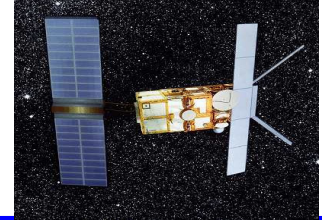


GOME-1 WORKSHOP

S.Paturaud, ERS-2 Flight Control Team - ESOC



PRESENTATION CONTENT

I. Instrument Operational Overview

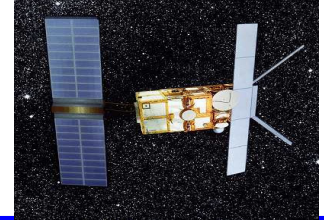
- 1. Operational Configuration/Status**
- 2. Special Operations**
- 3. Operational Statistics**

II. Status and Evolution of Performance

- 1. Unavailability**
- 2. Data Recovery**

III. Anomaly Investigation Status

- 1. Anomaly History and Statistics**



I.1 Operational Configuration

This viewgraph presents the current HW and SW instrument status and history.

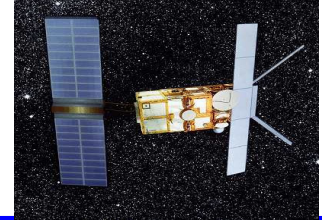
- Configuration of the Instrument Hardware

Nominal configuration

- Configuration of the Instrument On Board Software

Timelines in use:

- TML 1 NOT 42
- TML 2 SOT 34 once a day
- TML 3 NAD 34 + CAT 32 every 28 of a month every quarter
- TML 1 NOT 41 Narrow swath every 4,14.24 of a month (and power recycling).
- TML 1 and 3 alternating for :
 - North Polar Timeline NPT 35 from 10 MAR to 3 APR
 - NPT 36 from 4 APR to 5 MAY
 - South Polar Timeline SPT 31 from 5 to 30 SEP
 - SPT 32 from 1 to 26 OCT

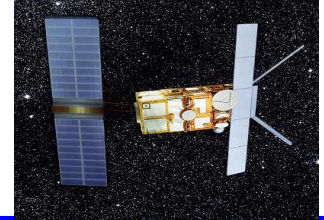


I.2 Special Operations

MOON CALIBRATION

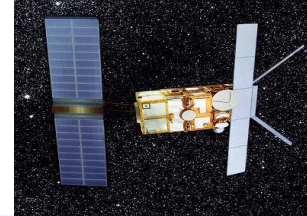
A total of 26 Moon Calibration Operations were performed during visibility from 18 July 1995 until 31 July 2002.

However the last two operations were not successful due to degradation of pointing performance. Moon Calibration had to be stopped completely following the loss of both Tape Recorders after July 2003.

