ANALOG	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2104	SIFM 6V XPDR LO	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2105	SIFM 6V TCAS LO	Internal	Non-fatal	TCAS fail	Loss of TCAS
2106	SIFM 5V PLL RX	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2107	SIFM 5V PLL TX	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2108	TRM 5V OCXO	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
2109	SIFM min 5V	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2110	TPL XPDR TX Output Power Low Channel 1	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2111	TPL XPDR TX Output Power Low Channel 2	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2112	TPL XPDR TX Output Power Low Channel 3	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2113	TPL XPDR TX Output Power Low Channel 4	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2114	TPL XPDR 1090 TX Frequency	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2115	TPL XPDR TX Cal Bot Fault (monitor XPDR Transmit Frequency)	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2116	TPL XPDR TX Cal Top Fault (monitor XPDR Transmit Frequency)	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2117	TPL XPDR Looparound Mode C Bottom Antenna	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2118	TPL XPDR Looparound Mode C Top Antenna	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2119	TPL XPDR Bearing FIFO	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2120	TPL XPDR TX Cal Delta 24 or 31 Bot (Fail Antenna)	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
2121	TPL XPDR TX Cal Delta 24 or 31 Top (Fail Antenna)	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2122	TPL CW Interference	External	Non-fatal	None	None
2123	TPL XPDR Log Sum FIFO	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2124	TPL XPDR Looparound Mode S Bottom Antenna	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2125	TPL XPDR Looparound Mode S Top Antenna	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2126	TPL DM CPU MCE XPDR SP Fault	Internal	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, possible loss of XPDR
2127-2699	reserved				
2700	TPL AESS A/C Data	External	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, XPDR continues with default values or last valid values of input signals carried by this payload.
2701	TPL Baro Altitude	External	Non-fatal	TCAS fail	loss of TCAS
2702	TPL Radio Altitude	External	Non-fatal	TCAS fail	loss of TCAS
2703	TPL Heading	External	Non-fatal	TCAS fail	loss of TCAS
2704	TPL Pitch Angle	External	Non-fatal	TCAS fail	loss of TCAS
2705	TPL Roll Angle	External	Non-fatal	TCAS fail	loss of TCAS
2706	TPL Climb capability 1500	External	Non-fatal	None	TCAS climb inhibited
2707	TPL Climb capability 2500	External	Non-fatal	None	TCAS climb inhibited

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
2708	TPL XPDR Mode	External	Non-fatal	XPDR Fail, TCAS Fail	XPDR continue in ON mode, TCAS to Standby
2709	TPL Active TPL	External	Non-fatal	TCAS Fail, XPDR Fail	Loss of TCAS, XPDR continues with last valid value of this signal.
2710	TPL Altitude reporting	External	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, XPDR continues with altitude reporting not inhibited
2711	TPL 4096 Code	External	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, XPDR continues with default (startup=2000, or last valid)
2712	TPL Ident	External	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, XPDR continues with default (SPI=0)
2713	TPL TCAS Mode	External	Non-fatal	TCAS fail	TCAS to STDBY
2714	TPL TCAS Display Level	External	Non-fatal	None	Unit continues with limited display options (traffic altitude limit default to +/-2700ft)
2715	TPL Advisory Inhibit	External	Non-fatal	TCAS fail	TCAS to STDBY
2716	Reserved				
2717	TPL AESS BITE Data	External	Non-fatal	Interactive BITE not available	TPL default to Normal mode
2718	Reserved				

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
2719	TPL AESS Install Data	External	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, XPDR continues with default values or last valid values of input signals carried by this payload.
2720	TPL Cable Delay	External	Non-fatal	TCAS fail, XPDR fail	Loss of TCAS, XPDR continues with cable delay = 0
2721	TPL Mode S Address	External	Non-fatal	TCAS fail, XPDR fail	loss of TCAS, XPDR continues in ATCRBS only mode
2722	TPL AESS Voice Status	External	Non-fatal	none see IOM	none see IOM
2723	TPL Mode S Address change	External	Non-fatal	None	None
2724	TPL Hijack Mode Input	External	Non-fatal	XPDR Fail, TCAS Fail	Loss of TCAS, XPDR continues with HijackMode-Active=false
2725	TPL Guidance Flight Plan	External	Non-fatal	None	Guidance flight path unavailable
2726	TPL Aircraft Parameters B	External	Non-fatal	TCAS fail	TCAS to STDBY
2727	TPL Dataload Request	External	Non-fatal	none see IOM	none see IOM
2728-2799	reserved				
2800	Acquisition Squitter rate	Internal	Non-fatal	XPDR Fail, TCAS Fail	TCAS to Standby, XPDR continues with rate of this squitter out of spec

