UT	ACT. DURATION	TIME FROM LIFT-OFF	EVENT/ACTIVITY	TEAM	GS	FD/PG/PI	FCP Reference / Notes
2002/10/17 TBD			Team-B on console, TM connection to Baikonour	B			
2002/10/17 02:30:00	2:11:00	L - 2:11:00	Team-A on Console	A			
2002/10/17 04:41:00		L + 0:00:00	Lift-off	A			
2002/10/17 04:46:42		L + 0:09:50	Separation of the Orbital Module (US+ S/C) from the launcher.	A			
2002/10/17 05:33:12		L + 0:52:12	TX-1 and TX-2 powered on via TT commands.	A			
2002/10/17 05:43:12		L + 1:02:12	Start of the US burn.	A			
2002/10/17 05:50:20		L + 1:09:20	End of the US burn.	A			
2002/10/17 06:01:30	0:02:52	L + 1:20:30	AOS Vilspa. Redundant TM connected	A	V TM		Reference: CRP_SYS_2500: No Telemetry at AOS Pre-separation.
2002/10/17 06:04:22	0:06:38	L + 1:23:22	AOS Redu. TM connected, start of double station coverage. Pre-separation TM checks.	A	R - V		Insert: FCP_SYS_1500: Pre-seperation Status Checks. FCP_AOC_0001, check sheet A0000
2002/10/17 06:11:00	0:01:00	L + 1:30:00	High level preseparation status report from SOE's to SOM.	A	R - V		
2002/10/17 06:13:21	0:02:00	L + 1:32:21 =T0	Separation. Separation confirmed in TM. Report separation to SOM.	A	R - V		Insert: FCP_EPS_1620: Verify PRU Automatic Sequence Execution. FCP_AOC_0001, steps 2 to 4 (AOCS status checks and ISA checks). Reference CRP_SYS_2520: Separation Anomaly, CRP_SYS_2530: PRU Activation Sequence Anomaly. FCP_AOC_0001
2002/10/17 06:15:21	0:06:00	T0 + 0:02:00	Start Uplink, test command.	A	R - V		Insert: FCP_RFS_1010: First RF link Check. Reference CRP_SYS_2510: No TC Capability Post-separation.
2002/10/17 06:21:21	0:02:00	T0 + 0:08:00	Start of commanding: This includes: > Clear of TT buffer > Initial AOCS commands > Synchronise the ACC RBI clock and switch IMCS to correlator time. > Enable ACC WD and EDAC (these activities continue in parallel to the SAD, with the exception of the TT buffer clear, the rest are not urgent).	A	R - V	FD will see a jump on the ACC time.	Insert: FCP_DHS_1202 Delete All time-tagged TCs in Buffer. FCP_DHS__1260 steps 3.1 to 3.1.2. Steps from FCP_AOC_0001: Initial Sun Acquisition. It proceeds in parallel to the start of the deployment.
2002/10/17 06:23:21	0:08:00	T0 + 0:10:00	Start of SAD. End of initial checks.	A	R - V		
2002/10/17 06:31:21	0:10:39	T0 + 0:18:00	> End of nominal SAD (ECL (E/S) transition), start of redundant deployment sequence. > Power subsystem checks (the seconds in the duration are there to round the minute). > SOE reports succesfull deployment, nominal array current and start of battery charge. > Start of Payload Post-Launch Configuration Check.	A	R - V		Insert: FCP_EPS_1620: Verify PRU Automatic Sequence Execution, FCP_EPS_1000: SA health Check Post-seperation, FCP_EPS_1010, MRU Health Check Post-seperation. FCP_SYS_1020: Eclipse passage Monitoring. *(ecl(e/s))*. Reference CRP_SYS_2540: Array Deployment Anomaly.
2002/10/17 06:42:00	0:17:21	T0 + 0:28:39	FSS-A on, Load of FSS coefficients, FSS check-out.	A	R - V		FCP_AOC_0001: Initial Sun Acquisition
2002/10/17 06:59:21	0:10:00	T0 + 0:46:00	PRU off.	A	R - V		Insert: FCP_EPS_1630: Switch-off PRU-A and B.
2002/10/17 07:09:21	0:10:00	T0 + 0:56:00	RMU-B on and start of RMU calibration.	A	R - V	FD to process the RMU TM to calculate the drift	FCP_AOC_0001: Initial Sun Acquisition

UT	ACT. DURATION	TIME FROM LIFT-OFF	EVENT/ACTIVITY	TEAM	GS	FD/PG/PI	FCP Reference / Notes
2002/10/17 07:19:21	0:18:00	T0 + 1:06:00	> CDMU and ACC OEM buffer dump. > Report OBM Min/Max and Limit/Status Check tables.	A	R - V		FCP_DHS_1270: Dump and Clear OBDH OEM Buffer. FCP_DHS_1235: Report On-board Monitoring Limit Check / Max and MIN Tables. FCP_AOC_0615: OEM BUFFER DUMP (the RMU calibration proceeds in parallel)
2002/10/17 07:37:21	0:10:00	T0 + 1:24:00	> Uplink of RMU calibration. > RMU-B off.	A	R - V	FD to produce the relevant TPF	FCP_AOC_0001: Initial Sun Acquisition
2002/10/17 07:47:21	0:11:00	T0 + 1:34:00	Transition to SSA, SSA check-out	A	R - V		FCP_AOC_0002: Fine Sun Sensor Acquisition
2002/10/17 07:58:21	0:10:00	T0 + 1:45:00	RW-1, 2 and 3 power on	A	R - V		FCP_AOC_0002: Fine Sun Sensor Acquisition
2002/10/17 08:08:21	0:13:00	T0 + 1:55:00	STR-A on.	A	R - V		FCP_AOC_0002: Fine Sun Sensor Acquisition
2002/10/17 08:21:21	0:02:00	T0 + 2:08:00	Enable IBIS detector heater loop A (IBIS-001A)	A	R - V	IBIS PI to monitor the temperature	
2002/10/17 08:23:21	0:03:00	T0 + 2:10:00	Start OMC post-launch CCD Baking (OMC-005A)		R - V	OMC PI to monitor CCD temperature.	OMC post launch decontamination period is at least 2 days with baking heater on
2002/10/17 08:26:21	0:07:00	T0 + 2:13:00	Change RAD's thresholds. Replace CSPAAD BY FSPAAD as part of the operation.	A	R - V		FCP_AOC_0002: Fine Sun Sensor Acquisition
2002/10/17 08:33:21	0:15:00	T0 + 2:20:00	Wheel spin-up, WDETM enable	A	R - V		FCP_AOC_0002: Fine Sun Sensor Acquisition
2002/10/17 08:48:21	0:07:00	T0 + 2:35:00	First STR mapping.		R - V	FD to process the mapping if rates allow.	FCP_AOC_0002: Fine Sun Sensor Acquisition
2002/10/17 08:55:21	0:04:00	T0 + 2:42:00	SSA Tranquillisation	A	R - V		FCP_AOC_0003: Star Tracker Acquisition
2002/10/17 08:59:21	1:02:00	T0 + 2:46:00	After rates are dumped by the tranquillisation, STR Mapping, earth avoidance manoeuvre if needed.	A	R - V	FD to process the mapping and determine if earth violation is likely in the next hours.	FCP_AOC_0003: Star Tracker Acquisition
2002/10/17 10:01:21	0:27:00	T0 + 3:48:00	Transition to STA (ASAP after the mapping, one hour is just in case an earth avoidance manoeuvre is needed)	A	R - V	Project Support to confirm GO for transition. FD to process the mapping	FCP_AOC_0003: Star Tracker Acquisition
2002/10/17 10:28:21	0:56:00	T0 + 4:15:00	Transition to IPS, STR mapping for attitude reconstruction, FDCE configuration	A	R - V	Project Support to confirm GO for transition. FD to process the mapping	FCP_AOC_0004: Inertial Pointing Mode
2002/10/17 11:24:21	0:15:00	T0 + 5:11:00	Select AD mode for commanding.				
2002/10/17 11:39:21	0:09:00	T0 + 5:26:00	Change of guide star to select a convenient one for the calibrations.	A	R - V	FD to produce the relevant TPF	FCP_AOC_0004: Inertial Pointing Mode
2002/10/17 11:48:21	0:04:00	T0 + 5:35:00	Start of RMU-A + IMU calibration (FDE: IMU-1 X, IMU-3 Y and Z; ACC IMU-1 roll and yaw).	A	R - V	FD to process the IMU/RMU TM and calculate the drift	FCP_AOC_0004: Inertial Pointing Mode
2002/10/17 11:50:00		T0 + 5:36:39	Goldstone beginning of track, and connected for redundant TM.	A	R - G		
2002/10/17 11:52:21	0:15:00	T0 + 5:39:00	STR S/T of 4 additional stars (needed for the FSS/STR calibration). Start of data collection for STR/FSS preliminary calibration.	A	R - G	FD to produce the relevant TPF's	FCP_AOC_0527: STR Search/Track
2002/10/17 12:07:21	1:00:00	T0 + 5:54:00	> Load of RACP plus OBM table for LEOP. > (Data collection from FD for the calibrations continues).	A	R - G		Insert: FCP_DHS_1235: Report On-board Monitoring Limit Check / Max and MIN Tables. FCP_DHS_1245: Load Current Default RACP Table. FCP_DHS_1230: Load On-board Monitoring List for LEOP
2002/10/17 13:07:21	0:36:00	T0 + 6:54:00	Onboard parameters update from the RMU-IMU-FSS/STR calibration.	A	R - G	FD to produce the relevant TPF's	FCP_AOC_0004: Inertial Pointing Mode FCP_AOC_1711: Update FSS-A Parameters FCP_AOC_1624: Update FDE IMU Drift FCP_AOC_1622: Update ACC IMU Drift

