

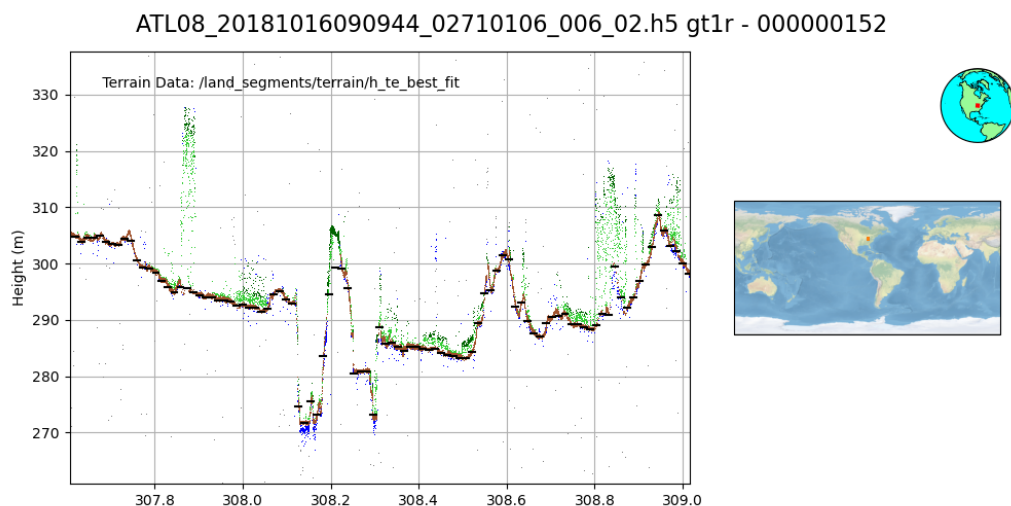
ATL08 Land and Vegetation Data Product -- Release 007 (June 1, 2025)

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The seventh release (Release 007) of ICESat-2 Land and Vegetation data product (ATL08) is now available from NSIDC.

Changes Implemented in Release 007

- *All canopy classification for Antarctica and Greenland bypassed*
- *Canopy QA utilizing noise rate bypassed*
- *Filtered segments without at least low confidence photons from ATL03*
- *Corrected weak beam alignment of ATL09 parameters*
- *Cloud computing optimization*
- *Quality score implemented for terrain and canopy*
- *Expanded canopy top allowance in clear, nighttime scenes*
- *Regression and residual to flatten slopes for ground finding*
- *Single surface detection (desert, ocean, etc.), bypassing erroneous canopy classification based on regression stats and land cover type*
- *Refined ground finding based on a priori DEM bias analysis*
- *Installed fog detection and bypass based on DEM bias analysis results*
- *Improved photon density weights (ATL03) and signal photon threshold analysis*
- *Addressed data types for segment_* flags*
- *Improved clarity of parameter descriptions with ATBD references*



