$\overline{\text{ID}}$	Annotated Text	MBSA Item
1.1	but available	BATTERY.state1.nominal
1.1	set battery to use	Flight_Crew.o_BattRelayOutput.failed
1.1	the battery is not con-	BATTERY.o2.failed
	nected	
1.1	the battery is not con-	Flight_Crew.i1.nominal
	nected but available	
	while other power source	
	are not	
1.1	while other power source	EXT_PWR_Connector.o1.failed
	are not	
1.2	but available	BATTERY.state1.nominal
1.2	the battery is not con-	BATTERY.o2.failed
	nected	
1.2	the battery is not con-	Flight_Crew.i1.failed
	nected but available	
	while other power source	
1.2	are not	EXT PWR Connector.o1.failed
1.2	while other power source are not	EXI_PWK_Connector.or.tailed
1.3	Battery	BATTERY.i1.failed
$\frac{1.3}{1.3}$	but available	BATTERY.state1.nominal
$\frac{1.3}{1.3}$	set battery to use	Flight_Crew.o_BattRelayOutput.nominal
$\frac{1.0}{1.3}$	set battery to use	Flight Crew.o BattRelayOutput.nominal
$\frac{1.0}{1.3}$	the battery is not con-	BATTERY.o2.failed
1.0	nected	Dili I Elifi. OZ. lanod
1.3	while other power source	EXT PWR Connector.o1.failed
	are not	_ '' '_ ' ' _ ' ' ' ' ' ' ' ' ' ' ' ' '
1.4	Battery	BATTERY.i1.nominal
1.4	Battery	BATTERY.i1.nominal
1.4	but available	BATTERY.state1.nominal
1.4	the battery is not con-	BATTERY.o2.failed
	nected	

		ontinued from previous page
ID	Annotated Text	MBSA Item
1.4	while other power source	EXT_PWR_Connector.o1.failed
	are not	
2.1	Flight crew	Flight_Crew
2.1	Flight crew	Flight_Crew
2.1	feedback (or other input)	Flight_Crew.i1.nominal
	that indicated the bat-	
	tery is disconnected and	
	overheated	
2.1	set battery to use	Flight_Crew.o_BattRelayOutput.nominal
2.1	the battery is discon-	BATTERY.state1.failed
	nected and overheated	
2.2	and overheated	BATTERY.state1.nominal
2.2	the battery is discon-	BATTERY.o2.failed
	nected	
2.2	the battery is discon-	Flight_Crew.i1.failed
	nected and overheated	
2.3	set battery to use	Flight_Crew.o_BattRelayOutput.failed
2.3	set battery to use	Flight_Crew.o_BattRelayOutput.failed
2.3	the battery is discon-	BATTERY.state1.failed
	nected and overheated	
2.4	Battery	BATTERY.i1.failed
2.4	Battery	BATTERY.o2.failed
2.4	set battery to use	Flight_Crew.o_BattRelayOutput.nominal
2.4	the battery is discon-	BATTERY.state1.failed
	nected and overheated	
4.1	set battery to not use	Flight_Crew.o_BattRelayOutput.nominal
4.1	the battery is connected	BATTERY.state1.nominal
	and it overheats	
4.1	the battery is connected	Flight_Crew.i1.nominal
	and it overheats	
4.2	the battery is connected	Flight_Crew.i1.failed
	and it overheats	
4.2	the battery is connected	BATTERY.state1.nominal
	and it overheats	
4.3	Circuit breaker	BATT_DISC_RELAY.i1.failed

		ontinued from previous page
ID	Annotated Text	MBSA Item
4.3	set battery to not use	Flight_Crew.o_BattRelayOutput.failed
4.3	the battery is connected	BATTERY.state1.failed
	and it overheats	
4.4	Circuit breaker	BATT_DISC_RELAY.i1.failed
4.4	Circuit breaker	BATT_DISC_RELAY.o1.failed
4.4	the battery is connected	BATTERY.state1.failed
	and it overheats	
5.1	set battery to not use	Flight_Crew.o_BattRelayOutput.failed
5.1	the battery is connected,	BATTERY.state1.nominal
	charged	
5.1	the battery is connected,	Flight_Crew.i1.nominal
	charged while other	
	power source are not	
5.1	while other power source	EXT_PWR_Connector.o1.failed
	are not	
5.2	the battery is connected,	BATTERY.state1.nominal
	charged	
5.2	the battery is connected,	Flight_Crew.i1.failed
	charged while other	
	power source are not	
5.2	while other power source	EXT_PWR_Connector.o1.failed
	are not	
5.3	set battery to not use	Flight_Crew.o_BattRelayOutput.nominal
5.3	set battery to not use	BATT_DISC_RELAY.i1.failed
5.3	the battery is connected,	BATTERY.state1.nominal
	charged	
5.3	while other power source	EXT_PWR_Connector.o1.failed
	are not	Digg Digg Division
5.4	Circuit breaker	BATT_DISC_RELAY.i1.nominal
5.4	Circuit breaker	BATT_DISC_RELAY.o1.failed
5.4	the battery is connected,	BATTERY.state1.nominal
	charged	
5.4	while other power source	EXT_PWR_Connector.o1.failed
	are not	
7.1	set generator to use	Flight_Crew.o3.failed

		ontinued from previous page
ID	Annotated Text	MBSA Item
7.1	the generator is online	L_GCU.state1.failed
	and not connected	
7.1	the generator is online	Flight_Crew.i_Feedback_Generator.nominal
	and not connected	
7.2	the generator is online	Flight_Crew.i_Feedback_Generator.failed
	and not connected	
7.2	the generator is online	L_GCU.state1.failed
	and not connected	
7.3	set generator to use	Flight_Crew.o3.nominal
7.3	set generator to use	L_GCU.i_starter.failed
7.3	the generator is online	L_GCU.state1.failed
	and not connected	
8.1	set generator to use	Flight_Crew.o3.nominal
8.1	the generator is in fault	L_GCU.state1.failed
	condition and not con-	
	nected	
8.1	the generator is in fault	Flight_Crew.i_Feedback_Generator.nominal
	condition and not con-	
	nected	
8.2	_	Flight_Crew.i_Feedback_Generator.failed
	condition and not con-	
	nected	
8.2		L_GCU.state1.failed
	condition and not con-	
	nected	
8.3	set generator to use	Flight_Crew.o3.failed
8.3	the set generator to use	L_GCU.i_starter.nominal
	action	
8.3	the generator is in fault	L_GCU.state1.failed
	condition and not con-	
	nected	
8.4		$L_{GCU.o1.failed}$
	(GCU) responds erro-	
	neously	
8.4	set generator to use	L_GCU.i_starter.failed

		ontinued from previous page
ID	Annotated Text	MBSA Item
8.4	the generator is in fault	L_GCU.state1.failed
	condition and not con-	
	nected	
10.1	connected, in fault condi-	L_GCU.state1.failed
	tion and cannot be reset	
10.1	connected, in fault condi-	Flight_Crew.i_Feedback_Generator.nominal
	tion and cannot be reset	
10.1	the set generator to not	Flight_Crew.o3.nominal
	use	
10.2	connected, in fault condi-	$Flight_Crew.i_Feedback_Generator.failed$
-	tion and cannot be reset	
10.2	connected, in fault condi-	L_GCU.state1.failed
	tion and cannot be reset	
10.3	connected, in fault condi-	L_GCU.state1.failed
	tion and cannot be reset	
10.3	set generator to not use	L_GEN_RELAY.i_flight_crew.nominal
10.3	the set generator to not	Flight_Crew.o3.failed
	use	
10.4	connected, in fault condi-	$L_GCU.state1.failed$
	tion and cannot be reset	
10.4	does not respond ade-	L_GCU.o1.nominal
	quately	
10.4	set generator to not use	L_GEN_RELAY.i_flight_crew.failed
11.1	set generator to not use	Flight_Crew.o3.failed
11.1	the generator is con-	L_GCU.state1.nominal
	nected, online and func-	
	tional	
11.1	the generator is con-	Flight_Crew.i3.nominal
	nected, online and func-	
	tional	
11.2	the generator is con-	Flight_Crew.i3.failed
	nected, online and func-	
	tional	

