ANOMALIES (01.01.2009 - 31.12.2009)

On June 22 2003 the ERS-2 tape recorder became permanently unavailable due to a technical failure. The ERS-2 tape recorders were used to record the ERS-2 Low Rate mission globally. After eight years of continuous acquisition, this service was discontinued. The ERS-2 Low Rate mission has continued within the visibility of ESA ground stations over Europe, North Atlantic, the Arctic, Antarctica and western North America.

Additionally, the DLR Antarctic Receiving Station at the O'Higgins base has been �providing GOME data in near-real time since 22 October 2003, allowing the continuation of the monitoring of the ozone hole over the South Pole. During the year 2006 two new stations have been added: Hobart (13 February 2006), and Singapore (18 October 2006). In 2007 the station of Chetumal (Mexico, 19 October 2007) has been added. In 2008 the station of Johannesburg (South Africa, 17 July 2008) has been added. Currently GOME data are acquired at the following ground stations:

Kiruna (Sweden), Maspalomas (Canary Islands, Spain), Gatineau and Prince Albert (Canada), McMurdo (Antarctica), Matera (Italy), Singapore, Beijing (China), Miami (USA), Chetumal (Mexico), Hobart (Tasmania), Johannesburg (South Africa), O�Higgins (Antarctica).

In 2008-2009 padded frames (frame 20) occurred (February-September 2008; from 18th December on) due to ATSR/IRR switch off. This feature disappeared after ATSR IRR switch on (3 February 2009, without heater and stirling coolers to minimize power consumption).

Special GOME operations such as the operational switch off/switch-on in time tag (on calendar days 04, 14, 24 each month) are continuing after the unavailability of the tape recorders. Nevertheless due to the non completeness of data, analysis of cooler switchings and instrument switch-offs cannot be completely performed and detailed information is missing in the tables below.

Quarterly calibration is operated in the following way:

5 Calibration orbits are scheduled for 28 January, 28 April, 28 July, 28 October each calendar year started in October 2004.

The yearly report gives an overview on Lamp Failures as well as on nominally executed calibration lamp sequences. ��

Since June 2009 a new daily report is published on the web at

GOME/NEWDAILY/REPORTS/; past reports, starting from the year 2000, are also available on the same pages. We recommend to refer to such pages for detailed instrument/data information.

listed are:

- 1. single event upsets
- 2. patches of the on-board software
- 3. cooler switchings
- 4. list of datagaps due to anomalies or special GOME instrument operations
- 5. timeline interruption (operation in static nadir view)
- 6. narrow swath timeline GMNNOT41
- 7. commanding problems incorrect timelines executions
- 8. moon measurements
- 9. lamp failures
- **10.** Calibration Lamp Sequences without Lamp Failure
- **11.** other events



