



NOAA JPSS Monthly Program Office

AMP/STAR FY18 TTA

ARRON LAYNS, AMP LEAD
LIHANG ZHOU, AMP DEPUTY FOR SCIENCE
& JPSS STAR PROGRAM MANAGER

September 11, 2018

Highlights from the Science Teams

STAR JPSS hosts Annual Conference

From August 27-30, STAR JPSS hosted its 5th Annual Conference at NCWCP. The meeting focused on “JPSS Applications”. Most sessions focused on product groups with product reviews and also presentations on the user driven Proving Ground Initiatives and from users themselves.

The meeting also had keynote talks from visitors from EUMETSAT on their next generation of polar-orbiting satellites and on the contribution of polar satellites to the climate record. On Wednesday, NESDIS Administrator Steve Volz gave a lunch time seminar on STAR JPSS’s role in NESDIS future mission. On Thursday, a full day Blended Products Workshops was held (more on next slide.)

JSTAR Mapper Unveiled

The new JSTAR Mapper visualization website was officially made public during the Annual Conference. The site features imagery and products from ATMS, OMPS, CrIS, VIIRS, and AMSR2 including EDR products and SDR imagery.

The OpenLayers based tool allows users to view products at their maximum resolution with near-real time or daily updates with up to three layers as well as VIIRS true color backgrounds and other layers.

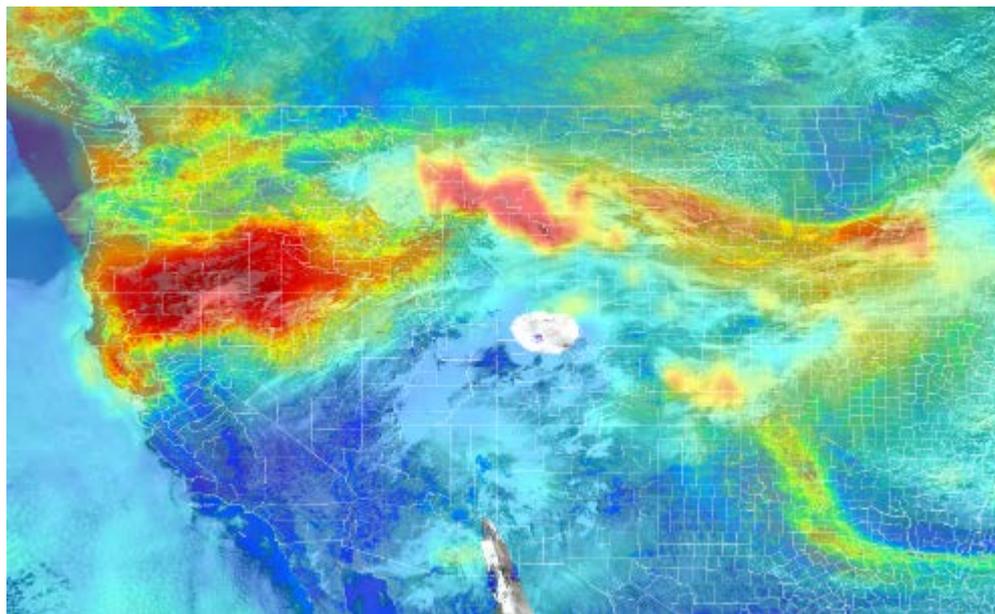


Figure. A sample map from the JSTAR Mapper showing NUCAPS carbon monoxide on top of VIIRS AOD and VIIRS True Color.

Aerosols Training Session

Aerosols team lead Shobha Kondragunta gave a 3-hr training session on JPSS and GOES-R aerosol products and their applications at an AMS meeting on urban climate at City College of New York on August 9, 2018.

The training included hands-on demo of CLASS to download VIIRS aerosol products and interpretation of various imagery available on the AerosolWatch website.

August Maturity Review

On August 22, the STAR JPSS hosted a monthly maturity review. As a result of the meeting, the review panel recommended that the VI, GVF have met Beta Maturity, the Total Column Ozone stays as Beta maturity, and VIIRS Imagery has met Validated maturity. The next maturity review will be on October 2.

