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ROSETTA

Payload Boresight Alignment Details

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Issue 1.5

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CHANGE RECORD SHEET

Date	Iss.	Rev.	Sec.	Description/Authority	CR No.
04FEB05	1	0	All	Initial Release	
24FEB05	1	1	DL 2	Assed person to distribution list. Added FOVs.	
25FEB05	1	2	2	Implemented corrections by experimenters: SR-NAC/WAC boresight, AL slit shape, VR-M/H slit shape, MR sub-mm/mm beam FOV.	
17MAR05	1	3	2	Added graphs of boresights and FOVs.	
21MAR05	1	4	2	Corrected y offset of MR mm beam.	
05APR05	1	5	2	Added AL-MR cooperation boresight. Changed colours in figures in order to facilitate distinction.	

Issue to issue revisions are indicated by a vertical bar at the outside border.

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1. General Remarks

1.1 Scope

This technical note provides the boresight details of relevant payload instruments on Rosetta.

1.2 Applicable Documents

AD01 RO-ESC-IF-5005_2_1__Science_Operations_Interface_Agreement_SOIA_2003Sep30

1.3 Reference Documents

RD01 Rosetta Project Glossary, RO-EST-LI-5012,
http://www.rssd.esa.int/index.php?project=ROSETTA&page=glossary

RD02 rfddb_V10B_Ac97_31_Mar_2004.mdb

2. Instrument Boresight Data:

No	Instrument	Offset from Zs/c: x (deg)	Offset from Zs/c: y (deg)	Description	Source
1	ALICE	0	-0.098	FOV: Slit aligned with its long axis parallel to X s/c, 6 deg long. Central 2 deg is 0.05 deg wide, remainder (2 deg on either side) is 0.1 deg wide.	AL CVP
2a	MIRO	-0.082	-0.0067	Sub-millimeter Beam. Circular gaussian shaped beam with full width at half power (HPBW) = 0.125 deg.	MR
2b	MIRO	-0.018	-0.057	Millimeter Beam. Circular gaussian shaped beam with full width at half power (HPBW) = 0.395 deg.	MR
3	OSIRIS NAC	-0.027	0.013	FOV: 2.18 deg × 2.18 deg.	FDDB (RD02)
4	OSIRIS WAC	0.351	0.0871	FOV: 12.0 deg × 12.1 deg.	FDDB (RD02)
5a	VIRTIS - M	0.05685	-0.005121		FDDB (RD02)
5b	VIRTIS – M (FLT)	-0.075	-0.02167	FOV: Slit aligned with its long axis parallel to Y s/c, 3.7 deg long, 0.014 deg wide. Scan field 3.7 deg along X s/c.	VR
6a	VIRTIS - H (GND)	-0.2667	0.08333		VR
6b	VIRTIS - H (FLT)	-	-	Unknown. Estimate : X= - 0.37 deg ; Y= + 0.065 deg. FOV: Slit aligned with its long axis parallel to X s/c, 0.100 deg long, 0.0334 deg wide.	VR
7	NAVCAM 1	-0.02678	-0.1721		FDDB (RD02)
8	NAVCAM 2	0.03003	0.09747		FDDB (RD02)
9	AL-MR CO-OPERATION	-0.082	-0.098	Combination of AL slit and MR SMM beam. x-offset from MR SMM beam, y-offset from AL slit.	DI

