

SWA Power On  
 File: IA-FCP-011.xls  
 Author: daniel lakey



**solar orbiter** **esa**

## Procedure Summary

### Objectives

Nominal SWA Power On

### Summary of Constraints

n/a

### Spacecraft Configuration

#### Start of Procedure

SWA Off

#### End of Procedure

SWA On

### Reference File(s)

#### Input Command Sequences

ADMF705A  
 AIAF801A

#### Output Command Sequences

AIAF011A

### Referenced Displays

ANDs	GRDs	SLDs
DSMA0004		(None)
DPWA0402		
DPWA0400		
DIAA0007		

### Configuration Control Information

DATE	FOP ISSUE	VERSION	MODIFICATION DESCRIPTION	AUTHOR	SPR REF
21/02/2018		1	Updates from Feb 2018	dlakey	M7
12/03/2018	0.2				M7
27/04/2018		2	Updates following comments from SWA 25/04/2018	dlakey	M7
12/06/2018		3	Added redundant switch-on and cross strapped procedures, and SpW interface selection	dlakey	M7
18/06/2018	0.3				M7
17/09/2018		3.01	Moved to PFM DB	dlakey	M7
15/02/2019		4	Updated for PFM DB / use dedicated FDIR enable/disable sequences	dlakey	M7
01/03/2019		5	FDIR Enable moved earlier	dlakey	M7

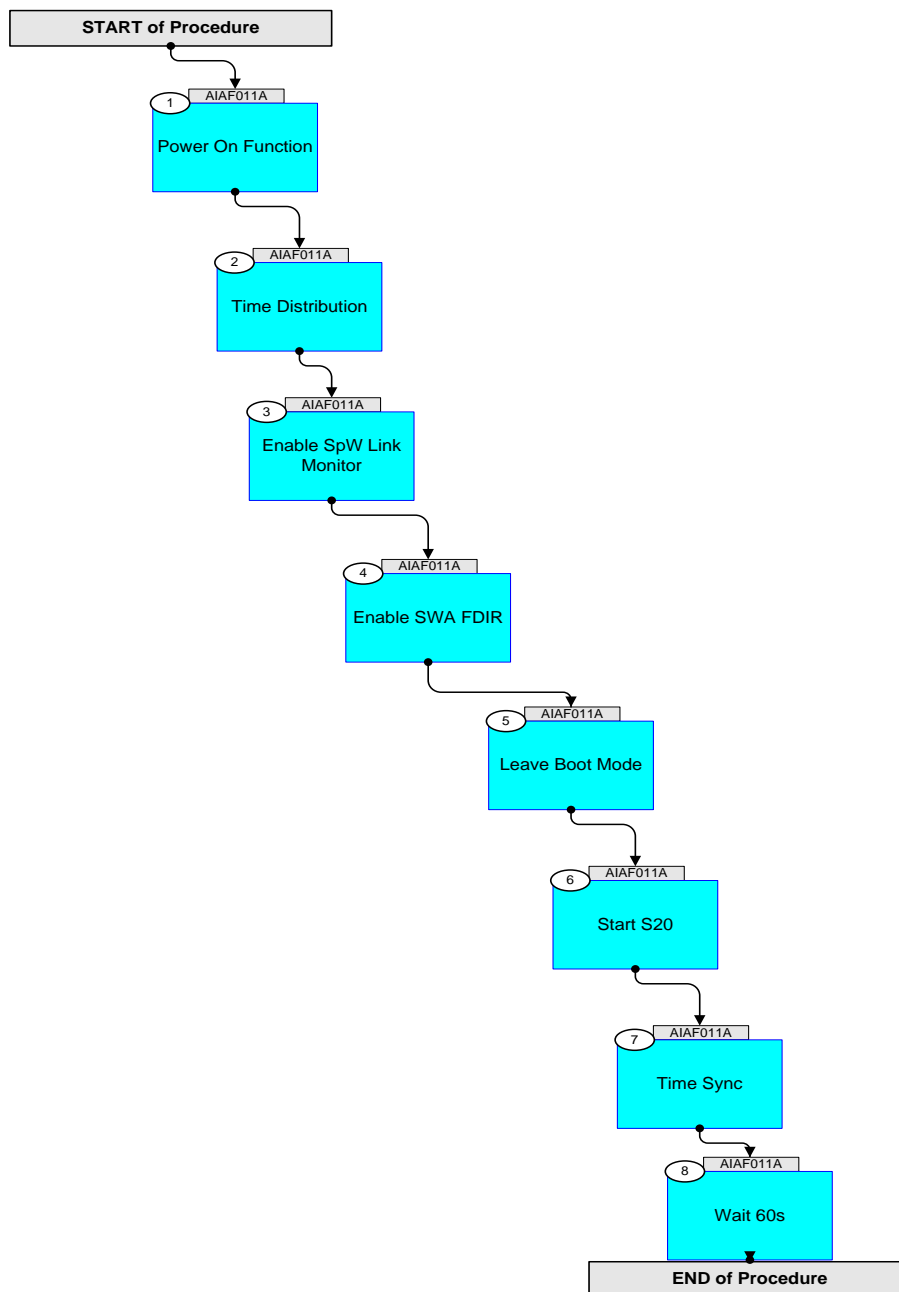
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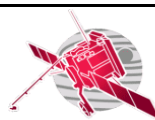