$\overline{\text{ID}}$	Annotated Text	MBSA Item
11.2	the generator is con-	L_GCU.state1.nominal
	nected, online and func-	
11.9	tional	Elight Crow of naminal
11.3	set generator to not use	Flight_Crew.o3.nominal
11.3	set generator to not use	L_GCU.i_starter.nominal
11.3	the generator is con-	L_GCU.state1.nominal
	nected, online and functional	
11 /		I CCII al maninal
11.4	responds erroneously	L_GCU.o1.nominal
11.4	set generator to not use	L_GCU.i_starter.nominal
11.4	the generator is con-	L_GCU.state1.nominal
	nected, online and func-	
01.1	tional	NODM INT DIGG 1 () 1
21.1	connect user system	NORM_or_INT_DISC.o1.failed
21.1	it can be connected, the	MASTER_INTERIOR_SSR.INTERIOR_state.nominal
	system is needed and	
01.1	functional	
21.1	it can be connected, the	Flight_Crew.i3.nominal
	system is needed and	
01.0	functional	
21.2	it can be connected, the	Flight_Crew.i3.failed
	system is needed and functional	
21.2		MASTER INTERIOR SSR.INTERIOR state.nominal
21.2	it can be connected, the	MASTER_INTERIOR_SSR.INTERIOR_state.nonmar
	system is needed and functional	
21.3	Circuit breaker	MASTER INTERIOR SSR.i3.failed
$\frac{21.3}{21.3}$	connect user system	NORM or INT DISC.o1.nominal
$\frac{21.3}{21.3}$	it can be connected, the	MASTER INTERIOR SSR.INTERIOR state.nominal
41.0	system is needed and	WASTER_INTERCOL_SSICINTERCOL_State.HOHIMar
	functional	
21.4	Circuit breaker	MASTER INTERIOR SSR.i3.nominal
$\frac{21.4}{21.4}$	Circuit breaker	MASTER INTERIOR SSR.o1.failed
	Oncare breaker	MILIOI TELL TIME TELLO TO TOTAL DOLLO TIME CONTROLLA DE LA CON

$\overline{\text{ID}}$	Annotated Text	MBSA Item
21.4	it can be connected, the	MASTER INTERIOR SSR.INTERIOR state.nominal
	system is needed and	
	functional	
22.1	connect user system	NORM_or_INT_DISC.o1.nominal
22.1	the power distribution is	R_SSR_1_BUS_BAR.state1.failed
	faulty	
22.1	the power distribution is	Flight_Crew.i4.nominal
	faulty	
22.2	Flight crew	Flight_Crew.i4.failed
22.2	the power distribution is	R_SSR_1_BUS_BAR.state1.failed
	faulty	
22.3	connect user system	NORM_or_INT_DISC.o1.failed
22.3	connect user system	NORM_or_INT_DISC.o1.nominal
22.3	the power distribution is	R_SSR_1_BUS_BAR.state1.failed
	faulty	
22.4	Circuit breaker	MASTER_INTERIOR_SSR.i3.failed
		MASTER_INTERIOR_SSR.o1.nominal
22.4	the power distribution is	L_SSR_1_BUS_BAR.state1.failed
-04.1	faulty	NODM INT. DIGG 16 11 1
24.1	disconnect user system	NORM_or_INT_DISC.o1.failed
24.1	it the system is needed and functional	MASTER_INTERIOR_SSR.INTERIOR_state.nominal
24.1	it the system is needed	Flight_Crew.i3.nominal
	and functional	
24.2	it the system is needed	Flight_Crew.i3.failed
-24.2	and functional	MAGRED INTERIOR GGD INTERIOR
24.2	it the system is needed	MASTER_INTERIOR_SSR.INTERIOR_state.nominal
94.9	and functional	NORM or INT DISC.o1.nominal
$\frac{24.3}{24.3}$	disconnect user system	MASTER INTERIOR SSR.i1.failed
$\frac{24.3}{24.3}$	disconnect user system	
24.3	it the system is needed and functional	MASTER_INTERIOR_SSR.INTERIOR_state.nominal
24.4		MASTER INTERIOR SSR.i1.nominal
$\frac{24.4}{24.4}$	User systems User systems	MASTER_INTERIOR_SSR.11.nominal MASTER INTERIOR SSR.01.nominal
	Obel bybleilis	

		ontinued from previous page
ID	Annotated Text	MBSA Item
24.4	it the system is needed	${\tt MASTER_INTERIOR_SSR.INTERIOR_state.nominal}$
	and functional	
28.1	Flight crew	Flight_Crew.i3.nominal
28.1	the system is OFF and	MASTER_INTERIOR_SSR.INTERIOR_state.failed
	necessary for safe con-	
	duct of flight	
28.1	turn on user system	NORM_or_INT_DISC.o1.failed
28.2	the system is OFF and	Flight_Crew.i3.failed
	necessary for safe con-	
	duct of flight	
28.2	the system is OFF and	MASTER_INTERIOR_SSR.INTERIOR_state.failed
	necessary for safe con-	
	duct of flight	
28.3	User systems	MASTER_INTERIOR_SSR.i1.failed
28.3	the system is OFF and	MASTER_INTERIOR_SSR.INTERIOR_state.failed
	necessary for safe con-	
	duct of flight	
28.3	turn on user system	NORM_or_INT_DISC.o1.nominal
28.4	User systems	MASTER_INTERIOR_SSR.i1.nominal
28.4	User systems	MASTER_INTERIOR_SSR.o1.failed
28.4	the system is OFF and	MASTER_INTERIOR_SSR.INTERIOR_state.failed
	necessary for safe con-	
	duct of flight	
30.1	the system is ON and	MASTER_INTERIOR_SSR.INTERIOR_state.nominal
	necessary for safe con-	
	duct of flight	
30.1	the system is ON and	Flight_Crew.i3.nominal
	necessary for safe con-	
	duct of flight	
30.1	turn off user system	NORM_or_INT_DISC.o1.failed
30.2	the system is ON and	Flight_Crew.i3.failed
	necessary for safe con-	
	duct of flight	

		ontinued from previous page
ID	Annotated Text	MBSA Item
30.2		MASTER_INTERIOR_SSR.INTERIOR_state.nominal
	necessary for safe con-	
	duct of flight	
30.3	_	L_STARTER_GENERATOR.i1.failed
	Generator	NA GEORGE AND
30.3	the system is ON and	MASTER_INTERIOR_SSR.INTERIOR_state.nominal
	necessary for safe con-	
	duct of flight	
30.3	turn off user system	NORM_or_INT_DISC.o1.nominal
30.4	Engine Starter-	L_STARTER_GENERATOR.i1.nominal
	Generator	
30.4	Engine Starter-	L_STARTER_GENERATOR.o1.nominal
	Generator	
30.4	the system is ON and	MASTER_INTERIOR_SSR.INTERIOR_state.nominal
	necessary for safe con-	
	duct of flight	
31.1	break a circuit	L_GEN_RELAY.o1.failed
31.1	overloaded	L_GEN_RELAY.i2.failed
31.1	overloaded	L_GEN_RELAY.i2State.nominal
31.2		L_GEN_RELAY.i2State.failed
31.2	overloaded	L_GEN_RELAY.i2.failed
31.3	break a circuit	L_GEN_RELAY.o1.nominal
31.3	break a circuit	L_GCU.i_starter.nominal
31.3	overloaded	L_GEN_RELAY.i2.failed
31.4	does not respond ade-	L_GCU.o1.nominal
·	quately	
31.4	overloaded	L_GCU.i_starter.failed
32.1	break a circuit	L_GEN_RELAY.o1.nominal
32.1	it is not overloaded	L_GEN_RELAY.i1.nominal
32.1	it is not overloaded	L_GEN_RELAY.i1State.nominal
32.2	it is not overloaded	L_GEN_RELAY.i1State.failed
32.2	it is not overloaded	L_GEN_RELAY.i1.nominal
32.3	break a circuit	L_GEN_RELAY.o1.failed
32.3	break a circuit	L_GCU.i_starter.failed
32.3	it is not overloaded	L_GEN_RELAY.i1.nominal

