RPW SVT1-A DATAPACK RELEASE

Date	oct. 12, 2017
Demandes	0 issues

Context

Preparation of the SVT1-A datapackage release for RPW.

- The SVT1-A campaign for RPW is expected to occur on May 2, 2019. It will be driven by MOC from ESOC site (Darmstadt, Germany).
- The RPW PFM model integrated on the S/C will be used for the test.
- No specific equipment is requested to the instrument teams (IT) to perform the test. MOC will use its own infrastructure.
- The ROC team will have to deliver the SVT1 datapackage, then support the MOC team in the preparation, execution and analysing of the test. Presence of ROC team at ESOC during test is TBD.
- All of the RPW TC will have to be tested during the SVT1 (see Summary of TC versus Sequences for the full list). Especially, the TC sequences for the commissioning and cruise phase will have to be delivered.
- Test plan and report will be written by the MOC. ROC will participate to the possible anomaly investigations related to RPW. A ROC internal test report for SVT1 will have to be written and stored in the ROC document management system (https://ged.obspm.fr/j_obspm/docbase/topic/browse_classic?topicID=T80) at the end.

Interlocutors are:

- Sylvain Lodiot at MOC

RPW SVT1 datapackage expected content overview

1. Upgraded RPW flight procedures from IGST42 datapackage
2. New RPW flight procedures related to the instrument commissioning and cruise phase operations.
3. Upgraded version of the RPW ISM
4. SVT1 timeline for RPW
5. First issue 1.0 of the RPW flight configuration description document (FCDD) (TBC)

Planning

- A first set of RPW flight procedures for SVT1 is planned to be delivered by email to Sylvain Lodiot (MOC) on mid-October 2018.
- The full SVT1 data package will have to be delivered before 14 déc. 2018.

Assumption, constraints and limits

Forbidden TCs

Jean-Michel Travert :

```
Si toutes les Antennes sont correctement connectées au moment du test alors on peut jouer toutes les TC.
Si une Antenne n'est pas connecté, il y a 2 consignes :
        - Ne pas démarrer l'antenne qui n'est pas connectée donc ne pas utiliser TC_DPU_SWITCH_ON_EQUIPMENT
(CP_DPU_SWITCH_ON_EQ:         RPW_ANTi_EID, …)
        - Ne pas mettre une valeur différente de 0 en consigne du BIAS donc ne pas utiliser TC_DPU_SET_BIASi
et TC_DPU_SET_BIAS_SWEEP avec         l'argument CP_BIA_SET_SWEEP_ENAB_Pi = ENABLED
Avec i qui correspond à l'antenne qui n'est pas connectée.
C'est les mêmes contraintes que celles qui sont appliquées par ADS dans les essais qu'ils font.
```