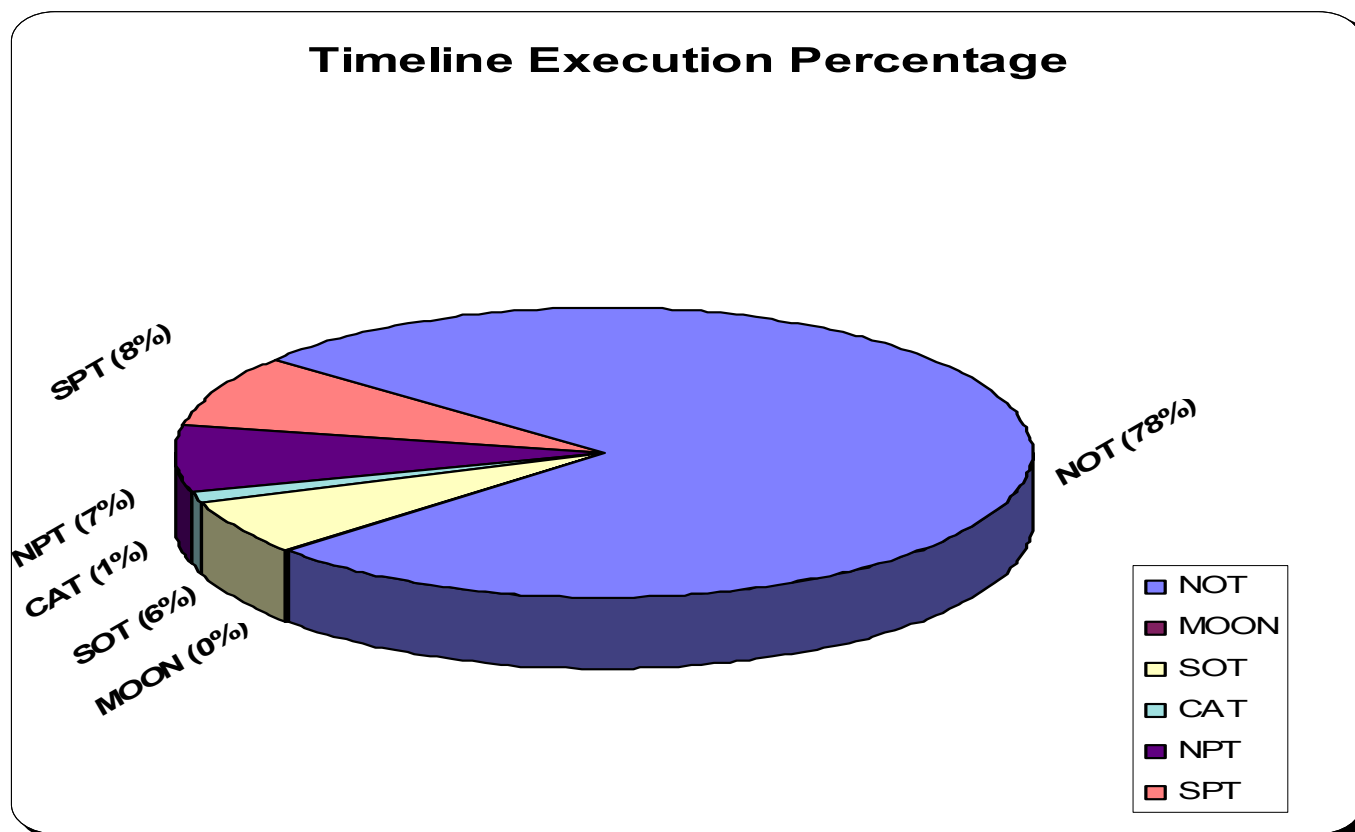


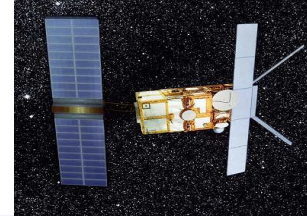
I.2 Operational Statistics

Summarised Data Form			
NOT	36657		
MOON	23		
SOT	2958		
CAT	563		
NPT	3561		
SPT	3800		
Lamp On		6363.0	cycles
Lamp Duration		2420410.7	seconds
Shutter Cycles		2995.3	cycles
Shutter Open		723751.4	seconds
Mirror Cycles		26418394.0	cycles
Data valid until 1st March.2005			