single event upsets: I

Date	reason
24/02/09	GOME anomaly started on 24/02/2009 before ~10:57 (outside station visibility), orbit 72407, until orbit 72408, before� 13:54 (outside station visibility),
	- 3xNack flag set
	- scan mirror position set to 261.8 deg
	ï¿ ¹ / ₂ - scan motor temp. increased by ca 40 deg K
	ï¿ ¹ / ₂ - scan mirror temp.ï¿ ¹ / ₂ increased by ca 10 deg K
	ï¿ ¹ / ₂ - scan unit temp.ï¿ ¹ / ₂ increased by ca 20 deg K
	- scan motor current value at 64240 BU, instead ca. 38000
	this anomaly was cured withi; 1/2 GOME Power Cyclei; 1/2 (GMN11) on 24/02/2009, at 13:45:49, orbit 72408; data at ca 13:54, orbit 72408, are nominal again
25/03/09	GOME anomaly during orbits 72823-72824, between ca.13:14:39 UTC and 15:11:31 UTC due to a SEU:
	Anomalous parameter settings were observed (constant temperature values);
	the anomaly was cured with a GOME Power Cyclei; 1/2 (GMN11) on 25/03/2009, at 15:11:31, orbit 72824; some temperature were out of range afterwards after the GMN11 (ca. 2-4 K higher than nominally), de
26/03/09	GOME anomaly during orbits 72842 - 27843, ca 20:11:17 UTC � 21:49:22
	- FPA detector (1-4) temperatures out of limit
	This anomaly was cured with GOME (GMN11) Power Cycle on 26/03/09 at 21:22:09, orbit 72843,
	- after the execution of GMN11 the scan mirror position was at zero between ca 21:39:39and 21:49:27;
	MPS resumed at 21:49:22
20/04/09	GOME anomaly during orbits 73188-73189, between ca. 00:03 UTC and ca 02:38 UTC: anomalous temperature values were observed;
	This anomaly was cured with GOME (GMN11) Power Cycle on 20/04/09 at 03:07:17, orbit 73189
14/06/09 -	GOME anomaly during orbits 73987-73990, between ca. 19:50 UTC and ca 00:45 UTC (15/06/09) : anomalous temperature values were observed;
15/06/09	This anomaly was cured with GOME (GMN11) Power Cycles on 14/06/09 at 21:01:53, orbit 73988, andi¿1/2 on 15/06/09 at 00:23:05, orbit 73990
18/06/09 -	GOME anomaly during orbits 74041-74052, between ca. 14:00 UTC and ca 10:00 UTC (19/06/09): anomalous Channel 1, 2 & 4 Summation values
19/06/09	This anomaly was cured with GOME (GMN11) Power Cycles on 19/06/09 at 10:01, orbit 74052
23/06/09	GOME anomaly during orbits 74104 -74115, between ca. 00:00 UTC and ca 18:25: anomalous Channel 2 & Channel 4 Summation values
	This anomaly was cured with GOME (GMN11) Power Cycles at 18:25, orbit 74115
04-05/07/09	GOME anomaly during orbits 74273 - 74277, between ca. 19:24 UTC (04/07/09) and ca 01:59 UTC (05/07/09): 3Nack Flag set;
	This anomaly was cured with GOME (GMN11) Power Cycle on 05/07/09 at 01:35:05 UTC, orbit 74276
24/10/09	GOME anomaly occurredï¿ ¹ / ₂ betweenï¿ ¹ / ₂ 10:53ï¿ ¹ / ₂ andï¿ ¹ / ₂ 11:19 UTC (Start/Stop outside gs visibility), orbit 75871:
	- 3Nack Flag
	setü / źi į / źi j / źi į / źi j / źi į / źi j / źi
	- scan mirror motor current t ca. 655351 $\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}{21}\frac{1}$
0.1/(2.12 2	This anomaly was cured with GOME (GMN11) Power Cycle on 24/10/09 at 12:00:43 UTC, orbit 75872
04/12/09	GOME anomaly occurredï¿ ¹ / ₂ between 13:17:48 and 16:05:59
	UTC (Stop outside gs visibility), orbits 76459-76461:
	- scan mirror motor current t ca. 9800ï ₁ /2ï ₁
	MPS resumed ati¿1/2 19:25:06

patches of the on-board software: none

cooler switchings:

Date	coolers off/on	maximum detector warm up temperature [Kelvin]
08/02/09 -	�~14:28 (08/02/09) off	FPA 1: 259.7
09/02/09	12:18:43 (09/02/09) on	FPA 2: 260.5
		FPA 3: 260.2
		FPA 4: 260.6





y), decreasing toward normal values afterwards.

¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï¿¹/2ï²/2ï²/2ï²/2ï²/2ï²/2ï²/2ï²/2ï²/2ï²/2ï²/2ï²/2ï²/2ï²/2ï²/2ï²/2ï²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²²/2²/2²²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/2²/

26/03/09	18:32:39 Off	FPA 1: 268.6
	18:34:4 On	FPA 2: 269.2
		FPA 3: 268.8
		FPA 4: 269.1
26/03/09	20:08:48 Off	FPA 1: 268.4
	20:22:27 On	FPA 2: 269.0
		FPA 3: 268.6
		FPA 4: 269.0
05/05/09	11:35:04 (outside gs visibility) Off	FPA 1: 278.8
	16:00:04 On	FPA 2: 279.6
		FPA 3: 279.1
		FPA 4: 279.5
22/0509 -	21:09:44 (outside gs visibility) Off	FPA 1: 273.0
23/05/09	11:17:59 (outside gs visibility) On	FPA 2: 274.0
		FPA 3: 273.7
		FPA 4: 274.0
06/06/09	12:39:09 (outside gs visibility) Off	FPA 1: 279.0
	14:12:04ï¿ ¹ ⁄2 (outside gs visibility)	FPA 2: 279.9
	On	FPA 3: 279.6
		FPA 4: 279.8

list of datagaps due to anomalies or special GOME instrument operations: (For detailed information see monthly performance)