UT	ACT. DURATION	TIME FROM LIFT-OFF	EVENT/ACTIVITY	TEAM	GS	FD/PG/PI	FCP Reference / Notes
2002/10/17 13:43:21	1:00:00	T0 + 7:30:00	Yaw inertia calibration operations	A	R - G	FD to produce the relevant CSL TPF's and process the data.	FCP_AOC_0051: Offset Slew
2002/10/17 14:43:21	0:40:00	T0 + 8:30:00	RWB, if one is needed before apogee.	A	R - G	FD to produce the relevant TPF for the RWB and the subsequent Offset Slew.	FCP_AOC_0055: MOMENTUM Bias
2002/10/17 15:23:21	0:10:00	T0 + 9:10:00	Offset Slew to correct the attitude error introduced by the RWB.				FCP_AOC_0051: Offset Slew
2002/10/17 15:33:21	0:05:00	T0 + 9:20:00	Update of S/C Inertias	A	R - G	FD to produce the relevant TPF	FCP_AOC_1120: Update S/C inertias
2002/10/17 15:38:21	0:21:39	T0 + 9:25:00	Select BRAT 2B. Load APID table (TBD). Load BP Group 1 with times based on nominal orbital parameters and DRMC=DISREGARD. Load BP Group 2.	A	R - G		Insert: FCP_DHS_1425: Load Current Default BRAT FCP_DHS_1305: BCPKT: Load Current Default APID Table (all disabled) FCP_DHS_1301: Load BCPKT G1 Parameters. FCP_DHS_1302: Load BCPKT G2 Parameters.
2002/10/17 16:00:00	0:30:00	T0 + 9:46:39	H/O A to B Team	B	R - G		
2002/10/17 16:30:00	0:15:00	T0 + 10:16:39	IMU configuration for calibration (FDE: IMU-1 X and Z, IMU-3 Y; ACC IMU-1 roll IMU-3 yaw). RMU integrator to be reset and drift calculated as well. For all the IMU calibrations that come in the next hours, the timing is flexible, and could be adapted to the instrument activities that could be executed in parallel.	B	R - G	FD to process the IMU/RMU TM and calculate the drift.	FCP_AOC_0005: Complete IMU calibration.
2002/10/17 16:45:00	0:30:00	T0 + 10:31:39	SPI Transition to Inactive Mode (SPI-010)	B	R	SPI PI to monitor	
2002/10/17 17:15:00	0:45:00	T0 + 11:01:39	IREM Activation in Standard Mode and Checks (RM-010).	B	R	IREM team to support ops	
2002/10/17 18:00:00	0:07:00	T0 + 11:46:39	IMU-1 and IMU-3 off.	B	R		FCP_AOC_0005: Complete IMU calibration.
2002/10/17 18:07:00	1:30:00	T0 + 11:53:39	> Continuation of IREM Activation in Standard Mode and Checks (RM-010) > IREM Transition to Integral Mode and checks (RM-011)	B	R	IREM team to support ops	
2002/10/17 19:37:00	0:35:00	T0 + 13:23:39	> SPI DPE1 and IASW Activation (SPI-011)	B	R	SPI PI to monitor the activation.	
2002/10/17 20:12:00	0:15:00	T0 + 13:58:39	IMU-2 and IMU-4 on and configured: FDE: IMU-2 X and Z, IMU-4 Y; ACC IMU-2 roll and yaw.	B	R		FCP_AOC_0005: Complete IMU calibration.
2002/10/17 20:27:00	0:30:00	T0 + 14:13:39	Continuation of SPI-011.	B	R		
2002/10/17 20:57:00	0:05:00	T0 + 14:43:39	Reset of the FDE and FCE integrators, start of the calibration.	B	R	FD to process the IMU/RMU TM and calculate the drift.	FCP_AOC_0005: Complete IMU calibration.
2002/10/17 21:02:00	1:20:00	T0 + 14:48:39	SPI S/A Activations and check (SPI-012).+ spare time	B	R	SPI PI to monitor S/A activation	
2002/10/17 22:22:00	0:15:00	T0 + 16:08:39	IMU reconfiguration for calibration (FDE: IMU-2 Z, IMU-4 X and Y; ACC IMU-4 roll IMU-2 yaw).	B	R		
2002/10/17 22:37:00	0:40:00	T0 + 16:23:39	SPI Low Temperature Outgassing Start (SPI-013).	B	R	SPI PI to monitor outgassing	The expected duration of SPI outgassing at low temp. is 10 days + 1/2 day for thermal inertia
2002/10/17 23:17:00	0:15:00	T0 + 17:03:39	IMU-2 and IMU-4 off. IMU calibrations completed.	B	R		FCP_AOC_0005: Complete IMU calibration.
2002/10/17 23:32:00	0:16:00	T0 + 17:18:39	Spare time	B	R		
2002/10/17 23:48:00	0:15:00	T0 + 17:34:39	17:34:39 H/O Redu to Goldstone	B	G		
2002/10/18 00:03:00	0:15:00	T0 + 17:49:39	Goldstone checks: > Commanding in BD. > Commanding in AD. > Ranging.	B	G		
2002/10/18 00:18:00	0:15:00	T0 + 18:04:39	Uplink of the complete ACC IMU drift.	B	G	FD to produce the relevant TPF's	FCP_AOC_0005: Complete IMU calibration.
2002/10/18 00:33:00	1:00:00	T0 + 18:19:39	OMC DPE and OMCAS Activation (OMC-002).	B	G	OMC PI to monitor the activation.	

UT	ACT. DURATION	TIME FROM LIFT-OFF	EVENT/ACTIVITY	TEAM	GS	FD/PG/PI	FCP Reference / Notes
2002/10/18 01:33:00	0:12:00	T0 + 19:19:39	OMC EU Activation and CCD Health Check (OMC-003).	B	G	OMC PI to monitor the activation. PI to check VC-7 TM for CCD health check.	
2002/10/18 01:45:00	0:15:00	T0 + 19:31:39	19:31:39 H/O Goldstone to Redu	B	R		
2002/10/18 02:00:00	4:00:00	T0 + 19:46:39	Continuation of OMC-003	B	R		OMC-003 will be terminated in the next B shift

REV #2

UT	ACT. DURATION	TIME FROM PERIGEE	EVENT/ACTIVITY	TEAM	GS	FD/PG	FCP Reference / Notes
2002/10/19 23:56:59		P1 + 0:00:00	Perigee passage, start of revolution 2	B			
2002/10/19 23:56:59	0:02:30	P1 + 0:00:00		B			
2002/10/19 23:59:29		P1 + 0:02:30	Eclipse End	B			
2002/10/19 23:59:29	0:47:33	P1 + 0:02:30		B			
2002/10/20 00:47:02	0:15:00	P1 + 0:50:03	AOS Redu, AOS checks	B	R		Insert: Set IREM Ground Link On (ED UEGRON01) FCP_RFS_1010: First RF link Check. FCP_SYS_1020: Eclipse passage Monitoring. FCP_DHS_1270: Dump and Clear OBDH OEM Buffer. FCP_DHS_1235: Report On-board Monitoring Limit Check / Max and MIN Tables.
2002/10/20 01:02:02	0:10:00	P1 + 1:05:03	Check the TT to switch on the SPI Heat Pipes heaters, Annealing heaters and IBIS Detector heater have been properly executed	B	R	OMC PI to monitor the decrease of temperature.	NOTE: The OMC Baking heater is not switched on again after the eclipse, since the requested 2 days of decontamination have already elapsed.
2002/10/20 01:12:02	0:30:00	P1 + 1:15:03	Instrument Periphery post-eclipse re-activations : > switch on JEMX1&2 DFEE > switch on OMC EU > switch on IBIS VEB, PEB and IEB > switch on SPI DFEE, AFEE, ACS and PSD NOTE: Substitutiuons heaters will be left on	B	R		Use ECLEX EDs removing unnecessary commands
2002/10/20 01:42:02	3:14:57	P1 + 1:45:03	IBIS Electronic Box Activations : > ISGRI MCE Switch-on with bias=0V (IBIS-014) > PCSIT PDM Switch on (IBIS-015)	B	R	IBIS PI to monitor the activation	Activation inside Radiation Belts
2002/10/20 04:56:59	0:20:00	P1 + 5:00:00	> End of AOCS PP period. > Reset of the FDE criteria for sunlight. This is placed here following User Manual instructions. This FDE reconfiguration could be advanced if ALS/Project agrees.	B	R		FCP_AOC_0017: FDE Reconfiguration After POPP
2002/10/20 05:16:59	0:43:01	P1 + 5:20:00	Continuation of IBIS-014 & IBIS-015	B	R		
2002/10/20 06:00:00	**0:30:00**	**P1 + 6:03:01**	**End of the B Team shift. From this shift onwards, the A-B scheme is not applied anymore. There will be permanent engineering support for "baby sitting". Rest of the team to be present according to the needs.**		R		
2002/10/20 06:30:00	0:40:00	P1 + 6:33:01	RWB, (using IMU's 1 and 4)		R		FCP_AOC_0055: MOMENTUM Bias
2002/10/20 07:10:00	0:10:00	P1 + 7:13:01	IMU's off (IMU-1 and 4).		R		FCP_AOC_0011: IMUs 1&4 Off (LEOP)
2002/10/20 07:20:00	0:30:00	P1 + 7:23:01	Att. Reconstruction + Close Loop Slew to put back the roll angle + guide star at the right position		R	FD to and provide the offset TPF	FCP_AOC_0051: Offset Slew
2002/10/20 07:50:00	0:10:00	P1 + 7:53:01	Load of BP Group 1 for Rad Belt/Eclipse Entry/Exit Times		R	FD to produce the relevant input	FCP_DHS_1301: Load BCPKT G1 Parameters.
2002/10/20 08:00:00	4:30:00	P1 + 8:03:01	JEMX1 verification of the Trigger Logic vs Discriminator Setting (JEM-006)		R	JEMX PI to monitor the operation and process the VC-7 TM	
2002/10/20 12:30:00	0:30:00	P1 + 12:33:01	JEMX1 1st Electronic Calibration (JEM-007)		R		
2002/10/20 13:00:00	3:00:00	P1 + 13:03:01	JEMX2 verification of the Trigger Logic vs Discriminator Setting (JEM-006)				
2002/10/20 16:00:00	0:01:00	P1 + 16:03:01	Reset RMU integrator and start the RMU calibration.		R	FD to process the RMU TM and calculate the drift	FCP_AOC_0550: RMU Null Bias Calibration
2002/10/20 16:01:00	1:10:00	P1 + 16:04:01	Continuation of JEM-006 on JEMX2		R		
2002/10/20 17:11:00	0:05:00	P1 + 17:14:01	Uplink RMU drift correction.		R	FD to produce the relevant TPF	FCP_AOC_0550: RMU Null Bias Calibration

UT	ACT. DURATION	TIME FROM PERIGEE	EVENT/ACTIVITY	TEAM	GS	FD/PG	FCP Reference / Notes
2002/10/20 17:16:00	1:14:00	P1 + 17:19:01	> Continuation of JEM-006 on JEMX2 > JEMX2 1st Electronic Calibration / JEMX1 2nd Electronic Calibration(JEM-007). This calibration will be repeated every ~4 hours and can be performed in parallel with other instrument activities		R	JEMX PI to monitor the operation and process the VC-7 TM	
2002/10/20 18:30:00	2:30:00	P1 + 18:33:01	Spare		R		
2002/10/20 21:00:00	0:15:00	P1 + 21:03:01	JEMX1 & JEMX2 Electronic Calibration (JEM-007)		R	JEMX PI to process the VC-7 TM	
2002/10/20 21:15:00	1:40:00	P1 + 21:18:01	Spare - Night Time		R		
2002/10/20 22:55:00	0:15:00	P1 + 22:58:01	22:58:01 H/O Redu to Goldstone		G		
2002/10/20 23:10:00	1:40:00	P1 + 23:13:01	Spare - Night Time		G		
2002/10/21 00:50:00	0:15:00	P1 + 24:53:01	JEMX1 & JEMX2 Electronic Calibration (JEM-007)		G	JEMX PI to process the VC-7 TM	
2002/10/21 01:05:00	2:00:00	P1 + 25:08:01	Spare - Night Time		G		
2002/10/21 03:05:00	0:15:00	P1 + 27:08:01	27:08:01 H/O Goldstone to Redu		R		
2002/10/21 03:20:00	1:50:00	P1 + 27:23:01	Spare - Night Time		R		
2002/10/21 05:10:00	0:30:00	P1 + 29:13:01	IMU's 1 and 3 on, allow 30 minutes for warm-up, and health assesment (note that the RWB only uses IMU's for the RAD criteria. Since the RAD's don't use drift correction, the calibration is not required).		R		
2002/10/21 05:40:00	0:15:00	P1 + 29:43:01	JEMX1 & JEMX2 Electronic Calibration (JEM-007)		R	JEMX PI to process the VC-7 TM	
2002/10/21 05:55:00	0:40:00	P1 + 29:58:01	RWB		R	FD to produce the relevant TPF	
2002/10/21 06:35:00	0:10:00	P1 + 30:38:01	IMU's 1 and 3 off		R		
2002/10/21 06:45:00	2:55:00	P1 + 30:48:01	OMC CCD calibration with cover closed (OMC-006)		R	OMC PI to monitor the operation and process VC-7	
2002/10/21 09:40:00	0:15:00	P1 + 33:43:01	JEMX1 & JEMX2 Electronic Calibration (JEM-007)		R	JEMX PI to process the VC-7 TM	
2002/10/21 09:55:00	3:45:00	P1 + 33:58:01	Continuation of OMC-006		R	OMC PI to process the VC-7 TM	
2002/10/21 13:40:00	0:15:00	P1 + 37:43:01	JEMX1 & JEMX2 Electronic Calibration (JEM-007)		R	JEMX PI to process the VC-7 TM	
2002/10/21 13:55:00	1:49:00	P1 + 37:58:01	Continuation of OMC-006		R	OMC PI to process the VC-7 TM	
2002/10/21 15:44:00	0:01:00	P1 + 39:47:01	Reset RMU integrator and start the RMU calibration.		R	FD to process the RMU TM and calculate the drift	
2002/10/21 15:45:00	1:50:00	P1 + 39:48:01	Continuation of OMC-006		R	OMC PI to process the VC-7 TM	
2002/10/21 17:35:00	0:05:00	P1 + 41:38:01	Uplink RMU drift correction.		R	FD to produce the relevant TPF	
2002/10/21 17:40:00	0:15:00	P1 + 41:43:01	JEMX1 & JEMX2 Electronic Calibration (JEM-007)		R	JEMX PI to process the VC-7 TM	
2002/10/21 17:55:00	2:00:00	P1 + 41:58:01	Continuation of OMC-006		R	OMC PI to process the VC-7 TM	
2002/10/21 19:55:00	1:10:00	P1 + 43:58:01	Spare - Night Time				
2002/10/21 21:05:00	0:15:00	P1 + 45:08:01	JEMX1 & JEMX2 Electronic Calibration (JEM-007)		R	JEMX PI to process the VC-7 TM	
2002/10/21 21:20:00	0:45:00	P1 + 45:23:01	Spare - Night Time		R	OMC PI to process the VC-7 TM	
2002/10/21 22:05:00	0:15:00	P1 + 46:08:01	46:08:01 H/O Redu to Goldstone		G		
2002/10/21 22:20:00	2:40:00	P1 + 46:23:01	Spare		G	"	

