

# V2.1.4 L2AS Detailed Release Description

## September 27, 2001

### Algorithm Changes

- Change method of selecting radiance pixels to use in aerosol retrieval over heterogeneous land: select pixels in most oblique cameras first, instead of largest number of pixels in common.
- Change band smoothness masking to apply to all bands instead of individual bands.
- Report NumAcceptSubr as number of subregions of good quality, instead of number of subregions actually used in final retrieval.
- Report HetLandContrast all of the time.
- Integrate algorithm to compute LAI/FPAR into software, but turn it off pending further testing.
- Do not use aerosol het. surface retrieval algorithm over areas of 100% dark water.
- Modify algorithm for selecting a default aerosol model to use in land retrievals when no aerosol models are successful.
- Choose het. land aerosol algorithm rather than dark water aerosol algorithm if land is present.

### Bug Fixes

- Fix argument check for AS\_SU\_LP\_camera\_fill routine.
- Fix incorrect computation of land surface QA stats.
- Fix range check errors in SMART staging code.
- Fix logic for handling case where all eigenvalues are fill.
- Add fill values to block metadata in L2AS products.
- Fix memory leaks.
- Change pressure range check from fatal error to warning.

### Aerosol Product Changes

- Add ChisqHetSpectral field.
- Add NumClearCam field.
- Add SfcRetrOptDepth, SfcRetrModel and SfcRetrAlgTypeFlag.

### Science Config File Changes

- Add min\_dw\_subr\_thresh parameter, and set it to 16.
- Make chi-square uncertainty multiplier configurable, and set to 0.05
- Change region\_topo\_complex\_thresh from 250 m to 500 m.
- Change min\_het\_subr\_thresh from 64 to 16.
- Change min\_het\_contrast\_thresh from 5 to 2.file.
- Change max\_chisq\_het\_thresh from 10 to 4.