Blended Products Workshop

The Blended Products Workshop was held on August 30th 2018, at the fourth day of the STAR JPSS Annual Conference. The objective of the workshop was to determine the status of various schemes used to blend operational products; the emerging, new techniques being tested through new products from the JPSS Proving Ground initiatives; and to identify common tools and their potential use in NESDIS enterprise systems.

The workshop was organized into five sessions and covered topics including the blending methods/tools commonly adaptable in deriving baseline and emerging products, and future improvements to meet end users' needs.

VIIRS at SPIE Optics+ Photonics

VIIRS SDR team members presented on the following topics at the SPIE Optics+ Photonics meeting in San Diego from August 19-23.

- 1) Initial on-orbit radiometric calibration of the NOAA-20 VIIRS Reflective Solar Bands
- 2) NOAA-20 VIIRS radiometric band saturation evaluation and comparison with Suomi NPP VIIRS using global probability distribution function method
- 3) An improved algorithm for VIIRS Day/Night Band (DNB) high gain stage (HGS) dark offset determination
- 4) Orbital variations and impacts on observations from SNPP, NOAA 18-20, and AQUA sun-synchronous satellites

I-Band Active Fires

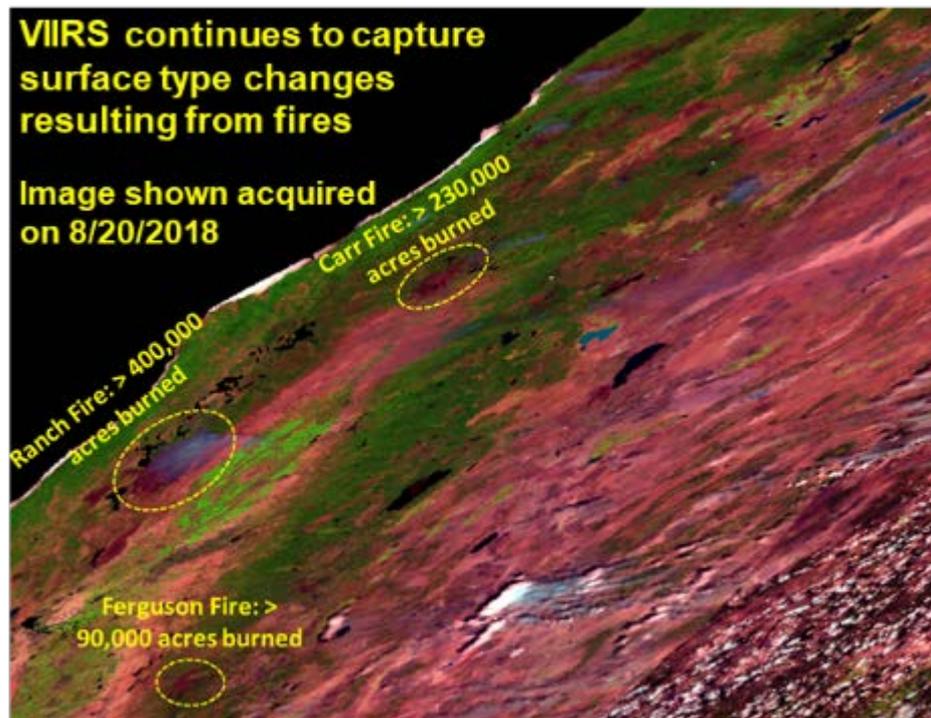
The development of the version of the 375 m I-band VIIRS active fire code has been completed for implementation in the Community Satellite Processing Package (CSPP). The code was delivered to the CSPP developers and is currently in the process of integration and testing.

Aerosol Webinar

STAR aerosol team member Lorraine Remer has given a webinar on VIIRS aerosol optical depth and aerosol detection products on August 22, 2018. More than 150 people signed up for the webinar with most registrants coming from India, China, and Brazil. This webinar included algorithm science, examples of exceptional events of dust and smoke, product validation, and limitations.

