Sentinel-3 Product Notice – SLSTR

Mission	Sentinel-3A & Sentinel-3B	
Sensor	SLSTR-A & SLSTR-B	
Product	• Level 1B: SL_1_RBT at NRT and NTC	
Product Notice ID	S3.PN-SLSTR-L1.08	
Issue/Rev Date	18/05/2021	
Version	1.0	
Preparation	This Product Notice was prepared by the S3 Mission Performance Centre (MPC) and by ESA and EUMETSAT experts	
Approval	Joint ESA-EUM Mission Management	

Summary

This Product Notice addresses Sentinel-3A and -3B Sea and Land Surface Temperature Radiometer (SLSTR-A and SLSTR-B) Level-1B processing baselines deployed on dd/mm/2021. It is applicable to Near Real Time (NRT) and Non-Time Critical (NTC) timeliness.

The Notice describes the Level-1B current status, the processing baseline, the product quality and known limitations for both SLSTR-A and SLSTR-B.

The main changes relate to: improved flagging of products impacted by manoeuvre, correcting geolocation accuracy before and after manoeuvres and several corrections such as artefacts occurring in short products generated around the ANX.

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Processing Baselines		
	S3A	**S3B**
Processing Baseline	• Processing Baseline: 2.75	• Processing Baseline: 1.53
IPFs version	• SL_1 IPF version: 06.18 • PUG version: 3.39	

Current Operational Processing Baselines		
IPF	**IPF Version**	**Into operations since**
S3A SL1	06.18	**Land Centres:** • NRT mode: 18/05/2021 08:10 UTC • NTC mode: 18/05/2021 08:10 UTC **Marine Centre:** • NRT mode: 18/05/2021 08:10 UTC • NTC mode: 18/05/2021 08:10 UTC
S3B SL1	06.18	**Land Centres:** • NRT mode: 18/05/2021 08:10 UTC • NTC mode: 18/05/2021 08:10 UTC **Marine Centre:** • NRT mode: 18/05/2021 08:10 UTC • NTC mode: 18/05/2021 08:10 UTC
PUG	3.39	**Land Centres:** • NRT mode: 28/04/2021 • NTC mode: 28/04/2021 **Marine Centre:** • NRT mode: 28/04/2021 • NTC mode: 28/04/2021

Details of the changes and impacts

Improving the manoeuvre filtering

During satellite manoeuvring, SLSTR L1 products are processed with degraded quality. As long as the navigation data contains NAVATTs flagged as manoeuvres, the whole set of NAVATTs is discarded and ancillary data is used instead, resulting in degraded SLSTR geolocation accuracy. As a consequence, manoeuvres were impacting products before and after the manoeuvre (affected more than one orbit) producing degraded products with geolocation errors and raised flags although not within manoeuvre period.

To improve the data quality of SLSTR L1 data before and after manoeuvre, only the NAVATT level 0 records acquired during the manoeuvres are now removed and replaced by an interpolation of NAVATT products, filling computed qualified data for the ones discarded, and outside the manoeuvre nominal NAVATT records is used producing nominal geolocation accuracy.

Similarly, the handling of pointing flags has been modified to be raised only during the manoeuvre and not on the following orbit. The NAVATTs manoeuvre flag and the pointing guidance are now to be used in combination to flag products during manoeuvres leading to a platform_mode flag (inside pointing flag) raised for the whole duration of the manoeuvre.

To overcome the time difference between coincident measurements, Nadir and Oblique flags are handled independently.

The degradation flag (in the SLSTR L1 product manifest file) has been also revisited to ensure that MANOEUVRE and THRUST degradation flags are raised only for the duration of the manoeuvre and thrusts (respectively) for the near-real time (NRT) timeliness. For the non-time critical (NTC) timeliness and due to the processing limitation (producing first full L1 orbit granule product and then cutting in 3 min PDUs) there are still inconsistencies for the products before and after the manoeuvre but only in the raised manifest degradation flags, while the geolocation accuracy and the pointing flags are nominal.