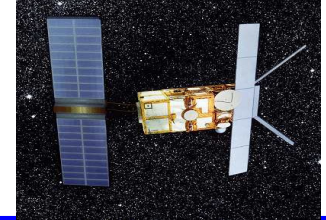
I.2 Operational Statistics



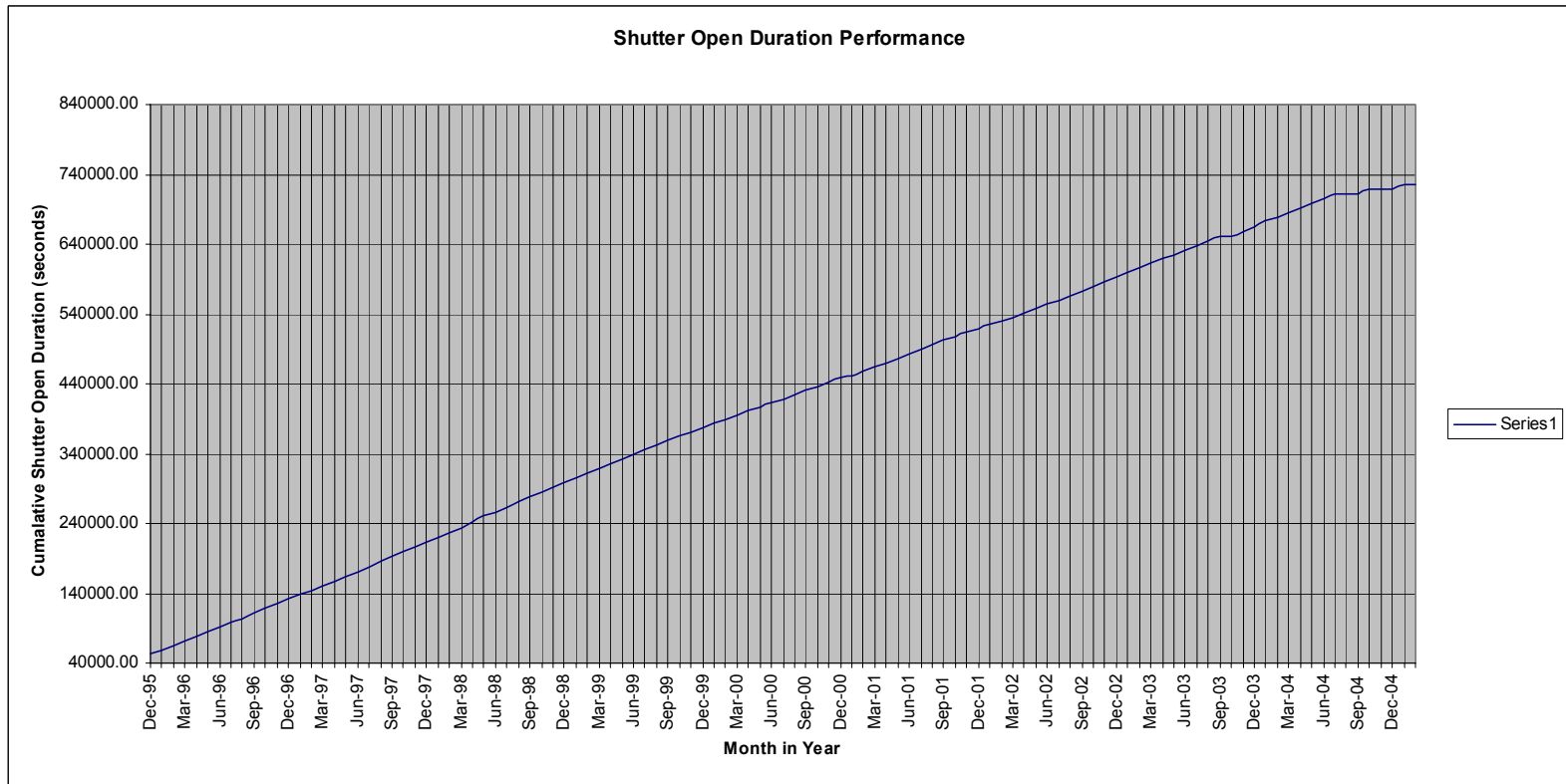


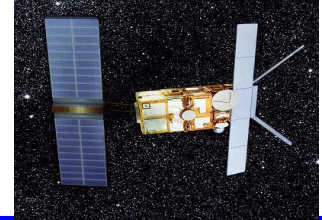
I.2 Operational Statistics

Lamp has been switched on for	6363.0	cycles for a total of	2420410.7	seconds	or	672.3363	hours
Shutter has been opened for	2995.3	cycles for a total of	723751.4	seconds	or	201.0421	hours
The Mirror has been rotated	26,418,394	times					