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
2801	Airborne Position Squitter (05h) rate	Internal	Non-fatal	XPDR Fail, TCAS Fail	TCAS to Standby, XPDR continues with rate of this squitter out of spec
2802	Surface Position Squitter (06h) low rate	Internal	Non-fatal	XPDR Fail, TCAS Fail	TCAS to Standby, XPDR continues with rate of this squitter out of spec
2803	Surface Position Squitter (06h) high rate	Internal	Non-fatal	XPDR Fail, TCAS Fail	TCAS to Standby, XPDR continues with rate of this squitter out of spec
2804	Aircraft Identification Squitter (08h) low rate	Internal	Non-fatal	XPDR Fail, TCAS Fail	TCAS to Standby, XPDR continues with rate of this squitter out of spec
2805	Aircraft Identification Squitter (08h) high rate	Internal	Non-fatal	XPDR Fail, TCAS Fail	TCAS to Standby, XPDR continues with rate of this squitter out of spec
2806	Airborne Velocity Squitter (09h) rate	Internal	Non-fatal	XPDR Fail, TCAS Fail	TCAS to Standby, XPDR continues with rate of this squitter out of spec
2807	Event-Driven Information Squitter (0Ah) rate	Internal	Non-fatal	XPDR Fail, TCAS Fail	TCAS to Standby, XPDR continues with rate of this squitter out of spec
2808	Aircraft Status Squitter (61h) rate	Internal	Non-fatal	XPDR Fail, TCAS Fail	TCAS to Standby, XPDR continues with rate of this squitter out of spec

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
2809	Aircraft Operational Status Squitter (65h) on ground rate	Internal	Non-fatal	XPDR Fail, TCAS Fail	TCAS to Standby, XPDR continues with rate of this squitter out of spec
2810	Aircraft Operational Status Squitter (65h) rate (airborne, field change)	Internal	Non-fatal	XPDR Fail, TCAS Fail	TCAS to Standby, XPDR continues with rate of this squitter out of spec
2811	Aircraft Operational Status Squitter (65h) rate (airborne, no field change)	Internal	Non-fatal	XPDR Fail, TCAS Fail	TCAS to Standby, XPDR continues with rate of this squitter out of spec
2812	TYPE 23 (TEST) Squitter rate	Internal	Non-fatal	XPDR Fail, TCAS Fail	TCAS to Standby, XPDR continues with rate of this squitter out of spec
2813-2899	reserved				
2900	TPL SW Execution Error - TCAS Main Thread	Internal	Fatal	TCAS fail, XPDR fail	Loss of TCAS, Loss of XPDR
2901	TPL SW Execution Error - TCAS TISI Thread	Internal	Fatal	TCAS fail, XPDR fail	Loss of TCAS, Loss of XPDR
2902	TPL SW Execution Error - TCAS Produce Thread	Internal	Fatal	TCAS fail, XPDR fail	Loss of TCAS, Loss of XPDR
2903	TPL SW Execution Error - IO Manager Thread	Internal	Fatal	TCAS fail, XPDR fail	Loss of TCAS, Loss of XPDR

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
2904	TPL SW Execution Error - IO Fast Thread	Internal	Fatal	TCAS fail, XPDR fail	Loss of TCAS, Loss of XPDR
2905	TPL SW Execution Error - TCAS Data Consumption	Internal	Fatal	TCAS fail, XPDR fail	Loss of TCAS, Loss of XPDR
2906	TPL SW Execution Error - TCAS TISI Time Exceeded	Internal	Fatal	TCAS fail, XPDR fail	Loss of TCAS, Loss of XPDR
2907	TPL SW Execution Error - BITE Proxy Thread	Internal	Fatal	TCAS fail, XPDR fail	Loss of TCAS, Loss of XPDR
2908	TPL SW Execution Error - XPDR Squitter Thread	Internal	Fatal	TCAS fail, XPDR fail	Loss of TCAS, Loss of XPDR
2909	TPL SW Execution Error - XPDR Periodic Thread	Internal	Fatal	TCAS fail, XPDR fail	Loss of TCAS, Loss of XPDR
2910	TPL SW Execution Error - IoDrvr IoDrvr Thread	Internal	Fatal	TCAS fail, XPDR fail	Loss of TCAS, Loss of XPDR
2911	TPL SW Execution Error - IoDrvr Payload Manager Thread	Internal	Fatal	TCAS fail, XPDR fail	Loss of TCAS, Loss of XPDR
2912-3000	reserved				
WXR Module Tests					
3001	Deleted				

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
3002	WXR RDSP Boot Flash memory CRC Fail	Internal	fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3003	WXR RDSP Flash memory CRC Test Fail	Internal	fatal for PBIT, non-fatal for IBIT	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3004	WXR RDSP DSP Loopback Test Fail	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3005	WXR RDSP RAM Data and address lines Fail	Internal	fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3006	WXR RDSP RAM Pattern test Fail	Internal	fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3007	Reserved				
3008	WXR RDSP WXR/IOM Ethernet Interface Fault	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3009	WXR RDSP Non-Destructive RAM Test Fail	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3010	Reserved				
3011	Reserved				
3012	Critical DEOS Exception Handling Fault	Internal	fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions (Only for critical failures)
3013	Non-Critical DEOS Exception Handling Fault	Internal	non-fatal	none	none
3014-3015	Reserved				
3016	WXR RDSP DSP POST Image CRC Fail	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
3017	WXR RDSP DSP Application Image CRC Fail	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3018	WXR RDSP DSP CPU Core Integrity test Fault	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3019	WXR DSP Read Message Buffer Overflow Fault	Internal	non-fatal	none	none
3020	WXR RDSP DSP Internal memory test Fault	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3021	WXR RDSP DSP External Memory Test Fault	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3022	WXR RDSP DSP L2 Cache Test Fault	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3023	WXR RDSP DSP EDMA Fault	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3024	WXR RDSP DSP EDMA Input channel activity Fault	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3025	WXR RDSP DSP QDMA Fault	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3026	WXR RDSP DSP FIFO Status Fault	Internal	non-fatal	none	none
3027	WXR RDSP Buffer FIFO FPGA SEU Fault	Internal	non-fatal	none	none
3028	WXR RDSP Digital Receiver FIFO FPGA SEU Fault	Internal	non-fatal	none	none