Date	Orbit	duration (GOME off/start of	reason
		nominal operations)	
08/08/09 -�� 09/02/09	72180 -�� 72193	ca 14:28 - ca 12:05	Data gap due to GOME unpowered (see unavailability report ER- UNA-2009006)
09/02/09	72195	ca 16:10 - ca 17:03	Data gap due to TML1 stopped/activated (see unavailability report ER- UNA-2009007)
26/03/09	72838 - 72841	14:10:39 - 18:28:13	Dat gap due to GOME unpowered (see unavailability report ERS-2 2009009)
05/05/09	73409 -	11:35:04� -	Data gap due to GOME
	73411	14:22:53	unpowered (ERS-2 Unavailability Report 2009016)
22/05/09 -	73658 -	21:09:44 -	Data gap due to GOME
23/05/2009	73665	11:17:59	unpowered (ERS-2 Unavailability Report 2009020)
06/06/09	73867 -		Data gap due to GOME
	73868		unpowered (ERS-2 Unavailability Report 2009026)
18/06/09 -	74041 -	ca 14:00 -	Data gap due to GOME SEU
19/06/09	74052	caï¿1⁄2 10:00	
23/06/09	74104 -74115	ca 00:00 - ca 18:25	Data gap due to GOME SEU



09/08/09		01:59:21 - 09:01:51	Data gap due to GOME unpowered (ERS-2 Unavailability Report 2009038)
04/12/09	76459 - 76461		Data gap due to GOME SEU (ERS-2 Unavailability Report 2009059)

Timeline Interruption (operations in static nadir view):

Date	Orbit No.	duration	reason
09/02/08	72195	ca 16:10 - ca 17:03	GOME TML1 stopped/activated
			(ERS-2 Unavailability Report
			2009007)
20/04/09	73190	Start before 03:28:39 (outside	GOME in Nadir Static View
		gs visibility) Stop after	
		03:34:48 (outside gs	
		visibility)	
24/05/09	73685	Start 11:31:31	GOME in Nadir Static View
		Stop 12:26:55	
23/06/09	74114	Start 16:44	GOME in Nadir Static View
		Stop 18:25	
28/07/09	74614	Start 15:00	GOME in Nadir Static View
		�Stop 16:30	
11/09/09	75259	16:09:40 - 16:36:14	GOME in Nadir Static View (see
			ERS2-UNA 2009/048) due to
			payload synchronization
13/10/09	75718	Start 18:44:36	GOME unavailableï¿ ¹ /2 due to
		�Stop 19:55:28	Payload synchronization (ERS-2
			Unavailability Report 2009054)
28/10/09	75927-75928	Start: 08:30	GOME in Nadir Static View
		Stop: 11:00	

Narrow Swath Timeline GMNNOT41

Date	Orbit No.	Duration
04-05/01/09	71678 -71691	~12:30 (04/01/09) - ~10:00 (05/01/09)
14-15/01/09	71822 - 71834	~14:00 (14/01/09) - ~11:00 (15/01/09)
24-25/01/09	71964 - 71980	~12:00 (24/01/09) - ~14:30 (25/01/09)
04-05/02/09	72122 - 72142	~13:00 (04/02/09) - ~10:30 (05/02/09)
14-15/02/09	72266 - 72279	~14:00 (14/02/09) - ~12:00 (15/02/09)
24-25/02/09	72409 - 72421	~14:00 (24/02/09) - ~10:00 (25/02/09)
04-05/03/09	72526 - 72539	~18:30 (04/03/09) - ~16:30 (05/03/09)
14-15/03/09	72668 - 72681	~16:00 (14/03/09) - ~14:00 (15/03/09)
24-25/03/09	72812 - 72824	~18:00 (24/03/09) - ~14:30 (25/03/09)
04-05/04/09	72970 - 72985	~18:30 (04/04/09) - ~19:00 (05/04/09)
14-15/04/09	73114 - 73127	~20:00 (14/04/09) - ~17:30 (15/04/09)
24-25/04/09	73258 - 73271	~21:00 (24/04/09) - ~18:30 (25/04/09)
04-05/05/09	73400 - 73410	~19:30 (04/05/09) - ~12:00 (05/05/09)
14-15/05/09	73544 - 73557	~21:00 (14/05/09) - ~18:00 (15/05/09)
24-25/05/09	73686 - 73699	~19:00 (24/05/09) - ~17:00 (25/05/09)
04-05/06/09	73844 - 73857	~20:00 (04/06/09) - ~18:00 (05/06/09)
14-15/06/09	73987-73990	~20:00 (14/06/09) - ~00:30 (15/06/09)
24-25/06/09	74130- 74143	~19:30 (24/06/09) - ~17:00 (25/06/09)