UT	ACT. DURATION	TIME FROM PERIGEE	EVENT/ACTIVITY	TEAM	GS	FD/PG	FCP Reference / Notes
2002/10/22 01:00:00	0:15:00	P1 + 49:03:01	JEMX1 & JEMX2 Electronic Calibration (JEM-007)		G	JEMX PI to process the VC-7 TM	
2002/10/22 01:15:00	3:51:00	P1 + 49:18:01	Spare - Night Time		G	OMC PI to monitor the operation and process VC-7	
2002/10/22 05:06:00	0:15:00	P1 + 53:09:01	JEMX1 & JEMX2 Electronic Calibration (JEM-007)		G	JEMX PI to process the VC-7 TM	
2002/10/22 05:21:00	0:15:03	P1 + 53:24:01	53:24:01 LOS Checks		G		
2002/10/22 05:36:03		P1 + 53:39:04	LOS (Goldstone)				
2002/10/22 05:36:03	0:58:02	P1 + 53:39:04					
2002/10/22 06:34:05		P1 + 54:37:06	AOS Redu				
2002/10/22 06:34:05	0:15:00	P1 + 54:37:06	AOS Checks		R		
2002/10/22 06:49:05	2:20:55	P1 + 54:52:06	OMC Cover Release and CCD/Optics check (OMC-007) : The activity foresees first OMC science operations using targets available at the LEOP Safe Attitude		R	OMC PI to monitor the operation and process VC-7 TM.	
2002/10/22 09:10:00	0:15:00	P1 + 57:13:01	JEMX1 & JEMX2 Electronic Calibration (JEM-007)		R	JEMX PI to process the VC-7 TM	
2002/10/22 09:25:00	0:15:00	P1 + 57:28:01	Spare		R		
2002/10/22 09:40:00		P1 + 57:43:01	Vilspa BOT. Redundant chain connected to Vilspa		R - V		
2002/10/22 09:40:00	0:10:00	P1 + 57:43:01	IMU -1 and IMU-4 power on for warm-up, IMU selection in ACC and FDE. After 30 minutes, reset integrators and start data collection. Reset the RMU integrators and perform the RMU drift calibration as well.		R - V	FD to process the IMU/RMU TM and calculate the drift	
2002/10/22 09:50:00	1:25:00	P1 + 57:53:01	Continuation of OMC-007		R - V	OMC PI to monitor the operation and process VC-7 TM.	
2002/10/22 11:15:00	0:10:00	P1 + 59:18:01	Uplink of the drift correction		R - V	FD to produce the relevant TPF's	
2002/10/22 11:25:00	0:05:00	P1 + 59:28:01	Uplink of the ACC eclipse timer		R - V	FD to produce the relevant TPF	
2002/10/22 11:30:00	0:40:00	P1 + 59:33:01	RWB. This includes the setting of the FDE criteria to be used for PP		R - V	FD to produce the relevant TPF	
2002/10/22 12:10:00	1:00:00	P1 + 60:13:01	Continuation of OMC-007		R - V	OMC PI to monitor the operation and process VC-7 TM.	
2002/10/22 13:10:00	0:25:00	P1 + 61:13:01	Start of AOCS PP. The PP period is 10 hours.		R - V		
2002/10/22 13:35:00	0:15:00	P1 + 61:38:01	JEMX1 & JEMX2 Electronic Calibration (JEM-007)		R - V	JEMX PI to process the VC-7 TM	
2002/10/22 13:50:00	0:15:00	P1 + 61:53:01	Load TT commands for post-eclipse heaters management: > to switch on SPI Heat Pipes & Annealing Heaters in order to resume Outgassing operations > to switch on IBIS detector heater		R - V		
2002/10/22 14:05:00	2:00:00	P1 + 62:08:01	Spare time available to repeat OMC imaging operations using different targets (I.e. different imaging parameters) at the same attitude, according to OMC-007 activity		R - V	OMC PI to process VC-7 TM.	
2002/10/22 16:05:00	0:30:00	P1 + 64:08:01	Spare		R - V		
2002/10/22 16:35:00	0:35:00	P1 + 64:38:01	JEMX1 & JEMX2 Electronic Calibration (JEM-007)		R - V	JEMX PI to process the VC-7 TM	**NOTE: The JEMX Calibration inside Rad Belts is TBC by DSRI**
2002/10/22 17:10:00	0:15:27	P1 + 65:13:01	65:13:01 LOS Checks		R - V		Insert Set IREM Ground Link Off (ED UEGROF01)
2002/10/22 17:25:27		P1 + 65:28:28	65:28:28 LOS Redu		V TM		
2002/10/22 17:25:27	0:07:16	P1 + 65:28:28			V TM		
2002/10/22 17:32:43		P1 + 65:35:44	LOS Vilspa				
2002/10/22 17:32:43	0:30:06	P1 + 65:35:44					
2002/10/22 18:02:49		P1 + 66:05:50	Eclipse start				

UT	ACT. DURATION	TIME FROM PERIGEE	EVENT/ACTIVITY	TEAM	GS	FD/PG	FCP Reference / Notes
2002/10/22 18:02:49	0:00:46	P1 + 66:05:50					
2002/10/22 18:03:35		P1 + 66:06:36	AOS Perth, BOT, TM only		P TM		
2002/10/22 18:03:35	0:03:02	P1 + 66:06:36			P TM		
2002/10/22 18:06:37		P1 + 66:09:38	Perigee passage, end of revolution 2		P TM		

REV #3

UT	ACT. DURATION	TIME FROM PERIGEE	EVENT/ACTIVITY	GS	FD/PG	FCP Reference / Notes
2002/10/22 18:06:37		P2 + 0:00:00	Perigee passage, start of revolution 3	P TM		
2002/10/22 18:06:37	0:02:57	P2 + 0:00:00		P TM		
2002/10/22 18:09:34		P2 + 0:02:57	Eclipse End	P TM		
2002/10/22 18:09:34	0:05:09	P2 + 0:02:57		P TM		
2002/10/22 18:14:43		P2 + 0:08:06	LOS Perth			
2002/10/22 18:14:43	0:23:02	P2 + 0:08:06				
2002/10/22 18:37:45		P2 + 0:31:08	00:31:08 AOS Goldstone, AOS checks. This Goldstone pass is needed in order to start with some critical reconfigurations after eclipse.	G		Insert: Set IREM Ground Link On (ED UEGRON01) FCP_RFS_1010: First RF link Check. FCP_SYS_1020: Eclipse passage Monitoring. FCP_DHS_1270: Dump and Clear OBDH OEM Buffer. FCP_DHS_1235: Report On-board Monitoring Limit Check / Max and MIN Tables.
2002/10/22 18:37:45	0:10:00	P2 + 0:31:08	Check the TT to switch on the SPI Heat Pipes heaters, Annealing heaters and IBIS Detector heater have been properly executed	G		
2002/10/22 18:47:45	1:00:00	P2 + 0:41:08	Instrument Periphery post-eclipse re-activations : > switch on JEMX1&2 DFEE > switch on OMC EU > switch on IBIS VEB, PEB, IEB, MCEs, PDMs > switch on SPI DFEE, AFEE, ACS and PSD NOTE: Substitutiuons heaters will be left on	G		Use ECLEX EDs removing unnecessary commands
2002/10/22 19:47:45	1:07:15	P2 + 1:41:08	Spare - Night Time	G		
2002/10/22 20:55:00	0:15:00	P2 + 2:48:23	JEMX1 & JEMX2 Electronic Calibration (JEM-007)	G	JEMX PI to process the VC-7 TM	
2002/10/22 21:10:00	0:40:00	P2 + 3:03:23	Spare - Night Time	G		
2002/10/22 21:50:00	0:15:00	P2 + 3:43:23	03:43:23 H/O Goldstone to Redu	R		
2002/10/22 22:05:00	1:01:00	P2 + 3:58:23	Spare - Night Time	R		
2002/10/22 23:06:00	0:40:00	P2 + 4:59:23	End of PP. RWB (more convenient here since IMU's are on). Activities are started at perigee + 5 hours following Alenia's UM.	R		
2002/10/22 23:46:00	0:10:00	P2 + 5:39:23	IMU's off (IMU-1 and 4).	R		
2002/10/22 23:56:00	0:30:00	P2 + 5:49:23	Att. Reconstruction + Close Loop Slew to put back the roll angle + guide star at the right position	R	FD to process the mapping, reconstruct the attitude, and provide the offset TPF	
2002/10/23 00:26:00	0:10:00	P2 + 6:19:23	Load of BP Group 1 for Rad Belt/Eclipse Entry/Exit Times	R	FD to produce the relevant input	FCP_DHS_1301: Load BCPKT G1 Parameters.
2002/10/23 00:36:00	0:24:00	P2 + 6:29:23	Spare - Night Time	R		
2002/10/23 01:00:00	0:15:00	P2 + 6:53:23	JEMX1 & JEMX2 Electronic Calibration (JEM-007)	R	JEMX PI to process the VC-7 TM	
2002/10/23 01:15:00	3:45:00	P2 + 7:08:23	Spare - Night Time	R		
2002/10/23 05:00:00	0:15:00	P2 + 10:53:23	JEMX1 & JEMX2 Electronic Calibration (JEM-007)	R	JEMX PI to process the VC-7 TM	
2002/10/23 05:15:00	0:45:00	P2 + 11:08:23	Spare - Night Time	R		
2002/10/23 06:00:00	3:00:00	P2 + 11:53:23	JEMX1 Minimum High Voltage Activation (JEM-008)	R	JEMX PI to monitor the operations and process the VC-7 TM.	Empty field in the FOV of JEMX if possible
2002/10/23 09:00:00	0:15:00	P2 + 14:53:23	JEMX2 Electronic Calibration (JEM-007)	R	"	

