



Sentinel-3A Product Notice – STM Level-1 (NRT, STC and NTC)

Mission	S3-A
Sensor	SRAL
Product	L1 NRT, STC and NTC
Product Notice ID	S3.PN-STM.001
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<p>This is a Product Notice for the public release of Sentinel-3 Surface Topography Mission (STM) Level-1A and Level-1B products at Near Real Time (NRT), Short Time Critical (STC) and Non-Time Critical (NTC) timeliness. The Notice describes the Level-1 current status, processing baseline, product quality and limitations, and product availability status.</p> <p>This Product Notice was prepared by the S3 Mission Performance Centre and by ESA and EUMETSAT experts.</p>	



Processing Information

Processing

- SRAL L1 IPF (SR-1) version: **06.10 (PB 2.10)**

Description



Status of the Processing Baseline (PB)

The current processing baseline for Sentinel-3A L1B products is 2.10, IPF SR-1 version 06.10. The baseline was deployed in the Sentinel-3 processing centres on the following dates:

Installation Date	IPF Version	Centre
2016-11-17	SR-1 06.07	Marine Centre
2016-11-22		Core Ground Station
2016-11-23		Land Centre
2017-01-12	SR-1 06.09	Marine Centre
		Core Ground Station
		Land Centre
2017-02-28	SR-1 06.10	Marine Centre
		Core Ground Station
		Land Centre

The quality of L1A and L1B products is within the mission requirements. Note that L1A is foreseen to be made available to users from 2017-03-06.

Notice that since version 06.09 the L1 products are generated with internal netcdf4 compression enabled. This is transparent to the user.

Known product quality limitations

The Sentinel-3A STM products have some known processing limitations, which are reported in the next pages.

Product Availability

- It is noted that the product completeness and timeliness are not yet reaching 100%. This is expected to be achieved before the end of the ramp-up phase.
- Notice that the SRAL NRT products are 10 minutes length, instead of being dump based as originally specified – this is part of the new Product Definition.
- Land Payload Data Ground Segment (PDGS) data access is provided via the ESA Sentinel Data Hub



[\(https://scihub.copernicus.eu/s3/\)](https://scihub.copernicus.eu/s3/)

- Marine PDGS data access:
EUMETSAT will make available SRAL L1B *NRT* and *STC* on EUMETCast. The SRAL L1A *STC* and *NTC*, L1B *NRT*, *STC* and *NTC* products are available on the pilot Copernicus Online Data Access (CODA) service, the Online Data Access (ODA) service (internal and S3VT users only) and from the EUMETSAT Data Centre.

References

Sentinel-3 Mission Requirements Traceability Document (MRTD), C. Donlon, EOP-SM/2184/CD-cd, 2011.
<https://sentinel.esa.int/documents/247904/1848151/Sentinel-3-Mission-Requirements-Traceability>

List of anomalies

- Anomaly #1: Error in the SRAL Calibration (S3PDGS-9930)
- Anomaly #2: Error in the manoeuvre flag (EUM/Sen3/AR/2268)
- Anomaly #3: Orbit file reported in L1 manifest is wrong (SIIMPC-1210)
- Anomaly #4: Error in applied Calibrations (EUM/Sen3/NCR/2238)
- Anomaly #5: Invalid product size in manifest for some L1A products (SIIMPC 1500)
- Notice #1: Level 1B waveforms not corrected for the fine tracker word (SIIMPC 1516)

Anomalies

Anomaly #1		Error in the SRAL Calibration (S3PDGS-9930)
Processing	<ul style="list-style-type: none"> • Processor: SRAL L1 • Affected versions: all up to and including 06.09 • Resolved in version: Fixed in 06.10 	
Description		
<ul style="list-style-type: none"> • Processing Centre: ALL • Product type: L1 SRAL <ul style="list-style-type: none"> • An error is observed on the power and phase within the burst for the SRAL calibrations. The value for the first burst is duplicated over all the indexes within the burst. This results in applying a constant value for the power and a constant phase set to zero. The impact is negligible on the SRAL derived geophysical parameters in the Level 2 products. 		