05/07/09	74277 - 74286	~00:00 (05/07/09) - ~18:00 (05/07/09)
14-15/07/09	74416 - 74429	~19:00 (14/07/09) - ~17:00 (15/07/09)
24-25/07/09	74560 - 74574	~20:30 (24/07/09) - ~20:00 (25/07/09)
04-05/08/09	74718 - 74731	~21:30 (05/08/09) - ~19:30 (05/08/09)
14-15/08/09	74860 - 74872	~19:30 (14/08/09) - ~17:00 (15/08/09)
24-25/08/09	75004 - 75017	~21:00 (24/08/09) - ~18:30 (25/08/09)
04-05/09/09	75160 - 75175	~18:30 (04/09/09) - ~19:00 (05/09/09)
14-15/09/09	75304 - 75317	~20:00 (14/09/09) - ~18:00 (15/09/09)
24-25/09/09	75448 - 75461	~21:30 (24/09/09) - ~18:30 (25/09/09)
04-05/10/09	75588 - 75601	~16:00 (04/10/09) - ~14:00 (05/10/09)
14-15/10/09	75732 - 75745	~18:00 (14/10/09) - ~15:00 (15/10/09)
24-25/10/09	75872 - 75885	~12:00 (24/10/09) - ~10:00 (25/10/09)
04-05/11/09	76030 - 76043	~13:00 (04/11/09) - ~10:30 (05/11/09)
14-15/11/09	76174 - 76187	~14:30 (14/11/09) - ~12:00 (15/11/09)
24-25/11/09	76136 - 76329	~12:30 (24/1109) - ~10:30 (25/11/09)
04-07/12/09	76464 - 76504	~21:30 (04/12/09) - ~12:00 (07/12/09)
14-15/12/09	76603 - 76617	~14:00 (14/12/09) - ~13:00 (15/12/09)
24-25/12/09	76746 - 76759	~13:30 (24/12/09) - ~11:00 (25/12/09)

Commanding Problems ï¿¹/2 Incorrect Timelines Executions:

Date	Orbit No.	Duration	remark
05-07/12/09	- 76504	$ \begin{array}{c} \ddot{i}_{\dot{\ell}} \frac{1}{2} \ddot{i}_{\dot{\ell}} \frac{1}{2$	Narrow� Narrow Swath Timeline continuation

Moon Measurements: none

Lamp Failures:

Date	Lamp Failure / Orbit	remark
28/01/09	Lamp Failure (no. 248 � 249) Orbits 72023,� 72026	Lamp Failures occurred during quarterly calibration sequences, voltage at a value of ca. 180 V instead of nominally 198 V orbit 72023 start before 15:14:14� - stop 15:24:14 orbit 72026 start before 19:57:43� (no visibility gs)� - stop 20:03:48