UT	ACT. DURATION	TIME FROM PERIGEE	EVENT/ACTIVITY	GS	FD/PG	FCP Reference / Notes
2002/10/23 09:15:00	3:20:00	P2 + 15:08:23	JEMX2 Minimum High Voltage Activation (JEM-008)	R	"	Empty field in the FOV of JEMX if possible
2002/10/23 12:35:00	0:01:00	P2 + 18:28:23	Reset RMU integrator and start the RMU calibration.	R	FD to process the RMU TM and calculate the drift	
2002/10/23 12:36:00	1:10:00	P2 + 18:29:23	JEMX1 Nominal Cathode High Voltage Adjustment (JEM-009)	R	JEMX PI to monitor the operations and process the VC-7 TM.	Empty field in the FOV of JEMX if possible
2002/10/23 13:46:00	0:05:00	P2 + 19:39:23	Uplink RMU drift correction. (the uplink time is flexible, could be delayed as convenient for the on-going JEMX activities).	R	FD to produce the relevant TPF	
2002/10/23 13:51:00	1:50:00	P2 + 19:44:23	Continuation of JEM-009 on JEMX1	R	JEMX PI to monitor the operations and process the VC-7 TM.	Empty field in the FOV of JEMX if possible
2002/10/23 15:41:00	3:00:00	P2 + 21:34:23	JEMX2 Nominal Cathode High Voltage Adjustment (JEM-009)	R	"	Empty field in the FOV of JEMX if possible
2002/10/23 18:41:00	3:00:00	P2 + 24:34:23	Spare - Night Time	R		
2002/10/23 21:41:00	0:49:00	P2 + 27:34:23	Spare - Night Time	R		
2002/10/23 22:30:00	0:15:00	P2 + 28:23:23	28:23:23 H/O Redu to Goldstone	G		
2002/10/23 22:45:00	0:15:00	P2 + 28:38:23		G		
2002/10/23 23:00:00	0:10:00	P2 + 28:53:23	Team A on console for the PRB preparation.	G		
2002/10/23 23:10:00	0:30:00	P2 + 29:03:23	IMU's 1 and 3 on for warming-up.	G		
2002/10/23 23:40:00	2:00:00	P2 + 29:33:23	RWB and slew to the PRB attitude.	G	FD to produce the relevant TPF's	
2002/10/24 01:40:00	0:10:00	P2 + 31:33:23	IMU and RMU calibration.	G	FD to process the IMU/RMU TM and calculate the drift	
2002/10/24 01:50:00	0:30:00	P2 + 31:43:23	OMC Imaging at PRB#1 attitude	G	OMC PI to process VC-7 TM.	
2002/10/24 02:20:00	0:10:00	P2 + 32:13:23	Uplink of new calibrated drifts.	G	FD to produce the relevant TPF's	
2002/10/24 02:30:00	0:52:00	P2 + 32:23:23		G		
2002/10/24 03:22:00		P2 + 33:15:23	33:15:23 Perth beginning of track. Double station coverage.	G - P		
2002/10/24 03:22:00	0:18:00	P2 + 33:15:23	Spare	G - P		
2002/10/24 03:40:00	0:15:00	P2 + 33:33:23	33:33:23 H/O Goldstone to Redu	R - P		
2002/10/24 03:55:00		P2 + 33:48:23	Redundant TM connection to Perth (if it is deemed necessary to test uplink from Perth, this could be done before the H/O from Goldstone to Redu)	R - P		
2002/10/24 03:55:00	0:25:00	P2 + 33:48:23	Spare	R - P		
2002/10/24 04:20:00	0:19:48	P2 + 34:13:23	Uplink PRB commands(FDCE configuration + ACC parameters).	R - P	FD to produce the relevant TPF's. PG to confirm GO for the manoeuvre.	
2002/10/24 04:39:48	0:42:22	P2 + 34:33:11	PRB proper, Manoeuvre#1. Monitor RCS thermal behaviour and AOCS parameters during the burn.	R - P		
2002/10/24 05:22:10	0:10:00	P2 + 35:15:33	Margin for off modulation + T1 + T7	R - P		
2002/10/24 05:32:10	1:00:00	P2 + 35:25:33	Reconfiguration to IPS, update of parameters after the burn.	R - P	FD to produce the relevant TPF's	
2002/10/24 06:32:10	0:30:00	P2 + 36:25:33	Slew to a sun boresighted attitude for the yaw inertia calibration.	R - P	FD to produce the relevant TPF's	
2002/10/24 07:02:10	1:00:00	P2 + 36:55:33	Yaw inertia calibration operations	R - P	FD to produce the relevant TPF's and process the results of the calibration	
2002/10/24 08:02:10	0:40:00	P2 + 37:55:33	RWB, if one is needed before the slew to the PP attitude.	R - P	FD to produce the relevant TPF	
2002/10/24 08:42:10	0:05:00	P2 + 38:35:33	Update of S/C Inertias	R - P	FD to produce the relevant TPF	

UT	ACT. DURATION	TIME FROM PERIGEE	EVENT/ACTIVITY	GS	FD/PG	FCP Reference / Notes
2002/10/24 08:47:10	1:20:00	P2 + 38:40:33	Slew to perigee passage	R - P	FD to produce the relevant TPF's	
2002/10/24 09:08:48			LOS Perth, end of double station coverage. The end of the slew will only have single station coverage.	R		
2002/10/24 10:07:10	0:40:00	P2 + 40:00:33	RWB (if needed)	R	FD to produce the relevant TPF	
2002/10/24 10:47:10	0:05:00	P2 + 40:40:33	IMU's 1 and 3 off.	R		
2002/10/24 10:52:10		P2 + 40:45:33	End of Team A shift.	R		
2002/10/24 10:52:10	3:00:00	P2 + 40:45:33	SPI Subassembly Flight Configuration Upload / Functional Test with Hot Detectors (SPI-020)	R	SPI PI to monitor operations and process VC7 TM	
2002/10/24 13:52:10	0:20:00	P2 + 43:45:33	OMC Imaging at LEOP Safe Attitude	R	OMC PI to process VC-7 TM.	
2002/10/24 14:12:10	7:27:50	P2 + 44:05:33	JEMX1 Nominal Anode High Voltage Adjustment (JEM-010)	R	JEMX PI to monitor the operations and process the VC-7 TM.	Empty field in the FOV of JEMX if possible
2002/10/24 21:40:00	0:15:00	P2 + 51:33:23	51:33:23 H/O Redu to Goldstone	G		
2002/10/24 21:55:00	2:15:00	P2 + 51:48:23	Continuation of JEM-010 on JEMX1	G		Empty field in the FOV of JEMX if possible
2002/10/25 00:10:00	0:01:00	P2 + 54:03:23	Reset RMU integrator and start the RMU calibration.	G	FD to process the RMU TM and calculate the drift	
2002/10/25 00:11:00	1:10:00	P2 + 54:04:23	Continuation of JEM-010 on JEMX1	G		At the end of this activity, JEMX1 is left in Data Taking for min 24hr, before proceeding with JEMX2. Inform JEMX PI of any attitude change during this period
2002/10/25 01:21:00	0:05:00	P2 + 55:14:23	Uplink RMU drift correction.	G	FD to produce the relevant TPF	
2002/10/25 01:26:00	2:54:00	P2 + 55:19:23	Spare	G		
2002/10/25 04:20:00	0:50:00	P2 + 58:13:23	IMU -1 and IMU-4 power on for warm-up, IMU selection in ACC and FDE. After 30 minutes, reset integrators and start data collection. Reset the RMU integrators and perform the RMU drift calibration as well.	G	FD to process the IMU/RMU TM and calculate the drift	
2002/10/25 05:10:00	0:15:00	P2 + 59:03:23	59:03:23 H/O Goldstone to Perth	P		
2002/10/25 05:25:00	0:25:00	P2 + 59:18:23	Spare	P		
2002/10/25 05:50:00	0:15:00	P2 + 59:43:23	Uplink of the drift correction	P	FD to produce the relevant TPF	
2002/10/25 06:05:00	0:40:00	P2 + 59:58:23	RWB. This includes the setting of the FDE criteria to be used for PP (the FDE criteria are set to the TCM + Eclipse criteria following the instructions in the UM).	P	FD to produce the relevant TPF	
2002/10/25 06:45:00	1:01:50	P2 + 60:38:23	Spare	P		
2002/10/25 07:46:50		P2 + 61:40:13	Start of AOCS PP.	P		
2002/10/25 07:46:50	4:38:10	P2 + 61:40:13		P		
2002/10/25 12:25:00	0:15:52	P2 + 66:18:23	LOS Checks	P		Insert Set IREM Ground Link Off (ED UEGROF01)
2002/10/25 12:40:52		P2 + 66:34:15	LOS (Perth)			
2002/10/25 12:40:52	0:05:58	P2 + 66:34:15				
2002/10/25 12:46:50		P2 + 66:40:13	Perigee passage, end of revolution 3			

REV #4

UT	ACT. DURATION	TIME FROM PERIGEE	EVENT/ACTIVITY	GS	FD/PG	FCP Reference / Notes
2002/10/25 12:46:50		P3 + 0:00:00	Perigee passage, start of revolution 4			
2002/10/25 12:46:50	1:12:55	P3 + 0:00:00				
2002/10/25 13:59:45	0:15:00	P3 + 1:12:55	AOS Redu, AOS checks (Goldstone AOS is 1 hour before, but no need for this pass is foreseen)	R		Insert: Set IREM Ground Link On (ED UEGRON01) FCP_RFS_1010: First RF link Check. FCP_DHS_1270: Dump and Clear OBDH OEM Buffer. FCP_DHS_1235: Report On-board Monitoring Limit Check / Max and MIN Tables.
2002/10/25 14:14:45	1:30:15	P3 + 1:27:55		R		
2002/10/25 15:45:00	0:40:00	P3 + 2:58:10	End of PP. RWB (more convenient here since IMU's are on). In this case, the reconfiguration of the AOCS is performed at perigee +3 hours. Since the UM requests a perigee passage period ending at perigee +5 hours, the time of this activity is TBC by Alenia/Project.	R	FD to produce the relevant TPF	
2002/10/25 16:25:00	0:10:00	P3 + 3:38:10	IMU's 1 and 4 off	R		
2002/10/25 16:35:00	0:10:00	P3 + 3:48:10	Load of BP Group 1 for Rad Belt/Eclipse Entry/Exit Times	R	FD to produce the relevant input	Insert: FCP_DHS_1301: Load BCPKT G1 Parameters.
2002/10/25 16:45:00	8:15:00	P3 + 3:58:10	Rad Belt Exit operations: > JEMX1 and JEMX2 Electronic Calibrations at Rad Belt Exit (K/LECAL EDs) > JEMX1 Nominal HV switch on at Rad Belt Exit (KEHVON and KEHVAJ EDs) > Resume JEMX1 Data Taking Operations (KEDATA ED) Instrument Commissioning Operations will then continue with : > IBIS Detector Section#1 Switch-on and Check (IBIS-020)	R	JEMX and IBIS PIs to monitor operations and process VC-7 TM.	Empty field required in the IBIS and JEMX FOV
2002/10/26 01:00:00	0:01:00	P3 + 12:13:10	Reset RMU integrator and start the RMU calibration.	R	FD to process the RMU TM and calculate the drift	
2002/10/26 01:01:00	1:10:00	P3 + 12:14:10	Continuation of IBIS-020	R	IBIS PI to monitor operations and process VC-7 TM.	Empty field required in the IBIS FOV
2002/10/26 02:11:00	0:05:00	P3 + 13:24:10	Uplink RMU drift correction.	R	FD to produce the relevant TPF	
2002/10/26 02:16:00	3:35:00	P3 + 13:29:10	Continuation of IBIS-020	R	IBIS PI to monitor operations and process VC-7 TM.	Empty field required in the IBIS FOV
2002/10/26 05:51:00	6:09:00	P3 + 17:04:10	IBIS Detector Section#2 Switch-on and Check (IBIS-021)	R	"	Empty field required in the IBIS FOV
2002/10/26 12:00:00	1:00:00	P3 + 23:13:10	Spare			
2002/10/26 13:00:00		P3 + 24:13:10	AOS Goldstone and beginning of track. Double station coverage.	R -G		
2002/10/26 13:00:00	0:10:00	P3 + 24:13:10	Team A on console for the PRB preparation.	R -G		
2002/10/26 13:10:00		P3 + 24:23:10	Redundant TM connection to Goldstone.	R -G		
2002/10/26 13:10:00	0:30:00	P3 + 24:23:10	IMU's 1 and 3 on for warming-up.	R -G		
2002/10/26 13:40:00	2:00:00	P3 + 24:53:10	RWB and slew to the PRB attitude.	R -G	FD to produce the relevant TPF's	
2002/10/26 15:40:00	1:25:00	P3 + 26:53:10	IMU and RMU calibration.	R -G	FD to process the IMU/RMU TM and calculate the drift	
2002/10/26 17:05:00	0:10:00	P3 + 28:18:10	Uplink of new calibrated drifts.	R -G	FD to produce the relevant TPF's	
2002/10/26 17:15:00	0:25:00	P3 + 28:28:10	OMC Imaging at PRB#2 attitude	R -G	OMC PI to process VC7 TM	No OMC imaging is performed in the subsequent PRB#3, as no time is available
2002/10/26 17:40:00	0:40:00	P3 + 28:53:10				
2002/10/26 18:20:00	0:18:51	P3 + 29:33:10	Uplink PRB commands(FDCE configuration + ACC parameters).	R -G	FD to produce the relevant TPF's. PG to confirm GO for the manoeuvre.	