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
3029	WXR RDSP Digital Receiver FPGA SEU Fault	Internal	non-fatal	none	none
3030	WXR RDSP DSP Parallel Communication Fault	Internal	non-fatal	none	none
3031	WXR RDSP DSP Serial Communication Fault	Internal	non-fatal	none	none
3032	WXR RDSP DSP Serial Communication Status Fault	Internal	non-fatal	none	none
3033	WXR RDSP DSP Floating Point Status Fault	Internal	non-fatal	none	none
3034	WXR RDSP DSP Stack Usage Fault	Internal	non-fatal	none	none
3035	WXR RDSP DSP average CPU usage Fault	Internal	non-fatal	none	none
3036	WXR RDSP DSP Internal Loopback test Fault	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3037	WXR RDSP DSP Timer Integrity Fault	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3038	WXR RDSP DSP Interrupt Integrity Fault	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3039	WXR RDSP DSP FPGA FIFO Data Path Integrity Fault	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3040	reserved				

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
3041	WXR MP to DSP Communication Fault	Internal	non-fatal	none	none
3042	WXR RDSP DRP Formatted Pulse Data Message Communication Fault	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3043	WXR RDSP Digital Receiver FIFO FPGA Internal Test	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3044	WXR RDSP Buffer FIFO FPGA Internal Test	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3045	WXR RDSP Digital Receiver FPGA Internal Test	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3046	WXR RDSP Digital Receiver FIFO FPGA SEU Detect Test	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3047	WXR RDSP Buffer FIFO FPGA SEU Detect Test	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3048	WXR RDSP Digital Receiver FPGA SEU Detect Test	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3049	WXR RDSP Receive Power Bit Test Fault	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3050	WXR RDSP SEU Monitor FPGA Communication Test Fault	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
3051	WXR RDSP Invalid Display Type Program Pin Fault	external	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3052	Deleted				
3053	Deleted				
3054	Deleted				
3055	WXR RDSP DRP Formatted Pulse Data Message inactivity fault	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3056	WXR RDSP DSP Serial Data Path Integrity Fault	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3057	WXR RDSP RP Receive Power fault	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3058-3099	Reserved				
3100	Reserved				
3101	Reserved				
3102	WXR RDSP TR Dataload Failed	internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3103	WXR RDSP GDM Dataload Failed	internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3104	WXR RDSP Terrain Data Source Fault	internal	non-fatal	none	none
3105	WXR RDSP Server Terrain Data Fault	internal	non-fatal	WXR degraded mode	WXR degraded mode
3106	WXR RDSP Control Input Data Fault	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
3107	WXR RDSP TR Cable Cross Connect Fault	Internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3108	WXR RDSP TR Hardware Compatibility Check Failed	internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3109	WXR RDSP GDM Hardware Compatibility Check Failed	internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3110	WXR RDSP Hardware Compatibility CRC Fault	internal	non-fatal	For RDSP & TR Hardware Compatibility CRC fault, the fault should be reported when first detected, but the INOP condition should not be set until an actual dataload is attempted.	None
3111	WXR RDSP TR Factory Data CRC Fault	internal	non-fatal	For RDSP & TR Hardware Compatibility CRC fault, the fault should be reported when first detected, but the INOP condition should not be set until an actual dataload is attempted.	None
3112	WXR RDSP GDM Factory Data CRC Fault	internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3113-3500	Reserved				

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
3501	WXR RDSP Selected Pitch Fault	external	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3502	WXR RDSP Selected Roll Fault	external	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3503	WXR RDSP Selected Speed Air Fault	external	non-fatal	none	none
3504	WXR RDSP Selected Speed Ground Fault	external	non-fatal	none	none
3505	WXR RDSP Selected Flight Path Angle Fault	external	non-fatal	none	none
3506	WXR RDSP Selected Altitude Radio Fault	external	non-fatal	Loss of PWS Function	Loss of PWS Function
3507	WXR RDSP Selected Heading True Fault	external	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3508	reserved				
3509	WXR RDSP Selected Heading Platform Fault	external	non-fatal	none	none
3510	WXR RDSP Selected Latitude Fault	external	non-fatal	Loss of WXR and Turb Functions	Loss of WXR and Turb Functions
3511	WXR RDSP Selected Longitude Fault	external	non-fatal	Loss of WXR and Turb Functions	Loss of WXR and Turb Functions
3512	WXR RDSP Selected Altitude AGL Fault	external	non-fatal		
3513	WXR RDSP Selected Altitude MSL Fault	external	non-fatal	Loss of WXR and Turb Functions	Loss of WXR and Turb Functions
3514	reserved				