Coast Watch Meeting

The Ocean Color team participated in the NOAA CoastWatch/OceanWatch/PolarWatch Program annual science meeting at which CoastWatch Regional Node members, CoastWatch Central members and Program support people all participated. Potential new interests in the use of VIIRS ocean color data were discussed.



Accomplishments

- VIIRS DAP to DPES (ADR8733/CCR4069, N20 VIIRS SDR RSBAUTOCAL LUTs mid-year Update) on 8/14/2018. List of updated RSBAutoCal LUTs:
 - VIIRS-RSBAUTOCAL-BRDF-SCREEN-TRANSMISSION-PRODUCT-RTA-VIEW-LUT
 - VIIRS-RSBAUTOCAL-BRDF-SCREEN-TRANSMISSION-PRODUCT-SDSM-VIEW-LUT
 - VIIRS-RSBAUTOCAL-H-AUTOMATE-LUT
 - VIIRS-RSBAUTOCAL-H-LUT
 - VIIRS-RSBAUTOCAL-SDSM-SOLAR-SCREEN-TRANS-LUT
- CrIS Engineering Package (EP v115) were successfully uploaded on 8/14/2018
- NOAA-20 Active Fires went to operational on 8/13/2018
- The new VIIRS Annual Surface Type 2017 (AST2017) product based on 2017 whole year reflectance data is ready for users at the FTP site (8/30/2018):
 - Sinusoidal projection: ftp://vct.geog.umd.edu/st/S-NPP_VIIRS_GST_IGBP_2017.zip
 - Lat/long projection: ftp://vct.geog.umd.edu/st/S-NPP_VIIRS_GST_IGBP_2017_30arcsec.zip
- VIIRS Land Product System (VLPS: LST & LSA, includes offline LSA & LSE package) DAP delivered to NDE on 8/4/2018
- NUCAPS update (fix the OLR daily grids Ascending/descending flags swapped issue) DAP delivered to NDE and CIMSS (for integration into CSPP for Direct Broadcast users) on 8/10/2018
- NUCAPS update (namelist files typo fix) DAP delivered to NDE and CIMSS (for integration into CSPP for Direct Broadcast users) on 8/15/2018
- VIIRS Vegetation Health NOAA-20 DAP delivered to NDE on 8/28/2018
- STAR SDRs and Imagery teams supported IDPS Block 2.1 Mx3 I&T Deploy Regression test, provided review/checkout results report to AMP on 8/23/2018
- Algorithm checking/testing for upcoming GFS FV3 Model Upgrade
 - ASSISTT started test runs for impact evaluation of the new GFS to VIIRS products in framework

- NOAA-20/S-NPP Operational Calibration Support:
 - S-NPP Weekly OMPS TC/NP Dark Table Updates: 08/07/18, 08/14/18, 08/22/18, 08/28/18
 - NOAA-20 Weekly OMPS TC/NP Dark Table Updates: 08/07/18, 08/14/18, 08/22/18, 08/28/18
 - S-NPP Bi-Weekly OMPS NP Wavelength & Solar Flux Update: 08/14/18, 08/28/18
 - NOAA-20 Monthly VIIRS StrayLight LUTs Update: 08/21/18
 - S-NPP Monthly VIIRS LUT Update of DNB Offsets and Gains: 08/21/18
 - NOAA-20 Monthly VIIRS LUT Update of DNB Offsets and Gains: 08/21/18

- August Monthly NOAA-20 Calibration/Validation Maturity Readiness Review (8/22/2018):
 - Beta Maturity: Green Vegetation Fraction; Vegetation Index; Vegetation Health
 - Provisional Maturity: OMPS Ozone V8TOz EDR
 - Validated Maturity: VIIRS Imagery