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## Procedure Flowchart Overview



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Step	Label/Time	Activity/Remarks/Branch	CK	Display
<b>Beginning of Procedure</b>				
Beginning of Sequence				
<b>AIAF011A</b>		<b>SWA Power On</b> SeqFlags [ Crit/Plan/Stdalone/Sched ] : NSYN TimeTag type : B		
1		<b>Power On Function</b>  <b>Next step(s):</b> -> 2		
		Enable Nominal SpW Link		
		<b>Verify Telemetry</b> <b>NSMD0084</b> Payload 7 Link Status = Nom Red Disab		AND=DSMA0004
	+00.00.00	<b>Execute Telecommand</b> <b>ZSM00298</b> SSMM Sel PL SpW IF OP mode TC Control Flags: GBM IL DSE --Y NC --- Command Parameters : <b>PSM00302</b> SpW I/F E/D = Enabled <b>PSM00303</b> SpW I/S = Nominal <b>PSM00304</b> P/L ID = SWA		
		<b>Verify Telemetry</b> <b>NSMD0084</b> Payload 7 Link Status = NomEnab RedDis		AND=DSMA0004
		Power on SWA		
	+00.00.01	<b>Execute Telecommand</b> <b>ZCSD11D2</b> SWA PowerUp Function TC Control Flags: GBM IL DSE --Y NC --- Command Parameters : <b>PCSB0036</b> Unit to power up/down. = UNIT_A		
1.1		<b>Verify Telemetry</b>		
		Confirm SWA RSA Telemetry		

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		(if RIU-A is in use)		
		<b>Verify Telemetry</b> NRUD2007 RSA_1_1_9 SWA A = On		AND=DPWA0402
		<b>Verify Telemetry</b> NRUD2067 RSA_2_1_9 SWA B = Off		AND=DPWA0402
		(if RIU-B is in use)		
		<b>Verify Telemetry</b> NRUT2007 RSA_1_1_9 SWA A (RIU B) = On		AND=DPWA0402
		<b>Verify Telemetry</b> NRUT2067 RSA_2_1_9 SWA B (RIU B) = Off		AND=DPWA0402
		Check SWA A and B LCL status		
		(if PCDU-A is in use)		
		<b>Verify Telemetry</b> NPWD0077 A_LCL4_16 SWA-A ST = ON		AND=DIAA0007
		<b>Verify Telemetry</b> NPWD0038 A_LCL2_17 SWA-B PWR ST = OFF		AND=DIAA0007
		(if PCDU-B is in use)		
		<b>Verify Telemetry</b> NPWT0077 B_LCL4_16 SWA-A ST = ON		AND=DPWA0400
		<b>Verify Telemetry</b> NPWT0038 B_LCL2_17 SWA-B PWR ST = OFF		AND=DPWA0400
		Check SCV Telemetry		
		<b>Verify Telemetry</b> NCSD3K72 SWA A SCV Status.scvPwr = ON		AND=DIAA0007