Additional improvements

There are also several smaller improvements:

Some artefacts observed on short products generated around the ANX were due to a quasi-cartesian coordinates discontinuity created by a wrong interpolation around 0°. These artefacts are now corrected.

Valid_min and Valid_max attributes associated with Y datasets included in the cartesian files were not consistent with actual Y values. They have been increased from 50000000 to 100000000.

Status of the Processing Baseline

The current processing baseline for SLSTR-A Level-1B products is v2.75 and for SLSTR-B is v1.53. The baseline is deployed in the Land and Marine processing centres since 18/05/2021 for SLSTR-A and SLSTR-B.

The quality status of the baseline products is as follows:

Geometric Calibration

- SLSTR-A and SLSTR-B nadir and oblique view geolocation accuracy meet the mission requirements (0.5 pixel as per S3 MRTD, 2011).
- The estimated geometric validation for SLSTR-A and SLSTR-B is within 0.1 pixel in nadir view along and across track and in oblique view across track.
    - Smaller offset (still within requirements) is observed in oblique view along track (~0.2 pix) for both satellites.

TIR Radiometric Calibration

- SLSTR-A and SLSTR-B TIR radiometric accuracy meets the mission requirements (S3 MRTD, 2011).

VIS/SWIR Radiometric Calibration Information

- SLSTR-A/B: All solar channels (S1-S6) have been undergoing a vicarious calibration assessment to quantify their radiometric calibration adjustment. Recent analysis of vicarious calibration results over desert sites performed by RAL, CNES, Rayference and University of Arizona have determined new and consistent radiometric deviations wrt. common reference sensors (MERIS, MODIS) [S3MPC.RAL.TN.010]. Consequently, these have been used to provide a first-order radiometric corrections which are provided in the below tables with more detail at the following link [S3MPC.RAL.TN.020]. Current radiances in the L1B product remain **uncorrected** of these radiometric calibration adjustments. Hence, these multiplicative coefficients are strongly recommended to be used by all users.

Nadir view

	S1	S2	S3	S5	S6
Correction	0.97	0.98	0.98	1.11	1.13
Uncertainty	0.03	0.02	0.02	0.02	0.02

Oblique view

	S1	S2	S3	S5	S6
Correction	0.94	0.95	0.95	1.04	1.07
Uncertainty	0.05	0.03	0.03	0.03	0.05

Bayesian/probabilistic cloud screening

- SLSTR-A validation of the Bayesian and Probabilistic cloud mask indicates an overall accuracy of up to 90%. Although there is a significant improvement compared to the basic cloud mask, there are still some identified residual issues.
- Temporal interpolation of the ECMWF fields internally within the processing has improved the accuracy of the probabilistic cloud mask. This addresses previous over-flagging in some regions and under-flagging in others.
- This status is also applicable to SLSTR-B.

Basic cloud screening

- SLSTR-A and SLSTR-B summary_cloud:

  The results of the remaining cloud test (thermal histogram) are not taken into account in the cloud word. The result of this test is however still available in the individual cloud test bits in the cloud_flags.

Flags

SLSTR-A and SLSTR-B:

- Radiance/BT out of range flags are nominal.
- Saturation flags (where the uncalibrated counts are out of their expected range) are nominal.
- Pointing flags are nominal.

Known product quality limitations

SLSTR-A Level-1B processing baseline v2.75 and SLSTR-B Level-1B PB 1.53has the following known limitations, unless explicitly mentioned all points are applicable to both SLSTR-A and SLSTR-B:

Improvement of the manoeuvre filtering

For the non-time critical (NTC) timeliness and due to the processing limitation (producing first full L1 orbit granule product and then cutting in 3 min PDUs) there are still inconsistencies for the products before and after the manoeuvre but only in the raised manifest degradation flags, while the geolocation accuracy and the pointing flags are nominal.