Status of the data package

RPW sequences status

Routine sequences

Sequence name	Theme	Description	Status	Last sequence version delivered in package	Comment
AIWF001A	Nominal switch OFF via OBCP	From SAFE mode switch OFF the RPW power interface (UNIT_A and UNIT_B) via OBCP.	Delivered to MOC	1.0	
AIWF002A	Other OFF procedures	From SAFE mode switch OFF the RPW power interface (UNIT_A and UNIT_B) via manual.	Delivered to MOC	1.0	
AIWF010A	Nominal switch ON via OBCP	Boot RPW DBS in prime power interface (UNIT_A) via OBCP	Delivered to MOC	1.2	
AIWF011A	Nominal switch ON via manual	Boot RPW DBS prime power interface (UNIT_A) via manual	Delivered to MOC	1.2	
AIWF030A	Modes transition (i.e., boot DAS and transition from SAFE to STANDBY mode)	Boot RPW DAS from EEPROM1 (default), EEPROM2, RAM	Delivered to MOC	1.2	
AIWF031A	Nominal Switch On equipment	Enter SERVICE mode and switch on all RPW equipment units	Delivered to MOC	1.2	
AIWF032A	Configuration DPU and DAS	configure HK period	Delivered to MOC	1.2	It might be necessary to create sequences for DAS configuration during commissioning if no FP can be used
AIWF032B	Configuration DPU and DAS	Load DPU and DAS common parameters	Delivered to MOC	1.2	
AIWF032C	Configuration DPU and DAS	Load DPU and DAS power parameters	Delivered to MOC	1.2	
AIWF032D	Configuration DPU and DAS	Configure Bias High Voltage parameter	Delivered to MOC	1.2	
AIWF032E	Configuration DPU and DAS	Configure parameters for monitoring temperature	Delivered to MOC	1.2	
AIWF032F	Configuration DPU and DAS	Configure Waveform parameters	Delivered to MOC	1.2	
AIWF032G	Configuration DPU and DAS	Configure SBM1 parameters	Delivered to MOC	1.2	
AIWF032H	Configuration DPU and DAS	Configure SBM2 parameters	Delivered to MOC	1.0	
AIWF032I	Configuration DPU and DAS	Configure SC potential computation algorithm	Delivered to MOC	1.0	
AIWF032J	Configuration DPU and DAS	Clear HK counter	Delivered to MOC	1.0	
AIWF032K	Configuration DPU and DAS	Dump DAS parameters	Delivered to MOC	1.2	
AIWF033A	Calibration	Internal Calibration for LFR	Delivered to MOC	1.2	
AIWF033B	Calibration	BIAS Calibration	Delivered to MOC	1.4	
AIWF033C	Calibration	Run THR internal calibration	Delivered to MOC	1.4	
AIWF033D	Configuration Bias	Configure and execute the BIAS sweep	Delivered to MOC	1.4	
AIWF033E	Configuration Bias	Load BIAS sweeping table	Delivered to MOC	1.4	Discussion about the possibility to fix one or more table we might create more sequences to load sweep table
AIWF034A	Dump	Dump LFR, TDS, THR parameters	Delivered to MOC	1.2	
AIWF034B	Dump	Dump TDS Triggered snapshots in NORMAL mode	Delivered to MOC	1.6	
AIWF034C	Dump	Dump TDS Triggered snapshots in SBM2 mode	Delivered to MOC	1.2	
AIWF034D	Dump	Force the Dump of SBM1 data	Delivered to MOC	1.2	

AIWF034E	Dump	Dump k-coefficients	Delivered to MOC	1.2	
AIWF035A	Modes transition SCIENCE	Enter in SCIENCE SURVEY_NORMAL submode	Delivered to MOC	1.2	
AIWF035B	Modes transition SCIENCE	Enter in SCIENCE SURVEY_BURST submode	Delivered to MOC	1.2	
AIWF035C	Modes transition SCIENCE	Enter in SBM_DETECTION mode	Delivered to MOC	1.2	
AIWF036A	Configuration Bias Current	Configuration Bias currents	Delivered to MOC	1.2	
AIWF037A	Configuration THR	Configure THR for the RPW SCIENCE SURVEY_NORMAL mode : DEFAULT	Delivered to MOC	1.4	
AIWF037B	Configuration THR	Configure THR for the RPW SCIENCE SURVEY_BURST mode : DEFAULT	Delivered to MOC	1.4	
AIWF037C	Configuration THR	Load calibration parameters for THR	Delivered to MOC	1.2	
AIWF037D	Configuration THR	Load GALAXY mode parameters config	Delivered to MOC	1.2	
AIWF037E	Configuration THR	Configure THR for the RPW SCIENCE SURVEY_NORMAL mode : LOW-RATE 1	Delivered to MOC	1.7	
AIWF037F	Configuration THR	Configure THR for the RPW SCIENCE SURVEY_NORMAL mode: LOW-RATE 2	Delivered to MOC	1.7	
AIWF038A	Configuration TDS	Load common parameters of TDS	Delivered to MOC	1.2	
AIWF038B	Configuration TDS	Configuration of TDS for SBM1 mode : DEFAULT	Delivered to MOC	1.0	
AIWF038C	Configuration TDS	Configuration of TDS for SBM2 mode: DEFAULT	Delivered to MOC	1.0	
AIWF038D	Configuration TDS	Configure TDS LFM parameters	Delivered to MOC	1.0	
AIWF038E	Configuration TDS	Configure TDS for the RPW SCIENCE SURVEY_NORMAL mode : DEFAULT	Delivered to MOC	1.0	
AIWF038F	Configuration TDS	Configure TDS for the RPW SCIENCE SURVEY_BURST mode: DEFAULT	Delivered to MOC	1.0	
AIWF038G	Configuration TDS	Configure TDS for the RPW SCIENCE SURVEY_NORMAL mode : LOW-RATE 1	Delivered to MOC	1.7	
AIWF038H	Configuration TDS	Configure TDS for the RPW SCIENCE SURVEY_NORMAL mode: LOW-RATE 2	Delivered to MOC	1.7	
AIWF039A	Configuration LFR	Configuration of LFR for SBM1 mode: DEFAULT	Delivered to MOC	1.0	
AIWF039B	Configuration LFR	Configuration of LFR for SBM2 mode: DEFAULT	Delivered to MOC	1.0	
AIWF039C	Configuration LFR	Load common parameters of LFR	Delivered to MOC	1.0	
AIWF039D	Configuration LFR	Configure LFR for the RPW SCIENCE SURVEY_NORMAL mode: DEFAULT	Delivered to MOC	1.2	
AIWF039E	Configuration LFR	Configure LFR for the RPW SCIENCE SURVEY_BURST mode: DEFAULT	Delivered to MOC	1.0	
AIWF039F	Configuration LFR	Configure LFR for the RPW SCIENCE SURVEY_NORMAL mode: LOW-RATE 1	Delivered to MOC	1.7	
AIWF039G	Configuration LFR	Configure LFR for the RPW SCIENCE SURVEY_NORMAL mode: LOW RATE 2	Delivered to MOC	1.7	
AIWF040A	Configuration Bias	Configure the Bias (mode, and relay) for the RPW SCIENCE mode.	Delivered to MOC	1.4	
AIWF041A	Compression	Enable the compression of the waveform products.	Delivered to MOC	1.2	
AIWF041B	Compression	Disable the compression of the waveform products.	Delivered to MOC	1.0	