	Table A.1 continued from previous page		
ID	Annotated Text	MBSA Item	
32.4	break a circuit	L_GCU.i_starter.nominal	
32.4	it is not overloaded	L_GEN_RELAY.state1.nominal	
32.4	responds erroneously	L_GCU.o1.nominal	
34.1	and respective generator	L_GCU.state1.nominal	
	parameters are met		
34.1	commanded by the crew	Flight_Crew.o3.nominal	
34.1	commanded by the crew	L_GCU.i_starter.nominal	
	and respective generator		
	parameters are met		
34.1	connect	L_START_CNTRL_PCB.o1.failed	
34.2	and respective generator	L_GCU.state1.nominal	
	parameters are met		
34.2	commanded by the crew	Flight_Crew.o3.nominal	
34.2	commanded by the crew	L_GCU.i_starter.failed	
	and respective generator		
	parameters are met		
34.3	Engine Starter-	$L_STARTER_GENERATOR. feedbackState. failed$	
	Generator		
34.3	and respective generator	L_GCU.state1.nominal	
	parameters are met		
34.3	commanded by the crew	Flight_Crew.o3.nominal	
34.3	connect	L_START_CNTRL_PCB.o1.nominal	
34.4	Engine Starter-	L_STARTER_GENERATOR.feedbackState.nominal	
	Generator		
34.4	Engine Starter-	L_GCU.o1.failed	
	Generator		
34.4	and respective generator	$L_GCU.state1.nominal$	
	parameters are met		
34.4	commanded by the crew	Flight_Crew.o3.nominal	
35.1	connect	L_START_CNTRL_PCB.o1.nominal	
35.1	respective generator pa-	L_GCU.state1.nominal	
	rameters are exceeded		
35.1	respective generator pa-	L_GCU.i_starter.failed	
	rameters are exceeded		

		ontinued from previous page
ID	Annotated Text	MBSA Item
35.2	respective generator pa-	L_GCU.i_starter.nominal
	rameters are exceeded	
35.2	respective generator pa-	L_GCU.state1.failed
	rameters are exceeded	
35.3	connect	L_START_CNTRL_PCB.o1.failed
35.3	connect	L_STARTER_GENERATOR.i1.nominal
35.3	respective generator pa-	L_GCU.state1.failed
	rameters are exceeded	
35.4	Engine Starter-	L_STARTER_GENERATOR.i1.failed
	Generator	
35.4	Engine Starter-	L_STARTER_GENERATOR.o1.failed
	Generator	
35.4	respective generator pa-	L_GCU.state1.failed
	rameters are exceeded	
37.1	commanded by the crew	Flight_Crew.o3.failed
37.1	commanded by the crew	L_GCU.i_starter.nominal
37.1	disconnect	L_START_CNTRL_PCB.o1.nominal
37.2	commanded by the crew	L_GCU.i_starter.failed
37.2	commanded by the crew	Flight_Crew.o3.nominal
37.3	Engine Starter-	${\tt L_STARTER_GENERATOR.feedbackState.failed}$
	Generator	
37.3	commanded by the crew	Flight_Crew.o3.failed
37.3	disconnect	L_START_CNTRL_PCB.o1.failed
37.4	Engine Starter-	L_STARTER_GENERATOR.feedbackState.nominal
	Generator	
37.4	Engine Starter-	L_STARTER_GENERATOR.o1.nominal
	Generator	
37.4	commanded by the crew	Flight_Crew.o3.failed
38.1	disconnect	L_START_CNTRL_PCB.o1.nominal
38.1	respective generator pa-	L_GCU.state1.failed
	rameters are exceeded	
38.1	respective generator pa-	L_GCU.i_starter.failed
	rameters are exceeded	_
38.2	respective generator pa-	L_GCU.i_starter.nominal
	rameters are exceeded	

		ontinued from previous page
\overline{D}	Annotated Text	MBSA Item
38.2	respective generator pa-	L_GCU.state1.failed
	rameters are exceeded	
38.3	Engine Starter-	$L_STARTER_GENERATOR. feedbackState. failed$
	Generator	
38.3	disconnect	L_GCU.o1.failed
38.3	respective generator pa-	L_GCU.state1.failed
	rameters are exceeded	
38.4	Engine Starter-	L STARTER GENERATOR.i1.failed
	Generator	
38.4	Engine Starter-	L STARTER GENERATOR.o1.nominal
	Generator	
38.4	respective generator pa-	L GCU.state1.failed
	rameters are exceeded	_
39.1	and it was not com-	Flight Crew.o3.nominal
	manded to do so by the	
	crew	
39.1	disconnect	L_GCU.o1.failed
39.1	the generator is online	L_STARTER_GENERATOR.state1.nominal
	and functional	
39.1	the generator is online	L_GCU.i_starter.failed
	and functional, and it	
	was not commanded to	
	do so by the crew	
39.3	and it was not com-	Flight_Crew.o3.failed
	manded to do so by the	
	crew	
39.3	disconnect	L_GCU.o1.nominal
39.3	disconnect	L_STARTER_GENERATOR.i1.failed
39.3	the generator is online	L_STARTER_GENERATOR.state1.nominal
	and functional	
39.4	Engine Starter-	L_STARTER_GENERATOR.i1.nominal
	Generator	
39.4	Engine Starter-	L_STARTER_GENERATOR.o1.nominal
	Generator	

Table A.1 continued from previous page

ID	Annotated Text	MBSA Item
39.4	and it was not com- manded to do so by the	Flight_Crew.o3.failed
	crew	
39.4	the generator is online and functional	L_STARTER_GENERATOR.state1.nominal

ID	Observer
1.1	(Flight_Crew.o_BattRelayOutput = failed) and (BATTERY.o2 = failed) and
	$(BATTERY.state1 = nominal)$ and $(EXT_PWR_Connector.o1 = failed)$ and
	$(Flight_Crew.i1 = nominal)$
1.2	(Flight_Crew.i1 = failed) and (BATTERY.o2 = failed) and (BATTERY.state1 =
	nominal) and (EXT_PWR_Connector.o1 = failed)
1.3	(Flight_Crew.o_BattRelayOutput = nominal) and (BATTERY.o2 = failed) and
	(BATTERY.state1 = nominal) and (EXT_PWR_Connector.o1 = failed) and
	(BATTERY.i1 = failed)
1.4	(BATTERY.i1 = nominal) and (BATTERY.o2 = failed) and (BATTERY.state1 =
	nominal) and (EXT_PWR_Connector.o1 = failed)
2.1	(Flight_Crew.o_BattRelayOutput = nominal) and (BATTERY.state1 = failed)
2.2	and (Flight_Crew.i1 = nominal) (Flight Crew.i1 = failed) and (BATTERY.o2 = failed) and (BATTERY.state1 =
2.2	nominal)
2.3	(Flight Crew.o BattRelayOutput = failed) and (BATTERY.state1 = failed)
$\frac{2.3}{2.4}$	(Flight_Crew.o_BattRelayOutput = nominal) and (BATTERY.i1 = failed) and
2.4	(BATTERY.state1 = failed) and (BATTERY.o2 = failed)
4.1	(Flight Crew.o BattRelayOutput = nominal) and (BATTERY.state1 = nominal)
	and (Flight_Crew.i1 = nominal)
4.2	$(Flight_Crew.i1 = failed) \text{ and } (BATTERY.state1 = nominal)$
4.3	(Flight_Crew.o_BattRelayOutput = failed) and (BATTERY.state1 = failed) and
	$(BATT_DISC_RELAY.i1 = failed)$
4.4	(BATT_DISC_RELAY.i1 = failed) and (BATTERY.state1 = failed) and
	$(BATT_DISC_RELAY.o1 = failed)$
5.1	(Flight_Crew.o_BattRelayOutput = failed) and (BATTERY.state1 = nominal)
	and (EXT_PWR_Connector.o1 = failed) and (Flight_Crew.i1 = nominal)
5.2	(Flight_Crew.i1 = failed) and (BATTERY.state1 = nominal) and
	(EXT_PWR_Connector.o1 = failed)
5.3	(Flight_Crew.o_BattRelayOutput = nominal) and (BATT_DISC_RELAY.i1 =
	failed) and (BATTERY.state1 = nominal) and (EXT_PWR_Connector.o1 =
<u> </u>	failed)
5.4	(BATT_DISC_RELAY.i1 = nominal) and (BATT_DISC_RELAY.o1 = failed)
	and $(BATTERY.state1 = nominal)$ and $(EXT_PWR_Connector.o1 = failed)$