26/03/09	Lamp Failure	Lamp Failure occurred during
	(no. 250)	TST44�
	Orbit 72842	Start 20:20:28
		Stop 20:20:42
		voltage at ~179 (nominal would be
		\sim 198 V), flag set between 20:20:42 and after 20:21:36 (no visibility gs)
28/10/09	I amn Failure	L amp Eailure occurred during
20/10/07	(no 251)	quarterly calibration
	Orbit 75930	Start 13:53:22
	01011 75750	Stop 13:58:05 (no visibility gs)
29/10/09	Lamp Failure	Lamp Failure occurred during
	(no. 252)	quarterly calibration
	Orbit 75948	Start 20:47:31
		Stop 20:54:20 (no visibility gs)
29/10/09	Lamp Failure	Lamp Failure occurred during
	(no. 253)	quarterly calibration
	Orbit 75949	Start 21:20:07 (no visibility gs)
		Stop 21:32:39
30/10/09	Lamp Failure	Lamp Failure occurred during
	(no. 254)	quarterly calibration
	Orbit 75950	Start 00:08:44
		Stop 11:14:26 (no visibility gs)
30/10/09	Lamp Failure	Lamp Failure occurred during
	(no. 255)	Start 00:20:06 (no visibility co)
	Orbit 75951	Star 00:48:52 (no visibility gs)
20/10/00	Lana Fallena	
50/10/09	Lamp Fanure	quarterly calibration
	(IIO. 250)	Start 02:50:06 (no visibility gs)
	Orbit 75952	Stop 02:56:39
30/10/09	Lamp Failure	Lamp Failure occurred during
	(no 257)	quarterly calibration
	Orbit 75952	Start 03:11:56
	510R 75752	Stop 03:14:53 (no visibility gs)
30/10/09	Lamp Failure	Lamp Failure occurred during
	(no. 258)	quarterly calibration
	Orbit 75952	Start 03:29:58
		Stop 03:35:14� (no visibility gs)
30/10/09	Lamp Failure	Lamp Failure occurred during
	(no. 259)	quarterly calibration
	Orbit 75953	Start 03:59:17 (no visibility gs)
		Stop 04:15:01
30/10/09	Lamp Failure	Lamp Failure occurred during
	(no. 260)	quarterly calibration
	Orbit 75954	Start 00:51:09
20/10/00	T 50 11	Stop 06:59:21 (no visibility gs)
30/10/09	Lamp Failure	Lamp Failure occurred during
	(no. 261)	Start 00.20.22
	Orbit 759556	Stop 00:30:04
		Stop 09.39:04



30/10/09	Lamp Failure	Lamp Failure occurred during
	(no. 262)	quarterly calibration
	Orbit 75956	Start 10:12:23 (no visibility gs)
		Stop 10:22:03

Calibration Lamp Sequences without Lamp Failure:

Date	Orbit	remark
28/01/09	72022	Start 13:33:39 stop after 13:37:41 (no visibility gs)
		GOOD Lamp cal measurements, no instability
28/01/09	72022	Start before 13:41:21 (no visibility gs) stop after 13:42:24 (data gap)
		GOOD Lamp cal measurements, no instability
28/01/09	72023	14:43:06 - 14:52:09
		Calibration lamp instabilities: some values at ca. 181 V (nominal would be 198 V)
28/01/09	72024	Start before 16:41:09 (no visibility gs) stop after 16:42:37
		Calibration lamp instabilities: some values at ca. 181.5 V (nominal would be 198 V)
28/01/09	72024	16:54:49 - 17:04:49
		Calibration lamp instabilities: some values at ca. 181.5 V (nominal would be 198 V)
28/01/09	72025	Start before 18:19:11 (no visibility gs) stop 18:23:12
		Calibration lamp instabilities: some values at ca. 181.8 V (nominal would be 198 V)
28/01/09	72025	18:35:26 - 18:45:26
		Calibration lamp instabilities: some values at ca. 181.5 V (nominal would be 198 V)
28/01/09	72026	Start 20:16:02 stop after 20:24:18 (no visibility gs)
		Calibration lamp instabilities: some values at ca. 181.5 V (nominal would be 198 V)
28/01/09	72027	Start before 21:30:34 (no visibility gs) stop 21:44:24
		Calibration lamp instabilities: some values at ca. 182 V (nominal would be 198 V)
09/02/09	72193	Start at 12:08:39 Stop at 12:09:02 ï¿ ¹ / ₂ Calibration lamp instabilities: some values at ca. 182 V (nominal would be 198 V)
09/02/09	72193	Start at 12:16:45 Stop at 12:18:41 ï¿ ^{1/2} GOOD Lamp cal measurements, no instability
26/03/09	72842	20:10:50 -20:12:48
		Calibration lamp instabilities: some values at ca. 180 V (nominal would be 198 V)
28/04/09	73314	Start before 19:38:16� (no visibility gs)� �stop after 19:44:46 (no visibility gs)�� Calibration lamp instabilities: some values at� ca 181 V (nominal would be 198 V)