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
3515	WXR RDSP Selected Takeoff Power Fault	external	non-fatal	none	none
3516	WXR RDSP Selected Acceleration Body Longitudinal Fault	external	non-fatal	none	none
3517	reserved				
3518	WXR RDSP Auto-Display Flight Plan Source Fault	external	non-fatal	none	none
3519	Reserved				
3520	WXR RDSP Selected Track True Signal Fault	external	non-fatal	none	none
3521	WXR RDSP Selected Date Time Fault	external	non-fatal	none	none
3522	WXR RDSP Selected Acceleration Body Lateral Fault	external	non-fatal	none	none
3523	WXR RDSP Selected Acceleration Body Normal Fault	external	non-fatal	none	none
3524	WXR RDSP Selected Speed Wind Fault	external	non-fatal	none	none
3525	WXR RDSP Selected Wind Direct True Fault	external	non-fatal	none	none
3526	Reserved				
3527	WXR RDSP Manual Display Capt Flight Plan Fault	external	non-fatal	none	none

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
3528	WXR RDSP Manual Display FO Flight Plan Fault	external	non-fatal	none	none
3529-3531	Reserved				
3532	WXR RDSP Selected Speed Air Computed Fault	external	non-fatal	none	none
3533-3534	Reserved				
3535	WXR RDSP Selected Speed Air Priority Fault	external	non-fatal	none	none
3536	WXR RDSP Selected Speed Ground Priority Fault	external	non-fatal	none	none
3537-3715	reserved				
3716	RDSP Virtual ARINC 429 AntStatus Bus Fail Monitor	internal	non-fatal	Loss of WXR, PWS, and Turb Functions	Loss of WXR, PWS, and Turb Functions
3717-4000	Reserved				
WADU Tests					
4001	WADU ADP Motor Drive Inverters	internal	non-fatal	Loss of on side WADU control	Loss of WXR, PWS, and Turb Functions
4002	WADU ADP Motor Temperature	internal	non-fatal	Loss of on side WADU control	Loss of WXR, PWS, and Turb Functions
4003	WADU ADP Resolver Gain Value	internal	non-fatal	Loss of on side WADU control	Loss of WXR, PWS, and Turb Functions

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
4004	reserved				
4005	WADU ADP 29V Input Voltage	internal	non-fatal	None	None
4006	WADU ADP Motor current	internal	non-fatal	Loss of on side WADU control	Loss of WXR, PWS, and Turb Functions
4007-4008	reserved				
4009	WADU ADP Application NVM CRC	internal	non-fatal	Loss of on side WADU control	Loss of WXR, PWS, and Turb Functions
4010	reserved				
4011	WADU ADP DSP Temperature	internal	non-fatal	None	None
4012	WADU ADP 15V Input Voltage	internal	non-fatal	Loss of on side WADU control	Loss of WXR, PWS, and Turb Functions
4013	WADU ADP elevation motor connection	internal	non-fatal	Loss of on side WADU control	Loss of WXR, PWS, and Turb Functions
4014	WADU ADP azimuth motor connection	internal	non-fatal	Loss of on side WADU control	Loss of WXR, PWS, and Turb Functions
4015	WADU RS422 Activity Check	internal	non-fatal	Loss of on side WADU control	Loss of WXR, PWS, and Turb Functions
4016	WADU RS422 Loopback	internal	non-fatal	Loss of on side WADU control	Loss of WXR, PWS, and Turb Functions
4017	WADU ADP Watchdog Test	internal	non-fatal	None	
4018	WADU ADP Watchdog Timer Expired	internal	non-fatal	None	
4019	WADU ADP ADC Operation	internal	non-fatal	Loss of on side WADU control	Loss of WXR, PWS, and Turb Functions

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
4020	WADU ADP Antenna Position	internal	non-fatal	Loss of on side WADU control	Loss of WXR, PWS, and Turb Functions
4021	WADU ADP 29V Input Current	internal	non-fatal	Loss of on side WADU control	Loss of WXR, PWS, and Turb Functions
4022	WADU ADP Power-up RAM test	internal	non-fatal	Loss of on side WADU control	Loss of WXR, PWS, and Turb Functions
4023-5000	Reserved				
RTU Tests					
5001	Deleted				
5002	RTU internal SRAM Test	Internal	Fatal	RTU Inoperative	Loss of all On side WXR Functions
5003	RTU Watchdog Self Test	Internal	Non-fatal	RTU Inoperative	Loss of all On side WXR Functions
5004	RTU Watchdog Timer Test	Internal	Non-fatal	RTU Inoperative	Loss of all On side WXR Functions
5005	RTU 84MHz Clock Self Test	Internal	Non-fatal	RTU Inoperative	Loss of all On side WXR Functions
5006	RTU 84MHx Clock Reset	Internal	Non-fatal	RTU Inoperative	Loss of all On side WXR Functions
5007	RTU DSP Core Register File Fault	Internal	Fatal	RTU Inoperative	Loss of all On side WXR Functions
5008	RTU DSP Core Instruction Data Path Fault	Internal	Fatal	RTU Inoperative	Loss of all On side WXR Functions
5009	RTU DSP Peripheral Timer0 Fault	Internal	Fatal	RTU Inoperative	Loss of all On side WXR Functions
5010	RTU DSP Peripheral Timer1 Fault	Internal	Fatal	RTU Inoperative	Loss of all On side WXR Functions