$\overline{\text{ID}}$	Observer		
7.1	(L_GCU.state1 = failed) and (Flight_Crew.i_Feedback_Generator = nominal)		
	and (Flight_Crew.o3 = failed)		
7.2	(Flight_Crew.i_Feedback_Generator = failed) and (L_GCU.state1 = failed)		
7.3	(Flight_Crew.o3 = nominal) and (L_GCU.state1 = failed) and (L_GCU.i_starter		
	= failed)		
8.1	$(Flight_Crew.o3 = nominal)$ and $(L_GCU.state1 = failed)$ and		
	$(Flight_Crew.i_Feedback_Generator = nominal)$		
8.2	$(Flight_Crew.i_Feedback_Generator = failed) and (L_GCU.state1 = failed)$		
8.3	$(Flight_Crew.o3 = failed)$ and $(L_GCU.state1 = failed)$ and $(L_GCU.i_starter = failed)$		
	nominal)		
8.4	(L_GCU.i_starter = failed) and (L_GCU.state1 = failed) and (L_GCU.o1 =		
10.1	failed)		
10.1	(L_GCU.state1 = failed) and (Flight_Crew.i_Feedback_Generator = nominal)		
10.0	and (Flight_Crew.o3 = nominal)		
$\frac{10.2}{10.2}$	(Flight_Crew.i_Feedback_Generator = failed) and (L_GCU.state1 = failed)		
10.3	(L_GCU.state1 = failed) and (L_GEN_RELAY.i_flight_crew = nominal) and (Elight_Crew = 2 = failed)		
10.4	(Flight_Crew.o3 = failed) (L_GEN_RELAY.i_flight_crew = failed) and (L_GCU.state1 = failed) and		
10.4	(L GCU.o1 = nominal)		
11.1	(Flight_Crew.o3 = failed) and (L_GCU.state1 = nominal) and (Flight_Crew.i3 =		
11.1	nominal)		
11.2	(Flight_Crew.i3 = failed) and (L_GCU.state1 = nominal)		
11.3	(Flight Crew.o3 = nominal) and (L GCU.state1 = nominal) and		
	(L_GCU.i_starter = nominal)		
11.4	(L_GCU.i_starter = nominal) and (L_GCU.state1 = nominal) and (L_GCU.o1		
	= nominal)		
21.1	$(NORM_or_INT_DISC.o1 = failed)$ and $(MAS-$		
	TER_INTERIOR_SSR.INTERIOR_state = nominal) and (Flight_Crew.i3		
	= nominal)		
21.2	(Flight_Crew.i3 = failed) and (MASTER_INTERIOR_SSR.INTERIOR_state =		
	nominal)		
21.3	$(NORM_or_INT_DISC.o1 = nominal)$ and $(MAS-INTERPLOP)$		
	TER_INTERIOR_SSR.INTERIOR_state = nominal) and (MAS-		
	$TER_INTERIOR_SSR.i3 = failed)$		

$\overline{\text{ID}}$	Observer
$\frac{10}{21.4}$	(MASTER_INTERIOR_SSR.i3 = nominal) and (MAS-
21.1	TER_INTERIOR_SSR.INTERIOR_state = nominal) and (MAS-
	TER INTERIOR SSR.o1 = failed) (4.11)
22.1	(NORM_or_INT_DISC.o1 = nominal) and (R_SSR_1_BUS_BAR.state1 =
	failed) and (Flight Crew.i4 = nominal)
22.2	(Flight_Crew.i4 = failed) and (R_SSR_1_BUS_BAR.state1 = failed)
22.3	(NORM_or_INT_DISC.o1 = failed) and (R_SSR_1_BUS_BAR.state1 = failed)
	and (NORM_or_INT_DISC.o1 = nominal)
22.4	(MASTER_INTERIOR_SSR.i3 = failed) and (L_SSR_1_BUS_BAR.state1 =
	failed) and (MASTER_INTERIOR_SSR.o1 = nominal)
24.1	$(NORM_or_INT_DISC.o1 = failed)$ and $(MAS-$
	TER_INTERIOR_SSR.INTERIOR_state = nominal) and (Flight_Crew.i3
	= nominal)
24.2	(Flight_Crew.i3 = failed) and (MASTER_INTERIOR_SSR.INTERIOR_state =
	nominal)
24.3	$(NORM_or_INT_DISC.o1 = nominal)$ and $(MAS-INDISC.op)$
	TER_INTERIOR_SSR.INTERIOR_state = nominal) and (MAS-
04.4	TER_INTERIOR_SSR.i1 = failed) (MACTER_INTERIOR_SSR.i1 = failed)
24.4	(MASTER_INTERIOR_SSR.i1 = nominal) and (MASTER_INTERIOR_SSR.INTERIOR_state = nominal) and (MASTER_INTERIOR_script)
	TER_INTERIOR_SSR.INTERIOR_state = nominal) and (MASTER INTERIOR SSR.o1 = nominal)
28.1	$\frac{\text{TER}_{\text{INTERTOR}_{\text{SSR.01}} = \text{Infilliar})}{(\text{NORM}_{\text{or}_{\text{INT}}}\text{DISC.o1} = \text{failed}) \text{and} (\text{MAS-})$
20.1	TER_INTERIOR_SSR.INTERIOR_state = failed) and (Flight_Crew.i3 =
	nominal)
28.2	(Flight_Crew.i3 = failed) and (MASTER_INTERIOR_SSR.INTERIOR_state =
	failed)
28.3	(NORM_or_INT_DISC.o1 = nominal) and (MAS-
	TER_INTERIOR_SSR.INTERIOR_state = failed) and (MAS-
	$TER_INTERIOR_SSR.i1 = failed$
28.4	$(MASTER_INTERIOR_SSR.i1 = nominal)$ and $(MAS-interior interior $
	TER_INTERIOR_SSR.INTERIOR_state = failed) and (MAS-
	$\underline{\text{TER_INTERIOR_SSR.o1} = \text{failed})}$
30.1	$(NORM_or_INT_DISC.o1 = failed)$ and $(MAS-INT_INT_DISC.o1)$
	TER_INTERIOR_SSR.INTERIOR_state = nominal) and (Flight_Crew.i3
	= nominal)

