RPC-LAP
OPERATIONS REPORT
COMMISIONING 2 MISSION PHASE

September 6 - October 16, 2004

IRFU-ROS-OPR-CVP2
Version 1.0
31 Aug 2019

Anders Eriksson, Erik Johansson
Swedish Institute of Space Physics, Uppsala

Swedish Institute of Space Physics
Uppsala

Contents

Document history

Revision	Date	Comment
1.0	2019-08-31	Initial release

1 Introduction

This is the report from the operations of RPC-LAP in the Commissioning 2 (CVP2) phase of the Rosetta mission, covering the period September 6 - October 16, 2004. This included the following operational slots for LAP:

- September 6-10, 2004: Third RPC commisioning slot (Slot 3)
- September 21-22, 2004: Pointing and interference campaign 1 (IFC1)
- October 10, 2004: LAP dance
- October 13-14, 2004: Pointing and interference campaign 2 (IFC2)

2 Operations overview

Commisioning slot 3 (September 6-10, 2004) included patching of LAP flight software for a bug with the macro ID reporting in telemetry not discovered in ground tests and a LAP macro upload (macro 0x212) as well as running several macros to get operational experience and comparison data. Much valuable experience on running RPC and LAP was gained during this week.

LAP was again activated September 21-22, 2008, for the first payload pointing and interference campaign (IFC1). As this is a period where instruments tried to perturb each other as much as possible, the use of data for scientific purposes is discouraged.

The LAP dance in October 10 included a wide slew of the spacecraft to obtain data on the LAP probes both in sunlight and shadow, to gather data useful for characterizion of the photoemission and for investigation of spacecraft-plasma interaction effects.

A second pointing and interference campaign (IFC2) was run in October 13-14. The special caveat for scientific use of the data is the same as for IFC1.

3 Operations list

Below is a list of all LAP operations blocks during this mission phase. A LAP operations block is defined as a continuous run of an instrument macro, though as the archive is organized by calendar days, blocks are defined to break at midnight even if the instrument operation is continuous over this artificial border. If you find operations blocks running the same macros on both sides of midnight, this is likely to actually be a continuous operation. The list is based on the science data stream are included, so pure maintenance operations or periods with LAP idle between macro runs are not shown.

The macro concept is described in the EAICD, and the macro definitions are tabulated in the macro table, both available in the documents directory of the LAP archives in the ESA Planetary Science Archive (PSA). A LAP macro defines all aspects of the instrument operations, though particularly when a probe is in electric field mode, the probe bias (current in the case of electric field mode, otherwise bias voltage) may often be tuned by manual commands.

Block start	Block end	Macro	Notes
LAP Commissioning Slot 3			
2004-09-06T23:49:54.590	2004-09-06T23:58:58.591	202	
2004-09-07T12:27:14.600	2004-09-07T14:14:26.601	202	
2004-09-07T14:19:14.601	2004-09-07T23:59:30.608	204	
2004-09-08T00:00:02.608	2004-09-08T00:00:02.608	204	
2004-09-08T00:03:14.608	2004-09-08T17:45:38.621	212	
2004-09-08T17:48:50.621	2004-09-08T19:05:06.622	204	
2004-09-08T19:07:46.622	2004-09-08T21:54:42.624	212	
2004-09-08T22:02:42.624	2004-09-08T22:04:18.624	204	
2004-09-08T22:05:22.624	2004-09-08T22:05:54.624	105	
2004-09-08T22:26:10.624	2004-09-08T22:34:10.624	205	
2004-09-08T22:35:14.624	2004-09-08T22:52:50.625	212	
2004-09-08T22:59:47.170	2004-09-08T23:08:19.170	404	
2004-09-08T23:11:30.625	2004-09-08T23:53:06.625	204	
2004-09-08T23:56:50.625	2004-09-08T23:57:22.625	212	
2004-09-09T00:01:06.625	2004-09-09T00:56:02.626	212	
2004-09-09T01:04:34.626	2004-09-09T01:13:38.626	105	
2004-09-09T01:16:18.626	2004-09-09T01:31:14.627	104	
2004-09-09T01:36:34.627	2004-09-09T19:56:50.640	212	
2004-09-09T20:02:42.640	2004-09-09T20:59:46.641	203	
2004-09-09T21:02:26.641	2004-09-09T21:58:58.641	405	
2004-09-09T22:02:42.641	2004-09-09T22:59:46.642	303	
2004-09-09T23:02:26.642	2004-09-09T23:59:30.643	204	
2004-09-10T00:00:02.643	2004-09-10T01:18:58.644	204	
IFC1			
2004-09-21T17:33:14.838	2004-09-21T20:35:06.840	302	
2004-09-21T20:36:10.840	2004-09-21T20:36:42.840	306	
2004-09-21T21:14:02.841	2004-09-21T21:14:02.841	100	
2004-09-21T21:16:42.841	2004-09-21T21:16:42.841	101	
2004-09-21T21:17:14.841	2004-09-21T21:19:54.841	204	
2004-09-21T21:20:26.841	2004-09-21T21:20:58.841	212	
2004-09-21T21:48:42.841	2004-09-21T23:59:30.843	302	
2004-09-22T00:00:02.843	2004-09-22T01:58:58.844	302	
LAP dance			
2004-10-10T05:08:11.147	2004-10-10T12:39:23.152	204	
2004-10-10T12:45:15.152	2004-10-10T13:51:23.153	212	

Block start	Block end	Macro	Notes
IFC2			
2004-10-13T01:18:03.194	2004-10-13T01:30:19.194	302	
2004-10-13T01:37:15.194	2004-10-13T01:54:51.194	200	
2004-10-13T02:23:39.194	2004-10-13T02:23:39.194	102	
2004-10-13T02:27:23.194	2004-10-13T02:43:23.195	204	
2004-10-13T02:47:39.195	2004-10-13T22:30:19.208	302	
2004-10-13T22:37:15.208	2004-10-13T22:54:51.208	200	
2004-10-13T23:23:39.209	2004-10-13T23:23:39.209	102	
2004-10-13T23:27:23.209	2004-10-13T23:43:23.209	204	
2004-10-13T23:47:39.209	2004-10-13T23:59:55.209	302	
2004-10-14T00:00:27.209	2004-10-14T01:44:03.210	302	