

AATSR Level 2 (ATS_MET_2P) Product Quality Readme Information

This file presents the Product Quality Readme (PQR) information for the AATSR Level 2 ATS_MET_2P products.

All PQRs are retained for reference in this file, even those pertaining to historically available datasets only, hence there is an explicit statement in each PQR noting whether it is still applicable to the most recent AATSR dataset.

The Third AATSR Reprocessing Dataset (IPF 6.05)

Users are strongly recommended to use the most recent AATSR dataset: Third Reprocessing data products were generated in 2013, and information on the updates and improvements expected was published in the [User Note for the Third AATSR Reprocessing](#). Users can identify third reprocessing products using the following information:

- The IPF software version contained within the main product header of third reprocessing products is "AATS/6.05".
- The Processing Stage Flag contained within the product name and main product header has been incremented to U, for example:
ATS_MET_2PUPA20120308_005911_000065273112_00246_52415_6357.N1.

Index of PQRs for IPF 6.05

An index of the PQRs applicable to the third reprocessing dataset (IPF 6.05) is given in Table 1. Full details of these PQRs are available in the [PQRs for IPF 6.05](#) section below.

Table 1 AATSR PQRs applicable to IPF 6.05

PQR Reference	PQR Title
ENVI-GSOP-EOGD-QD-04-0056	L1b PQRs with an impact on ATS_MET_2P

Index of historical PQRs

An index of the historical PQRs is given in Table 2. The relationship between historical data and these PQRs can be deduced by inspecting the [AATSR IPF Change Log](#). Full details of these PQRs are available in the [Historical PQRs](#) section below.

Table 2 Historical AATSR PQRs

PQR Reference	PQR Title
ENVI-GSOP-EOGD-QD-04-0056	L1b PQRs with an impact on ATS_MET_2P
ENVI-GSOP-EOGD-QD-04-0057	L2 AR PQRs with an impact on ATS_MET_2P
ENVI-GSOP-EOGD-QD-04-0058	Transposed confidence words in the PDS form

References

Table 3 lists a set of AATSR references that users may find useful when using AATSR data.

Table 3 AATSR References

Item	Available from
Envisat and AATSR Product Specifications	https://earth.esa.int/support-docs/productspecs/index.htm

AATSR Level 2 (ATS_MET_2P) Product Quality Readme Information

Item	Available from
AATSR Product Handbook and related Technical Notes	http://envisat.esa.int/handbooks/
Additional information on AATSR	https://earth.esa.int/web/guest/missions/esa-operational-eo-missions/envisat/instruments/aatsr
AATSR IPF Change Log	https://earth.esa.int/web/guest/-/aatsr-ipf-change-log
Other referenced documents	ESA library

PQRs for IPF 6.05

Field:	Contents:
PQR Title	L1b PQRs with an impact on ATS_MET_2P
PQR Reference	ENVI-GSOP-EOGD-QD-04-0056
Affected Data Sets	Various; items in bold are applicable to IPF 6.05
Description	<p>The ATS_MET_2P product is affected by the following PQRs against the ATS_TOA_1P product, from which it is derived:</p> <ul style="list-style-type: none"> • PQR ENVI-GSOP-EOGD-QD-04-0063: Sub-optimal geolocation. <i>Note that the impact on the spatially averaged product is different to that on the full resolution product since the magnitude of the errors is lower than the spatial resolution of the spatially averaged product.</i> • PQR ENVI-GSOP-EOGD-QD-14-0121: Banding problem in consolidated data (errors loading 12 μm gross cloud tests LUT) • PQR ENVI-GSOP-EOGD-QD-14-0122: 12 μm brightness temperature discrepancy
Prepared by	IDEAS AATSR QC Team
Originator	P. Goryl
Approver	P. Lecomte

Historical PQRs

Field:	Contents:
PQR Title	L1b PQRs with an impact on ATS_MET_2P
PQR Reference	ENVI-GSOP-EOGD-QD-04-0056
Affected Data Sets	Various; items in bold are historical
Description	<p>The ATS_MET_2P product is affected by the following PQRs against the ATS_TOA_1P product, from which it is derived:</p> <ul style="list-style-type: none"> • PQR ENVI-GSOP-EOGD-QD-04-0063: Sub-optimal geolocation. <i>Note that the impact on the spatially averaged product is different to that on the full resolution product since the magnitude of the errors is lower than the spatial resolution of the spatially averaged product.</i> • PQR ENVI-GSOP-EOGD-QD-14-0121: Banding problem in consolidated data (errors loading 12 μm gross cloud tests LUT) • PQR ENVI-GSOP-EOGD-QD-14-0122: 12 μm brightness temperature discrepancy
Prepared by	IDEAS AATSR QC Team
Originator	P. Goryl
Approver	P. Lecomte

Field:	Contents:
PQR Title	L2 AR PQRs with an impact on ATS_MET_2P
PQR Reference	ENVI-GSOP-EOGD-QD-04-0057
Affected Data Sets	Various
Description	<p>The ATS_MET_2P product is affected by the following PQRs against the ATS_AR_2P product, from which it is derived:</p> <ul style="list-style-type: none"> • PQR ENVI-GSOP-EOGD-QD-04-0050: Co-ordinates of 10 arc min cells • PQR ENVI-GSOP-EOGD-QD-04-0051: Transposed confidence words. <i>Note the applicability of this PQR to the ATS_MET_2P products is discussed in PQR ENVI-GSOP-EOGD-QD-04-0058 below.</i>
Prepared by	IDEAS AATSR QC Team
Originator	P. Goryl
Approver	P. Lecomte

Field:	Contents:
PQR Title	Transposed confidence words in the PDS form
PQR Reference	ENVI-GSOP-EOGD-QD-04-0058
Affected Data Sets	All data processed with IPF v5.55 or higher
Description	<p>The confidence information in the MDS of the PDS form of the Meteo product consists of 32 bits, provided in the form of two 16-bit words. These two 16-bit words are transposed in the current products relative to the original product specification (note that the product specification itself was altered to match the implementation for issue 4/B onwards).</p> <p>The bit/byte numbering convention used is: bit 0 is the least significant bit, with byte 0 being the most significant byte. Currently only the first 4 of the potential 32 bits are used. Therefore the first word should always be set to zero, and the bits should only be set in the second word, e.g.</p> <pre>ast_conf_flags[0] 0x0000 ast_conf_flags[1] 0x0003</pre> <p>However, in the current products these words are transposed. e.g.</p> <pre>ast_conf_flags[0] 0x0003 ast_conf_flags[1] 0x0000</pre> <p>This problem was introduced with version v5.55 of the Operational Processor which began operating at most stations on 14 January 03 and at the UK-PAC on 28 January 03. Information on the processing centre, processing date and processor version number relating to each product can be found in the MPH.</p> <p>The Meteo product in BUFR format was not affected by this problem, as the BUFR conversion was developed with reference to sample data rather than the product specification. However, due to the update made to the product specification, the BUFR-format products are non-compliant with the latest documentation.</p> <p>Data from 3rd reprocessing: This PQR is not applicable, since the product specification (from 4/B onwards) has been updated to match the implementation described above. (Note there were no BUFR-format products generated as part of the reprocessing,)</p>
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