$\overline{\mathrm{ID}}$	Observer
30.2	(Flight_Crew.i3 = failed) and (MASTER_INTERIOR_SSR.INTERIOR_state =
	nominal)
30.3	$(NORM_or_INT_DISC.o1 = nominal)$ and $(MAS-$
	TER_INTERIOR_SSR.INTERIOR_state = nominal) and
	$(L_STARTER_GENERATOR.i1 = failed)$
30.4	$(L_STARTER_GENERATOR.i1 = nominal)$ and $(MAS-$
	$TER_INTERIOR_SSR.INTERIOR_state = nominal)$ and
	$(L_STARTER_GENERATOR.o1 = nominal)$
31.1	$(L_GEN_RELAY.o1 = failed)$ and $(L_GEN_RELAY.i2 = failed)$ and
	$(L_GEN_RELAY.i2State = nominal)$
31.2	$(L_GEN_RELAY.i2State = failed)$ and $(L_GEN_RELAY.i2 = failed)$
31.3	$(L_GEN_RELAY.o1 = nominal)$ and $(L_GEN_RELAY.i2 = failed)$ and
	(L_GCU.i_starter = nominal)
31.4	(L_GCU.i_starter = failed) and (L_GCU.o1 = nominal)
32.1	(L_GEN_RELAY.o1 = nominal) and (L_GEN_RELAY.i1 = nominal) and
22.2	(L_GEN_RELAY.i1State = nominal)
32.2	(L_GEN_RELAY.i1State = failed) and (L_GEN_RELAY.i1 = nominal)
32.3	$(L_GEN_RELAY.o1 = failed)$ and $(L_GEN_RELAY.i1 = nominal)$ and
20. 4	(L_GCU.i_starter = failed)
32.4	(L_GCU.i_starter = nominal) and (L_GEN_RELAY.state1 = nominal) and
94.1	(L_GCU.o1 = nominal) (L_START_CNTRL_PCB.o1 = failed) and (L_GCU.i_starter = nominal) and
34.1	\cdot
34.2	(Flight_Crew.o3 = nominal) and (L_GCU.state1 = nominal) (L GCU.i starter = failed) and (Flight Crew.o3 = nominal) and (L GCU.state1
04.4	= nominal)
34.3	$(L_START_CNTRL_PCB.o1 = nominal)$ and $(L_STARTER_GENERATOR.feedbackStarter)$
01.0	= failed) and (Flight Crew.o3 = nominal) and (L GCU.state1 = nominal)
34.4	(L STARTER GENERATOR.feedbackState = nominal) and (L GCU.o1 =
01.1	failed) and (Flight_Crew.o3 = nominal) and (L_GCU.state1 = nominal)
35.1	(L_START_CNTRL_PCB.o1 = nominal) and (L_GCU.state1 = nominal) and
30.1	(L GCU.i starter = failed)
35.2	(L GCU.i starter = nominal) and (L GCU.state1 = failed)
35.3	(L START CNTRL PCB.o1 = failed) and (L GCU.state1 = failed) and
	(L STARTER GENERATOR.i1 = nominal)

\overline{ID}	Observer
	Observer
35.4	$(L_STARTER_GENERATOR.i1 = failed)$ and $(L_GCU.state1 = failed)$ and
	$(L_STARTER_GENERATOR.o1 = failed)$
37.1	(L_START_CNTRL_PCB.o1 = nominal) and (Flight_Crew.o3 = failed) and
	$(L_GCU.i_starter = nominal)$
37.2	$(L_GCU.i_starter = failed) \text{ and } (Flight_Crew.o3 = nominal)$
37.3	(L_START_CNTRL_PCB.o1 = failed) and (Flight_Crew.o3 = failed) and
	$(L_STARTER_GENERATOR.feedbackState = failed)$
37.4	(L_STARTER_GENERATOR.feedbackState = nominal) and (Flight_Crew.o3 =
	failed) and $(L_STARTER_GENERATOR.o1 = nominal)$
38.1	(L_START_CNTRL_PCB.o1 = nominal) and (L_GCU.state1 = failed) and
	$(L_GCU.i_starter = failed)$
38.2	(L_GCU.i_starter = nominal) and (L_GCU.state1 = failed)
38.3	$(L_GCU.o1 = failed)$ and $(L_GCU.state1 = failed)$ and
	$(L_STARTER_GENERATOR.feedbackState = failed)$
38.4	(L_STARTER_GENERATOR.i1 = failed) and (L_GCU.state1 = failed) and
	$(L_STARTER_GENERATOR.o1 = nominal)$
39.1	$(L_GCU.o1 = failed)$ and $(L_GCU.i_starter = failed)$ and
	(L_STARTER_GENERATOR.state1 = nominal) and (Flight_Crew.o3 =
	nominal)
39.3	(L_GCU.o1 = nominal) and (L_STARTER_GENERATOR.i1 = failed) and
	(L_STARTER_GENERATOR.state1 = nominal) and (Flight_Crew.o3 = failed)
39.4	$(L_STARTER_GENERATOR.i1 = nominal)$ and
	$(L_STARTER_GENERATOR.o1 = nominal)$ and
	(L_STARTER_GENERATOR.state1 = nominal) and (Flight_Crew.o3 =
	failed)

Appendix C. Table of Filtered Scenarios with Rationale

ID	Scenario Text	Rationale
3.1	Flight crew provides the set battery to use action too	Continuous
	late - Flight crew received feedback (or other input)	Control Action
	that indicated the battery is not connected but avail-	
	able while other power source are not, and the battery	
-	is not overheated on time/in order	
3.2	Feedback received by Flight crew does not indicate the	Continuous
	battery is not connected but available while other power	Control Action
	source are not, and the battery is not overheated on time	
	- it is true that the battery is not connected but available	
	while other power source are not, and the battery is not	
	overheated	
3.3	Flight crew provides the set battery to use action on	Continuous
	time/in order - set battery to use is received by Battery	Control Action
	too late	
3.4	The set battery to use action is not received by Battery	Continuous
	when the battery is not connected but available while	Control Action
	other power source are not, and the battery is not over-	
0.1	heated - Battery executes the action too late	- C - +:
6.1	Flight crew provides the set battery to not use action	Continuous
	too late - Flight crew received feedback (or other input)	Control Action
	that indicated the battery is connected and it overheats	
6.2	on time/in order	Continuous
0.2	Feedback received by Flight crew does not indicate the battery is connected and it overheats on time - it is true	Control Action
	that the battery is connected and it overheats	Collitor Action
6.3	Flight crew provides the set battery to not use action	Continuous
0.5	on time/in order - set battery to not use is received by	Control Action
	Circuit breaker too late	Collifor Action
6.4	The set battery to not use action is not received by Cir-	Continuous
0.4	cuit breaker when the battery is connected and it over-	Control Action
	heats - Circuit breaker executes the action too late	Collifor Action
	means offenti predact executes the action too late	

	Table C.3 continued from previous page			
ID	Scenario Text	Rationale		
9.1	Flight crew provides the set generator to use action too	Continuous		
	late - Flight crew received feedback (or other input) that	Control Action		
	indicated the generator is online and not connected on			
	time/in order			
9.2	Feedback received by Flight crew does not indicate the	Continuous		
	generator is online and not connected on time - it is true	Control Action		
	that the generator is online and not connected			
9.3	Flight crew provides the set generator to use action on	Continuous		
	time/in order - set generator to use is received by Gen-	Control Action		
	erator Control Unit (GCU) too late			
9.4	The set generator to use action is not received by Gen-	Continuous		
	erator Control Unit (GCU) when the generator is online	Control Action		
	and not connected - Generator Control Unit (GCU) ex-			
	ecutes the action too late			
12.1	Flight crew provides the set generator to not use action	Continuous		
	too late - Flight crew received feedback (or other input)	Control Action		
	that indicated connected, in fault condition and cannot			
10.0	be reset on time/in order	<u> </u>		
12.2	Feedback received by Flight crew does not indicate con-	Continuous		
	nected, in fault condition and cannot be reset on time -	Control Action		
	it is true that connected, in fault condition and cannot			
10.0	be reset	<u> </u>		
12.3	Flight crew provides the set generator to not use action	Continuous		
	on time/in order - set generator to not use is received	Control Action		
10.4	by Generator Control Unit (GCU) too late	<u> </u>		
12.4	The set generator to not use action is not received by	Continuous		
	Generator Control Unit (GCU) when connected, in fault	Control Action		
	condition and cannot be reset - Generator Control Unit			
19.1	(GCU) executes the action too late	Control to		
13.1	Flight crew does not provide the reset generator action	Control-to-		
	when connected and in fault condition - Flight crew	Command Abstraction		
	received feedback (or other input) that indicated con- nected and in fault condition	ADSHACHOH		
19.9		Control to		
13.2	Feedback received by Flight crew does not adequately	Control-to-		
	indicate connected and in fault condition - it is true that connected and in fault condition	Command Abstraction		
	that connected and in fault condition	ADSHACHOH		