AIWF042A	Switch On equipment	Switch on the converter (CONV)	Delivered to MOC	1.2	
AIWF042B	Switch On equipment	BOOT LFR from EEPROM1 (default), EEPROM2 and RAM + Enabled Verif Boot	Delivered to MOC	1.2	
AIWF042C	Switch On equipment	BOOT THR from EEPROM1 (default), EEPROM2 and RAM + Enabled Verif Boot	Delivered to MOC	1.2	
AIWF042D	Switch On equipment	BOOT TDS from EEPROM1 (default), EEPROM2 and RAM + Enabled Verif Boot	Delivered to MOC	1.2	
AIWF042E	Switch On equipment	Switch ON BIAS	Delivered to MOC	1.2	
AIWF042F	Switch On equipment	PA Switch ON	Delivered to MOC	1.2	
AIWF042G	Switch On equipment	SCM switch ON	Delivered to MOC	1.2	
AIWF043A	Enter SERVICE Mode	Enter SERVICE mode	Delivered to MOC	1.2	
AIWF044A	Enter BACKUP Mode	Enter in SCIENCE SURVEY_BACKUP submode	Delivered to MOC	1.2	
AIWF045A	Enter STANDBY Mode	Enter in RPW STANDBY mode from any other mode (except SAFE and OFF)	Delivered to MOC	1.2	
AIWF046A	Enter SAFE Mode	Go to SAFE mode (DBS) with TC_DPU_RESET command	Delivered to MOC	1.2	Will probably move in CRP wait for SL answer
AIWF047A	Switch off equipment	Switch off HV	Delivered to MOC	1.2	
AIWF047B	Switch off equipment	Switch off TDS	Delivered to MOC	1.2	
AIWF047C	Switch off equipment	Switch off Bias PA	Delivered to MOC	1.2	
AIWF047D	Switch off equipment	Switch off Bias	Delivered to MOC	1.2	
AIWF047E	Switch off equipment	Switch off LFR	Delivered to MOC	1.2	
AIWF047F	Switch off equipment	Switch off THR	Delivered to MOC	1.2	
AIWF047G	Switch off equipment	Switch off SCM	Delivered to MOC	1.2	
AIWF047H	Switch off equipment	Switch off ANT PA1	Delivered to MOC	1.2	
AIWF047I	Switch off equipment	Switch off ANT PA2	Delivered to MOC	1.2	
AIWF047J	Switch off equipment	Switch off ANT PA3	Delivered to MOC	1.2	
AIWF047K	Switch off equipment	Switch off CONV	Delivered to MOC	1.2	
AIWF048A	DBS configuration	Load and dump common parameters for DBS	Delivered to MOC	1.2	
AIWF048B	DBS configuration	Configure HK of DBS period	Delivered to MOC	1.0	
AIWF049A	Inter-equipment communication	Enable generation of inter equipment communication packet	Delivered to MOC	1.2	
AIWF049B	Inter-equipment communication	Disable generation of inter equipment communication packet	Delivered to MOC	1.1	
AIWF050A	Enable/disable HK	Enable HK generation for PDU unit	Delivered to MOC	1.0	
AIWF050B	Enable/disable HK	Enable HK generation for LFR	Delivered to MOC	1.0	
AIWF050C	Enable/disable HK	Enable HK generation for TDS	Delivered to MOC	1.0	