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
5011	RTU DSP Peripheral ISR Fault	Internal	Fatal	RTU Inoperative	Loss of all On side WXR Functions
5012	RTU DSP Peripheral EDMA Fault	Internal	Fatal	RTU Inoperative	Loss of all On side WXR Functions
5013	RTU DSP Peripheral QDMA Fault	Internal	Fatal	RTU Inoperative	Loss of all On side WXR Functions
5014	RTU DSP Peripheral McBSP0 Fault	Internal	Fatal	RTU Inoperative	Loss of all On side WXR Functions
5015	RTU DSP Peripheral McBSP1 Fault	Internal	Fatal	RTU Inoperative	Loss of all On side WXR Functions
5016	RTU RS-422 Internal Loopback Test	Internal	Fatal	RTU Inoperative	Loss of all On side WXR Functions
5017	RTU ARINC 429 Internal Loopback Test	Internal	Fatal	RTU Inoperative	Loss of all On side WXR Functions
5018	RTU FPGA Dual-Port RAM Fault	Internal	Fatal	RTU Inoperative	Loss of all On side WXR Functions
5019	RTU DDS0 SDRAM Fault	Internal	Fatal	RTU Inoperative	Loss of all On side WXR Functions
5020	RTU DDS1 SDRAM Fault	Internal	Fatal	RTU Inoperative	Loss of all On side WXR Functions
5021	reserved				
5022	RTU External SDRAM Fault	Internal	Fatal	RTU Inoperative	Loss of all On side WXR Functions
5023	RTU Data RAM Fault	Internal	Fatal	RTU Inoperative	Loss of all On side WXR Functions
5024	RTU Application RAM Image CRC	Internal	Non-fatal	RTU Inoperative	Loss of all On side WXR Functions
5025	RTU RLM RAM Application Image CRC	Internal	Non-fatal	RTU Inoperative	Loss of all On side WXR Functions

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
5026	RTU CFG DATA Write Fault	Internal	Non-fatal	None	None
5027	RTU No Input Data from DA RS422	System	Non-fatal	No Communication from WADU	Loss of all On side WXR Functions
5028	RTU No Input Data from RP ARINC 429	System	Non-fatal	No Communication from RP	Loss of all On side WXR Functions
5029	RTU External Input Data Invalid	external	Non-fatal	Loss of RTU functions	Loss of all On side WXR Functions
5030	RTU Stack Usage Fault	Internal	Non-fatal	Loss of RTU functions	Loss of all On side WXR Functions
5031	RTU Pulse Train Processing Synchronization	Internal	Non-fatal	Loss of Pulse Train Processing	Loss of all On side WXR Functions
5032	RTU Pulse Train Processing Pulse Train Interrupt	Internal	Non-fatal	Loss of Pulse Train Processing	Loss of all On side WXR Functions
5033	RTU Pulse Train Processing Time Jitter Boundary	Internal	Non-fatal	Loss of Pulse Train Processing	Loss of all On side WXR Functions
5034	RTU Cross Connect Test	System	Non-fatal	Loss of RTU functions	Loss of all On side WXR Functions
5035	RTU RX DDS Register Verification Test	Internal	Non-fatal	RTU Inoperative	Loss of all On side WXR Functions
5036	RTU RF Switch Test	System	Non-fatal	Loss of RTU functions	Loss of all On side WXR Functions
5037	RTU Transmitter Over Temp Lockout	Internal	Non-fatal	RTU Inoperative	Loss of all On side WXR Functions
5038	RTU Transmitter PA1 Test	Internal	Non-fatal	RTU Inoperative	Loss of all On side WXR Functions
5039	RTU Transmitter PA2 Test	Internal	Non-fatal	RTU Inoperative	Loss of all On side WXR Functions
5040	RTU Synthesizer 224MHz Test	Internal	Non-fatal	RTU Inoperative	Loss of all On side WXR Functions

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
5041	RTU Synthesizer 336MHz Test	Internal	Non-fatal	RTU Inoperative	Loss of all On side WXR Functions
5042	RTU Synthesizer 64MHz Test	Internal	Non-fatal	RTU Inoperative	Loss of all On side WXR Functions
5043	RTU Synthesizer 380MHz Test	Internal	Non-fatal	RTU Inoperative	Loss of all On side WXR Functions
5044	RTU Synthesizer BPSK Test	Internal	Non-fatal	RTU Inoperative	Loss of all On side WXR Functions
5045	Deleted				
5046	RTU Downconverter LO Pwr Test	Internal	Non-fatal	RTU Inoperative	Loss of all On side WXR Functions
5047	RTU CRO PLL Lock Test	Internal	Non-fatal	RTU Inoperative	Loss of all On side WXR Functions
5048	RTU LO Low Power Test	Internal	Non-fatal	RTU Inoperative	Loss of all On side WXR Functions
5049	RTU RS-422 critical labels: Azimuth, Elevation, Turnaround monitor	Internal	Non-fatal	RTU Inoperative	Loss of all On side WXR Functions
5050	reserved				
5051	RTU Downconverter IF calibration level monitor	Internal	Non-fatal	RTU Inoperative	Loss of all On side WXR Functions
5052	RTU Synthesizer 128 MHz oscillator monitor	Internal	Non-fatal	RTU Inoperative	Loss of all On side WXR Functions
5053-5999	reserved				
AESS CP Tests					
6001	AESS CP No Input Data from AESU #1 ARINC 429	System	Non-fatal	AESS CP can not receive any AESU #1 information.	AESS CP Lamps can not be commanded from AESU #1