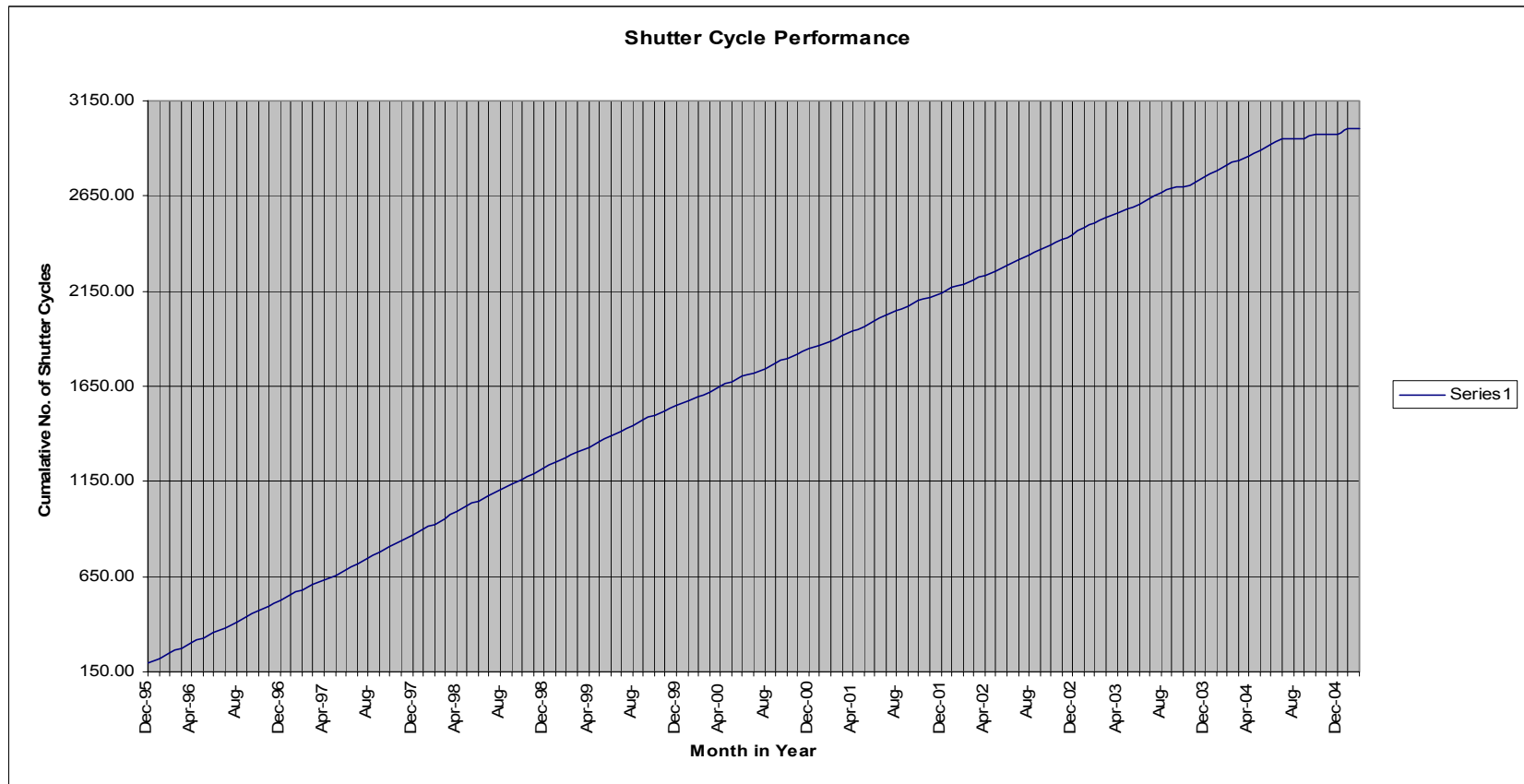


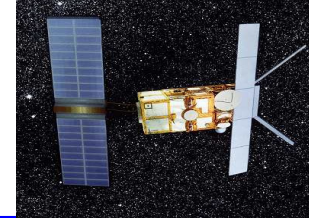
I.2 Operational Statistics





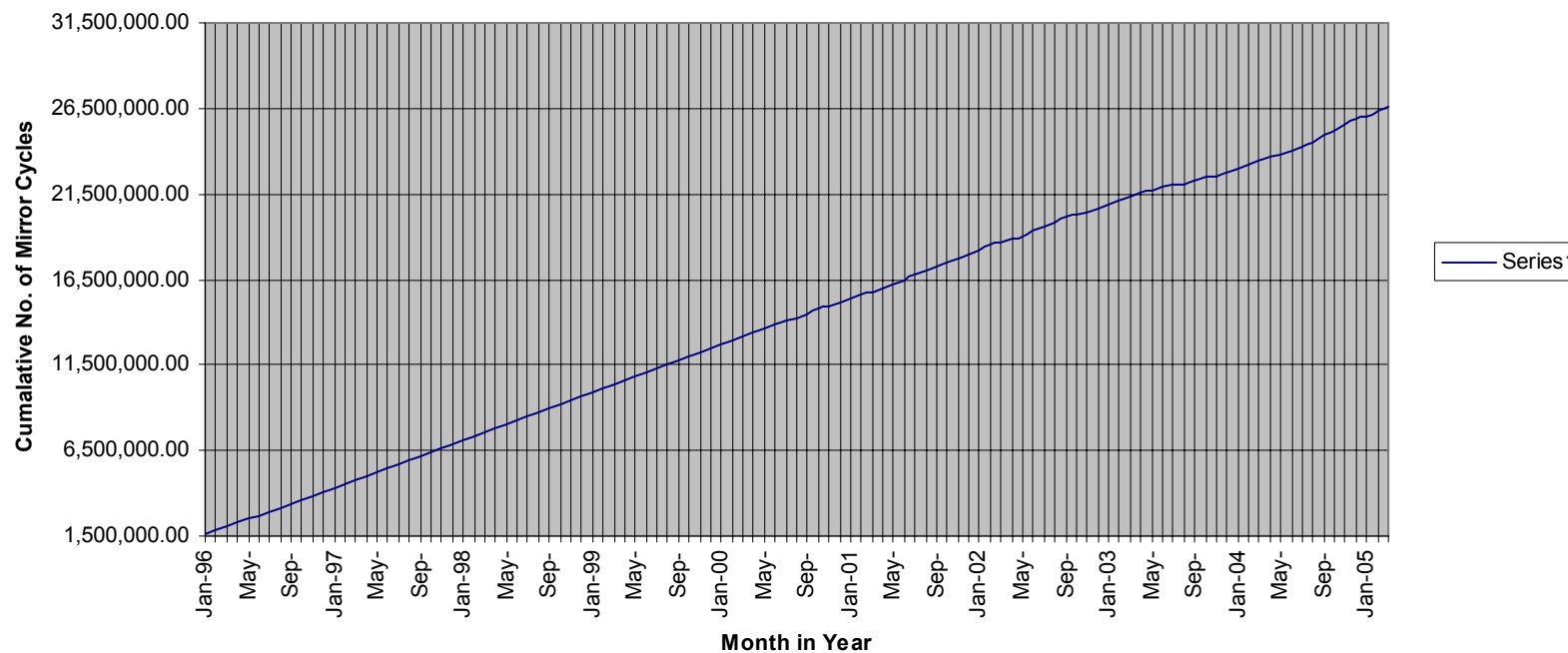
I.2 Operational Statistics