28/04/09	73315	Start 21:18:51 stop after 21:24:28 (no visibility gs) �2Calibration lamp instabilities: some values at ca 182 V (nominal would be 198 V)
28/04/09	73316	Start before 22:40:06 �(no visibility gs)��� stop after 22:47:12 (no visibility gs)� Calibration lamp instabilities: some values at� ca 183 V (nominal would be 198 V)ï;½
28/04/09	73316	Start 22:59:26 �stop after 23:04:02 (no visibility gs)�� Calibration lamp instabilities: some values at� ca 182 V (nominal would be 198 V)
29/04/09	73317	Start before 00:20:50 �(no visibility gs)��� stop 00:27:48 Calibration lamp instabilities: some values at� ca 182 V (nominal would be 198 V)
29/04/09	73318	Start before 02:03:54 �(no visibility gs)��� stop 02:08:27 Calibration lamp instabilities: some values at� ca 181 V (nominal would be 198 V)
29/04/09	73318	Start 02:20:38 $i_{\dot{c}}i_{2}$ stop after 02:20:51 (no visibility gs) Calibration lamp instabilities: some values at $i_{\dot{c}}i_{2}$ ca 202 V (nominal would be 198 V) $i_{\dot{c}}i_{2}i_{2}i_{2}i_{2}i_{2}i_{2}$
29/04/09	73318	Start before 02:46:22 (no visibility gs)ï¿ ¹ ⁄2ï¿ ¹ ⁄2ï¿ ¹ ⁄2ï¿ ¹ ⁄2ï¿ ¹ ⁄2ï¿ ¹ ⁄2stop 02:55:36 Calibration lamp instabilities: some values atï¿ ¹ ⁄2 ca 181 V (nominal would be 198 V)
29/04/09	73319	Start before 03:41:07 (no visibility gs)ï¿ ¹ ⁄2ï¿ ¹ ⁄2ï¿ ¹ ⁄2ï¿ ¹ ⁄2ï¿ ¹ ⁄2ï¿ ¹ ⁄2it Calibration lamp instabilities: some values atï¿ ¹ ⁄2 ca 181 V (nominal would be 198 V)
05/05/09	73412	start 15:58:05 - stop 16:00:02 Calibration lamp instabilities: voltage at ca. 181 V instead of nominally 198V
28/07/09	74616	Start 18:36:54 stop after 18:45:22 (no visibility gs) GOOD Lamp cal measurements, no instability
28/07/09	74617	Start 20:17:31 stop after 20:24:58 (no visibility gs) GOOD Lamp cal measurements, no instability
28/07/09	74617	Start before 21:03:55 (no visibility gs)�� stop 21:10:22 Calibration lamp instabilities: value at� ca 180 V (nominal would be 198 V)
28/07/09	74618	Start before 21:43:10 �(no visibility gs)��� stop 21:45:48 Calibration lamp instabilities: value at� ca 180 V (nominal would be 198 V)
28/07/09	74618	Start 21:58:01 ï¿ ¹ /2stop after 22:04:37 (no visibility gs)ï¿ ¹ /2 Calibration lamp instabilities: value atï¿ ¹ /2 ca 180 V (nominal would be 198 V)ï/ ¹ /2
28/07/09	74619	Start before 23:20:06 (no visibility gs) $\ddot{i}_{\ell}^{1/2}\ddot{i}_{\ell}^{1/2}\ddot{i}_{\ell}^{1/2}$ stop 23:26:24 value at $\ddot{i}_{\ell}^{1/2}$ ca 180 V (nominal would be 198 V) $\ddot{i}_{\ell}^{1/2}$
28/07/09	74619	Start 23:38:36 ï¿ ¹ /2stop after 23:44:08 (no visibility gs)ï¿ ¹ /2ï¿ ¹ /2 Calibration lamp instabilities: value alternating betweenï¿ ¹ /2 ca 180 V and 198 V (nominal would be 198 V)
29/07/09	74620	Start 01:04:50 �stop 01:06:59 Calibration lamp instabilities: value at� ca 180 V (nominal would be 198 V)