AIWF050D	Enable/disable HK	Enable HK generation for THR	Delivered to MOC	1.0	
AIWF050E	Enable/disable HK	Enable HK generation for S20	Delivered to MOC	1.0	
AIWF050F	Enable/disable HK	Enable HK generation for OBC	Delivered to MOC	1.0	
AIWF050G	Enable/disable HK	Disable HK generation for PDU unit	Delivered to MOC	1.1	
AIWF050H	Enable/disable HK	Disable HK generation for LFR	Delivered to MOC	1.0	
AIWF050I	Enable/disable HK	Disable HK generation for TDS	Delivered to MOC	1.0	
AIWF050J	Enable/disable HK	Disable HK generation for THR	Delivered to MOC	1.0	
AIWF050K	Enable/disable HK	Disable HK generation for S20	Delivered to MOC	1.0	
AIWF050L	Enable/disable HK	Disable HK generation for OBC	Delivered to MOC	1.0	
AIWF051A	Load science parameters	Load Reaction wheels frequencies and ENBALE/DISABLE RW filtering	Delivered to MOC	1.0	
AIWF051B	Load science parameters	Load k-coefficients	Delivered to MOC	1.0	
AIWF051C	Load science parameters	Load Fbins mask	Delivered to MOC	1.0	
AIWF051D	Load science parameters	Load filter parameters and ENABLE /DIABLE PAS filtering	Delivered to MOC	1.0	
AIWF053A	Config COM I-Boom Depl.	Configure LFR with specific config for the I-Boom deployment	Delivered to MOC	1.3	
AIWF053B	Config COM I-Boom Depl.	Configure TDS with specific config for the I-Boom deployment	Delivered to MOC	1.4	
AIWF053C	Config COM I-Boom Depl.	Configure Bias with specific config for the I-Boom deployment	Delivered to MOC	1.6	
AIWF053D	Config COM I-Boom Depl.	Configure TNR-HFR with specific config for the I-Boom deployment - Config 1	Delivered to MOC	1.6	
AIWF053E	Config COM I-Boom Depl.	Configure TNR-HFR with specific config for the I-Boom deployment - config 2	Delivered to MOC	1.6	
AIWF054A	Config COM Antennas Depl.	Configure LFR with specific config for the Antennas deployment	Delivered to MOC	1.3	
AIWF054B	Config COM Antennas Depl.	Configure TDS with specific config for the Antennas deployment	Delivered to MOC	1.4	
AIWF054C	Config COM Antennas Depl.	Configure Bias with specific config for the Antennas deployment	Delivered to MOC		
AIWF054D	Config COM Antennas Depl.	Configure TNR-HFR with specific config for the Antennas deployment - Config Ant 1	Delivered to MOC	1.6	
AIWF054E	Config COM Antennas Depl.	Configure TNR-HFR with specific config for the Antennas deployment - config Ant 2	Delivered to MOC	1.6	
AIWF054F	Config COM Antennas Depl.	Configure TNR-HFR with specific config for the Antennas deployment - config Ant 3	Delivered to MOC	1.6	
AIWF054G	Config COM Antennas Depl.	Configure TNR-HFR with specific config for the Antennas deployment - config Full scan	Delivered to MOC	1.6	
AIWF055A	Config COM Antennas rolls campaign	Configure LFR with specific config for the Antennas rolls campaign - config 1	Delivered to MOC	1.3	
AIWF055B	Config COM Antennas rolls campaign	Configure LFR with specific config for the Antennas rolls campaign - config 2	Delivered to MOC	1.4	
AIWF055C	Config COM Antennas rolls campaign	Configure TDS with specific config for the Antennas rolls campaign	Delivered to MOC	1.5	
AIWF055D	Config COM Antennas rolls campaign	Configure BIAS with specific config for the Antennas rolls campaign - config 1 (Bias on resistance)	Delivered to MOC	1.0	