Table 1006. Fault List Summary (cont)

Fault Event Code	Test Name	Fault Type	Fault Category	AESS Consequences	Aircraft Consequences
6002	AESS CP No Input Data from AESU #2 ARINC 429	System	Non-fatal	AESS CP can not receive any AESU #2 information.	AESS CP Lamps can not be commanded from AESU #2
6003	AESS CP RAM Test	Internal	Non-fatal	Operation of AESS CP is not reliable	Operation of AESS CP is not reliable
6004	AESS CP Application Software Integrity Test	Internal	Non-fatal	Operation of AESS CP is not reliable	Operation of AESS CP is not reliable

E. Job Close-up (Subtask 34-48-01-700-004-A01)

(1) Not applicable.

Table of Contents

1.0 Scope
1.1. General Notes
2.0 Purpose
3.0 Referenced Documents
4.0 Acronyms and Abbreviations
5.0 Required Equipment
6.0 Facilities Required
7.0 Quality Assurance Provisions
7.1. Calibration
7.2. Inspection
7.3. Acceptance
7.4. Environment
8.0 Test Procedure
8.1. Preparing for Test
8.1.1. Test Platform Setup
8.1.2. Test Platform Software Installation
8.1.3. AESS ATP Software Installation
8.2. Testing the AESU
8.2.1. Start the Test Executive Software
8.2.2. Begin the Test
8.2.3. Confidence Test Resolution
8.2.4. Flight Code Load
8.2.5. FAR-43 Testing
8.3 Product Part Number and Mod Status Verification
8.3.1. Test Log Check
8.3.2. LRU Label Check
9.0 APPENDIX A - Sample Test Log - AESU

Figure 1004. (Sheet 1 of 14) Acceptance Test Procedure, 965-1694-701 (GRAPHIC 34-48-01-99B-808-A01)

Acceptance Test Procedure - Aircraft Environment Surveillance Unit

1.0 Scope

There are several Line Replaceable Units (LRUs) that make up the AESS. These LRUs are as followed:

Line Replaceable Unit	Honeywell Part Number
Aircraft Environment Surveillance Unit (AESU)	965-1694-xxx
AESS Control Panel (CP-1)	965-1695-xxx
Weather Radar Antenna Dual Drive Pedestal (WADU DA-1B)	930-3001-xxx
Weather Radar Receiver/Transmitter Unit (RTU TR-1)	930-2000-xxx
Weather Radar Flat-Plate Antenna (FP30-1)	930-4301-xxx
TCAS/Transponder Antenna (ANT-81A)	071-50001-8107

The AESS test system is capable of running an Acceptance Test on an AESU, RTU and WADU. This test procedure details the setup and usage of the AESS test platform to ATP test the AESU.

1.1. General Notes

Interpret drawing per ASME Y14.24.

Computer screen images in the document are for pictorial representation only and represent a visual recognition pattern for the items shown. Textual content in these figures is not required to meet legibility requirements when reproduced. These figures are intended to show general concepts and may not represent the actual screen image.

2.0 Purpose

This document defines the Test Procedure to certify the functionality of the Aircraft Environmental Surveillance Unit (AESU), Honeywell part number 965-1694-xxx. The AESU is part of the Aircraft Environment Surveillance System, Honeywell part number 960-6000-001. All tests defined herein have pass/fail criteria, and the results of the tests are recorded in the automatic test report. A failure of any test constitutes failure of the acceptance test.

3.0 Referenced Documents

Deleted.

Figure 1004. (Sheet 2 of 14) Acceptance Test Procedure, 965-1694-701 (GRAPHIC 34-48-01-99B-808-A01)

4.0 Acronyms and Abbreviations

AESU	Aircraft Environmental Surveillance Unit
AESS	Aircraft Environmental Surveillance System
ARINC	Aeronautical Radio Incorporated
ATP	Acceptance Test Procedure
CCA	Circuit Card Assembly
CP	AESS Control Panel
DA	Antenna Dual_Drive Pedestal
DELTA	Data Empowered Labor-Saving Test Architecture
DLL	Dynamic Link Library
DOS	Disk Operating System
EGPWM	Enhanced Ground Proximity Warning Module
FAR 43	Federal Aviation Regulations Part 43
GBE	Ground Based Equipment
GSE	Ground Support Equipment
HBIT	Hardware Built-In Test
IOM	Input Output Module
ISPA	Integrated Surveillance Processor
ITS	Integrated Test Specification
LRU	Line Replaceable Unit
RTE	Redmond Test Engineering
RTS	Redmond Test System
TPL	TCAS Processor L-Band
TRD	Test Requirements Document
Rts Muee	Redmond Test System Multi-Unit Execution Engine
RTU	Radar Transceiver Unit
TCAS	Traffic Collision Avoidance System
TPL	XPDR / TCAS
UUT	Unit Under Test
VDD	Version Description Document
WADU	Weather Antenna Drive Unit
WXR	Weather Radar
XPDR	Transponder

Figure 1004. (Sheet 3 of 14) Acceptance Test Procedure, 965-1694-701 (GRAPHIC 34-48-01-99B-808-A01)

5.0 Required Equipment

The following hardware is required to complete this procedure.