- STAR JPSS 2018 Annual Science Team Meeting: 27-30 August 2018
 STAR JPSS successfully held its fifth Annual Science Team Meeting at NCWCP/ESSIC. Scientists from NOAA, NASA, EUMETSAT, Universities, and industries attended the meeting.
 - ~ 300 attendees
 - ~ 70 Posters
 - 11 side meeting sessions
 - 2 Workshops
 - Blended Products Workshop
 - Ocean Color VIIRS Cruise Data Workshop
 - 2 Brown bag seminars
 - NESDIS Vision and Mission
 - Data Fusion through Synergy of Data Assimilation and Remote Sensing Techniques

September/October, 2018 (10/2/2018):

- Provisional Maturity:
 - VIIRS Polar Winds
 - EPS Algorithms: Volcanic Ash; Clouds (all products); Cryosphere (all products)
 - NUCAPS Products (Ozone/CO/Co2/CH4/OLR)
 - OMPS Ozone V8Pro & V8TOz EDRs
- Validated Maturity: CrIS SDR

November, 2018:

- Beta/Provisional Maturity: Ocean Color
- Provisional Maturity: Surface Reflectance

December, 2018:

- Provisional Maturity: Land Surface Temperature; Surface Albedo
- Validated Maturity: OMPS (TC & NP) SDR (Pending on Mx3 TTO)

February, 2019

- Provisional Maturity:
 - Green Vegetation Fraction
 - Vegetation Index
 - Vegetation Health
- Validated Maturity: OMPS Ozone EDRs (V8Pro & V8TOz, Pending on SDR Validated)

- JSTAR Code/LUT Deliveries:

DAP to DPES:

- Aug-18: VIIRS SDR: Blackbody Warm-up Cooldown (WUCD) correction DAP delivered to ASSISTT on 8/29/2018
- Sep-18: OMPS NM/NP Mismatch for FOVs (LUTs update only, ADR8617)
- Oct-18: OMPS NP Transient Smear Correction (ADR8709)

NOAA-20 Algorithm DAP to NDE:

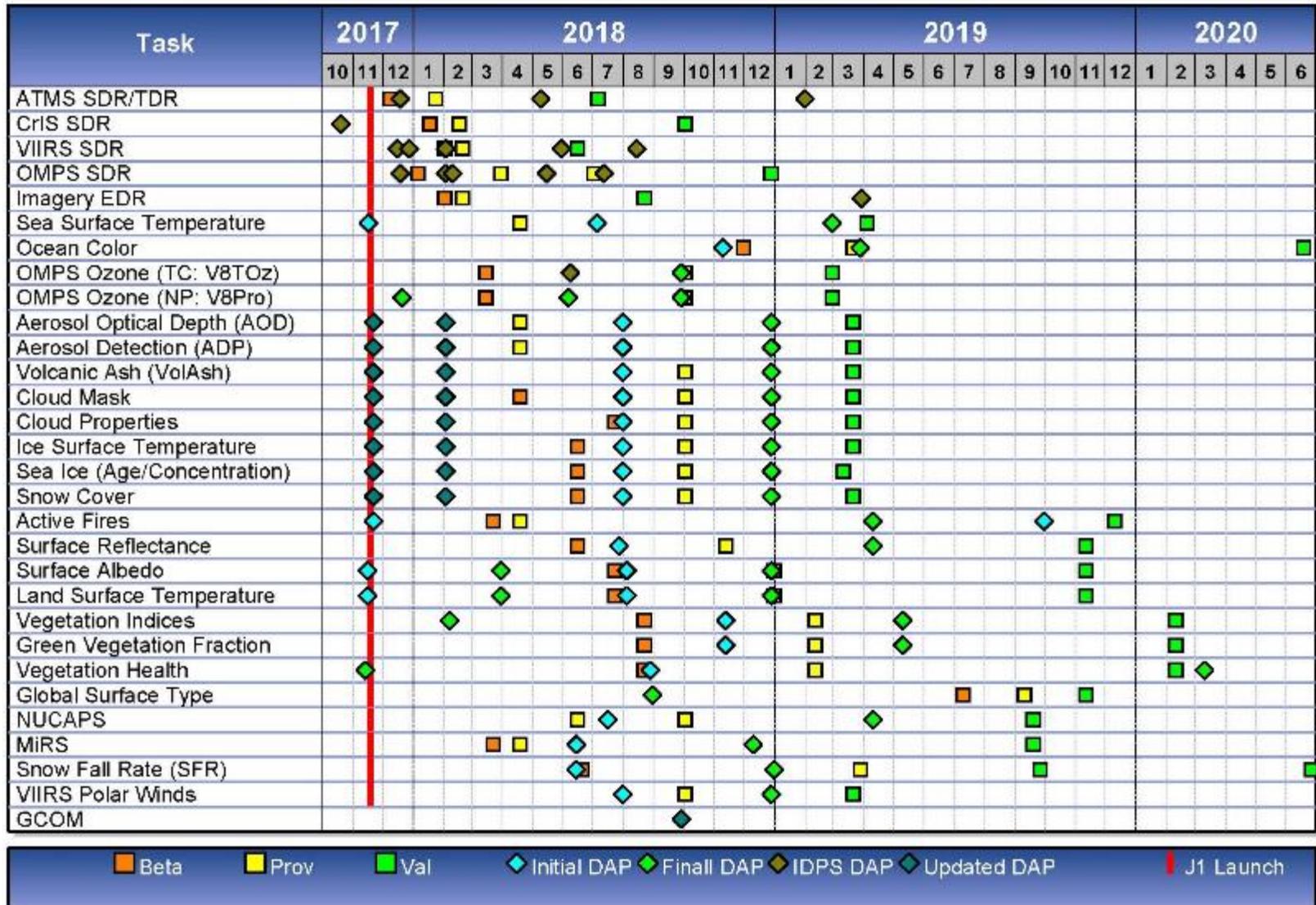
- Sep-18: OMPS Ozone V8Pro & V8TOz – final DAP
- Nov-18: Ocean Color, Vegetation Index, Green Vegetation Fraction
- Dec-18: EPS algorithms (Clouds, Cryosphere, Aerosol, Volcanic Ash, LST/LSA) – final DAP
- Dec-18: VIIRS Polar Winds – final DAP
- Dec-18: MiRS/SFR – final DAP