UT	ACT. DURATION	TIME FROM PERIGEE	EVENT/ACTIVITY	GS	FD/PG	FCP Reference / Notes
2002/10/26 18:38:51	1:06:21	P3 + 29:52:01	PRB proper, Manoeuvre#2. Monitor RCS thermal behaviour and AOCS parameters during the burn.	R -G		
2002/10/26 19:45:12	0:12:00	P3 + 30:58:22	Margin for off modulation + T1 + T7	R -G		
2002/10/26 19:57:12	0:30:00	P3 + 31:10:22	Reconfiguration to IPS, update of parameters after the burn.	R -G	FD to produce the relevant TPF's	
2002/10/26 20:27:12	0:18:00	P3 + 31:40:22	Uplink PRB commands(FDCE configuration + ACC parameters).	R -G	FD to produce the relevant TPF's. PG to confirm GO for the manoeuvre.	
2002/10/26 20:45:12	1:09:08	P3 + 31:58:22	PRB proper, Manoeuvre#3. Monitor RCS thermal behaviour and AOCS parameters during the burn.	R -G		
2002/10/26 21:54:20	0:12:00	P3 + 33:07:30	Margin for off modulation + T1 + T7	R -G		
2002/10/26 22:06:20	0:30:00	P3 + 33:19:30	Reconfiguration to IPS, update of parameters after the burn.	R - G	FD to produce the relevant TPF's	
2002/10/26 22:36:20	0:15:00	P3 + 33:49:30	33:49:30 H/O Redu to Goldstone	G - R		
2002/10/26 22:51:20	0:30:00	P3 + 34:04:30	Slew to a sun boresighted attitude for the yaw inertia calibration.	G - R	FD to produce the relevant TPF's	
2002/10/26 22:54:20			Redu LOS, end of double station coverage.	G		
2002/10/26 23:21:20	1:00:00	P3 + 34:34:30	Yaw inertia calibration operations	G	FD to produce the relevant TPF's and process the results of the calibration	
2002/10/27 00:21:20	0:40:00	P3 + 35:34:30	RWB, if one is needed before the slew to the PP attitude.	G	FD to produce the relevant TPF's	
2002/10/27 01:01:20	0:05:00	P3 + 36:14:30	Update of S/C Inertias	G	FD to produce the relevant TPF's	
2002/10/27 01:06:20	1:20:00	P3 + 36:19:30	Slew to perigee passage	G	FD to produce the relevant TPF's	
2002/10/27 02:26:20	0:40:00	P3 + 37:39:30	RWB (if needed)	G	FD to produce the relevant TPF's	
2002/10/27 03:06:20	0:05:00	P3 + 38:19:30	IMU's 1 and 3 off.	G		
2002/10/27 03:11:20	0:03:40	P3 + 38:24:30	Spare - Night Time	G		
2002/10/27 03:15:00		P3 + 38:28:10	End of Team A shift.	G		
2002/10/27 03:15:00	1:05:00	P3 + 38:28:10	Spare - Night Time	G		
2002/10/27 04:20:00	0:15:00	P3 + 39:33:10	39:33:10 H/O Goldstone to Redu.	R		
2002/10/27 04:35:00	1:25:00	P3 + 39:48:10	Spare - Night Time	R		
2002/10/27 06:00:00	8:35:00	P3 + 41:13:10	> OMC Imaging at LEOP Safe Attitude > JEMX2 Nominal Anode High Voltage Adjustment (JEM-010)	R	OMC & JEMX PI to monitor operations and process VC-7 TM.	Empty field in the FOV of JEMX if possible
2002/10/27 14:35:00	0:01:00	P3 + 49:48:10	Reset RMU integrator and start the RMU calibration.	R	FD to process the RMU TM and calculate the drift	
2002/10/27 14:36:00	1:10:00	P3 + 49:49:10	Continuation of JEM-010 on JEMX2	R	JEMX PI	Empty field in the FOV of JEMX if possible
2002/10/27 15:46:00	0:05:00	P3 + 50:59:10	Uplink RMU drift correction.	R	FD to produce the relevant TPF	
2002/10/27 15:51:00	1:00:00	P3 + 51:04:10	Continuation of JEM-010 on JEMX2		JEMX PI	Both JEMXs are left in Data Taking at the end
2002/10/27 16:51:00	4:24:00	P3 + 52:04:10	IBIS Detector Section#3 Switch-on and Check (IBIS-022)	R	IBIS PI to monitor operations and process VC7 TM	Empty field required in the IBIS FOV
2002/10/27 21:15:00	0:15:00	P3 + 56:28:10	56:28:10 H/O Redu to Goldstone	G		
2002/10/27 21:30:00	1:45:00	P3 + 56:43:10	Continuation of IBIS-022		IBIS PI	Empty field required in the IBIS FOV
2002/10/27 23:15:00	0:40:29	P3 + 58:28:10	Spare - Night Time	G		

UT	ACT. DURATION	TIME FROM PERIGEE	EVENT/ACTIVITY	GS	FD/PG	FCP Reference / Notes
2002/10/27 23:55:29	1:30:00	P3 + 59:08:39	IMU -1 and IMU-4 power on for warm-up, IMU selection in ACC and FDE. After 30 minutes, reset integrators and start data collection. Reset the RMU integrators and perform the RMU drift calibration as well.	G	FD to process the IMU/RMU TM and calculate the drift	
2002/10/28 01:25:29	0:15:00	P3 + 60:38:39	Uplink of the drift correction	G	FD to produce the relevant TPF	
2002/10/28 01:40:29	0:40:00	P3 + 60:53:39	RWB. This includes the setting of the FDE criteria to be used for PP (the FDE criteria are set to the TCM + Eclipse criteria following the instructions in the UM).	G	FD to produce the relevant TPF	
2002/10/28 02:20:29	1:00:00	P3 + 61:33:39	Spare - Night Time	G		
2002/10/28 04:20:29		P3 + 62:33:39	Start of AOCS PP.	G		
2002/10/28 04:20:29	0:39:31	P3 + 62:33:39	Spare - Night Time	G		
2002/10/28 05:00:00	0:18:43	P3 + 63:13:10	64:13:10 LOS Checks	G		Insert Set IREM Ground Link Off (ED UEGROF01)
2002/10/28 05:18:43		P3 + 63:31:53	LOS Goldstone. Note that if it is necessary for ranging purposes, Perth could be used down to perigee.			
2002/10/28 05:18:43	4:01:46	P3 + 63:31:53				
2002/10/28 09:20:29		P3 + 68:33:39	Perigee passage, end of revolution 4			

REV #5

UT	ACT. DURATION	TIME FROM PERIGEE	EVENT/ACTIVITY	GS	FD/PG	FCP Reference / Notes
2002/10/28 09:20:29		P4 + 0:00:00	Perigee passage, start of revolution 5			
2002/10/28 09:20:29	1:04:05	P4 + 0:00:00				
2002/10/28 10:24:34	0:15:00	P4 + 1:04:05	AOS Redu, AOS checks (Goldstone AOS is 40 minutes before, but no need for this pass is foreseen)	R		Insert: Set IREM Ground Link On (ED UEGRON01) FCP_RFS_1010: First RF link Check. FCP_DHS_1270: Dump and Clear OBDH OEM Buffer. FCP_DHS_1235: Report On-board Monitoring Limit Check / Max and MIN Tables.
2002/10/28 10:39:34	1:35:15	P4 + 1:19:05		R		
2002/10/28 12:14:49	0:40:00	P4 + 2:54:20	End of PP. RWB (more convenient here since IMU's are on). In this case, the reconfiguration of the AOCS is performed at perigee +3 hours. Since the UM requests a perigee passage period ending at perigee +5 hours, the time of this activity is TBC by Alenia/Project.	R	FD to produce the relevant TPF	
2002/10/28 12:54:49	0:10:00	P4 + 3:34:20	IMU's 1 and 4 off	R		
2002/10/28 13:04:49	0:10:00	P4 + 3:44:20	Load of BP Group 1 for Rad Belt/Eclipse Entry/Exit Times	R	FD to produce the relevant input	Insert: FCP_DHS_1301: Load BCPKT G1 Parameters.
2002/10/28 13:14:49	0:45:00	P4 + 3:54:20	Rad Belt Exit operations: > JEMX1 and JEMX2 Electronic Calibrations at Rad Belt Exit (K/LECAL EDs) > JEMX1 and JEMX2 Nominal HV switch on at Rad Belt Exit (K/LEHVON and K/LEHVAJ EDs) > Resume JEMX1 and JEMX2 Data Taking Operations (K/LEDATA ED) > IBIS CDM-01 switch on	R	IBIS and JEMX PI to monitor and process VC-7 TM.	
2002/10/28 13:59:49	0:01:00	P4 + 4:39:20	Reset of the RMU integrator. Start of the RMU calibration.	R	FD to process the data and calculate the drift	
2002/10/28 14:00:49	0:10:11	P4 + 4:40:20	SPI High Temperature Outgassing Start (SPI-014, duration= ~1 and a 1/2 a day : 1/2 day for transient, 1 day for control at high temperature)	R	SPI PI to monitor the operation.	NOTE: the 1 day operations requires real time command and control from ground (at worst one TC every ~half an hour for 24 hours). For the purpose, a second Manual Stack can be used, so that SPI outgassing ops can be conducted in parallel to the following IBIS and PRB activities
2002/10/28 14:11:00	2:00:00	P4 + 4:50:31	IBIS Detector Section#4 Switch-on and Check (IBIS-023)	R	IBIS PI to monitor operations and process VC7 TM	Empty field required in the IBIS FOV
2002/10/28 14:11:00	0:05:00	P4 + 6:50:31	Uplink of the RMU drift update.	R	FD to produce the relevant TPF	
2002/10/28 14:16:00	21:09:00	P4 + 6:55:31	> Continuation of IBIS Detector Section#4 Switch-on and Check (IBIS-023) > IBIS Detector Section#5 Switch-on and Check (IBIS-024) > IBIS Detector Section#6 Switch-on and Check (IBIS-025) > IBIS Detector Section#7 Switch-on and Check (IBIS-026)	R	IBIS PI to monitor operations and process VC7 TM	Empty field required in the IBIS FOV
2002/10/29 11:25:00		P4 + 28:04:31	28:04:31 AOS Goldstone and beginning of track. Double station coverage.	R - G		
2002/10/29 11:25:00	0:10:00	P4 + 28:04:31	Team A on console for the PRB preparation.	R - G		
2002/10/29 13:35:00			Redundant TM connection to Goldstone.	R - G		
2002/10/29 11:35:00	0:30:00	P4 + 28:14:31	IMU's 1 and 3 on for warming-up.	R - G		
2002/10/26 13:20:00			Redundant TM connection to Goldstone.	R - G		
2002/10/29 12:05:00	2:00:00	P4 + 28:44:31	RWB and slew to the PRB attitude.	R - G	FD to produce the relevant TPF's	
2002/10/29 14:05:00	1:25:00	P4 + 30:44:31	IMU and RMU calibration.	R - G	FD to process the IMU/RMU TM and calculate the drift	
2002/10/29 15:30:00	0:10:00	P4 + 32:09:31	Uplink of new calibrated drifts.	R - G	FD to produce the relevant TPF	