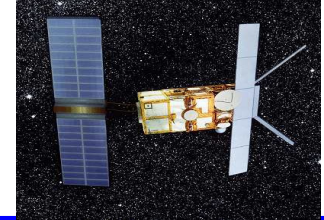




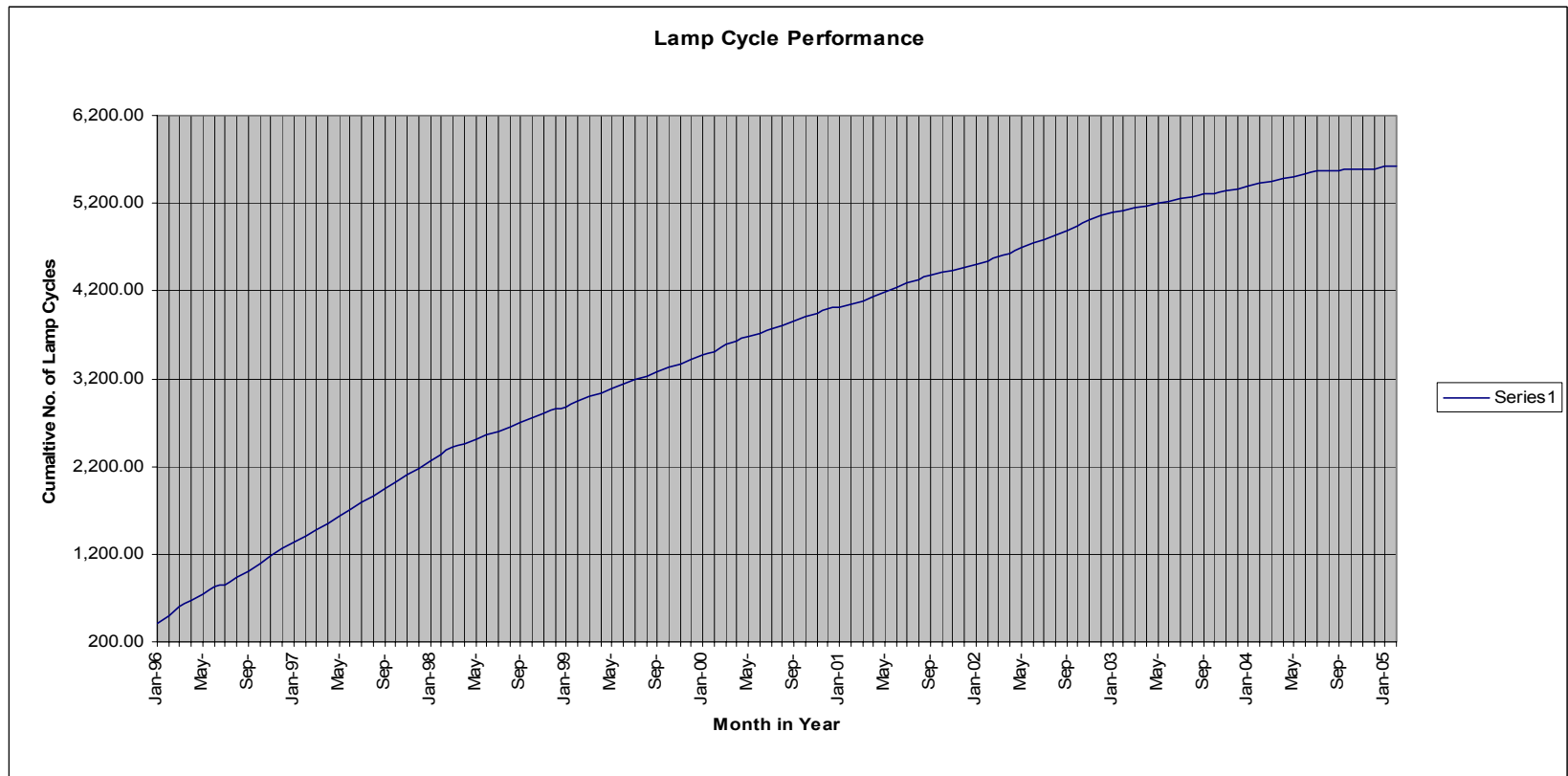
I.2 Operational Statistics

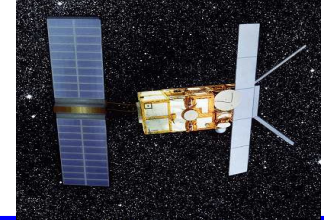