AMP Accomplishments

- S-NPP and N20 Operations:
 - For N20 data products getting to operations, A Layns proposed an expedited process (modeled after the SPSRB Product Enhancement process) for N20 data products that use the same algorithms for processing NPP and N20. SPSRB members requested more discussion; planned for Sept 19 SPSRB
 - As the new CommonCM is stood-up and tested, R Marley is participating in weekly and/or daily meeting meetings to ensure AMP/STAR needs/requests are considered.
- J2+ and Segment 3 efforts:
 - Finalized J2 MCDR charts and participated in dry runs
 - AMP continues working with the Ground Segment Project to add all known J2 algorithm and table changes to the Ground IMS
- EPS-SG
 - A. Layns briefed the LORWG on Aug 21 requesting user feedback on data product requirements. Phase 1 feedback due on 9/11/2018 and phase 2 feedback due on 10/31/2018.
- Other
 - The entire AMP team participated in the 2018 JPSS STAR Annual Meeting Aug 27-30.
 - B Guenther attended the SPIE annual meeting on Aug 23-28, 2018 and co-authored a paper titled, “MODIS cross-talk effects and potential performance trend differences between Terra and Aqua”
 - Prepping slides for the DOD/CSAB (C Sisko presenting AMP info) and DSWG F21F (B Reed participating) meeting during the week of Sept 15.
 - Integrated Work Team (IWT) Updates: At the list meeting (8/24/2018), topics discussed were N20 product maturity and availability, Data flow needs, reducing JPSS data products via production rules, and NWS DOE plans.
 - New AMP member, Tomi Ibironke, requested access to DOORS and is getting the bookboss responsibility transferred from Gordon Fesenger to him.