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		<b>Verify Telemetry</b> <b>NCSD3K73</b> SWA A SCV Status.scvTm = ON		AND=DIAA0007
		<b>Verify Telemetry</b> <b>NCSD3K82</b> SWA B SCV Status.scvPwr = OFF		AND=DIAA0007
		<b>Verify Telemetry</b> <b>NCSD3K83</b> SWA B SCV Status.scvTm = OFF		AND=DIAA0007
2		<b>Time Distribution</b>  <b>Next step(s):</b> -> 3		
	+00.00.20	<b>Execute Telecommand</b> <b>ZCD00982 Start Time Synchronisation to User</b> TC Control Flags: GBM IL DSE --Y NC --- Command Parameters : <b>PCD09821</b> PID = SWA_0 <b>PCD09822</b> Period of time = 0 <dec>		
3		<b>Enable SpW Link Monitor</b>  <b>Next step(s):</b> -> 4		
		Enable the Platform monitoring of the SpW Link  (Following DM-FCP-705)  This contains 9 TCs at 1TC/s : duration = 9s		
	ET=+00.00.01 UT=+00.00.01	<b>Execute Sequence</b> <b>ADMF705A</b> Man HB Mon SWA A v04 Sequence Grouping = -  0		

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4		<p><b>Enable SWA FDIR</b></p> <p><b>Next step(s):</b> -&gt; 5</p>		
		Durations 8s		
	ET=+00.00.01 UT=+00.00.01	<p><b>Execute Sequence</b></p> <p><b>AIAF801A SWA Enable FDIR v02</b></p> <p>Sequence Grouping = -</p> <p>0</p>		
5		<p><b>Leave Boot Mode</b></p> <p><b>Next step(s):</b> -&gt; 6</p>		
		<p>35 seconds after starting Time Sync, leave Boot Mode:</p> <p>35 - &lt;ADMF705A&gt; - &lt;AIHF801A&gt; := time tag = 18s</p>		
	+00.00.18	<p><b>Send SWA_TC_LEAVE_BOOT_MODE</b></p> <p><b>ZIA58735 SWA_TC_LEAVE_BOOT_MODE</b></p> <p>TC Control Flags:</p> <p>GBM IL DSE</p> <p>--Y NC ---</p>		
6		<p><b>Start S20</b></p> <p><b>Next step(s):</b> -&gt; 7</p>		
		8 seconds later, enable S20 with a frequency of 8Hz		
	+00.00.08	<p><b>Execute Telecommand</b></p> <p><b>ZCD01401 Start Information Distribution for User</b></p> <p>TC Control Flags:</p> <p>GBM IL DSE</p> <p>--Y NC ---</p> <p>Command Parameters :</p> <p><b>PCD14011 Instrument Id = SWA_SPW_ADDR</b></p> <p><b>PCD14012 Distrib Period = 1 &lt;dec&gt;</b></p>		

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Step	Label/Time	Activity/Remarks/Branch	CK	Display
7		<b>Time Sync</b>  <b>Next step(s):</b> -> 8		
	+00.00.01	<b>Execute Telecommand</b> <b>ZCD00982 Start Time Synchronisation to User</b> TC Control Flags: GBM IL DSE --Y NC --- Command Parameters : <b>PCD09821</b> PID = SWA_0 <b>PCD09822</b> Period of time = 0 <dec>		
8		<b>Wait 60s</b>  <b>Next step(s):</b> -> END		
		Wait at least 60s before powering off		
<b>AIAF011A</b>		End of Sequence		
<b>End of Procedure</b>				