- AESS Test Platform, 951-0404-031. Refer to separate parts list for 951-0404-031
- Aircraft Environment Surveillance Unit. This is the Unit Under Test. (UUT)

6.0 Facilities Required

The following facilities are required to install the required hardware. (See Section 5.0)

- 230 VAC, 50-60 Hz, 30 Amp Power, L6-30 Receptacle
- IEEE 802.3 compliant Ethernet Port to connect to local network

7.0 Quality Assurance Provisions

7.1. Calibration

Ensure that the AESS Test Platform in use is within its designated calibration period prior to commencement of this acceptance test.

7.2. Inspection

Examine the inspection records compiled during manufacture of the unit, for both completeness and acceptability.

7.3. Acceptance

At the completion of the AESU ATP, verity that electronic copies of the Acceptance Test and FAR 43 test reports has been saved to the folders C:\Test Report\AESS AESU\Formal\Acceptance Test and C:\Test Report\AESS AESU\Formal\FAR43..

7.4. Environment

All testing shall be performed under prevailing laboratory conditions.

8.0 Test Procedure

8.1. Preparing for Test

8.1.1. Test Platform Setup

- Place the AESU (UUT) on the AESU Test Fixture. Ensure that the lockdown feet on the front of the AESU are placed in the slot in the front of the fixture.
- Turn on the forced air cooling on the AESU Test Fixture. The switch is located on the back of the fixture.
- Insert ARINC 600 connector. Make sure the connector is fully inserted into the AESU.
- Rotate rubber boots on the front of the AESU to expose Maintenance Port connecters. Connect the five Ethernet cables coming from the test system to the UUT. Ensure a solid connection to the UUT. It does not matter which cable is connected to which AESU maintenance port.
- Plug in the DB9 connector coming from the test system to the SIS connector on the front of the UUT.
- Verify connections between the AESS Test Platform front panel and the chassis containing the resource cards. Ensure that the LRU cable is connected to the Test Platform front panel.
- Ensure that the Production process has been followed. The latest revision of HBIT software must be loaded onto each module within the AESU before starting the test.

Figure 1004. (Sheet 4 of 14) Acceptance Test Procedure, 965-1694-701 (GRAPHIC 34-48-01-99B-808-A01)

- Test Platform Main Power.
- PXI Chassis Power.
- AC Power Supply(s) Power.
- DC Power Supply(s) Power.
- Signal Generator Power.
- PC Power. (Note: PC power MUST be applied AFTER the PXI chassis power).

8.1.2. Test Platform Software Installation

The following is applicable on a one-time basis. If the computer boots into Windows, this software load has already been completed.

- Install Microsoft Windows 2000 or above as described in the Microsoft Windows documentation.

8.1.3. AESS ATP Software Installation

The following software shall be loaded onto the Test Platform PC. To determine the current System Software revision, see the Version Description Document(s) for each piece of software.

Ensure the latest revison of the following pieces of software are installed prior to completing this procedure.

- 998-3823-5xx, AESS ATP System Software (CD).
- 998-3856-5xx, AESU Configuration Matrix (CD)
- 998-3857-5xx, RDR-4000 Configuration Matrix (CD)

8.2. Testing the AESU

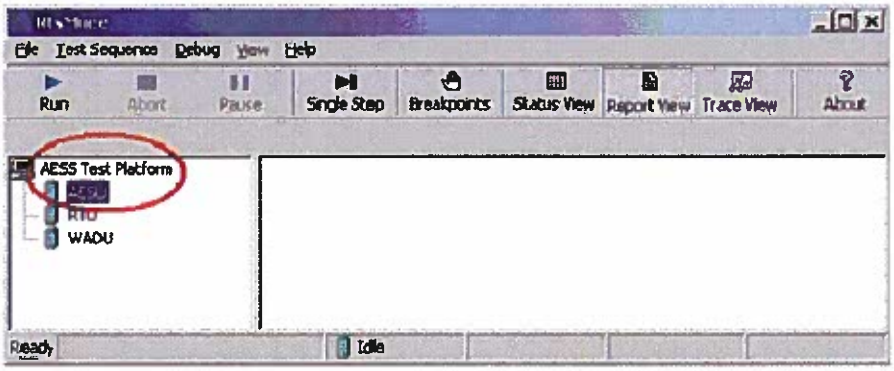
8.2.1. Start the Test Executive Software

For convenience, an AESS ATP icon has been placed on the Windows desktop. Select the AESS ATP icon in accordance with standard Windows operating instructions.

8.2.2. Begin the Test

Once the Test Executive (RtsMuee) window opens, select the type of LRU to test by clicking on the appropriate UUT (see below). This sets up the user interface for the selected unit (all interface controls and data displayed are for the UUT highlighted).

