Appendix B. Table of Generated Observers

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) and (Flight_Crew.i1 = nominal)
2.2	(Flight_Crew.i1 = failed) and (BATTERY.o2 = failed) and (BATTERY.state1 = nominal)
2.3	(Flight_Crew.o_BattRelayOutput = failed) and (BATTERY.state1 = failed)
2.4	(Flight_Crew.o_BattRelayOutput = nominal) and (BATTERY.i1 = failed) and (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) 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 = failed)
5.4	(BATT_DISC_RELAY.i1 = nominal) and (BATT_DISC_RELAY.o1 = failed) and (BATTERY.state1 = nominal) and (EXT_PWR_Connector.o1 = failed)

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 = nominal)
8.4	(L_GCU.i_starter = failed) and (L_GCU.state1 = failed) and (L_GCU.o1 = failed)
10.1	(L_GCU.state1 = failed) and (Flight_Crew.i_Feedback_Generator = nominal) and (Flight_Crew.o3 = nominal)
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 (Flight_Crew.o3 = failed)
10.4	(L_GEN_RELAY.i_flight_crew = failed) and (L_GCU.state1 = failed) and (L_GCU.o1 = nominal)
11.1	(Flight_Crew.o3 = failed) and (L_GCU.state1 = nominal) and (Flight_Crew.i3 = 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 (MASTER_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 (MASTER_INTERIOR_SSR.INTERIOR_state = nominal) and (MASTER_INTERIOR_SSR.i3 = failed)

ID	Observer
21.4	(MASTER_INTERIOR_SSR.i3 = nominal) and (MASTER_INTERIOR_SSR.INTERIOR_state = nominal) and (MASTER_INTERIOR_SSR.o1 = failed)
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 (MASTER_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 (MASTER_INTERIOR_SSR.INTERIOR_state = nominal) and (MASTER_INTERIOR_SSR.i1 = failed)
24.4	(MASTER_INTERIOR_SSR.i1 = nominal) and (MASTER_INTERIOR_SSR.INTERIOR_state = nominal) and (MASTER_INTERIOR_SSR.o1 = nominal)
28.1	(NORM_or_INT_DISC.o1 = failed) and (MASTER_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 (MASTER_INTERIOR_SSR.INTERIOR_state = failed) and (MASTER_INTERIOR_SSR.i1 = failed)
28.4	(MASTER_INTERIOR_SSR.i1 = nominal) and (MASTER_INTERIOR_SSR.INTERIOR_state = failed) and (MASTER_INTERIOR_SSR.o1 = failed)
30.1	(NORM_or_INT_DISC.o1 = failed) and (MASTER_INTERIOR_SSR.INTERIOR_state = nominal) and (Flight_Crew.i3 = nominal)

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ID	Observer
30.2	(Flight_Crew.i3 = failed) and (MASTER_INTERIOR_SSR.INTERIOR_state = nominal)
30.3	(NORM_or_INT_DISC.o1 = nominal) and (MASTER_INTERIOR_SSR.INTERIOR_state = nominal) and (L_STARTER_GENERATOR.i1 = failed)
30.4	(L_STARTER_GENERATOR.i1 = nominal) and (MASTER_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 (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 (L_GCU.i_starter = failed)
32.4	(L_GCU.i_starter = nominal) and (L_GEN_RELAY.state1 = nominal) and (L_GCU.o1 = nominal)
34.1	(L_START_CNTRL_PCB.o1 = failed) and (L_GCU.i_starter = nominal) and (Flight_Crew.o3 = nominal) and (L_GCU.state1 = nominal)
34.2	(L_GCU.i_starter = failed) and (Flight_Crew.o3 = nominal) and (L_GCU.state1 = nominal)
34.3	(L_START_CNTRL_PCB.o1 = nominal) and (L_STARTER_GENERATOR.feedbackState = failed) and (Flight_Crew.o3 = nominal) and (L_GCU.state1 = nominal)
34.4	(L_STARTER_GENERATOR.feedbackState = nominal) and (L_GCU.o1 = 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 (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)

ID	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) 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)