AIWF055E	Config COM Antennas rolls campaign	Configure BIAS with specific config for the Antennas rolls campaign - config 2 (Bias on antenna)	Delivered to MOC	1.0	
AIWF055F	Config COM Antennas rolls campaign	Configure TNR-HFR with specific config for the Antennas rolls campaign	Delivered to MOC	1.6	
AIWF056A	Config COM SCM Noise campaign	Configure LFR with specific config for the SCM Noise campaign	Delivered to MOC	1.3	
AIWF056B	Config COM SCM Noise campaign	Configure TDS with specific config for the SCM Noise campaign	Delivered to MOC	1.5	
AIWF056C	Config COM SCM Noise campaign	Configure TNR-HFR with specific config for the SCM Noise campaign	Delivered to MOC	1.6	
AIWF057A	Config COM Interference campaign	Configure LFR with specific config for the Interference campaign - config 1, 2, 3, 10	Delivered to MOC	1.3	
AIWF057B	Config COM Interference campaign	Configure LFR with specific config for the Interference campaign - config 4,5,6,7	Delivered to MOC	1.3	
AIWF057C	Config COM Interference campaign	Configure LFR with specific config for the Interference campaign - config 8	Delivered to MOC	1.3	
AIWF057D	Config COM Interference campaign	Configure LFR with specific config for the Interference campaign - config 9	Delivered to MOC	1.3	
AIWF057E	Config COM Interference campaign	Configure TDS with specific config for the Interference campaign - config 1	Delivered to MOC	1.5	
AIWF057F	Config COM Interference campaign	Configure TDS with specific config for the Interference campaign - config 2	Delivered to MOC	1.5	
AIWF057G	Config COM Interference campaign	Configure Bias with specific config for the Interference campaign - config 1 and 4 and 10	Delivered to MOC	1.0	
AIWF057H	Config COM Interference campaign	Configure Bias with specific config for the Interference campaign - config 2	Delivered to MOC	1.0	
AIWF057I	Config COM Interference campaign	Configure Bias with specific config for the Interference campaign - config 3	Delivered to MOC	1.0	
AIWF057J	Config COM Interference campaign	Configure Bias with specific config for the Interference campaign - config 5	Delivered to MOC	1.0	
AIWF057K	Config COM Interference campaign	Configure Bias with specific config for the Interference campaign - config 6	Delivered to MOC	1.0	
AIWF057L	Config COM Interference campaign	Configure Bias with specific config for the Interference campaign - config 7	Delivered to MOC	1.0	
AIWF057M	Config COM Interference campaign	Configure Bias with specific config for the Interference campaign - config 8 and 9	Delivered to MOC	1.0	
AIWF057N	Config COM Interference campaign	Configure TNR-HFR with specific config for the Interference campaign - config 1	Delivered to MOC	1.6	
AIWF057O	Config COM Interference campaign	Configure TNR-HFR with specific config for the Interference campaign - config 2	Delivered to MOC	1.6	
AIWF058A	Config COM PAS filtering	Configure LFR with specific config for the PAS filtering	Delivered to MOC	1.0	
AIWF058B	Config COM PAS filtering	Configure TDS with specific config for the PAS filtering	Delivered to MOC	1.0	
AIWF058C	Config COM PAS filtering	Configure Bias with specific config for the PAS filtering	Delivered to MOC	1.0	
AIWF058D	Config COM PAS filtering	Configure TNR-HFR with specific config for the PAS filtering	Delivered to MOC	1.0	
AIWF059A	Diagnosis	Perform TDS Diagnosis	Delivered to MOC	1.1	
AIWF370A	"ping" (PUS, Service 17)	Run a test connection (PUS, Service 17) with the TC_DPU_TEST_CONNECTION {ZIW00012} (i.e. "ping")	Delivered to MOC	1.0	