VIS/SWIR radiometric calibration information

- The current calibration coefficients (given in the tables above) have been confirmed by the Agencies (EUMETSAT, ESA), the SLSTR Quality Working, and expert members of the S3VT.
- Assessments, made by applying the coefficients have shown that the corrections are highly beneficial for aerosol & fire applications derived from the VIS/SWIR channels.
- It should be noted that the coefficients are based on analyses of bright desert sites, and it is possible that there are effects that are dependent on the scene and/or view geometry. Further analyses is ongoing to characterize additional effects such as non-linearities, differences between SLSTR-A and B, and view angle dependencies, in particular the uncertainty in the Oblique view correction factor for S6.
- The root causes of the discrepancies have not yet been determined but investigations are ongoing.

S7, S8, S9 co-registration

- A sub-pixel mis-registration of S7 with regard to S8 and S9 of ~ 250 m for SLSTR-A and ~120 m for SLSTR-B has been detected and is being investigated.

Meteorological fields

- Meteorological fields are nominal. Users are advised that the times given for meteorological fields are synoptic and the data has not been interpolated to SLSTR time.

Upper temperature limit of channel S7

- The Upper temperature limit for optimally calibrated channel S7 is set to ~305 K for both SLSTR-A SLSTR-B. All S7 brightness temperatures higher than this limit are flagged as invalid_radiance. However, to ensure the feasibility of the SLSTR L2 Fire Radiative Power Algorithm, these temperatures are no longer replaced by a _FillValue and kept in the products.
- Users should be aware of this update when using S7 temperatures above 305 K.

Differences between NRT and NTC products

- There are small expected differences between NRT and NTC products due to the regridding algorithm.

Bayesian/probabilistic cloud screening

- Although there is a significant improvement compared to the basic cloud mask, some residual issues have been identified:
    - The false alarm rate is higher than would be desired indicating some over-flagging of clear sky as cloud.
    - The Bayesian cloud mask is sensitive to ocean fronts resulting in over-flagging along the front itself.
    - The Bayesian cloud mask is sensitive to surface reflectance resulting in over-flagging in regions of upwelling and coastal zones.
- The Bayesian cloud mask is provided as a probability (0 – 1) in the L1 product. A threshold of 0.1 (values less than) is used to identify clear sky pixels. However, users may wish to try different thresholds in their regions of interest by using the provided probabilities.
- The probabilistic cloud mask does not currently provide probabilities over land, only flag information. Including probabilities also over land are considered as future evolution.
- The probabilistic cloud mask is primarily for detecting cloud for the L2 LST product, but does not get propagated to the summary_cloud at L2, instead being propagated in the Bayes word.

Basic Cloud Screening

- Overall the cloud screening (summary_cloud) did not change since the previous SLSTR-A baseline but there are some remaining issues:
    - Under-flagging of fog and low stratus over ocean
    - Over-flagging of fog and low stratus over land

- Over-flagging of 1.6 large-scale histogram test near the coastline
- Different cloud masking criteria for sun glint and outside of sun glint area can cause artificial striping in the summary cloud screening
- The cloud mask on the F1 grid presents a small spatial offset due to the shift between F1 and other channels.

Alignment of Tie-point grids and image grids

- Due to continuity requirement, the first SLSTR tie point row has been defined over the ANX position. However, this leads to a misalignment between tie and image rows in the along-track direction. is misalignment manifests as an arbitrary offset between the image grid and the tie point grid that is found to vary around an orbit.
- Users should be aware that there are exactly the same number of tie point rows as 1km image rows.
- However, operational (PUG) products may have an additional row of 0.5 km pixels before the tie point grid that is not present in the reprocessed (IPF) products. In this case, interpolation between tie points and image grid can be performed by extrapolation or using the adjacent product.