Table C.3 continued from previous page

$\overline{\text{ID}}$	Cappario Tout	Rationale
	Scenario Text	
13.3	Flight crew does provide the reset generator action when	Control-to-
	connected and in fault condition - reset generator is not	Command
	received by Generator Control Unit (GCU) when con-	Abstraction
	nected and in fault condition	
13.4	The reset generator action is received by Generator Con-	Control-to-
	trol Unit (GCU) when connected and in fault condition	Command
	- Generator Control Unit (GCU) does not respond ade-	Abstraction
	quately	
14.1	Flight crew provides the reset generator action too late	Continuous
	- Flight crew received feedback (or other input) that	Control Action
	indicated connected and in fault condition on time/in	
	order	
14.2	Feedback received by Flight crew does not indicate con-	Continuous
	nected and in fault condition on time - it is true that	Control Action
	connected and in fault condition	
14.3	Flight crew provides the reset generator action on	Continuous
	time/in order - reset generator is received by Genera-	Control Action
	tor Control Unit (GCU) too late	
14.4	The reset generator action is not received by Genera-	Continuous
	tor Control Unit (GCU) when connected and in fault	Control Action
	condition - Generator Control Unit (GCU) executes the	
	action too late	
15.1	Flight crew does not provide the start engine action	Out of Scope
	when engine is not running, it can be started and it	
	is needed to power the aircraft - Flight crew received	
	feedback (or other input) that indicated engine is not	
	running, it can be started and it is needed to power the	
	aircraft	
15.2	Feedback received by Flight crew does not adequately	Out of Scope
	indicate engine is not running, it can be started and it	-
	is needed to power the aircraft - it is true that engine is	
	not running, it can be started and it is needed to power	
	the aircraft	

Table C.3 continued from previous page

$\overline{\mathrm{ID}}$	Scenario Text	Rationale
15.3	Flight crew does provide the start engine action when	Out of Scope
	engine is not running, it can be started and it is needed	0 337 72 35 74 F
	to power the aircraft - start engine is not received by	
	Generator Control Unit (GCU) when engine is not run-	
	ning, it can be started and it is needed to power the	
	aircraft	
15.4	The start engine action is received by Generator Con-	Out of Scope
	trol Unit (GCU) when engine is not running, it can be	
	started and it is needed to power the aircraft - Generator	
	Control Unit (GCU) does not respond adequately	
16.1	Flight crew provides the start engine action when engine	Out of Scope
	is not running, in fault condition and cannot be started	
	- Flight crew received feedback (or other input) that	
	indicated engine is not running, in fault condition and	
	cannot be started	
16.2	Feedback received by Flight crew does not adequately	Out of Scope
	indicates that engine is not running, in fault condition	
	and cannot be started - it is true that engine is not	
100	running, in fault condition and cannot be started	
16.3	Flight crew does not provide the start engine action	Out of Scope
	when engine is not running, in fault condition and can-	
	not be started - Generator Control Unit (GCU) receives	
	the start engine action when engine is not running, in	
10.4	fault condition and cannot be started	0 + (0 -
16.4	The start engine action is not received by Generator	Out of Scope
	Control Unit (GCU) when engine is not running, in fault condition and cannot be started - Generator Control	
17.1	Unit (GCU) responds erroneously	Out of Scope
11.1	Flight crew provides the start engine action when engine is not running, in fault condition and cannot be started	Out of scope
	- Flight crew received feedback (or other input) that	
	indicated engine is not running, in fault condition and	
	cannot be started	
	Camillot be Started	

Table C.3 continued from previous page

$\overline{\text{ID}}$	Scenario Text	Rationale
17.2	Feedback received by Flight crew does not adequately	Out of Scope
-	indicates that engine is not running, in fault condition	
	and cannot be started - it is true that engine is not	
	running, in fault condition and cannot be started	
17.3	Flight crew does not provide the start engine action	Out of Scope
	when engine is not running, in fault condition and can-	
	not be started - Generator Control Unit (GCU) receives	
	the start engine action when engine is not running, in	
	fault condition and cannot be started	
17.4	The start engine action is not received by Generator	Out of Scope
	Control Unit (GCU) when engine is not running, in fault	
	condition and cannot be started - Generator Control	
	Unit (GCU) responds erroneously	
18.1	Flight crew provides the start engine action too late -	Out of Scope
	Flight crew received feedback (or other input) that in-	
	dicated engine is not running, it can be started and it is	
	needed to power the aircraft on time/in order	
18.2	Feedback received by Flight crew does not indicate en-	Out of Scope
	gine is not running, it can be started and it is needed to	
	power the aircraft on time - it is true that engine is not	
	running, it can be started and it is needed to power the	
10.0	aircraft	0 + 00
18.3	Flight crew provides the start engine action on time/in	Out of Scope
	order - start engine is received by Generator Control	
10.4	Unit (GCU) too late	0 + (0 -
18.4	The start engine action is not received by Generator	Out of Scope
	Control Unit (GCU) when engine is not running, it can be started and it is needed to power the aircraft - Gen-	
	erator Control Unit (GCU) executes the action too late	
19.1	Flight crew does not provide the disengage engine start	Out of Scope
13.1	action when the starting engine goes into fault condition	Out of Scope
	during starting sequence - Flight crew received feedback	
	(or other input) that indicated the starting engine goes	
	into fault condition during starting sequence	
	mo man condition during starting sequence	

Table C.3 continued from previous page

ID	Scenario Text	Rationale
19.2	Feedback received by Flight crew does not adequately	Out of Scope
	indicate the starting engine goes into fault condition	
	during starting sequence - it is true that the starting	
	engine goes into fault condition during starting sequence	
19.3	Flight crew does provide the disengage engine start ac-	Out of Scope
	tion when the starting engine goes into fault condition	
	during starting sequence - disengage engine start is not	
	received by Battery when the starting engine goes into	
	fault condition during starting sequence	
19.4	The disengage engine start action is received by Battery	Out of Scope
	when the starting engine goes into fault condition during	
	starting sequence - Battery does not respond adequately	
20.1	Flight crew provides the disengage engine start action	Continuous
	too early/late/out of order - Flight crew received feed-	Control Action
	back (or other input) that indicated before the engine	
	has started when it can be started and its power is	
	needed on time/in order	
20.2	Feedback received by Flight crew does not indicate be-	Continuous
	fore the engine has started when it can be started and	Control Action
	its power is needed on time/in order - it is true that be-	
	fore the engine has started when it can be started and	
	its power is needed	
20.3	Flight crew provides the disengage engine start action	Continuous
	on time/in order - disengage engine start is received by	Control Action
	Battery too early/late/out of order	
20.4	The disengage engine start action is not received by Bat-	Continuous
	tery when before the engine has started when it can be	Control Action
	started and its power is needed - Battery executes the	
	action too early/late/out of order	~
23.1	Flight crew provides the connect user system action too	Continuous
	late - Flight crew received feedback (or other input) that	Control Action
	indicated it can be connected, the system is needed and	
	functional on time/in order	

Table C.3 continued from previous page

	Table C.3 continued from previous page	
ID	Scenario Text	Rationale
23.2	Feedback received by Flight crew does not indicate it	Continuous
	can be connected, the system is needed and functional	Control Action
	on time - it is true that it can be connected, the system	
	is needed and functional	
23.3	Flight crew provides the connect user system action on	Continuous
	time/in order - connect user system is received by Cir-	Control Action
	cuit breaker too late	
23.4	The connect user system action is not received by Circuit	Continuous
	breaker when it can be connected, the system is needed	Control Action
	and functional - Circuit breaker executes the action too	
	late	
25.1	Flight crew does not provide the connect internal com-	Context-to-
	ponent action when it can be connected and is needed	State Abstrac-
	for powering a necessary user system - Flight crew re-	tion
	ceived feedback (or other input) that indicated it can be	
	connected and is needed for powering a necessary user	
	system	
25.2	Feedback received by Flight crew does not adequately	Context-to-
	indicate it can be connected and is needed for powering a	State Abstrac-
	necessary user system - it is true that it can be connected	tion
	and is needed for powering a necessary user system	
25.3	Flight crew does provide the connect internal compo-	Context-to-
	nent action when it can be connected and is needed for	State Abstrac-
	powering a necessary user system - connect internal com-	tion
	ponent is not received by Circuit breaker when it can be	
	connected and is needed for powering a necessary user	
	system	
25.4	The connect internal component action is received by	Context-to-
	Circuit breaker when it can be connected and is needed	State Abstrac-
	for powering a necessary user system - Circuit breaker	tion
	does not respond adequately	
26.1	Flight crew provides the connect internal component ac-	Continuous
	tion too late - Flight crew received feedback (or other	Control Action
	input) that indicated it can be connected and is needed	
	for powering a necessary user system on time/in order	
-		