Figure 1004. (Sheet 5 of 14) Acceptance Test Procedure, 965-1694-701 (GRAPHIC 34-48-01-99B-808-A01)



To start a test, click on the Run button (see below).

The Sequence Selection dialog will open (see below). Select the formal test (identified with a 'lock' symbol) that matches the desired manufacturing test step. Hit the OK button to continue.

The first LRU test prior to ESS is defined as the Confidence Test. It is used to ensure the AESU has been built and assembled correctly before proceeding to ESS.

TPL Alignment Alignment of the TPL RF section of the AESU. This must be done prior to the first Confidence Test. For each subsequent Confidence Test or Acceptance Test it is not required unless the TPL CCAs have been removed from the AESU. (Ref. Section 8.2.3) The AESU must Pass the TPL Alignment sequence before proceeding with Confidence Test.

Confidence Test Confidence Test prior to ESS.

Acceptance Test Final Acceptance Test prior to shipping. **Final Acceptance Test has been completed when the `Acceptance Test' and `FAR 43' sequences have been successfully completed. (Reference Section 8.2.5)**

Note: The Confidence Test and Acceptance Test only differ in name only. The same set of tests are run during Confidence Test and Acceptance Test.

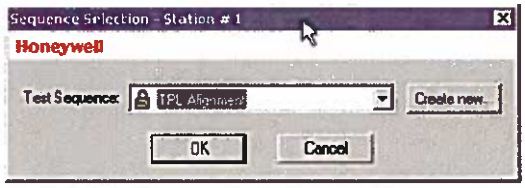
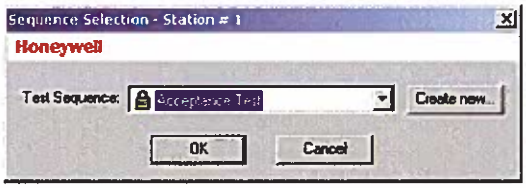
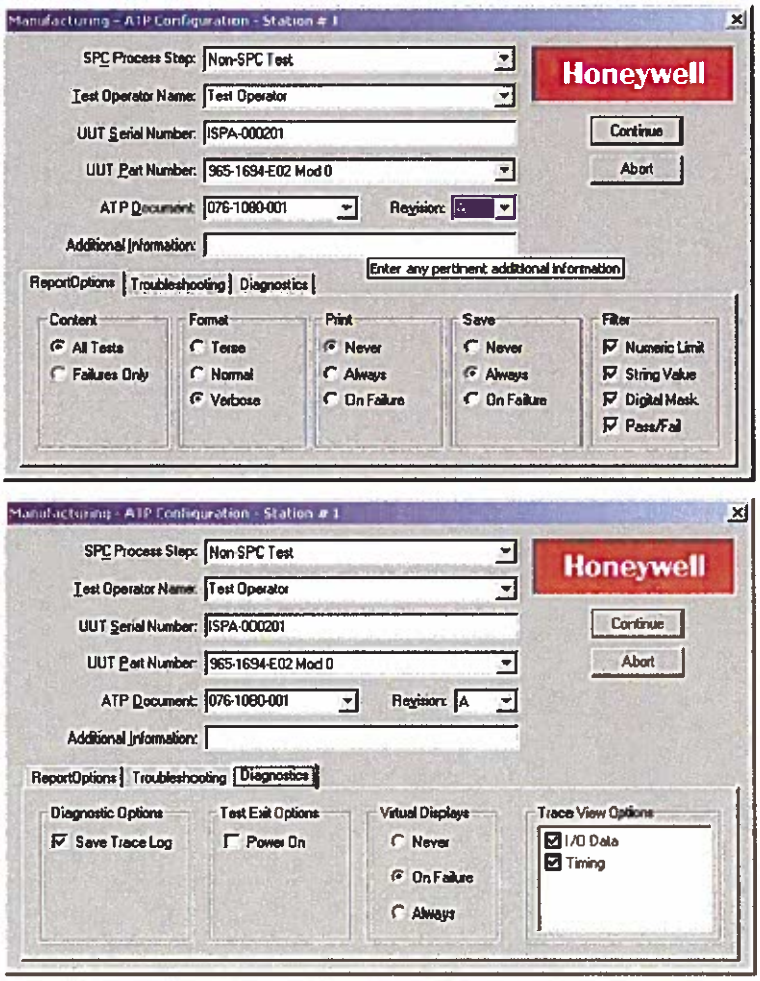


Figure 1004. (Sheet 6 of 14) Acceptance Test Procedure, 965-1694-701 (GRAPHIC 34-48-01-99B-808-A01)



Once the sequence starts executing, it will initialize the UUT. After the UUT is initialized the follow the on-screen dialog will appear:



Enter the following required information: Test Operator Name, UUT Serial Number, UUT Part Number / Mod Status. The following format must be followed for the UUT Serial Number field: ISPA-000201 for AESU S/N 201. The dialog boxes above shown an example for AESU S/N 201. There must not be any trailing spaces included after the serial number.

The Report Options and Diagnostics tabs at the bottom of the dialog box give the user some additional options.

Figure 1004. (Sheet 7 of 14) Acceptance Test Procedure, 965-1694-701 (GRAPHIC 34-48-01-99B-808-A01)