29/07/09	74620	Start 01:19:20 ï¿ ¹ /2stop after 01:20:52 (no visibility gs)ï¿ ¹ /2ï¿ ¹ /2ï¿ ¹ /2 Calibration lamp instabilities: value atï¿ ¹ /2 ca 180 V (nominal would be 198 V)
29/07/09	74621	Start before 02:45:27 (no visibility gs)ï¿ ¹ ⁄2ï¿ ¹ ⁄2ï¿ ¹ ⁄2ï¿ ¹ ⁄2ï¿ ¹ ⁄2ï¿ ¹ ⁄2ï¿ ¹ /2ï¿ ¹ /2
28/10/09	75930	Start 14:36:26 stop 14:46:19 GOOD Lamp cal measurements, no instability
28/10/09	75930	Start 15:02:57 stop 15:04:57 GOOD Lamp cal measurements, no instability
28/10/09	75931	Start 15:34:03 stop� 15:35:49 GOOD Lamp cal measurements, no instability
28/10/09	75931	Start 16:43:33 Stop� 16:45:33 GOOD Lamp cal measurements, no instability
28/10/09	75932	Start before 17:01:38 (no visibility gs) stop� 17:02:18 GOOD Lamp cal measurements, no instability
28/10/09	75932	Start before 17:22:26 (no visibility gs) stop: 17:24:35 Calibration lamp instabilities: value jump at� ca 177 V (nominal would be 198 V)
28/10/09	75932	Start 17:57:40 stop after 18:07:07 (no visibility gs)� GOOD Lamp cal measurements, no instability
28/10/09	75933	Start before 18:40:52 (no visibility gs) stop 18:42:56 GOOD Lamp cal measurements, no instability
28/10/09	75934	Start 20:21:28 stopï¿ ¹ ⁄2 20:23:33 GOOD Lamp cal measurements, no instability
28/10/09	75934	Start 21:18:53 stop after� 21:26:00 (no visibility gs) GOOD Lamp cal measurements, no instability
28/10/09	75935	Start 22:01:59� stop 22:04:10 Calibration lamp instabilities: value at� ca 180 V (nominal would be 198 V)
29/10/09	75937	Start before 1:17:34 (no visibility gs) stop� 01:25:19 GOOD Lamp cal measurements, no instability
29/10/09	75938	Start before 03:21:20 (no visibility gs) stop 03:28:13 Calibration lamp instabilities: value drop at� ca 180 V (nominal would be 198 V)
29/10/09	75938	Start 04:01:13 stop after 04:06:59 (no visibility gs) Calibration lamp instabilities: value drop at� ca 180 V (nominal would be 198 V)
29/10/09	75939	Start before 04:30:43 (no visibility gs) stop 04:46:34 Calibration lamp instabilities: value drop atī¿½ ca 180 V (nominal would be 198 V)
29/10/09	75940	Start before 06:39:24 stop after 06:45:26 (no visibility gs) Calibration lamp instabilities: value drop at� ca 180 V (nominal would be 198 V)
29/10/09	75942	Start 10:00:36 stop after 10:10:29 (no visibility gs)



29/10/09	75944	Start 13:21:49 stop 13:31:49 Calibration lamp instabilities: value drop at� ca 180 V (nominal would be 198 V)
2829/10/09	75945	Start 14:31:17 stop after 14:40:39 (no visibility gs) Calibration lamp instabilities: value drop at� ca 180 V (nominal would be 198 V)
29/10/09	75946	Start 16:43:01 stop after 16:43:40 (no visibility gs) Calibration lamp instabilities: value drop at� ca 180 V (nominal would be 198 V)
29/10/09	75946	Start 17:26:01� stop after 17:35:55 (no visibility gs) Calibration lamp instabilities: value drop at� ca 180 V (nominal would be 198 V)
29/10/09	75947	Start before 18:08:57 (no visibility gs) stop 18:11:26 Calibration lamp instabilities: value drop at� ca 180 V (nominal would be 198 V)

Other Events

Date	Orbit	remark
- 03/02/09 (start 18/12/08)	- 72105	products with padded frames (Frame 20), science data channel4 due to the ATSR /IRR being switched off
10/03/09 -01/05 /09	72602 - 73358	GOME North Polar View operations
11/07/09	74368	anomalous long science dump at HL, no data processing possible
12/07/09	74383	anomalous long science dump at HL, no data processing possible
05/09/09 - 30/10 /09	75164 - 75979	South Polar View operations
27/09/09	75480	anomalous long science dump at MI, no data processing possible
12/12/09	76568	anomalous long science dump at MI, no data processing possible
20/12/09	76683	anomalous long science dump at MI, no data processing possible