F1 Overshoot & offset

- An issue has been identified with the F1 channel after detection of high temperatures (fires) or low temperatures (clouds).
- The effect manifests as follows:
- When a pixel with a very high temperature is detected, the following down-scan pixel appears to record a temperature that is much lower than expected. E.g. if a BT of 500K is detected, the next pixels will report a BT of ~200K whereas the corresponding S7 pixels are ~300K.
- When a pixel with a very low temperature is detected, the following down-scan pixel appears to be very abnormally high. This very often occurs next to cold cloud edges over the next 5 to 10 pixels in the scan direction. Without careful precaution by users, this may lead to various effects on L2 applications such as false detection of fire. E.g. if a BT of 240K is detected, the next pixels will report a BT of ~323K whereas the corresponding S7 pixels are ~280K.
- The effect is due to the specificities of the F1 detector design.
- Currently, there are no specific flags given in the L1b product for such an effect in F1. Hence, users are advised to compare the F1 channel BTs with those of S7 to avoid false interpretation of hot-spots.
- Noise contribution in F1 is known to be higher than in S7. Due to its dynamic range, it is generally recommended not to use F1 detector for BTs < 305 K.

- Users are also kindly reminded that the F1 grid is not co-registered with any of the S* grids. A specific grid is provided in its corresponding geodetic file.

TIR Channel Stray Light Correction

- During the pre-launch radiometric testing of SLSTR-A and B unexpected discrepancies were observed in the brightness temperatures as measured by SLSTR-A channels S8 and S9 compared to those of the external reference source [Smith et al 2020]. For model B, the results were significantly better for the nadir view, although they still showed some differences in the oblique view, but within the reported uncertainties. The probable cause of the effect was due to lower-than-expected performance of the black coating used in the Parabolic Mirror Assembly (PMA) stop leading to a scan-dependent variation of the background signal. The effect was later confirmed in the oblique view by the analysis of comparisons of SLSTR-A and B data from the Sentinel-3 tandem phase [Hunt et al 2020].
- An empirical correction to the calibration model has been proposed to account for the stray light effect which is under evaluation.

Smith, D.; Barillot, M.; Bianchi, S.; Brandani, F.; Coppo, P.; Etxaluze, M.; Frerick, J.; Kirschstein, S.; Lee, A.; Maddison, B.; Newman, E.; Nightingale, T.; Peters, D.; Polehampton, E., Sentinel-3A/B SLSTR Pre-Launch Calibration of the Thermal InfraRed Channels., Remote Sens." 2020, 12, 2510. https://doi.org/10.3390/rs12162510

Hunt, S.E.; Mittaz, J.P.D.; Smith, D.; Polehampton, E.; Yemelyanova, R.; Woolliams, E.R.; Donlon, C.. Comparison of the Sentinel-3A and B SLSTR Tandem Phase Data Using Metrological Principles, Remote Sens. 2020, 12, 2893. https://doi.org/10.3390/rs12182893

Product Availability

☒ Copernicus Open Access Hub (https://scihub.copernicus.eu/), NRT and NTC

☒ Copernicus Online Data Access (https://coda.eumetsat.int/), NRT and NTC

☐ EUMETCast (https://eoportal.eumetsat.int/), NRT

☒ EUMETSAT Data Centre (https://eoportal.eumetsat.int/), NRT and NTC

☐ FTP server address login: login password: password

☐ Other

Product	EUMETCast	ODA*	CODA**	EUMETSAT Data Centre
SLSTR L1B	-	NRT, NTC	NRT, NTC	NRT, NTC

*** ODA** is available only for Copernicus Services and S3VT users
**** CODA** is the Copernicus Online Data Access service and is available to all users.

Any other useful information

- None applicable to this processing baseline

User Support

- Questions about SLSTR products can be asked to the Sentinel-3 User Support desk at:
  - eosupport@copernicus.esa.int
  - ops@eumetsat.int

References

- Product Data Format Specification – SLSTR Level 1 & 2 Instrument Products, Ref: S3IPF.PDS.005.1, Issue: 2.9, Date: 20/09/2019

  https://sentinel.esa.int/web/sentinel/user-guides/sentinel-3-slstr/document-library
  https://www.eumetsat.int/sea-surface-temperature-resources

- SLSTR Land User Handbook:
  https://sentinel.esa.int/documents/247904/4598082/Sentinel-3-SLSTR-Land-Handbook.pdf/