Scanner Performance



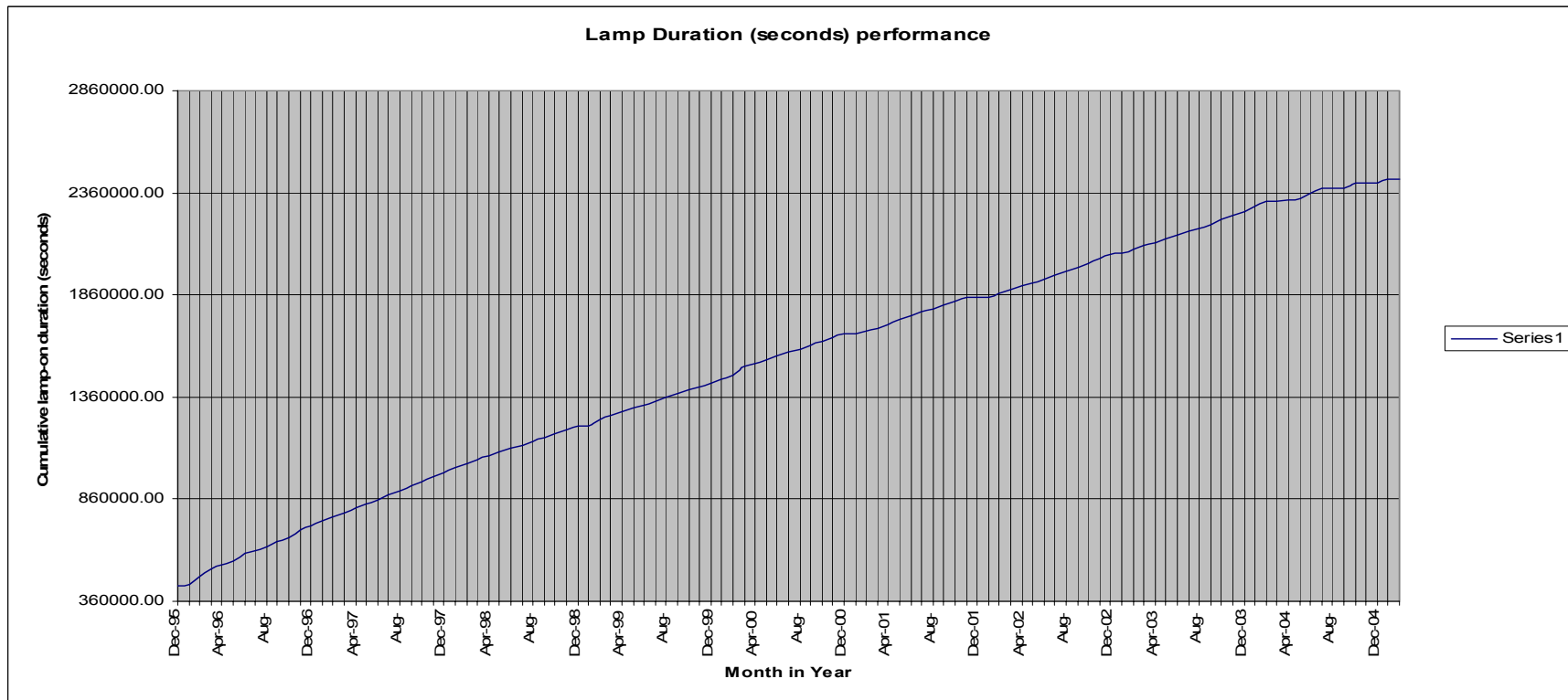


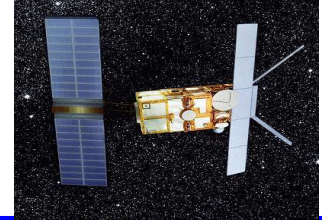
I.2 Operational Statistics





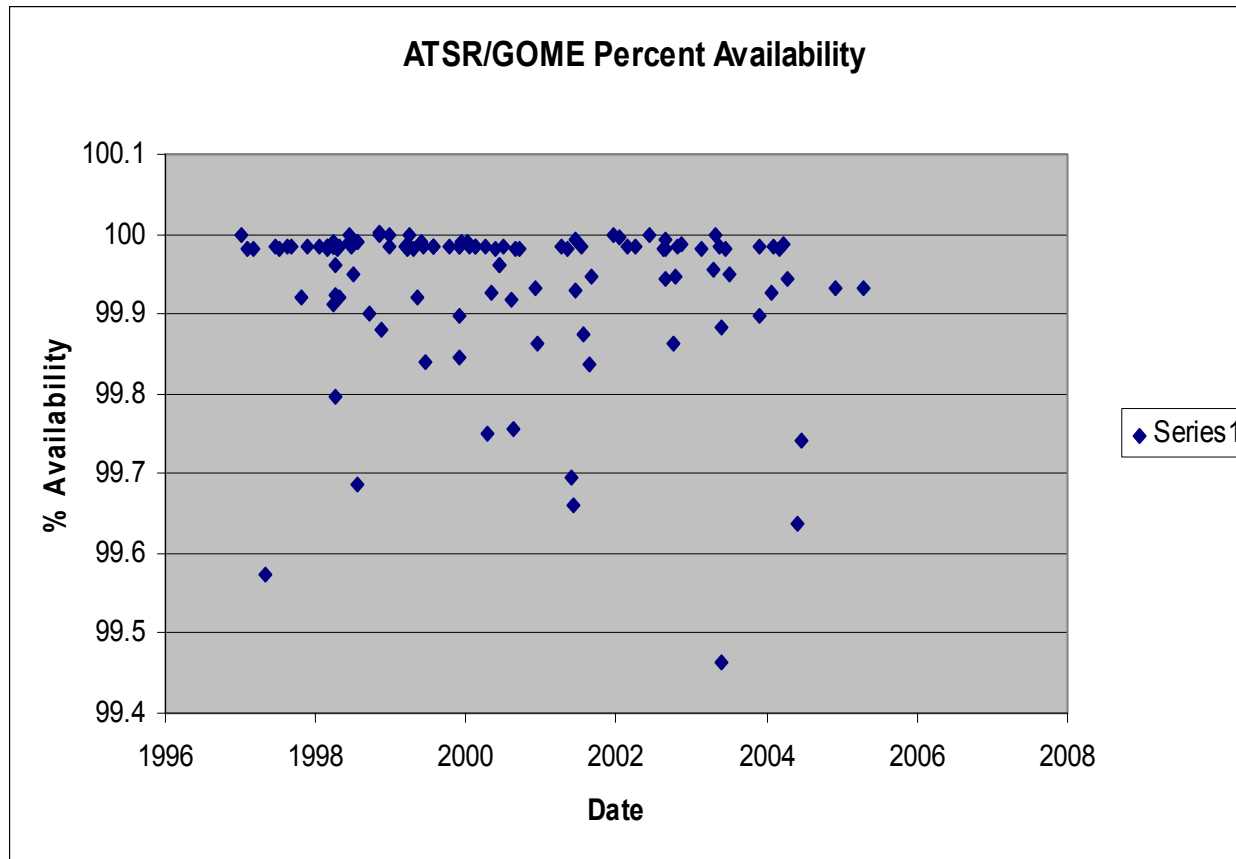
I.2 Operational Statistics

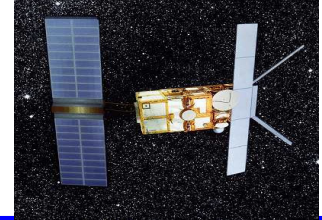




II.1. Availability

The viewgraph presents a summary of the instrument availability since mid-1996.