Non-Routine sequences

Sequence name	Description	Category	Status	Comment

Commissioning specific sequences

Sequence name	Operation	Description	Status	Comment

Cruise Phase specific sequences

Sequence name	Operation	Description	Status	Comment

SVT1 specific sequences

Sequence Name	Description	Status	Last sequence version delivered in package :	Comments
AIWV001A	Enable event generation	Delivered to MOC	1.4	
AIWV001B	Disable event generation	Delivered to MOC	1.4	
AIWV001C	Enable Science TM transfer	Delivered to MOC	1.4	
AIWV001D	Disable Science TM transfer	Delivered to MOC	1.4	
AIWV002A	Patch LFR software	Delivered to MOC	1.4	Wait for right addresses to change : P.Plasson will test them
AIWV002B	Patch TDS software	Delivered to MOC	1.4	Wait for right addresses to change : P.Plasson will test them
AIWV002C	Patch TNr-HFR software	Delivered to MOC	1.4	Wait for right addresses to change : P.Plasson will test them
AIWV002D	Patch DAS software	Delivered to MOC	1.4	Same as AIWF261A tested in IGST 42
AIWV003A	Reset all equipments (LFR, TDS, TNR-HFR)	Delivered to MOC	1.4	
AIWV004A	Load the sun distance	Delivered to MOC	1.4	
AIWV004B	Reset TM buffer	Delivered to MOC	1.4	
AIWV005A	Execute Bias Command	Delivered to MOC	1.4	
AIWV005B	Set Bias Frequency Ripple	Delivered to MOC	1.4	
AIWV005C	Set Bias Sweep	Delivered to MOC	1.4	
AIWV005D	Set Bias Page	Delivered to MOC	1.4	
AIWV006A	Generic command to execute command on DPU	Delivered to MOC	1.4	
AIWV007A	Load TNR-HFR Normal parameter 2 (HFR list 1)	Delivered to MOC	1.4	
AIWV007B	Load TNR-HFR Normal parameter 3 (HFR list 2)	Delivered to MOC	1.4	
AIWV007C	Load TNR-HFR Burst parameter 2 (HFR list 1)	Delivered to MOC	1.4	
AIWV007D	Load TNR-HFR Burst parameter 3 (HFR list 2)	Delivered to MOC	1.6	

AIWV007E	Load TNR-HFR Normal parameter 1	Delivered to MOC	1.6	
AIWV007F	Load TNR-HFR Burst parameter 1	Delivered to MOC	1.6	

ISM status

Data package delivery status

Version	Status	Delivery date	Package
1.0	Delivered and implemented at MOC	19 oct. 2018	
1.1	Delivered and implemented at MOC	26 oct. 2018	
1.2	Delivered and implemented at MOC	31 oct. 2018	
1.3	Delivered and implemented at MOC	08 nov. 2018	

1.4	Delivered and implemented at MOC	12 nov. 2018	sequence...V1.4.zip
1.5	Delivered and implemented at MOC	13 nov. 2018	sequence...V1.5.zip
1.6	Delivered and implemented at MOC	16 nov. 2018	sequence...V1.6.zip
1.7	Delivered	07 déc. 2018	sequence...V1.7.zip

Action-items related to the SVT1 datapackage

key	summary	type	created	updated	due	assignee	reporter	priority	status	resolution

Jira project doesn't exist or you don't have permission to view it.

View these issues in Jira

- Link to the ROC_SVT1_DATAPACK Kanban board in JIRA: https://jira-lesia.obspm.fr/secure/RapidBoard.jspa?rapidView=79