- SLSTR Marine User Handbook:

  https://www-cdn.eumetsat.int/files/2020-07/Sentinel-3 SLSTR Marine User Handbook.pdf

Static ADFs

S3A

- S3__AX___DEM_AX_20000101T000000_20991231T235959_20151214T120000_____MPC_O_AL_001.SEN3
- S3__AX___LWM_AX_20000101T000000_20991231T235959_20151214T120000_____MPC_O_AL_001.SEN3
- S3__AX___OOM_AX_20000101T000000_20991231T235959_20151214T120000_____MPC_O_AL_001.SEN3
- S3__AX___TRM_AX_20000101T000000_20991231T235959_20151214T120000_____MPC_O_AL_001.SEN3
- S3__AX___CLM_AX_20000101T000000_20991231T235959_20151214T120000_____MPC_O_AL_001.SEN3
- S3__SL_2_LSTBAX_20000101T000000_20991231T235959_20151214T120000_____MPC_O_AL_001.SEN3
- S3A_SL_1_N_F1AX_20160216T000000_20991231T235959_20170324T120000_____MPC_O_AL_006.SEN3
- S3A_SL_1_N_S7AX_20160216T000000_20991231T235959_20170324T120000_____MPC_O_AL_006.SEN3
- S3A_SL_1_N_S8AX_20160216T000000_20991231T235959_20170324T120000_____MPC_O_AL_006.SEN3
- S3A_SL_1_N_F2AX_20160216T000000_20991231T235959_20170324T120000_____MPC_O_AL_006.SEN3
- S3A_SL_1_ANC_AX_20160216T000000_20991231T235959_20190912T120000_____MPC_O_AL_010.SEN3
- S3A_SL_1_N_S9AX_20160216T000000_20991231T235959_20170324T120000_____MPC_O_AL_006.SEN3
- S3A_SL_1_O_F1AX_20160216T000000_20991231T235959_20170324T120000_____MPC_O_AL_006.SEN3
- S3A_SL_1_O_F2AX_20160216T000000_20991231T235959_20170324T120000_____MPC_O_AL_006.SEN3
- S3A_SL_1_O_S7AX_20160216T000000_20991231T235959_20170324T120000_____MPC_O_AL_006.SEN3
- S3A_SL_1_O_S8AX_20160216T000000_20991231T235959_20170324T120000_____MPC_O_AL_006.SEN3
- S3A_SL_1_O_S9AX_20160216T000000_20991231T235959_20170324T120000_____MPC_O_AL_006.SEN3
- S3A_SL_1_VIC_AX_20160216T000000_20991231T235959_20161012T120000_____MPC_O_AL_004.SEN3
- S3A_SL_1_ADJ_AX_20160216T000000_20991231T235959_20180202T120000_____MPC_O_AL_001.SEN3
- S3A_SL_1_CDP_AX_20160216T000000_20991231T235959_20180202T120000_____MPC_O_AL_001.SEN3
- S3A_SL_1_CLO_AX_20160216T000000_20991231T235959_20180202T120000_____MPC_O_AL_006.SEN3