Table C.3 continued from previous page

	Commis Tout	
$\frac{\text{ID}}{\text{20.0}}$	Scenario Text	Rationale
26.2	Feedback received by Flight crew does not indicate it	Continuous
	can be connected and is needed for powering a necessary	Control Action
	user system on time - it is true that it can be connected	
	and is needed for powering a necessary user system	
26.3	Flight crew provides the connect internal component ac-	Continuous
	tion on time/in order - connect internal component is	Control Action
	received by Circuit breaker too late	
26.4	The connect internal component action is not received	Continuous
	by Circuit breaker when it can be connected and is	Control Action
	needed for powering a necessary user system - Circuit	
	breaker executes the action too late	
27.1	Flight crew provides the disconnect internal component	Control-to-
	action when power is needed for a necessary user system	Command
	- Flight crew received feedback (or other input) that	Abstraction
	indicated power is needed for a necessary user system	
27.2	Feedback received by Flight crew does not adequately	Control-to-
	indicates that power is needed for a necessary user sys-	Command
	tem - it is true that power is needed for a necessary user	Abstraction
	system	
27.3	Flight crew does not provide the disconnect internal	Control-to-
	component action when power is needed for a necessary	Command
	user system - Circuit breaker receives the disconnect in-	Abstraction
	ternal component action when power is needed for a	
	necessary user system	
27.4	The disconnect internal component action is not re-	Control-to-
	ceived by Circuit breaker when power is needed for a	Command
	necessary user system - Circuit breaker responds erro-	Abstraction
	neously	
29.1	Flight crew provides the turn on user system action too	Continuous
	late - Flight crew received feedback (or other input) that	Control Action
	indicated the system is OFF and necessary for safe con-	
	duct of flight on time/in order	
29.2	Feedback received by Flight crew does not indicate the	Continuous
	system is OFF and necessary for safe conduct of flight	Control Action
	on time - it is true that the system is OFF and necessary	
	for safe conduct of flight	

$\overline{\mathrm{ID}}$	Scenario Text	Rationale
29.3	Flight crew provides the turn on user system action on	Continuous
	time/in order - turn on user system is received by User	Control Action
	systems too late	
29.4	The turn on user system action is not received by User	Continuous
	systems when the system is OFF and necessary for safe	Control Action
	conduct of flight - User systems executes the action too	
	late	
33.1	Circuit breaker provides the break a circuit action too	Continuous
	late - Circuit breaker received feedback (or other input)	Control Action
	that indicated overloaded on time/in order	
33.2	Feedback received by Circuit breaker does not indicate	Continuous
	overloaded on time - it is true that overloaded	Control Action
33.3	Circuit breaker provides the break a circuit action on	Continuous
	time/in order - break a circuit is received by Generator	Control Action
	Control Unit (GCU) too late	
33.4	The break a circuit action is not received by Genera-	Continuous
	tor Control Unit (GCU) when overloaded - Generator	Control Action
96.1	Control Unit (GCU) executes the action too late	<u> </u>
36.1	Generator Control Unit (GCU) provides the connect ac-	Continuous
	tion too late - Generator Control Unit (GCU) received	Control Action
	feedback (or other input) that indicated commanded by the crew and respective generator is online, its parame-	
	ters are met on time/in order	
36.2	Feedback received by Generator Control Unit (GCU)	Continuous
90.2	does not indicate commanded by the crew and respective	Control Action
	generator is online, its parameters are met on time -	0011010111001011
	it is true that commanded by the crew and respective	
	generator is online, its parameters are met	
36.3	Generator Control Unit (GCU) provides the connect ac-	Continuous
	tion on time/in order - connect is received by Engine	Control Action
	Starter-Generator too late	
36.4	The connect action is not received by Engine Starter-	Continuous
	Generator when commanded by the crew and respec-	Control Action
	tive generator is online, its parameters are met - Engine	
	Starter-Generator executes the action too late	

Table C.3 continued from previous page

$\overline{\text{ID}}$	Scenario Text	Rationale
39.2	Feedback received by Generator Control Unit (GCU)	Context-to-
	does not adequately indicates that the generator is on-	State Abstrac-
	line and functional, and it was not commanded to do so	tion
	by the crew - it is true that the generator is online and	
	functional, and it was not commanded to do so by the	
	crew	
40.1	Generator Control Unit (GCU) provides the disconnect	Continuous
	action too late - Generator Control Unit (GCU) received	Control Action
	feedback (or other input) that indicated commanded by	
	the crew on time/in order	
40.2	Feedback received by Generator Control Unit (GCU)	Continuous
	does not indicate commanded by the crew on time - it	Control Action
	is true that commanded by the crew	
40.3	Generator Control Unit (GCU) provides the disconnect	Continuous
	action on time/in order - disconnect is received by En-	Control Action
	gine Starter-Generator too late	
40.4	The disconnect action is not received by Engine Starter-	Continuous
	Generator when commanded by the crew - Engine	Control Action
	Starter-Generator executes the action too late	
41.1	Generator Control Unit (GCU) provides the disconnect	Continuous
	action too late - Generator Control Unit (GCU) received	Control Action
	feedback (or other input) that indicated respective gen-	
	erator parameters are exceeded on time/in order	~
41.2	Feedback received by Generator Control Unit (GCU)	Continuous
	does not indicate respective generator parameters are	Control Action
	exceeded on time - it is true that respective generator	
41.0	parameters are exceeded	<u> </u>
41.3	Generator Control Unit (GCU) provides the disconnect	Continuous
	action on time/in order - disconnect is received by En-	Control Action
41 4	gine Starter-Generator too late	<u> </u>
41.4	The disconnect action is not received by Engine Starter-	Continuous
	Generator when respective generator parameters are ex-	Control Action
	ceeded - Engine Starter-Generator executes the action	
	too late	

Table C.3 continued from previous page

117	Sample C.3 continued from previous page	
<u>ID</u>	Scenario Text	Rationale
42.1	Generator Control Unit (GCU) does not provide the	Control-to-
	control operations action when respective operational	Command
	parameters are exceeded - Generator Control Unit	Abstraction
	(GCU) received feedback (or other input) that indicated	
	respective operational parameters are exceeded	
42.2	Feedback received by Generator Control Unit (GCU)	Control-to-
	does not adequately indicate respective operational pa-	Command
	rameters are exceeded - it is true that respective opera-	Abstraction
	tional parameters are exceeded	
42.3	Generator Control Unit (GCU) does provide the control	Control-to-
	operations action when respective operational param-	Command
	eters are exceeded - control operations is not received	Abstraction
	by Distribution network when respective operational pa-	
	rameters are exceeded	
42.4	The control operations action is received by Distribu-	Control-to-
	tion network when respective operational parameters are	Command
	exceeded - Distribution network does not respond ade-	Abstraction
	quately	
43.1	Generator Control Unit (GCU) provides the control op-	Control-to-
	erations action when respective operational parameters	Command
	are met - Generator Control Unit (GCU) received feed-	Abstraction
	back (or other input) that indicated respective opera-	
	tional parameters are met	
43.2	Feedback received by Generator Control Unit (GCU)	Control-to-
	does not adequately indicates that respective opera-	Command
	tional parameters are met - it is true that respective	Abstraction
	operational parameters are met	
43.3	Generator Control Unit (GCU) does not provide the	Control-to-
	control operations action when respective operational	Command
	parameters are met - Distribution network receives the	Abstraction
	control operations action when respective operational	
	parameters are met	
43.4	The control operations action is not received by Distri-	Control-to-
10.1	bution network when respective operational parameters	Command
	are met - Distribution network responds erroneously	Abstraction
	are med - Distribution network responds erroneously	7 1 10 3 0 1 a C 0 1 O 1 1