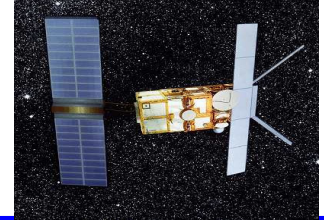




II.1. Unavailability

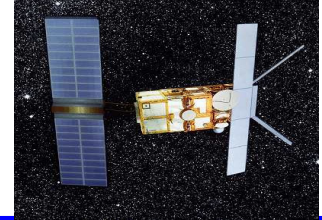
Causes of unavailability:

- _ GOME anomalies
- _ Timeline stopped due to Sync for AMI or RA
- _ ATSR anomaly
- _ PF operations or anomalies



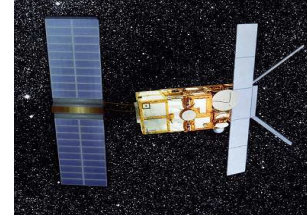
II.2. Data Recovery

- _ All data recovered except during unavailability when tape recorders were operational.
- _ Impact of Tape recorders failure (22 June 2003)
 - _ Only Real Time data
 - _ progressive increase of ground stations all over the world
 - _ change of daily solar calibration time to be contained during a Kiruna pass.
- _ Impact of Gyroless piloting since 6 June 2001
 - _ Moon Calibrations discontinued



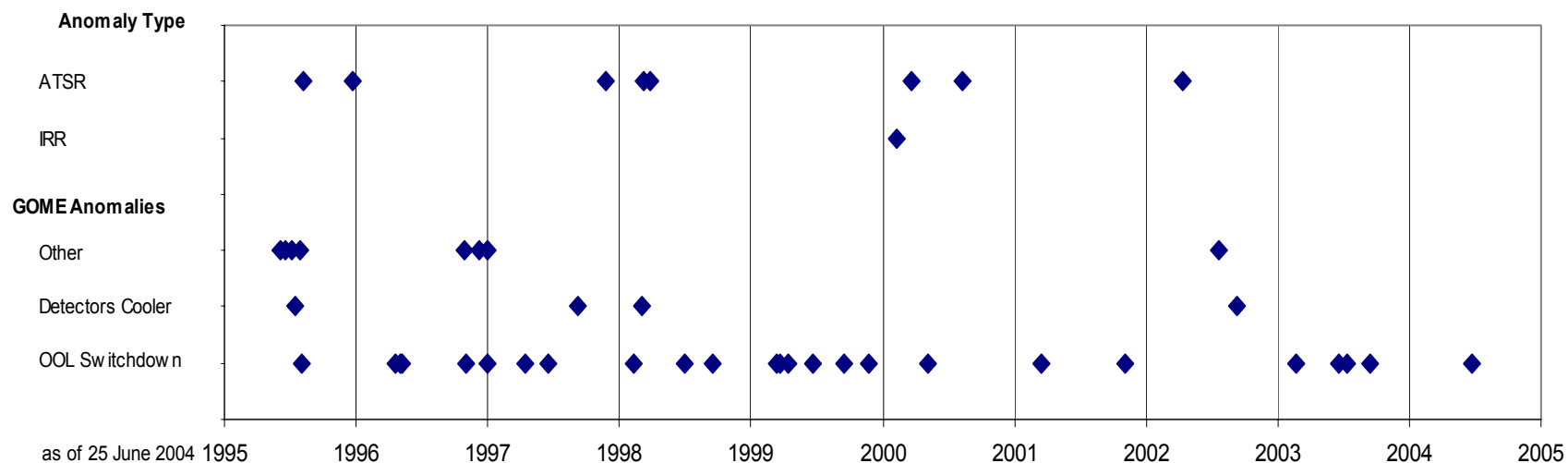
III.1. Anomaly History

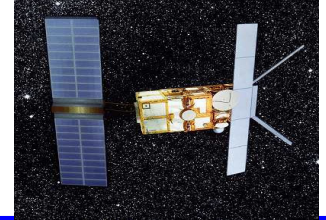
- _ GOME OFF : Anomaly report
- _ GOME malfunction: Power recycling
 - _ every 10 days (since 4 May 2000)
 - _ after anomaly observed at ESOC (CMD delay check from 22 November 2001, selected parameters observed to be out of limits extended from 18 November 2004)
 - _ on request from Esrin and/or Project



III.1. Anomaly History

This viewgraph presents the History of the Instrument Anomalies.





III.1. Anomaly History

- 41 Anomaly Reports

Majority of anomalies due to latch-up counters RTM and/or APM
(Single Upset Event)