Anomaly # 2		Error in the manoeuvre flag (EUM/Sen3/AR/2268)
Processing	<ul style="list-style-type: none"> • Processor: SRAL L1 • Affected versions: all up to and including 06.10 • Resolved in version: To be defined 	
Description		
<ul style="list-style-type: none"> • Processing Centre: ALL • Product type: SRAL L1 • There is an inconsistency between the product specifications (S3IPF PDS 003 -i1r7- Product Data Format Specification - SRAL-MWR) and the effective values in the products of the manoeuvre presence flag (values set to 4 or 5 instead of 0 and 1 as specified in the documentation). 		

Anomaly #3		Orbit file reported in L1 manifest is wrong (SIIMPC-1210)
Processing	<ul style="list-style-type: none"> • Processor: SRAL L1 • Affected versions: all up to and including 06.09 • Resolved in version: Fixed in 06.10 	
Description		
<ul style="list-style-type: none"> • Processing Centre: ALL • Product type: SRAL L1B • The orbit file used in the generation of the L1B file is reported both in the manifest and in the global attributes of the NetCDF file. Until this anomaly was fixed the filename reported in the manifest is incorrect and the one actually used was reported in the NetCDF. 		



Anomaly #4 Error in applied Calibrations (EUM/Sen3/NCR/2238)	
Processing	<ul style="list-style-type: none"> • Processor: SRAL L1 • Affected versions: all up to and including 06.09 • Resolved in version: Fixed in 06.10
Description	
<ul style="list-style-type: none"> • Processing Centre: ALL • Product type: SRAL L1B • The power and phase burst calibrations are not well applied; the impact is an increase of the level of noise on the measurements. 	

Anomaly # 5 Invalid product size in manifest for some L1A products (SIIMPC 1500)	
Processing	<ul style="list-style-type: none"> • Processor: SRAL L1 • Affected versions: all up to and including 06.10 • Resolved in version: To be defined
Description	
<ul style="list-style-type: none"> • Processing Centre: ALL • Product type: SRAL L1A • The product size in the manifest is not valid for some of the L1A products. Note that this error is not systematic and affect about 25% of the products. 	



Notice #1 Level 1B waveforms not corrected for the fine tracker word (SIIMPC 1516)	
Processing	<ul style="list-style-type: none"> • Processor: SRAL L1 • Affected versions: all up to and including 06.10 • Resolved in version: To be defined
Description	
<ul style="list-style-type: none"> • Processing Centre: ALL • Product type: SRAL L1B • The fine tracker word is not applied in the L1B waveforms creating a saw tooth behaviour on the radargram. This is not an anomaly since the range can be computed using the tracker and epoch provided in the product or from the epoch coming from any external retracking applied by the users. 	

Processing Baseline (PB 2.10) – Static ADFs

The following list is the complete list of static ADF used by the processors. Any change from the previous processing baseline will be highlighted in red.

SRAL L1

- S3_AX__CST_AX_20000101T000000_20991231T235959_20151214T120000_____MPC_O_AL_001.SEN3
- S3A_SR_1_CONCAX_20000101T000000_20991231T235959_20160603T120000_____MPC_O_AL_002.SEN3
- S3_SR_1_CONMAX_20160216T000000_20991231T235959_20161010T120000_____MPC_O_AL_004.SEN3
- S3_SR__LSM_AX_20000101T000000_20991231T235959_20151214T120000_____MPC_O_AL_001.SEN3
- S3A_SR__CHDNAX_20000101T000000_20991231T235959_20160603T120000_____MPC_O_AL_002.SEN3
- S3A_SR__CHDRAX_20000101T000000_20991231T235959_20160603T120000_____MPC_O_AL_002.SEN3

End of the Product Notice