UT	ACT. DURATION	TIME FROM PERIGEE	EVENT/ACTIVITY	GS	FD/PG	FCP Reference / Notes
2002/10/29 15:40:00	0:25:00	P4 + 32:19:31	OMC Imaging at PRB#4 attitude	R - G	OMC PI to process VC7 TM	No OMC imaging is performed in the subsequent PRB#5, as no time is available
2002/10/29 16:05:00	0:27:00	P4 + 32:44:31		R - G		
2002/10/29 16:32:00	0:18:03	P4 + 33:11:31	Uplink PRB commands(FDCE configuration + ACC parameters).	R - G	FD to produce the relevant TPF's. PG to confirm GO for the manoeuvre.	
2002/10/29 16:50:03	1:28:48	P4 + 33:29:34	PRB proper, Manoeuvre#4	R - G		
2002/10/29 18:18:51	0:14:00	P4 + 34:58:22	Margin for off modulation + T1 + T7	R - G		
2002/10/29 18:32:51	0:30:00	P4 + 35:12:22	Reconfiguration to IPS, update of parameters after the burn.	R - G	FD to produce the relevant TPF's	
2002/10/29 19:02:51	0:16:00	P4 + 35:42:22	Uplink PRB commands(FDCE configuration + ACC parameters).	R - G	FD to produce the relevant TPF's. PG to confirm GO for the manoeuvre.	
2002/10/29 19:18:51	0:08:36	P4 + 35:58:22	PRB proper, Manoeuvre#5. Monitor RCS thermal behaviour and AOCS parameters during the burn.	R - G		
2002/10/29 19:27:27	0:07:00	P4 + 36:06:58	Margin for off modulation + T1 + T7	R - G		
2002/10/29 19:34:27	0:30:00	P4 + 36:13:58	Reconfiguration to IPS, update of parameters after the burn.	R - G	FD to produce the relevant TPF's	
2002/10/29 20:04:27	0:15:00	P4 + 36:43:58	36:43:58 H/O Redu to Goldstone	G - R		
2002/10/29 20:19:27	0:30:00	P4 + 36:58:58	Slew to a sun boresighted attitude for the yaw inertia calibration.	G - R	FD to produce the relevant TPF's	
2002/10/29 22:37:46			Redu LOS, end of double station coverage.	G		
2002/10/29 20:49:27	1:00:00	P4 + 37:28:58	Yaw inertia calibration operations	G	FD to produce the relevant TPF's and process the results of the calibration	
2002/10/29 21:49:27	0:40:00	P4 + 38:28:58	RWB, if one is needed before the slew to the PP attitude.	G	FD to produce the relevant TPF's	
2002/10/29 22:29:27	0:05:00	P4 + 39:08:58	Update of S/C Inertias	G	FD to produce the relevant TPF's	
2002/10/29 22:34:27	1:20:00	P4 + 39:13:58	Slew to perigee passage attitude. In this case the PP attitude should be as close as possible to the apogee correction manoeuvre attitude, taking into account the constraints.	G	FD to produce the relevant TPF's	
2002/10/29 23:54:27	0:40:00	P4 + 40:33:58	RWB (if needed)	G	FD to produce the relevant TPF's	
2002/10/30 00:34:27	0:05:00	P4 + 41:13:58	IMU's 1 and 3 off.	G		
2002/10/30 00:39:27	0:10:33	P4 + 41:18:58		G		
2002/10/30 00:50:00		P4 + 41:29:31	End of Team A shift.	G		
2002/10/30 00:50:00	0:20:00	P4 + 41:29:31	OMC Imaging at LEOP Safe Attitude	G	OMC PI to process VC7 TM	
2002/10/30 01:10:00	1:20:00	P4 + 41:49:31	Spare	G		
2002/10/30 02:30:00	0:15:00	P4 + 43:09:31	43:09:31 H/O Goldstone to Redu.	R		
2002/10/30 02:45:00	4:35:00	P4 + 43:24:31	Spare	R		
2002/10/30 07:20:00	6:30:00	P4 + 47:59:31	> SPI Passive Cooling Start (SPI-060) > SPI Event Trigger Thresholds Checks (SPI-040) - ~ 1 3/4 hr > SPI ACS Calibrations (SPI-050) - ~6hr	R	SPI PI to monitor operations and process TM	Passive cooling duration = ~3 days to reach <35degC as pre-requisite to active cooling start (cryoocoolers start)
2002/10/30 13:50:00	0:01:00	P4 + 54:29:31	Reset RMU integrator and start the RMU calibration.	R	FD to process the RMU TM and calculate the drift	
2002/10/30 13:51:00	1:10:00	P4 + 54:30:31	Continuation of SPI-050	R	SPI PI	

UT	ACT. DURATION	TIME FROM PERIGEE	EVENT/ACTIVITY	GS	FD/PG	FCP Reference / Notes
2002/10/30 15:01:00	0:05:00	P4 + 55:40:31	Uplink RMU drift correction.	R	FD to produce the relevant TPF	
2002/10/30 15:06:00	3:39:00	P4 + 55:45:31	IBIS Detector Section#8 Switch-on and Check (IBIS-027)	R	IBIS PI to monitor operations and process VC7 TM	Empty field required in the IBIS FOV
2002/10/30 18:45:00	0:15:00	P4 + 59:24:31	59:24:31 H/O Redu to Goldstone	G		
2002/10/30 19:00:00	2:25:00	P4 + 59:39:31	Continuation of IBIS-027	G	IBIS PI	Empty field required in the IBIS FOV
2002/10/30 21:25:00	1:20:00	P4 + 62:04:31	Slew to the Apogee correction manoeuvre. It is assumed that a new RWB is not needed.	G	FD to produce the relevant TPF's	
2002/10/30 22:45:00	1:30:00	P4 + 63:24:31	IMU -1 and IMU-4 power on for warm-up, IMU selection in ACC and FDE. After 30 minutes, reset integrators and start data collection. Reset the RMU integrators and perform the RMU drift calibration as well.	G	FD to process the IMU/RMU TM and calculate the drift	
2002/10/31 00:15:00	0:15:00	P4 + 64:54:31	Uplink of the drift correction	G	FD to produce the relevant TPF	
2002/10/31 00:30:00	0:42:51	P4 + 65:09:31	RWB. This includes the setting of the FDE criteria to be used for PP (the FDE criteria are set to the TCM + Eclipse criteria following the instructions in the UM).	G	FD to produce the relevant TPF	
2002/10/31 03:12:51		P4 + 65:52:22	Start of AOCS PP.	G		
2002/10/31 03:12:51	1:17:09	P4 + 65:52:22		G		
2002/10/31 04:30:00	0:15:00	P4 + 67:09:31	H/O Goldstone to Perth.	P		
2002/10/31 04:45:00	2:40:00	P4 + 67:24:31		P		
2002/10/31 07:25:00	0:16:37	P4 + 70:04:31	LOS Checks	P		Insert Set IREM Ground Link Off (ED UEGROF01)
2002/10/31 07:41:37		P4 + 70:21:08	LOS Perth			
2002/10/31 07:41:37	0:18:23	P4 + 70:21:08				
2002/10/31 08:00:00		P4 + 70:39:31	Team A on console for the apogee adjustment manoeuvre.			
2002/10/31 08:00:00	0:12:51	P4 + 70:39:31				
2002/10/31 08:12:51		P4 + 70:52:22	Perigee passage, end of revolution 5			

REV #6

UT	ACT. DURATION	TIME FROM PERIGEE	EVENT/ACTIVITY	GS	FD/PG	FCP Reference / Notes
2002/10/31 08:12:51		P5 + 0:00:00	Perigee passage, start of revolution 6			
2002/10/31 08:12:51	0:28:13	P5 + 0:00:00				
2002/10/31 08:41:04	0:15:00	P5 + 0:28:13	AOS Goldstone, AOS checks	G		Insert: FCP_RFS_1010: First RF link Check. FCP_DHS_1270: Dump and Clear OBDH OEM Buffer. FCP_DHS_1235: Report On-board Monitoring Limit Check / Max and MIN Tables.
2002/10/31 08:56:04	0:15:02	P5 + 0:43:13		G		
2002/10/31 09:11:06		P5 + 0:58:15	AOS Vilspa. No connection, but double station coverage. This is formally required to have double station coverage one hour before the burn. If it is accepted to have only 46 minutes, then the Vilspa pass would not be needed.	G - V		
2002/10/31 09:11:06	0:13:54	P5 + 0:58:15		G - V		
2002/10/31 09:23:40		P5 + 1:12:09	AOS Redu.	G - V		
2002/10/31 09:25:00	0:15:00	P5 + 1:12:09	H/O Goldstone to Redu. Goldstone kept as backup. Vilspa is released.	R - G		
2002/10/31 09:40:00	0:31:06	P5 + 1:27:09	Uplink manoeuvre commands(FDCE configuration + ACC parameters).	R - G	FD to produce the relevant TPF's. PG to confirm GO for the manoeuvre.	
2002/10/31 10:11:06	0:10:00	P5 + 1:58:15	Delta-V proper, Apogee adjustment manoeuvre (10 minutes is a maximum duration).	R - G		
2002/10/31 10:21:06	0:06:00	P5 + 2:08:15	Margin for off modulation + T1 + T7	R - G		
2002/10/31 10:27:06	0:30:00	P5 + 2:14:15	Reconfiguration to IPS, update of parameters after the burn. It is assumed that the change in the S/C inertias due to this last manoeuvre is very small, and does not require an immediate yaw inertia calibration. Note that a complete inertia calibration is performed at the beginning of the next revolution.	R - G	FD to produce the relevant TPF's	
2002/10/31 10:57:06	0:40:00	P5 + 2:44:15	RWB.	R - G	FD to produce the relevant TPF	
2002/10/31 11:37:06	0:05:00	P5 + 3:24:15	IMU's 1 and 4 off.	R - G		
2002/10/31 11:42:06	0:17:54	P5 + 3:29:15		R - G		
2002/10/31 11:45:00			Goldstone End of Track	R - G		
2002/10/31 12:00:00		P5 + 3:47:09	End of Team A shift. If a slew is needed for attitude constraint reasons, it would be performed by the A team before the end of the shift. In this case the shift would be extended.	R		
2002/10/31 12:00:00	0:10:00	P5 + 3:47:09	Load of BP Group 1 for Rad Belt/Eclipse Entry/Exit Times	R	FD to produce the relevant input	Insert: FCP_DHS_1301: Load BCPKT G1 Parameters.
2002/10/31 12:10:00	0:45:00	P5 + 3:57:09	Rad Belt Exit operations: > JEMX1 and JEMX2 Electronic Calibrations at Rad Belt Exit (K/LECAL EDs) > JEMX1 and JEMX2 Nominal HV switch on at Rad Belt Exit (K/LEHVON and K/LEHVAJ EDs) > Resume JEMX1 and JEMX2 Data Taking Operations (K/LEDATA ED) > IBIS CDM-01 switch on	R	IBIS and JEMX PI to monitor and process VC-7 TM.	
2002/10/31 12:55:00	17:05:00	P5 + 4:42:09	> IBIS Nominal Activation (IBIS-030) - ~6 hr assuming all contexts update > SPI First Tuning of the ACS FEE Count Rates (SPI-070) - ~6 1/2 hr > SPI Influence of the Dead Time of the Saturating Extension (SPI-080) - ~2 hr > SPI Influence of the Different ACS Sections on the Dead Time (SPI-090) - ~2 1/2 hr	R	IBIS and SPI PI to monitor and process VC-7 TM.	Empty field required in the IBIS FOV for the IBIS activity
2002/11/01 06:00:00	0:01:00	P5 + 21:47:09	Reset RMU integrator and start the RMU calibration.	R	FD to process the RMU TM and calculate the drift	
2002/11/01 06:01:00	1:10:00	P5 + 21:48:09	Spare	R		
2002/11/01 07:11:00	0:05:00	P5 + 22:58:09	Uplink RMU drift correction.	R	FD to produce the relevant TPF	
2002/11/01 07:16:00	0:44:00	P5 + 23:03:09	Spare	R		

UT	ACT. DURATION	TIME FROM PERIGEE	EVENT/ACTIVITY	GS	FD/PG	FCP Reference / Notes
2002/11/01 08:00:00	6:00:00	P5 + 23:47:09	AOCS Thruster calibration	R	FD to process the the calibration data, and produce the relevant TPF's. PG to monitor the thruster calibration and confirm S/C stability during the calibration.	
2002/11/01 14:00:00	2:00:00	P5 + 29:47:09	AOCS transition to operational orbit parameters. For the SAS calibration, it is proposed to use the default values derived by Astrium, and derive the gains later toghether with the STR/FSS calibration.	R		
2002/11/01 16:00:00		**P5 + 31:47:09**	**END of LEOP**	**R**		
2002/11/01 16:00:00	15:00:00	P5 + 31:47:09	SPI PSD Thresholds Adjustment (SPI-110) - ~3 hr	R	SPI PI to monitor and process TM	
2002/11/02 07:00:00	2:00:00	P5 + 46:47:09	SPI Active Cooling Start (SPI-100).	R	SPI PI to monitor operations	Assuming that the temperature is </=35degC, the cryocoolers can start. It takes ~8 days to reach 90K at detector cold plate / TBD to reach 117K
2002/11/02 09:00:00	12:00:00	P5 + 48:47:09	AOCS Refined FSS/STR Calibration. This calibration consists of 12 pointings that could be used for OMC imaging if time allows.	R		
2002/11/02 21:00:00	3:15:00	P5 + 60:47:09	SPI PSD Thresholds Adjustment (SPI-110) {>60000km}		SPI PI to monitor and process VC7 TM	
2002/11/03 00:15:00	2:18:00	P5 + 64:02:09				
2002/11/03 02:33:00		P5 + 66:20:09	60000 Km crossing descending.			
2002/11/03 02:33:00	2:06:03	P5 + 66:20:09				
2002/11/03 04:39:03		P5 + 68:26:12	40000 Km crossing descending.			
2002/11/03 04:39:03	3:20:00	P5 + 68:26:12				
2002/11/03 07:57:20		P5 + 71:46:12	Perigee crossing. End of revolution 6.			

