SMEI-33:   **SMEI Patch Mode Supplement**

Step	Action	Command(s)	Telemetry Verification
1.	Verify Status		IBCSMEIFGED = ENABLE IBCSMFGBUS = BUSA SMEI_A_S = ON SMEI_B_S = OFF AB_IDENT = A -20°C < SM_DHU_TMP < +50°C
2.	Verify SMEI is in Configuration Mode *If YES proceed to Step 5.*		SMEI_MODE = CONFIG

3.	Command SMEI into Configuration Mode	SM_GOTO_CONF
		   A/B = BOTH
		   RT_ST = RT
		EXINQ
		   A/B = BOTH
		   RT_ST = RT
			SMCMD_ACP increments by 1
			SMCMD_REJ unchanged
			SMEI_MODE = CONFIG
			Record SMCMD_ACP
			Record SMCMD_REJ

4.	Wait 96 sec for Camera Shutter motion		After 96 sec: C1_LSTPH = P0 C2_LSTPH = P0 C3_LSTPH = P0 C1_SHT_OPN = CLOSED C2_SHT_OPN = CLOSED C3_SHT_OPN = CLOSED
5.	Issue patch-1.rsc command file to upload the first slice of data		SMEI_MODE = PATCH SMCMD_ACP incrementing SMCMD_REJ unchanging
6.	Wait for 5 seconds for first commit to complete		
7.	Issue patch-2.rsc command file		SMCMD_ACP increments by 1 SMCMD_REJ unchanged
8.	Wait for 5 seconds for second commit to complete		
9.	Issue patch-3.rsc command file to upload the second slice of data		SMCMD_ACP incrementing SMCMD_REJ unchanged
10.	Wait for 5 seconds for third commit to complete		

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Step	Action	Command(s)	Telemetry Verification
11.	Issue patch-4.rsc command file		SMCMD_ACP increments by 1 SMCMD_REJ unchanged
12.	Wait for 5 seconds for fourth commit to complete		
13.	Issue patch-5.rsc command file		SMEI_MODE = CONF SMCMD_ACP increments by 1 SMCMD_REJ unchanged
14.	Command SMEI into Patch Mode	SM_ENBL_PTCH A/B = BOTH RT_ST = RT SM_GOTO_PTCH A/B = BOTH RT_ST = RT EXINQ A/B = BOTH RT_ST = RT	SMCMD_ACP increments by 2 SMCMD_REJ unchanged SMEI_MODE = PATCH Record SMCMD_ACP Record SMCMD_REJ
15.	Enable the uploaded patch	SM_PATCH_ACT Software_Image_CRC = 0x95E0 A/B = BOTH RT_ST = RT EXINQ A/B = BOTH RT_ST = RT	SMCMD_ACP increments by 1 SMCMD_REJ unchanged
16.	Shutdown SMEI using SMEI-03		
17.	Power ON SMEI DHU_A via PDU_A	SM_ADHU_A A/B = BOTH RT_ST = RT	Record DRV_BAT_FULL_A_V Verify PLB_A_CUR has increased by ~0.1A relative to value at Step 6 SMEI_MODE = BOOT
18.	Wait 4 sec for DHU processor to perform initial boot-up		Verify SW_REL = 32

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Step	Action	Command(s)	Telemetry Verification

19.	Complete DHU boot-up	SM_DHU_COLD
		   A/B = BOTH
		   RT_ST = RT
		EXINQ
		   A/B = BOTH
		   RT_ST = RT
			SMEI_MODE = CONFIG
			SMCMD_ACP = 1
			SMCMD_REJ = 0

20.	Wait 4 sec for DHU processor to complete boot-up and verify SMEI essential telemetry.		AB_IDENT = A SMEITIME09 incrementing SMSOH_TOT incrementing SM_ATT_SEQ incrementing CNT_1HZ incrementing SIM_1HZ not incrementing AM_SUPP_I = 0.12 ± 0.03 A AM_DHU_5V = 5.00 ± 0.25 V
21.	Verify the uploaded patch was executed		Verify SW_REL = 64

22.	Command SMEI into Patch Mode	SM_ENBL_PTCH
		   A/B = BOTH
		   RT_ST = RT
		SM_GOTO_PTCH
		   A/B = BOTH
		   RT_ST = RT
		EXINQ
		   A/B = BOTH
		   RT_ST = RT
			SMCMD_ACP increments by 2
			SMCMD_REJ unchanged
			SMEI_MODE = PATCH
			Record SMCMD_ACP
			Record SMCMD_REJ

23.	Disable the uploaded patch	SM_PATCH_DEA
		   A/B = BOTH
		   RT_ST = RT
		EXINQ
		   A/B = BOTH
		   RT_ST = RT
			SMCMD_ACP increments by 1
			SMCMD_REJ unchanged

SMEI-33:   SMEI Patch Mode Supplement

Step	Action	Command(s)	Telemetry Verification
24.	Shutdown SMEI using SMEI-03		

25.	Power ON SMEI DHU_A via PDU_A	SM_ADHU_A
		    A/B = BOTH
		    RT_ST = RT
			Record DRV_BAT_FULL_A_V
			Verify PLB_A_CUR has increased by ~0.1A relative to value at Step 6
			SMEI_MODE = BOOT

26.	Wait 4 sec for DHU processor to perform initial boot-up		Verify SW_REL = 32

27.	Complete DHU boot-up	SM_DHU_COLD
		    A/B = BOTH
		    RT_ST = RT
		EXINQ
		    A/B = BOTH
		    RT_ST = RT
			SMEI_MODE = CONFIG
			SMCMD_ACP = 1
			SMCMD_REJ = 0

28.	Wait 4 sec for DHU processor to complete boot-up and verify SMEI essential telemetry.		AB_IDENT = A SMEITIME09 incrementing SMSOH_TOT incrementing SM_ATT_SEQ incrementing CNT_1HZ incrementing SIM_1HZ not incrementing AM_SUPP_I = 0.12 ± 0.03 A AM_DHU_5V = 5.00 ± 0.25 V
29.	Verify the uploaded patch was disabled		Verify SW_REL = 32
30.	Exit procedure		