- S3A_SL_1_CLP_AX_20160216T000000_20991231T235959_20180202T120000_____MPC_O_AL_001.SEN3
- S3A_SL_1_ESSTAX_20160216T000000_20991231T235959_20180202T120000_____MPC_O_AL_001.SEN3
- S3A_SL_1_GEC_AX_20190101T000000_20991231T235959_20191010T120000_____MPC_O_AL_009.SEN3
- S3A_SL_1_GEO_AX_20160216T000000_20991231T235959_20190912T120000_____MPC_O_AL_008.SEN3
- S3A_SL_1_IRE_AX_20160216T000000_20991231T235959_20180202T120000_____MPC_O_AL_001.SEN3
- S3A_SL_1_LCC_AX_20160216T000000_20991231T235959_20201015T120000_____MPC_O_AL_002.SEN3
- S3A_SL_1_NAS4AX_20160216T000000_20991231T235959_20180202T120000_____MPC_O_AL_010.SEN3
- S3A_SL_1_NAS5AX_20160216T000000_20991231T235959_20180202T120000_____MPC_O_AL_010.SEN3
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- S3A_SL_1_N_S1AX_20160216T000000_20991231T235959_20180202T120000_____MPC_O_AL_009.SEN3
- S3A_SL_1_N_S2AX_20160216T000000_20991231T235959_20180202T120000_____MPC_O_AL_009.SEN3
- S3A_SL_1_N_S3AX_20160216T000000_20991231T235959_20180202T120000_____MPC_O_AL_009.SEN3
- S3A_SL_1_OAS4AX_20160418T094050_20991231T235959_20180202T120000_____MPC_O_AL_012.SEN3
- S3A_SL_1_OAS5AX_20160418T094050_20991231T235959_20180202T120000_____MPC_O_AL_012.SEN3
- S3A_SL_1_OAS6AX_20160418T094050_20991231T235959_20180202T120000_____MPC_O_AL_012.SEN3
- S3A_SL_1_OBS4AX_20160418T094050_20991231T235959_20180202T120000_____MPC_O_AL_012.SEN3
- S3A_SL_1_OBS5AX_20160418T094050_20991231T235959_20180202T120000_____MPC_O_AL_012.SEN3
- S3A_SL_1_OBS6AX_20160418T094050_20991231T235959_20180202T120000_____MPC_O_AL_012.SEN3
- S3A_SL_1_O_S1AX_20160418T094050_20991231T235959_20180202T120000_____MPC_O_AL_011.SEN3
- S3A_SL_1_O_S2AX_20160418T094050_20991231T235959_20180202T120000_____MPC_O_AL_011.SEN3
- S3A_SL_1_O_S3AX_20160418T094050_20991231T235959_20180202T120000_____MPC_O_AL_011.SEN3
- S3A_SL_1_PCP_AX_20160216T000000_20991231T235959_20190912T120000_____MPC_O_AL_012.SEN3
- S3A_SL_1_RTT_AX_20160216T000000_20991231T235959_20180202T120000_____MPC_O_AL_001.SEN3

S3B

- S3__AX___DEM_AX_20000101T000000_20991231T235959_20151214T120000_____MPC_O_AL_001.SEN3
- S3__AX___LWM_AX_20000101T000000_20991231T235959_20151214T120000_____MPC_O_AL_001.SEN3
- S3__AX___OOM_AX_20000101T000000_20991231T235959_20151214T120000_____MPC_O_AL_001.SEN3
- S3__AX___TRM_AX_20000101T000000_20991231T235959_20151214T120000_____MPC_O_AL_001.SEN3
- S3__AX___CLM_AX_20000101T000000_20991231T235959_20151214T120000_____MPC_O_AL_001.SEN3
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- S3B_SL_1_N_S7AX_20180425T000000_20991231T235959_20190912T120000_____MPC_O_AL_003.SEN3