REV #7

UT	ACT. DURATION	TIME FROM PERIGEE	EVENT/ACTIVITY	GS	FD/PG	FCP Reference / Notes
2002/11/03 07:09:53		P6 + 0:00:00	Perigee passage, start of revolution 7			
2002/11/03 07:09:53	01:07:00	P6 + 0:00:00				
2002/11/03 08:16:53		P6 + 1:07:00	AOS Redu			
2002/11/03 08:16:53	00:15:00	P6 + 1:07:00	AOS Checks			Insert: FCP_RFS_1010: First RF link Check. FCP_DHS_1270: Dump and Clear OBDH OEM Buffer. FCP_DHS_1235: Report On-board Monitoring Limit Check / Max and MIN Tables.
2002/11/03 08:31:53	00:43:00	P6 + 1:22:00				
2002/11/03 09:14:53	01:00:00	P6 + 2:05:00	Rad Belt Exit operations:: > IBIS ISGRI Context Update (using TPF or OBSMS file) > IBIS ISGRI Calibration (GEISCL ED)			**NOTE: From this revolution, the routine ISGRI calibration ops at rad belt exit starts. ISDC can send the TPFs anytime from the next rev.**
2002/11/03 10:14:53	00:15:00	P6 + 3:05:00	Rad Belt Exit operations: > JEMX1 & JEMX2 Electronic Calibration (K/LEACAL EDs)			
2002/11/03 10:29:53		P6 + 3:20:00	40000 Km crossing ascending.			
2002/11/03 10:29:53	0:05:00	P6 + 3:20:00	Load of BP Group 1 for Rad Belt/Eclipse Entry/Exit Times			Insert: FCP_DHS_1301: Load BCPKT G1 Parameters.
2002/11/03 10:34:53	00:45:00	P6 + 3:25:00	Rad Belt Exit operations: > IBIS re-activation at Rad Belt Exit (GEBEXT ED) > JEMX1 and JEMX2 Nominal HV switch on at Rad Belt Exit (K/LEHVON and K/LEHVAJ EDs) > Resume JEMX1 and JEMX2 Data Taking Operations (K/LEDATA ED)			
2002/11/03 11:19:53	01:28:00	P6 + 4:10:00	AOCS Complete Inertia/RW calibration.			
2002/11/03 12:47:53		P6 + 5:38:00	60000 Km crossing ascending.			
2002/11/03 12:47:53	06:32:00	P6 + 5:38:00	Continuation of AOCS Complete Inertia/RW calibration.			
2002/11/03 19:19:53	45:00:00	P6 + 12:10:00	AOCS Radiation Torque Calibration.			NOTE : This AOCS calibration consists of 68 pointings that wil be used for OMC imaging ops (if time allows).
2002/11/05 16:19:53	05:00:00	P6 + 57:10:00	AOCS Slew Error Calibration.			
2002/11/05 21:19:53	01:45:00	P6 + 62:10:00	IBIS PMT HV Calibration (IBIS-040)		IBIS PI to monitor and process VC7 TM	Empty field required in the IBIS FOV
2002/11/05 23:04:53	02:25:00	P6 + 63:55:00	Spare			
2002/11/06 01:29:53		P6 + 66:20:00	60000 Km crossing descending.			
2002/11/06 01:29:53	02:06:12	P6 + 66:20:00	Spare			
2002/11/06 03:36:05		P6 + 68:26:12	40000 Km crossing descending.			
2002/11/06 03:36:05	03:20:00	P6 + 68:26:12				
2002/11/06 06:56:05		P6 + 71:46:12	Perigee crossing. End of revolution 7.			

REV #8

UT	ACT. DURATION	TIME FROM PERIGEE	EVENT/ACTIVITY	GS	FD/PG	FCP Reference / Notes
2002/11/06 07:06:23		P7 + 0:00:00	Perigee passage, start of revolution 8			
2002/11/06 07:06:23	01:07:00	P7 + 0:00:00				
2002/11/06 08:13:23		P7 + 1:07:00	AOS Redu			
2002/11/06 08:13:23	00:15:00	P7 + 1:07:00	AOS Checks			Insert: FCP_RFS_1010: First RF link Check. FCP_DHS_1270: Dump and Clear OBDH OEM Buffer. FCP_DHS_1235: Report On-board Monitoring Limit Check / Max and MIN Tables.
2002/11/06 08:28:23	01:58:00	P7 + 1:22:00	AOCS Worst Case Slew Error (RWB + slew).			
2002/11/06 10:26:23		P7 + 3:20:00	40000 Km crossing ascending.			
2002/11/06 10:26:23	0:05:00	P7 + 3:20:00	Load of BP Group 1 for Rad Belt/Eclipse Entry/Exit Times			Insert: FCP_DHS_1301: Load BCPKT G1 Parameters.
2002/11/06 10:31:23	01:00:00	P7 + 3:25:00	Rad Belt Exit operations (postponed due AOCS Worst Case Slew error activity): > IBIS ISGRI Context Update (using TPF or OBSMS file) > IBIS ISGRI Calibration (GEISCL ED)			
2002/11/06 11:31:23	00:15:00	P7 + 4:25:00	Rad Belt Exit operations: > JEMX1 & JEMX2 Electronic Calibration (K/LEACAL EDs)			
2002/11/06 11:46:23	00:58:00	P7 + 4:40:00	Rad Belt Exit operations: > IBIS re-activation at Rad Belt Exit (GEBEXT ED) > JEMX1 and JEMX2 Nominal HV switch on at Rad Belt Exit (K/LEHVON and K/LEHVAJ EDs) > Resume JEMX1 and JEMX2 Data Taking Operations (K/LEDATA ED)			
2002/11/06 12:44:23		P7 + 5:38:00	60000 Km crossing ascending.			
2002/11/06 12:44:23	26:00:00	P7 + 5:38:00	> VDM PMT HV Calibrations (IBIS-041) - ~ 7hr > VETO-PICSIT Delay (Anticoincidence Optimisation) (IBIS-050) - ~2hr > VETO-ISGRI Delay (Anticoincidence Optimisation) (IBIS-051) - ~2hr > PICSIT-ISGRI Synchronisation (Comptom Optimisation) (IBIS-055) - ~2 1/2 hr > VETO Thresholds Optimisation - ~4 hr > VETO Zoning Optimisation - ~8 hr		IBIS PI to monitor and process VC7 TM	Empty field required in the IBIS FOV.
2002/11/07 14:44:23	21:00:00	P7 + 31:38:00	> SPI Camera Switch-on at 117K (SPI-200) - ~12 1/2 hr > SPI Spectra Check in Dithering Sequence (SPI-201) - ~ 4 1/2 hr > SPI Instrument Health Status Main Check (SPI-210) - ~4 hr		SPI PI to monitor and process VC7 TM	Assuming that cold plate temp=/<117K, then these SPI actrivities can start
2002/11/08 11:44:23	13:42:00	P7 + 52:38:00	> Slew to X Ray Source according to activity JEM-011 - ~1 hr > JEMX1 and JEMX2 Diagnostic Data Collection (JEM-011)- ~12 hr		JEMX PI to monitor and process VC7 TM	The new target will be also exploited by OMC and IBIS for science ops
2002/11/09 01:26:23		P7 + 66:20:00	60000 Km crossing descending.			
2002/11/09 01:26:23	02:06:12	P6 + 66:20:00	Slew to PP passage attitude if required.			
2002/11/09 03:32:35		P7 + 68:26:12	40000 Km crossing descending.			
2002/11/09 03:32:35	03:20:00	P7 + 68:26:12				
2002/11/09 06:52:35		P7 + 71:46:12	Perigee crossing. End of revolution 8.			

REV #9

UT	ACT. DURATION	TIME FROM PERIGEE	EVENT/ACTIVITY	GS	FD/PG	FCP Reference / Notes
2002/11/09 07:02:53		P8 + 0:00:00	Perigee passage, start of revolution 9			
2002/11/09 07:02:53	01:07:00	P8 + 0:00:00				
2002/11/09 08:09:53		P8 + 1:07:00	AOS Redu			
2002/11/09 08:09:53	00:15:00	P8 + 1:07:00	AOS Checks			Insert: FCP_RFS_1010: First RF link Check. FCP_DHS_1270: Dump and Clear OBDH OEM Buffer. FCP_DHS_1235: Report On-board Monitoring Limit Check / Max and MIN Tables.
2002/11/09 08:24:53	00:43:00	P8 + 1:22:00				
2002/11/09 09:07:53	01:00:00	P8 + 2:05:00	Rad Belt Exit operations:: > IBIS ISGRI Context Update (using TPF or OBSMS file) > IBIS ISGRI Calibration (GEISCL ED)			
2002/11/09 10:07:53	00:15:00	P8 + 3:05:00	Rad Belt Exit operations: > JEMX1 & JEMX2 Electronic Calibration (K/LEACAL EDs)			
2002/11/09 10:22:53		P8 + 3:20:00	40000 Km crossing ascending.			
2002/11/09 10:22:53	0:05:00	P8 + 3:20:00	Load of BP Group 1 for Rad Belt/Eclipse Entry/Exit Times			Insert: FCP_DHS_1301: Load BCPKT G1 Parameters.
2002/11/09 10:27:53	00:45:00	P8 + 3:25:00	Rad Belt Exit operations: > IBIS re-activation at Rad Belt Exit (GEBEXT ED) > JEMX1 and JEMX2 Nominal HV switch on at Rad Belt Exit (K/LEHVON and K/LEHVAJ EDs)			
2002/11/09 11:12:53	01:28:00	P8 + 4:10:00	Spare			
2002/11/09 12:40:53		P8 + 5:38:00	60000 Km crossing ascending.			
2002/11/09 12:40:53	18:00:00	P8 + 5:38:00	SPI Camera performances for various High Voltages at 90K (SPI-230)			
2002/11/10 06:40:53	22:00:00	P8 + 23:38:00	> JEMX Detector off-axis calibrations (JEM-013) - ~22hr > In parallel to JEMX ops: SPI Influence of High Energy Clamping of PA (SPI-240) - ~2hr > In parallel to JEMX ops: SPI PSD Thresholds and AFEE Energy Thresholds Calibration (SPI-250) - ~1 1/2 hr > In parallel to JEMX ops: SPI GeD HVs + (AFEE,PSD) Thresholds Update and Check (SPI-260) - ~6 1/2 hr > In parallel to JEMX ops: SPI Internal Timing Optimisation - PSD and AFEE TT Alignment (SPI-270) - ~2 1/4 hr		JEMX and SPI PI to monitor and process VC7 TM	The new targets achieved during JEM-013 will be also exploited by OMC and IBIS for science ops
2002/11/11 04:40:53		P8 + 45:38:00	**End of the IBIS, JEMX and OMC Commissioning Activities conducted by MOC**			ISOC can start PV phase for IBIS, JEMX and OMC from the next revolution
2002/11/11 04:40:53	20:42:00	P8 + 45:38:00	> SPI Internal Timing Optimisation - Veto Pulse and AFEE TT Size Setting (SPI-274) - ~2 1/4 hr > SPI Internal Timing Optimisation - Veto Pulse and PSD TT Size Setting (SPI-278) - ~2 1/4 hr > Slew to Empty Field - ~1hr > SPI First Step of PSD Calibration (SPI-280) - tot ~24hr >60000km		SPI PI to monitor and process VC7 TM	Empty field required in SPI FOV for PSD Calibration The new target will be also exploited by OMC and IBIS for science ops SPI-280 to be continued in the next revolution - TBC by CNES if OK
2002/11/12 01:22:53		P8 + 66:20:00	60000 Km crossing descending.			
2002/11/12 01:22:53	02:06:12	P8 + 66:20:00	Slew to PP passage attitude if required.			
2002/11/12 03:29:05		P8 + 68:26:12	40000 Km crossing descending.			
2002/11/12 03:29:05	03:20:00	P8 + 68:26:12				
2002/11/12 06:49:05		P8 + 71:46:12	Perigee crossing. End of revolution 9			