JPSS Schedule

STAR JPSS Schedule: TTA Milestones



FY18 STAR JPSS TTA Milestones

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
S-NPP Enterprise Algorithms Deliveries				
S-NPP: Enterprise Processing System (Aerosol, Volcanic Ash, Clouds, and Cryosphere) updated DAP to NDE	Nov-17	Nov-17	11/21/17	
S-NPP: Enterprise Algorithm DAP to NDE: Vegetation Indices (final DAP)	Jan-18	Jan-18	Init DAP: 06/26/17 Final DAP: 02/06/18 Delta DAP: 03/15/18	
S-NPP: Enterprise Algorithm DAP to NDE: Land Surface Temperature (final DAP)	Feb-18	Mar-18	Init DAP: 11/15/17 Final DAP: 04/02/18	Passed Code Review: Feb-2018
S-NPP: Enterprise Algorithm DAP to NDE: Land Surface Albedo (final DAP)	Feb-18	Mar-18	Init DAP: 11/15/17 Final Dap: 04/02/18	Passed Code Review: Feb-2018
S-NPP: Enterprise Algorithm DAP to NDE: Vegetation Health (VH-1km) final DAP Vegetation Health (VH-4km) updated DAP	Nov-17	Nov-17	11/13/17	



FY18 STAR JPSS TTA Milestones

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
NOAA-20 Algorithm Updates DAPs				
NOAA-20 algorithm adjustments (SST): ACSP0 v2.5 DAP to NDE ACSP0 v2.6 DAP to NDE	Nov-17 Jul-18	Nov-17 Jul-18	11/16/17 07/05/18	
NOAA-20: Active Fires DAP (NOAA-20 algorithm adjustments) to NDE	Oct-18	Oct-18	11/21/17	
NOAA-20 algorithm adjustments (OMPS Ozone): V8TOS (v3) DAP to NDE V8TOz (v3r1) DAP to NDE V8Pro (v3r2) DAP to NDE	Jun-18	Jun-18	06/01/18 06/08/18 06/06/18	
NOAA-20: MiRS DAP (NOAA-20 algorithm adjustments) to NDE	Aug-18	Aug-18	06/14/18	
NOAA-20: NUCAPS DAP (NOAA-20 algorithm adjustments) to NDE	Aug-18	Aug-18	07/16/18	
NOAA-20: Surface Reflectance DAP (NOAA-20 algorithm adjustments) to NDE	Aug-18	Aug-18	07/27/18	
NOAA-20: VPW DAP (NOAA-20 algorithm adjustments) to NDE	Aug-18	Aug-18	07/31/18	
NOAA-20: Enterprise Processing System DAP (NOAA-20 algorithm adjustments: Aerosol, Volcanic Ash, Clouds, and Cryosphere) to NDE	Aug-18	Aug-18	07/31/18	
NOAA-20: Enterprise Processing System DAP (NOAA-20 algorithm adjustments: LST, and LSA) to NDE	Aug-18	Aug-18	08/04/18	
NOAA-20: Vegetation Health DAP (NOAA-20 algorithm adjustments) to NDE	Aug-18	Aug-18	08/28/18	