ATL08_20181016090944_02710106_961b3_01.h5 gt1r - 000000152

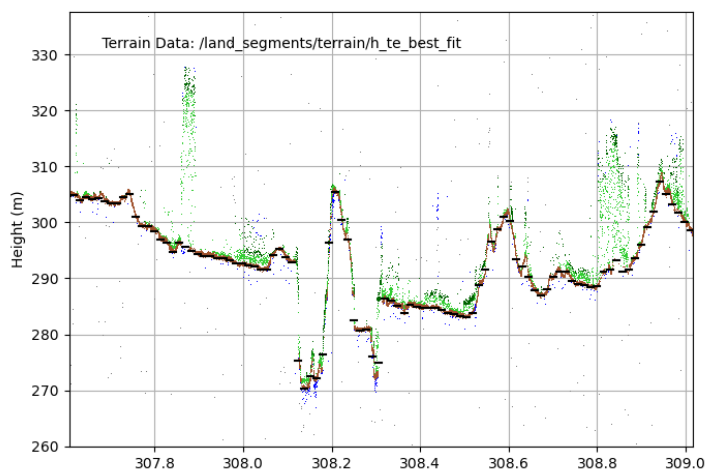
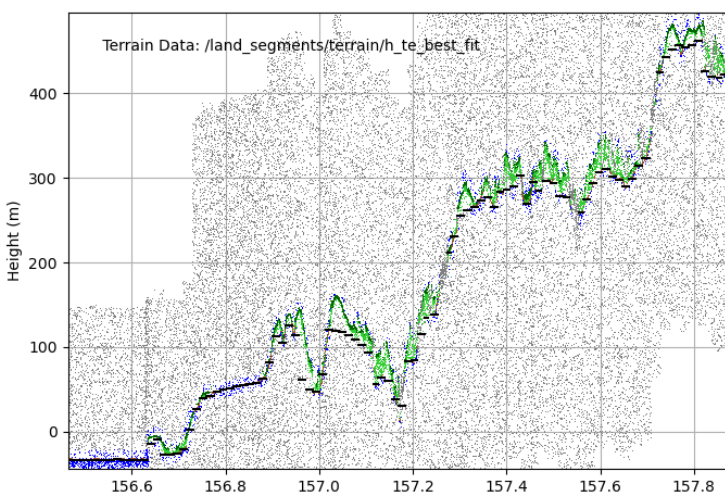


Figure 1. Example of improved ground finding in the ATL08 algorithm. The top panel shows the “before” (Rel 006) and the bottom panel shows the “after” (Rel 007). In this figure, the ground is much better resolved than the previous version.

ATL08_20181228195820_00060202_006_02.h5 gt1l - 000000012



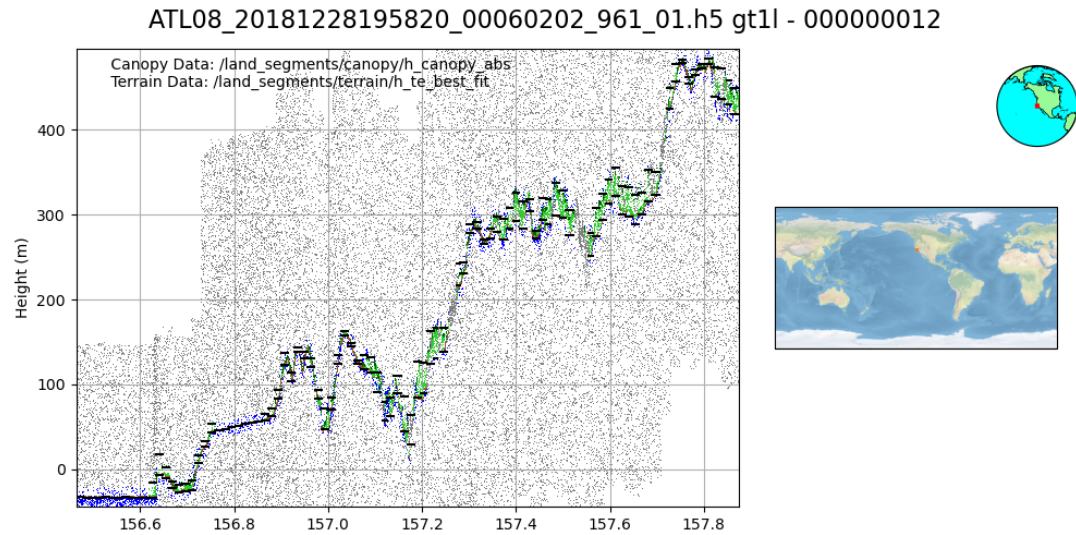


Figure 2. Example of improved ground finding in the ATL08 algorithm. The top panel shows the “before” (Rel 006) and the bottom panel shows the “after” (Rel 007). In this figure, the ground is much better resolved than the previous version.

Known Issues

True top of canopy photons may still be considered as noise photons in day acquisitions as it is difficult to correctly identify those cases.