- S3B_SL_1_N_S8AX_20180425T000000_20991231T235959_20180409T120000_____MPC_O_AL_001.SEN3
- S3B_SL_1_ADJ_AX_20180425T000000_20991231T235959_20180409T120000_____MPC_O_AL_001.SEN3
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- S3B_SL_1_CLP_AX_20180425T000000_20991231T235959_20180409T120000_____MPC_O_AL_001.SEN3
- S3B_SL_1_ESSTAX_20180425T000000_20991231T235959_20180409T120000_____MPC_O_AL_001.SEN3
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- S3B_SL_1_LCC_AX_20180425T000000_20991231T235959_20201015T120000_____MPC_O_AL_002.SEN3
- S3B_SL_1_RTT_AX_20180425T000000_20991231T235959_20180409T120000_____MPC_O_AL_001.SEN3
- S3B_SL_1_CLO_AX_20180425T000000_20991231T235959_20180409T120000_____MPC_O_AL_001.SEN3
- S3B_SL_1_GEO_AX_20180425T000000_20991231T235959_20190912T120000_____MPC_O_AL_003.SEN3
- S3B_SL_1_ANC_AX_20180425T000000_20991231T235959_20190912T120000_____MPC_O_AL_003.SEN3
- S3B_SL_1_VIC_AX_20180425T000000_20991231T235959_20181002T120000_____MPC_O_AL_002.SEN3
- S3B_SL_1_GEC_AX_20190101T000000_20991231T235959_20191010T120000_____MPC_O_AL_004.SEN3
- S3B_SL_1_NAS4AX_20180425T000000_20991231T235959_20181002T120000_____MPC_O_AL_003.SEN3
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- S3B_SL_1_NAS6AX_20180425T000000_20991231T235959_20181002T120000_____MPC_O_AL_003.SEN3
- S3B_SL_1_NBS4AX_20180425T000000_20991231T235959_20181002T120000_____MPC_O_AL_003.SEN3
- S3B_SL_1_NBS5AX_20180425T000000_20991231T235959_20181002T120000_____MPC_O_AL_003.SEN3
- S3B_SL_1_NBS6AX_20180425T000000_20991231T235959_20181002T120000_____MPC_O_AL_003.SEN3
- S3B_SL_1_N_F2AX_20180425T000000_20991231T235959_20181002T120000_____MPC_O_AL_002.SEN3
- S3B_SL_1_N_S1AX_20180425T000000_20991231T235959_20181002T120000_____MPC_O_AL_003.SEN3
- S3B_SL_1_N_S2AX_20180425T000000_20991231T235959_20181002T120000_____MPC_O_AL_003.SEN3
- S3B_SL_1_N_S3AX_20180425T000000_20991231T235959_20181002T120000_____MPC_O_AL_003.SEN3
- S3B_SL_1_N_S9AX_20180425T000000_20991231T235959_20180409T120000_____MPC_O_AL_001.SEN3
- S3B_SL_1_OAS4AX_20180425T000000_20991231T235959_20181002T120000_____MPC_O_AL_003.SEN3
- S3B_SL_1_OAS5AX_20180425T000000_20991231T235959_20181002T120000_____MPC_O_AL_003.SEN3
- S3B_SL_1_OAS6AX_20180425T000000_20991231T235959_20181002T120000_____MPC_O_AL_003.SEN3
- S3B_SL_1_OBS4AX_20180425T000000_20991231T235959_20181002T120000_____MPC_O_AL_003.SEN3
- S3B_SL_1_OBS5AX_20180425T000000_20991231T235959_20181002T120000_____MPC_O_AL_003.SEN3
- S3B_SL_1_OBS6AX_20180425T000000_20991231T235959_20181002T120000_____MPC_O_AL_003.SEN3
- S3B_SL_1_O_F1AX_20180425T000000_20991231T235959_20181002T120000_____MPC_O_AL_002.SEN3
- S3B_SL_1_O_F2AX_20180425T000000_20991231T235959_20181002T120000_____MPC_O_AL_003.SEN3
- S3B_SL_1_O_S1AX_20180425T000000_20991231T235959_20181002T120000_____MPC_O_AL_003.SEN3
- S3B_SL_1_O_S2AX_20180425T000000_20991231T235959_20181002T120000_____MPC_O_AL_003.SEN3
- S3B_SL_1_O_S3AX_20180425T000000_20991231T235959_20181002T120000_____MPC_O_AL_003.SEN3
- S3B_SL_1_O_S7AX_20180425T000000_20991231T235959_20200410T120000_____MPC_O_AL_004.SEN3

- S3B_SL_1_O_S8AX_20180425T000000_20991231T235959_20180712T120000_____MPC_O_AL_002.SEN3
- S3B_SL_1_O_S9AX_20180425T000000_20991231T235959_20180712T120000_____MPC_O_AL_002.SEN3
- S3B_SL_1_PCP_AX_20180425T000000_20991231T235959_20190912T120000_____MPC_O_AL_003.SEN3

In red: modified ADFs

End of the Product Notice