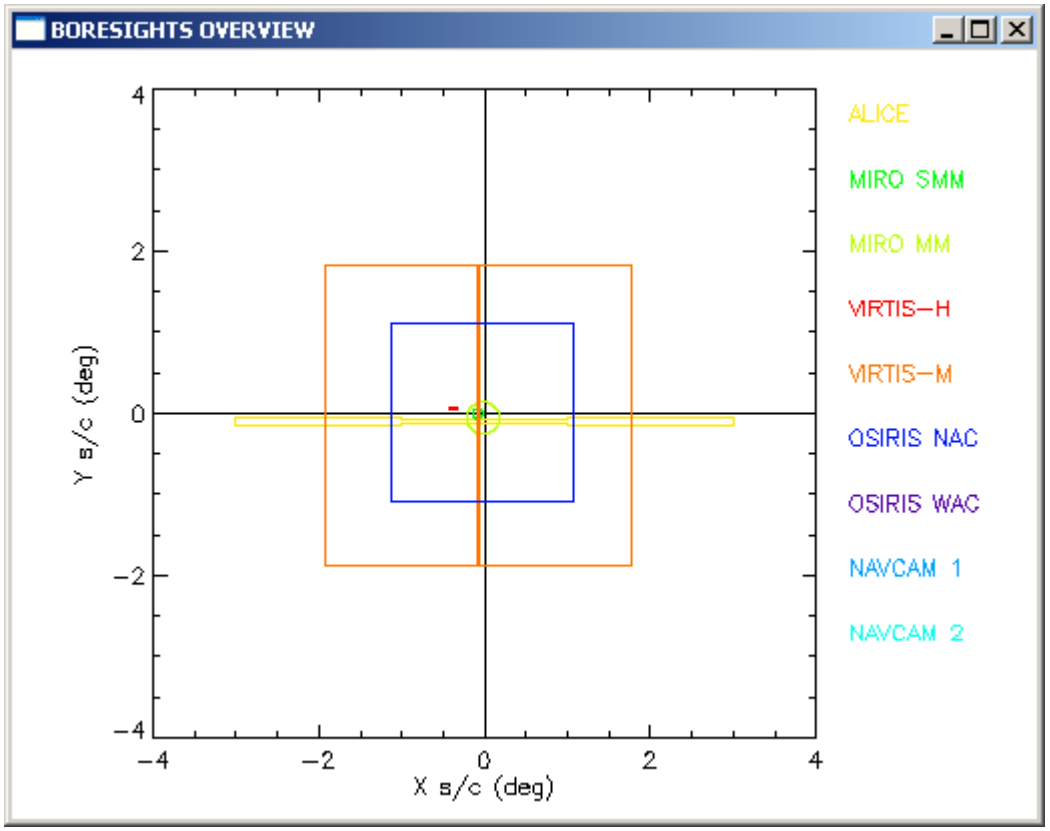

Figure 1: Overview of instrument boresights and FOVs.

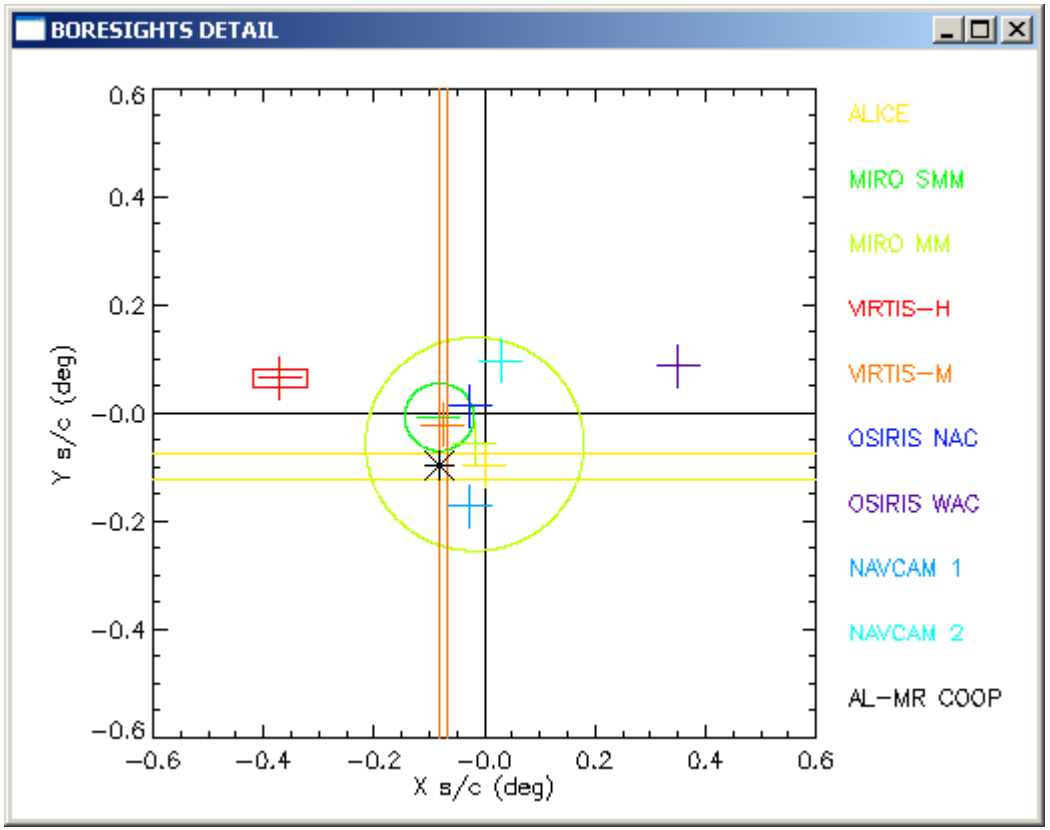

Figure 2: Detail of instrument boresights and FOVs.