



Operation Change Request

OCR No: 005

Issue: A

Title: HARMONISATION OF THE MONTHLY DARK SIGNAL CALIBRATION ORBITS.

Description of Request: The currently preferred dark signal calibration method uses five dark states as defined by SRON. These are implemented in the nominal eclipse timelines. For completeness, the monthly dark signal calibration orbits must also use this five dark states approach. Currently the original timelines are still used which only use three of the five defined dark states. This should be changed such that these calibration timelines use blocks with the SRON defined five dark states around the complete orbit.

Originator: Q.L. Kleipool/ SRON	Date of Issue: 26 Feb 2003	Signature: e-mail 26. Feb. 2003
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Assessment of SSAG (necessary for requests by scientists):

The analysis of M. Buchwitz on using the new five dark states ("Quintus Darks") presented at the last SADDU meeting has documented the improvement in CH4 retrieval. It is therefore logically to use these dark states also for the monthly dark signal calibration. The implementation of the proposed change is recommended.

SSAG: H. Bovensmann	Date: 4.3.2003	Signature: e-mail 4. March 2003
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Classification of OCR: D

OCR Analysis (incl. Implementation Option):

This OCR requires to modify timelines only (no state modification). Timelines 54,58,59,60,61 and 62 have to be modified such that they include consecutive blocks of 5 dark current states. The duration of each timeline must be maintained (to within a few seconds) in order to fit to the associated orbital phase.

Note that timelines 54, 60, 61 and 62 also include WLS/SLS states. TN 117 claims that the first 115 sec after switching off the SLS and the first 295 sec after switching off the WLS yield data with reduced performance. This might impact the dark current measurements (the total duration of the dark current block is about 210 sec) following a SLS or WLS state. It has to be taken into account in dark current data analysis

Likely implementation date is second half of April. Modified timelines have to be uploaded via the regular SCIAMACHY mission planning input. March planning input has already been delivered to ENVISAT. For the first half of April the planning input is currently in preparation such that the timeline changes might not yet be ready in time for the forthcoming delivery.

SOST: M. Gottwald, DLR-IMF (ESA, Industry if necessary)	Date: 28/02/2003	Signature: e-mail 28. Feb 2003
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Approval of Proposed Implementation:

Originator Approval: Q. Kleipool	Date: 2003-03-11	Signature: e-mail 2003-03-11
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SSAG Approval: H. Bovensmann	Date: 2003-03-05	Signature: e-mail 2003-03-05
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Decision / Approval:

The OCR shall be implemented as described in the OCR Analysis.

DLR Approval: (if necessary NIVR, SPEC)	Date: 2003-03-12	Signature: e-mail 2003-03-12
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Implementation by SOST :

Timelines 54, 58, 59, 60, 61 and 62 have been modified as described above. Timeline duration was in all cases set such that safe operations is ensured (no timeline overlap or measurement gap violation). The timelines have been converted to CTI format and have been transferred to FOCC. They will be uploaded in orbit 5711/5712 (April 4th) and executed for the first time in the weekly (t/l 54) and monthly (t/l 58, 59, 60, 61, 62) thereafter.

SOST. M. Gottwald, DLR-IMF	Date: 13/03/2003	Signature: e-mail 13/03/2003
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