REV #10

UT	ACT. DURATION	TIME FROM PERIGEE	EVENT/ACTIVITY	GS	FD/PG	FCP Reference / Notes
2002/11/12 06:59:23		P9 + 0:00:00	Perigee passage, start of revolution 10			
2002/11/12 06:59:23	01:07:00	P9 + 0:00:00				
2002/11/12 08:06:23		P9 + 1:07:00	AOS Redu			
2002/11/12 08:06:23	00:15:00	P9 + 1:07:00	AOS Checks			Insert: FCP_RFS_1010: First RF link Check. FCP_DHS_1270: Dump and Clear OBDH OEM Buffer. FCP_DHS_1235: Report On-board Monitoring Limit Check / Max and MIN Tables.
2002/11/12 08:21:23	00:43:00	P9 + 1:22:00				
2002/11/12 09:04:23	01:00:00	P9 + 2:05:00	Rad Belt Exit operations:: > IBIS ISGRI Context Update (using TPF or OBSMS file) > IBIS ISGRI Calibration (GEISCL ED)			
2002/11/12 10:04:23	00:15:00	P9 + 3:05:00	Rad Belt Exit operations: > JEMX1 & JEMX2 Electronic Calibration (K/LEACAL EDs)			
2002/11/12 10:19:23		P9 + 3:20:00	40000 Km crossing ascending.			
2002/11/12 10:19:23	0:05:00	P9 + 3:20:00	Load of BP Group 1 for Rad Belt/Eclipse Entry/Exit Times			Insert: FCP_DHS_1301: Load BCPKT G1 Parameters.
2002/11/12 10:24:23	00:45:00	P9 + 3:25:00	Rad Belt Exit operations: > IBIS re-activation at Rad Belt Exit (GEBEXT ED) > JEMX1 and JEMX2 Nominal HV switch on at Rad Belt Exit (K/LEHVON and K/LEHVAJ EDs)			
2002/11/12 11:09:23	01:28:00	P9 + 4:10:00	Slew to Empty Field for PSD Calibration			
2002/11/12 12:37:23		P9 + 5:38:00	60000 Km crossing ascending.			
2002/11/12 12:37:23	10:00:00	P9 + 5:38:00	Continuation of SPI First Step of PSD Calibration (SPI-280) - tot ~24hr >60000km		SPI PI to monitor and process VC7 TM	From previous rev.
2002/11/12 22:37:23	25:30:00	P9 + 15:38:00	SPI Influence of SPI ACS Thresholds on the background (SPI-290)		"	
2002/11/14 00:07:23	4:15:00	P9 + 41:08:00	SPI Influence of the extension of the saturated events on the background (SPI-300)		"	
2002/11/14 04:22:23	20:57:00	P9 + 45:23:00	SPI Influence of the ACS+PSAC parameters on the sensibility - ACS best configurations (SPI-310): ~36 hr data collection > 60000km		"	SPI-310 to be continued in the next revolution - TBC by CNES if OK
2002/11/15 01:19:23		P9 + 66:20:00	60000 Km crossing descending.			
2002/11/15 01:19:23	02:06:12	P9 + 66:20:00	Slew to PP passage attitude if required.			
2002/11/15 03:25:35		P9 + 68:26:12	40000 Km crossing descending.			
2002/11/15 03:25:35	03:20:00	P9 + 68:26:12				
2002/11/15 06:45:35		P9 + 71:46:12	Perigee crossing. End of revolution 10			

REV #11

UT	ACT. DURATION	TIME FROM PERIGEE	EVENT/ACTIVITY	GS	FD/PG	FCP Reference / Notes
2002/11/15 06:55:53		P10 + 0:00:00	Perigee passage, start of revolution 11			
2002/11/15 06:55:53	01:07:00	P10 + 0:00:00				
2002/11/15 08:02:53		P10 + 1:07:00	AOS Redu			
2002/11/15 08:02:53	00:15:00	P10 + 1:07:00	AOS Checks			Insert: FCP_RFS_1010: First RF link Check. FCP_DHS_1270: Dump and Clear OBDH OEM Buffer. FCP_DHS_1235: Report On-board Monitoring Limit Check / Max and MIN Tables.
2002/11/15 08:17:53	00:43:00	P10 + 1:22:00				
2002/11/15 09:00:53	01:00:00	P10 + 2:05:00	Rad Belt Exit operations:: > IBIS ISGRI Context Update (using TPF or OBSMS file) > IBIS ISGRI Calibration (GEISCL ED)			
2002/11/15 10:00:53	00:15:00	P10 + 3:05:00	Rad Belt Exit operations: > JEMX1 & JEMX2 Electronic Calibration (K/LEACAL EDs)			
2002/11/15 10:15:53		P10 + 3:20:00	40000 Km crossing ascending.			
2002/11/15 10:15:53	0:05:00	P10 + 3:20:00	Load of BP Group 1 for Rad Belt/Eclipse Entry/Exit Times			Insert: FCP_DHS_1301: Load BCPKT G1 Parameters.
2002/11/15 10:20:53	00:45:00	P10 + 3:25:00	Rad Belt Exit operations: > IBIS re-activation at Rad Belt Exit (GEBEXT ED) > JEMX1 and JEMX2 Nominal HV switch on at Rad Belt Exit (K/LEHVON and K/LEHVAJ EDs)			
2002/11/15 11:05:53	01:28:00	P10 + 4:10:00	Spare			
2002/11/15 12:33:53		P10 + 5:38:00	60000 Km crossing ascending.			
2002/11/15 12:33:53	15:15:00	P10 + 5:38:00	Continuation of SPI Influence of the ACS+PSAC parameters on the sensibility - ACS best configurations (SPI-310): ~36 hr data collection > 60000km		SPI PI to monitor and process VC7 TM	From previous rev
2002/11/16 03:48:53	24:15:00	P10 + 20:53:00	SPI Influence of the ACS+PSAC parameters on the sensibility - PSAC efect on he sensibility (SPI-314)		"	
2002/11/17 04:03:53	21:12:00	P10 + 45:08:00	SPI Influence of the ACS+PSAC parameters on the sensibility - ACS+ PSAC final configuration (SPI-318) - ~24hr > 60000km		"	SPI-318 to be continued in the next revolution - TBC by CNES if OK
2002/11/18 01:15:53		P10 + 66:20:00	60000 Km crossing descending.			
2002/11/18 01:15:53	02:06:12	P10 + 66:20:00	Slew to PP passage attitude if required.			
2002/11/18 03:22:05		P10 + 68:26:12	40000 Km crossing descending.			
2002/11/18 03:22:05	03:20:00	P10 + 68:26:12				
2002/11/18 06:42:05		P10 + 71:46:12	Perigee crossing. End of revolution 11			

REV #12

UT	ACT. DURATION	TIME FROM PERIGEE	EVENT/ACTIVITY	GS	FD/PG	FCP Reference / Notes
2002/11/18 06:52:23		P11 + 0:00:00	Perigee passage, start of revolution 12			
2002/11/18 06:52:23	01:07:00	P11 + 0:00:00				
2002/11/18 07:59:23		P11 + 1:07:00	AOS Redu			
2002/11/18 07:59:23	00:15:00	P11 + 1:07:00	AOS Checks			Insert: FCP_RFS_1010: First RF link Check. FCP_DHS_1270: Dump and Clear OBDH OEM Buffer. FCP_DHS_1235: Report On-board Monitoring Limit Check / Max and MIN Tables.
2002/11/18 08:14:23	00:43:00	P11 + 1:22:00				
2002/11/18 08:57:23	01:00:00	P11 + 2:05:00	Rad Belt Exit operations:: > IBIS ISGRI Context Update (using TPF or OBSMS file) > IBIS ISGRI Calibration (GEISCL ED)			
2002/11/18 09:57:23	00:15:00	P11 + 3:05:00	Rad Belt Exit operations: > JEMX1 & JEMX2 Electronic Calibration (K/LEACAL EDs)			
2002/11/18 10:12:23		P11 + 3:20:00	40000 Km crossing ascending.			
2002/11/18 10:12:23	0:05:00	P11 + 3:20:00	Load of BP Group 1 for Rad Belt/Eclipse Entry/Exit Times			Insert: FCP_DHS_1301: Load BCPKT G1 Parameters.
2002/11/18 10:17:23	00:45:00	P11 + 3:25:00	Rad Belt Exit operations: > IBIS re-activation at Rad Belt Exit (GEBEXT ED) > JEMX1 and JEMX2 Nominal HV switch on at Rad Belt Exit (K/LEHVON and K/LEHVAJ EDs)			
2002/11/18 11:02:23	01:28:00	P11 + 4:10:00	Spare			
2002/11/18 12:30:23		P11 + 5:38:00	60000 Km crossing ascending.			
2002/11/18 12:30:23	3:00:00	P11 + 5:38:00	Continuation of SPI Influence of the ACS+PSAC parameters on the sensibility - ACS+ PSAC final configuration (SPI-318) - ~24hr > 60000km		SPI PI to monitor and process VC7 TM	From previous rev
2002/11/18 15:30:23	12:05:00	P11 + 8:38:00	SPI Measurement of the background with one ACS BGO Inactive (SPI-320)		"	
2002/11/19 03:35:23	5:00:00	P11 + 20:43:00	Spare			
2002/11/19 08:35:23	21:00:00	P11 + 25:43:00	SPI Second Step of PSD Calibration (SPI-330)		SPI PI to monitor and process VC7 TM	Uploading of the new PSD library an transition to PSD calibration for 12 hr Empty field is required in the SPI FOV for PSD Calibration
2002/11/20 05:35:23	20:37:00	P11 + 46:43:00	Spare			
2002/11/21 02:12:23		P8 + 67:20:00	**End of the SPI Commissioning Activities conducted by MOC**			ISOC can start PV phase for SPI from the next revolution
2002/11/21 02:12:23		P11 + 67:20:00	60000 Km crossing descending.			
2002/11/21 02:12:23	02:06:12	P11 + 67:20:00	Slew to PP passage attitude if required.			
2002/11/21 04:18:35		P11 + 69:26:12	40000 Km crossing descending.			
2002/11/21 04:18:35	03:20:00	P11 + 69:26:12				
2002/11/21 07:38:35		P11 + 72:46:12	Perigee crossing. End of revolution 12			

IMU's 1&3

ON	OFF	TIME ON
2002/10/17 06:13:21	2002/10/17 14:41:30	8:28:09
2002/10/18 12:35:00	2002/10/18 16:10:00	3:35:00
2002/10/21 05:10:00	2002/10/21 06:20:00	1:10:00
2002/10/23 23:10:00	2002/10/24 10:47:10	11:37:10
2002/10/26 13:10:00	2002/10/27 03:06:20	13:56:20
2002/10/29 13:30:00	2002/10/30 02:34:27	13:04:27

IMU's 2&4

ON	OFF	TIME ON
2002/10/17 16:30:00	2002/10/17 19:10:00	2:40:00

IMU's 1&4		
ON	OFF	TIME ON
2002/10/19 15:25:00	2002/10/20 07:10:00	15:45:00
2002/10/22 09:35:00	2002/10/22 23:46:00	14:11:00
2002/10/25 04:20:00	2002/10/25 16:25:00	12:05:00
2002/10/28 00:55:29	2002/10/28 12:54:49	11:59:20
2002/10/31 00:45:00	2002/10/31 11:37:06	10:52:06

IMU 1 ON TIME	116:43:32
IMU 2 ON TIME	2:40:00
IMU 3 ON TIME	51:51:06
IMU 4 ON TIME	64:52:26