Table C.3 continued from previous page

ID	Scenario Text	Rationale
44.1	Generator Control Unit (GCU) provides the control op-	Continuous
	erations action out of order - Generator Control Unit	Control Action
	(GCU) received feedback (or other input) that indi-	
	cated respective operational parameters are exceeded on	
	time/in order	
44.2	Feedback received by Generator Control Unit (GCU)	Continuous
	does not indicate respective operational parameters are	Control Action
	exceeded in order - it is true that respective operational	
	parameters are exceeded	
44.3	Generator Control Unit (GCU) provides the control op-	Continuous
	erations action on time/in order - control operations is	Control Action
	received by Distribution network out of order	
44.4	The control operations action is not received by Distri-	Continuous
	bution network when respective operational parameters	Control Action
	are exceeded - Distribution network executes the action	
	out of order	
45.1	Generator Control Unit (GCU) does not provide the	Control-to-
	starter cutoff action when the starter-generator is active	Command
	and exceeds respective operational parameters - Gen-	Abstraction
	erator Control Unit (GCU) received feedback (or other	
	input) that indicated the starter-generator is active and	
	exceeds respective operational parameters	
45.2	Feedback received by Generator Control Unit (GCU)	Control-to-
	does not adequately indicate the starter-generator is ac-	Command
	tive and exceeds respective operational parameters - it	Abstraction
	is true that the starter-generator is active and exceeds	
	respective operational parameters	- C
45.3	Generator Control Unit (GCU) does provide the starter	Control-to-
	cutoff action when the starter-generator is active and ex-	Command
	ceeds respective operational parameters - starter cutoff	Abstraction
	is not received by Distribution network when the starter-	
	generator is active and exceeds respective operational	
	parameters	

Table C.3 continued from previous page

<u> 1D</u>	Scannic Text	
ID	Scenario Text	Rationale
45.4	The starter cutoff action is received by Distribution net-	Control-to-
	work when the starter-generator is active and exceeds re-	Command
	spective operational parameters - Distribution network	Abstraction
	does not respond adequately	
46.1	Generator Control Unit (GCU) provides the starter cut-	Control-to-
	off action when the starter-generator is active and re-	Command
	spective operational parameters are met - Generator	Abstraction
	Control Unit (GCU) received feedback (or other input)	
	that indicated the starter-generator is active and respec-	
	tive operational parameters are met	
46.2	Feedback received by Generator Control Unit (GCU)	Control-to-
	does not adequately indicates that the starter-generator	Command
	is active and respective operational parameters are met	Abstraction
	- it is true that the starter-generator is active and re-	
	spective operational parameters are met	
46.3	Generator Control Unit (GCU) does not provide the	Control-to-
	starter cutoff action when the starter-generator is active	Command
	and respective operational parameters are met - Distri-	Abstraction
	bution network receives the starter cutoff action when	
	the starter-generator is active and respective operational	
	parameters are met	
46.4	The starter cutoff action is not received by Distribution	Control-to-
	network when the starter-generator is active and respec-	Command
	tive operational parameters are met - Distribution net-	Abstraction
	work responds erroneously	
47.1	Generator Control Unit (GCU) provides the starter cut-	Wrong Genera-
	off action undefined - Generator Control Unit (GCU)	tion / Out of
	received feedback (or other input) that indicated on	Scope
	time/in order	r
47.2	Feedback received by Generator Control Unit (GCU)	Wrong Genera-
•	does not indicate undefined - it is true that	tion / Out of
	TO BE THE STATE OF	Scope
47.3	Generator Control Unit (GCU) provides the starter cut-	Wrong Genera-
11.0	off action on time/in order - starter cutoff is received by	tion / Out of
	Distribution network undefined	Scope Scope
	Distribution herwork andenned	probe

Table C.3 continued from previous page

The starter cutoff action is not received by Distribution network when Distribution network executes the action undefined
network when Distribution network executes the action undefined Scope 48.1 Circuit breaker does not provide the connect a circuit control-to-action when instructed by the crew and the circuit is not overloaded - Circuit breaker received feedback (or other input) that indicated instructed by the crew and the circuit is not overloaded 48.2 Feedback received by Circuit breaker does not adequately indicate instructed by the crew and the circuit is not overloaded - it is true that instructed by the crew and the circuit is not overloaded 48.3 Circuit breaker does provide the connect a circuit action when instructed by the crew and the circuit is not overloaded - connect a circuit is not overloaded - connect a circuit is not received by Distribution network when instructed by the crew and the circuit is not overloaded 48.4 The connect a circuit action is received by Distribution network when instructed by the crew and the circuit is not overloaded - Distribution network does not respond Abstraction adequately 49.1 Circuit breaker provides the connect a circuit action Control-to-Command Control-to-Command Control-to-Command Control-to-Command Control-to-Command Control-to-Command Control-to-Command
action undefined 8cope 48.1 Circuit breaker does not provide the connect a circuit action when instructed by the crew and the circuit is not overloaded - Circuit breaker received feedback (or other input) that indicated instructed by the crew and the circuit is not overloaded 48.2 Feedback received by Circuit breaker does not adequately indicate instructed by the crew and the circuit is not overloaded - it is true that instructed by the crew and the circuit is not overloaded 48.3 Circuit breaker does provide the connect a circuit action when instructed by the crew and the circuit is not overloaded - connect a circuit is not overloaded - connect a circuit is not overloaded 48.4 The connect a circuit action is received by Distribution network when instructed by the crew and the circuit is not overloaded 48.4 The connect a circuit action is received by Distribution contended and not overloaded - Distribution network does not respond adequately 49.1 Circuit breaker provides the connect a circuit action Control-towhen the circuit is overloaded - Circuit breaker received Command
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48.4 The connect a circuit action is received by Distribution Control-to- network when instructed by the crew and the circuit is Command not overloaded - Distribution network does not respond Abstraction adequately 49.1 Circuit breaker provides the connect a circuit action Control-to- when the circuit is overloaded - Circuit breaker received Command
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when the circuit is overloaded - Circuit breaker received Command
feedback (or other input) that indicated the circuit is Abstraction
overloaded
49.2 Feedback received by Circuit breaker does not ade- Control-to-
quately indicates that the circuit is overloaded - it is Command
true that the circuit is overloaded Abstraction
49.3 Circuit breaker does not provide the connect a circuit Control-to-
action when the circuit is overloaded - Distribution net- Command
work receives the connect a circuit action when the cir- Abstraction
cuit is overloaded
49.4 The connect a circuit action is not received by Distribu- Control-to-
tion network when the circuit is overloaded - Distribu- Command
tion network responds erroneously Abstraction

Table C.3 continued from previous page

ID	Scenario Text	Rationale
50.1	Circuit breaker provides the connect a circuit action too	Continuous
	late - Circuit breaker received feedback (or other input)	Control Action
	that indicated instructed and the circuit is not over-	
	loaded on time/in order	
50.2	Feedback received by Circuit breaker does not indicate	Continuous
	instructed and the circuit is not overloaded on time - it	Control Action
	is true that instructed and the circuit is not overloaded	
50.3	Circuit breaker provides the connect a circuit action on	Continuous
	time/in order - connect a circuit is received by Distribu-	Control Action
	tion network too late	
50.4	The connect a circuit action is not received by Distri-	Continuous
	bution network when instructed and the circuit is not	Control Action
	overloaded - Distribution network executes the action	
	too late	