

ICESat-2 PROJECT SCIENCE OFFICE REPORT

Monday, July 1, 2019 thru Sunday, July 7, 2019

RGTs spanned: ---
Cycle 3

Items of Note:

ICESat-2 exited Safe Mode on 2019/182 (July 1), and the ATLAS team completed steps yesterday (7/8/2019) to bring ATLAS laser 2 back to fire mode at energy level 4. All ATLAS engineering data is nominal. ASAS is wrapping up development for the ASAS v4.2 release, with their code freeze no later than Monday July 15.

****ELEMENT DETAILS BELOW****

CAMS/POD/PPD:

CAMS: Provided SIPS with Rapid ANC products using predictions only. This mode will be used until ATLAS begins firing again and ATLO2 files are generated.

POD: Nominal operations continue.

ISF:

ICESat-2 exited Safe Mode on 2019/182 (July 1), and the ATLAS team completed steps yesterday (7/8/2019) to bring ATLAS laser 2 back to fire mode at energy level 4. All ATLAS engineering data is nominal.

SADA in Airplane Mode
Spacecraft orientation: - X

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Activities during the past week:

Real-time activities:

Completed ATLAS Activation through laser power on to sleep mode (brought to fire mode on 7/8).

Next week's ATLAS activities:

Perform activation activities to bring Laser 2 to fire mode at energy level 4 and return to science mode

Other Near-term activities:

Monitor and re-calibrate as needed.

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Notes/Issues:

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**LTO Schedule:**

All items remain on schedule

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SIPS:

- The SIPS is operating nominally:
 - Ingested and distributed Level 0 data to the ISF.
 - Generated L1A and L1B products and distributed ATL02s to the ISF, POD, and SCF.
 - Distributed selected ATL01s to the ISF and SCF by special request.
- ICESat-2 went out of safe hold on July 1 and ATLAS was powered up on July 3.
 - SIPS has been receiving and distributing the Level 0 data received since July 1.
 - Generated and distributed ATL02s to the ISF, POD, and the SCF.
- Produced and distributed ATL03, ATL04, ATL06, ATL07, ATL08, ATL09, ATL10, ATL12, and ATL13 products to the SCF for DOY 055-122.

ASAS:

ASAS is wrapping up development for the ASAS v4.2 release.

Code freeze is no later than Monday July 15.

Test data will be available no later than Monday July 23.

Expected delivery to SIPS for integration testing is no later than July 31.

SCF:

The SCF is operating nominally. Data for releases 001 and R001 are being ingested and distributed. Full granule subscriptions are caught up, but subsetting subscriptions are still being distributed. Fixes for two problems with ATL06 have been developed and tested, and both appear to be working as expected. A file listing the current SCF data holdings is attached.

* Data Management -- Two issues with trending for ATL06 appear to be resolved with fixes made in testing. Both involve handling data files with some but not all beams / ground tracks. Some additional testing is planned before moving the changes into operations.

* Subsetter -- Work on setting up a Python 3 environment for the Subsetter and data management scripts continued. Once installed, some initial testing will be done, then full tests of both components are planned.

* Visualizer -- Froze the Python 2 source code and made an AccuRev snapshot record of it; documentation for this v5.2 software was updated and put into Confluence. Worked on converting PyQt4 class instances to PyQt5 and Python 2 to Python 3.

ATL02/Instrument Science:

A new version of CAL 08 was distributed for testing. In this version, a sign error was corrected in the calculation of zero-range distance for the spots other than Spot 3.

ATL03:

ATBD updates are ongoing as we prepare for release 002 of the data product later this summer. Analysis also continues of ATL03 data collected at the 88S calibration site; attached figure shows ATL03 height bias (high/medium/low confidence signal photons) for each ATLAS spot relative to the 88S GPS elevation record (ATL03 minus GPS) following the ancillary file inclusion in version 2 ATL03 granules from Feb 23 through April 30. Generally speaking, the ATL03 results are biased high, relative to the GPS data (this may be because we're cutting off the tail of the surface returns in ATL03 signal classification; we feel we understand this feature and have a plan to address this in release 002).