New Parameters on ATL04 for Data Release 005

Group: /profile_x/podppd_flag – the threshold in photons used for surface detection
Group: /ancillary_data/atmosphere/dtime_max – dead time correction factor maximum value

The **podppd_flag** provides identification of ATLAS data in nominal geolocation quality status or a degraded quality. **podppd_flag** =0 means geolocation is in reference ground track pointing with normal quality. **podppd_flag** =4 means geolocation is in around-the-world scan or ocean scan with normal quality. Other values are degraded. The **dtime_max** value sets a limit on the maximum dead time correction factor applied to the surface signal. The dead time correction factor is computed from the width and magnitude of the surface signal.

ATL04 Known Issues for ASAS V5.5
(Data Release 005)

The following lists the known issues with the ASAS version 5.5 (release 005) ATL04 atmospheric parameters. We are actively working to correct the problems for the next release.

/Profile_x

Backg_method1: This is the calculated background used in the subsequent Normalized Relative Backscatter (NRB) calculation. The background calculated for twilight data (solar elevation angles -7 to -1) can have large error. This can affect the NRB and subsequent calibration of the data.

Nrb_profile: In a region known as the South Atlantic Anomaly (SAA), enhanced detector noise causes elevated NRB values in nighttime data. This effect is not noticeable in daytime data. The nighttime calibration in these areas is adversely affected.

Note for Nighttime data collection:

The ATLAS instrument performs calibrations that are used to optimize the altimetry retrievals during nighttime passes over parts of the oceans. During the calibration maneuvers, the atmospheric data are not collected. This results in areas where no data are collected as seen in the figure below (white areas). This affects data collected prior to March, 2019. After this date, the calibration strategy was changed, which greatly reduced this problem.

2018/12 – ZN

Cloud Fraction

Aerosol Fraction