

ICESat-2 PROJECT SCIENCE OFFICE REPORT
Monday, October 12, 2020 thru Sunday, October 18, 2020

RGTs spanned: 273 - 378
Cycle 9

SUMMARY:

All ATLAS housekeeping data is nominal; laser 2 is firing at energy level 4 and in science mode. POD delivered final calibrated ANC products covering 17 July-7 September 2020 to SIPS; SIPS is in the process of generating new final release 003 data products with these new ancillary products, and new data will be at the SCF for evaluation by next week. **ATBD leads à we are asking for your feedback (hold requests submitted to SCF and/or go-ahead to release data to NSIDC) by Friday, November 13.**

****ELEMENT DETAILS BELOW****

CAMS/POD:

CAMS: Regular CAMS operations: constraint and conjunction monitoring for MW109 and MW110 and mission planning for MW111.

CAMS continues working with the project on ARB09.

POD: Regular POD operations continue. Intermediate POD was completed for GPS week 2126. Final POD was completed for GPS week 2124.

Final calibrated ANC products covering DoY 199-251 were created and delivered to SIPS.

POD inputs for an 8-day test period were delivered to JPL to begin their POD validation. This included ICESat-2 RINEX files where the carrier phase observable drift issue had been corrected

ISF:

All ATLAS housekeeping data is nominal

Laser 2 is firing at energy level 4 and in science mode

WTEM Peak to Edge Ratio: 1.215

Laser 2 Temperature Error: -0.29C

SADA in SAILBOAT Mode

Spacecraft orientation: - X

Mission Planning:

MW110 ATS is loaded to the spacecraft and currently operating (PSO Activity List is attached)

MW111 AIP has been delivered, nominal calibrations; CAMS has delivered preliminary products.

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Activities during the past week:

Real-time activities:

monitoring via telework

**Onsite Thursday (10/15) to adjust the VBG temperature**

ATS activities:

MW\_109 (completed nominally)

MW\_110 (currently active):

Routine Instrument calibrations, TOOs, Ocean scans and Vegetation Data collection, Segmented RTW scans

Other Activities:

PDB E.0.2 Testing

**Installed and tested on the development server**

**Installed and tested on FLATLAS**

Near-term upcoming activities:

PDB E.0.2 deployment in ops

Testing of receiver algorithm parameter updates

Facility:

**Updating ITOS servers to RedHat 7.0 due to EOL of 6.0 at the end of November**

**Installed on the playback server (itos2)**

**Install procedure updates needed for ops accounts setup and mail install**

Tech HW refresh:

ISF Tech Refresh Phase 2 hardware delivered to GSFC

Phase 1a setup and testing continues (on-hold for RedHat OS update)

Notes/Issues:

1. ARB09: RMM02 Anomaly - the team continues to analyze events and determine process (automated and manual) updates to mitigate the chance of a recurrence. The team has implemented changes to the manual processes for verification of planning products. The team is providing inputs for root cause analysis and corrective action.

LTO Schedule:

Tech refresh updates to be provided to ESMO Scheduler. Update to RedHat 7.0 takes priority and phase 2 hardware shipment was delayed.

### **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.
  - Generated rapids ATL03, ATL04, ATL06, ATL07, ATL08, ATL09, and ATL10 using ANC03/04/05 files from the CAMS.
  - Distributed the ATL01 and ATL02 Data products to NSIDC.
  - Distributed the rapid Science Data products to the SCF.
- Upgraded the SIPS Integration Test cluster to Ubuntu 20.04
- As part of our planned L+2 storage upgrade, we installed 120 8TB drives to the SIPS Ops cluster.
- Working with the Sea Ice team to start reprocessing of the ATL20s based on an updated ATL10 hold list.
- The ANC08 files (master bih table) are now being delivered by the POD to the SIPS on a daily basis. The GGSG cluster (our original source for the files) will be going away at the end of this month. Since the POD already has a connection with the OPS, there was no need for any firewall changes.

- The SIPS received final ANC03, ANC04, and ANC05 files from the POD for July 17 – Sept. 06, 2020 on Oct. 16. We will start processing the L2A, L3A, and L3B products early next week. We are coordinating with the SCF.

**ASAS:**

The 954b1 functional test data are available on SCF in /asas/release\_954b1. These are the functional test data that will support upcoming acceptance reviews. Please verify your products.

ASAS continues testing and documentation for the ASAS v5.4 release.

**SCF:**

The SCF is operating nominally. Data for releases 003 and R003 are being ingested and distributed. All subscriptions, both full granule and subsetting, have caught up and are current. The next batch of release 003 finals is expected next week. A file listing the current SCF data holdings is attached.

\* Data Management -- Initial tests of the updated ATL10 trending calculation code indicate that the new parameters are being calculated correctly. A few more checks for confirmation may be worthwhile, but focus will soon shift towards creating the new plots from these calculations. Some current data will likely need to be deleted in order to hold the next batch of finals, but this will be done closer to when the new files are expected to arrive.

\* Subsetter -- The Subsetter continues to perform as expected in operations, and no jobs failed this week. Work is beginning on testing the code with the ASAS v5.4 data products using release 954b1 data.

\* Visualizer -- Work is beginning on updating the code as needed to support ASAS v5.4 data products now that the release 954b1 data are available.

**ATL02/Instrument Science:**

NTR.

**ATL03:**

Continued investigation of suspicious data affected by time tag misalignment and verification of test data for release 004 acceptance reviews.

**ISF ACTIVITIES MISSION WEEK 110**

\* Not in science mode

^ Could affect science data quality

- 2020/289:03:30:43.0000 OCEANscan Duration 22 minutes
- \* 2020/289:04:17:48.0000 TEP data collection Grid 55 Duration 3 minutes
- \* 2020/289:04:23:02.0000 TEP data collection Grid 127 Duration 3 minutes
- \* 2020/289:04:30:52.0000 TEP data collection Grid 235 Duration 3 minutes
- \* 2020/289:04:38:41.0000 TEP data collection Grid 342 Duration 3 minutes

2020/289:04:57:14.0000 Segmented RTWscan Part 1 Duration 37 minutes  
2020/289:05:46:42.0000 Segmented RTWscan Part 2 Duration 35 minutes  
2020/289:06:27:11.0000 Segmented RTWscan Part 3 Duration 13 minutes  
\* 2020/289:07:31:37.0000 TEP data collection Grid 122 Duration 3 minutes  
\* 2020/289:07:36:50.0000 TEP data collection Grid 194 Duration 3 minutes  
\* 2020/289:07:43:33.0000 AMCS Cal over open Atlantic ocean Duration 2 minutes  
\* 2020/289:09:13:30.0000 TEP data collection Grid 228 Duration 3 minutes  
\* 2020/289:09:44:15.0000 TEP data collection Grid 425 Duration 3 minutes  
\* 2020/289:10:40:35.0000 TEP data collection Grid 117 Duration 3 minutes  
\* 2020/289:12:09:27.0000 AMCS Cal over open Pacific ocean Duration 2 minutes  
\* 2020/289:12:35:22.0000 TEP data collection Grid 402 Duration 3 minutes  
\* 2020/289:13:43:44.0000 AMCS Cal over open Pacific ocean Duration 2 minutes  
\* 2020/289:14:07:02.0000 TEP data collection Grid 364 Duration 3 minutes  
\* 2020/289:14:12:00.0000 Adjust the VBG Setpoint to 63.05 to optimize the laser wavelength Duration 1 minute  
\* 2020/289:14:14:26.0000 Adjust the VBG Setpoint to 63.08 to optimize the laser wavelength Duration 1 minute  
2020/289:15:17:58.0000 OCEANscan Duration 22 minutes  
\* 2020/289:17:11:15.0000 TEP data collection Grid 323 Duration 3 minutes  
\* 2020/289:18:26:25.0000 TEP data collection Grid 70 Duration 3 minutes  
\* 2020/289:18:37:01.0000 TEP data collection Grid 213 Duration 3 minutes  
\* 2020/289:19:58:17.0000 TEP data collection Grid 32 Duration 3 minutes  
\* 2020/289:20:13:46.0000 TEP data collection Grid 247 Duration 3 minutes  
2020/289:20:21:00.0000 Stellar window dump Duration 90 minutes  
\* 2020/289:21:53:16.0000 TEP data collection Grid 316 Duration 3 minutes  
\* 2020/289:21:58:29.0000 TEP data collection Grid 388 Duration 3 minutes  
\* 2020/289:23:11:54.0000 TEP data collection Grid 99 Duration 3 minutes  
\* 2020/289:23:22:20.0000 TEP data collection Grid 242 Duration 3 minutes  
\* 2020/289:23:32:46.0000 TEP data collection Grid 386 Duration 3 minutes  
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\* 2020/290:07:24:13.0000 TEP data collection Grid 374 Duration 3 minutes  
\* 2020/290:08:45:28.0000 TEP data collection Grid 192 Duration 3 minutes  
\* 2020/290:11:43:47.0000 AMCS Cal over open Pacific ocean Duration 2 minutes  
\* 2020/290:13:18:05.0000 AMCS Cal over open Pacific ocean Duration 2 minutes  
\* 2020/290:13:38:46.0000 TEP data collection Grid 329 Duration 3 minutes  
2020/290:14:52:19.0000 OCEANscan Duration 22 minutes  
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\* 2020/290:16:52:35.0000 TEP data collection Grid 432 Duration 3 minutes  
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\* 2020/290:18:03:22.0000 TEP data collection Grid 106 Duration 3 minutes  
\* 2020/290:19:50:58.0000 TEP data collection Grid 283 Duration 3 minutes  
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2020/291:01:10:00.0000 Laser window dump Duration 2 minutes  
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\* 2020/294:05:37:33.0000 TEP data collection Grid 304 Duration 3 minutes  
2020/294:06:14:46.0000 TOO TOOid 1743 RGT 398 offpoint 1.13deg Duration 2 minutes  
\* 2020/294:07:09:34.0000 AMCS Cal over open Atlantic ocean Duration 2 minutes  
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