FY18 STAR JPSS TTA Milestones

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
NOAA-20 Cal/Val				
NOAA-20 SDRs and KPPs reach Beta Maturity (ATMS: L+20D; CrIS: L+68D; VIIRS: L+60D; OMPS: L+68D; VIIRS Imagery: L+70D)	Jan-18	Jan-18	12/08/17: ATMS TDR/SDR Beta 01/17/18: CrIS SDR Beta 02/01/18: VIIRS SDR Beta 01/05/18: OMPS NM & NP SDR Beta 02/01/18: VIIRS Imagery Beta	01/25/18: SDRs/Imagery Beta Maturity Review
NOAA-20 SDRs and KPPs reach Provisional Maturity (ATMS: L+36D; VIIRS Imagery & other SDRs: L+90D)	Feb-18	Feb-18	01/23/18: ATMS TDR/SDR Provisional 02/16/18: CrIS SDR Provisional 02/19/18: VIIRS SDR Provisional 02/19/18: VIIRS Imagery Provisional 02/18/18: OMPS TC SDR Provisional (04/18/18 review) 07/02/18: OMPS NP SDR Provisional (Mx2 TTO)	02/20/18: SDRs/Imagery Provisional Maturity Review
NOAA-20 SDRs and KPPs reach Validated Maturity (ATMS: L+6M; CrIS: L+9M; VIIRS: L+6M; OMPS: L+9M; VIIRS Imagery: L+9M)	Sep-18	Sep-18	07/06/18: ATMS TDR/SDR Validated (PCT v007) 06/15/18: VIIRS SDR Validated 08/22/18: VIIRS Imagery EDR Validated	
NOAA-20: Day 1 EDR products Maturity Review	Sep-18	Sep-18	03/22/18: Beta Review (Virtual): Active Fires, MiRS Products, OMPS Ozone V8Pro & V8TOz 04/18/18: Enterprise Cloud Mask (Beta), Aerosol Optical Depth / Detection (Provisional), Sea Surface Temperature (Provisional), Active Fires (Provisional), MiRS Products (Provisional) 06/15/18: Surface Reflectance (Beta), Cryosphere: Snow Cover, Sea Ice, IST (Beta) NUCAPS Products: AVMP, AVTP (Provisional) Ozone/OLR/CO/CO2/CH4 (Beta) 06/20/18: Snowfall Rate (CDR/ARR/SNPP-Prov/N20-Beta) 07/23/18: Beta Review (Virtual): Cloud Base Height, Cloud Top Height/Pressure/Temperature, Daytime Cloud Optical Thickness / Particle Size, Land Surface Temperature, Surface Albedo, ATMS Snowfall Rate 08/22/18: Beta Maturity: Green Vegetation Fraction; Vegetation Index; Vegetation Health	



FY18 STAR JPSS TTA Milestones

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
Routine Cal/Val Maintenance				
SDR Reprocessing: Perform life cycle reprocessing with Block 2.0 algorithm (ATMS BUFR)	Apr-18	Apr-18	Feb-18	
Update Package for ICVS-GRAVITE For NOAA-20	Sep-18	Sep-18	Mar-18	
EDR LTM for NOAA-20	Sep-18	Sep-18		
Images of the Month	Monthly	Monthly	Oct-17, Nov-17, Dec-17, Jan-18, Feb-18, Mar-18, Apr-18, May-18, Jun-18, Jul-18, Aug-18	
NOAA-20 ATMS First Light Image			11/30/17	
NOAA-20 VIIRS First Light Image (reflected solar bands (RSB))			12/14/17	
NOAA-20 VIIRS First Light Image (day/night band (DNB))			12/14/17	
NOAA-20 VIIRS First Light Image (thermal emissive bands (TEB))			01/05/18	
NOAA-20 CrIS First Light Image			01/05/18	
NOAA-20 OMPS NM First Light Image			01/05/18	
NOAA-20 OMPS NP First Light Image			01/05/18	

FY18 STAR JPSS TTA Milestones

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
Operational Support				
S-NPP: Weekly OMPS TC/NP Dark Table Updates	Weekly	Weekly	10/03/17, 10/11/17, 10/17/17, 10/24/17, 10/31/17, 11/07/17, 11/14/17, 11/21/17, 11/28/17, 12/05/17, 12/12/17, 12/19/17, 01/02/18, 01/09/18, 01/16/18, 01/23/18, 01/30/18, 02/06/18, 02/13/18, 02/27/18, 03/06/18, 03/13/18, 03/20/18, 03/27/18, 04/03/18, 04/10/18, 04/17/18, 04/24/18, 05/01/18, 05/08/18, 05/15/18, 05/22/18, 05/29/18, 06/05/18, 06/12/18, 06/19/18, 06/26/18, 07/03/18, 07/10/18, 07/17/18, 07/24/18, 07/31/18, 08/07/18, 08/14/18, 08/22/18, 08/28/18	
S-NPP: Bi-Weekly OMPS NP Wavelength & Solar Flux Table Update	Bi-Weekly	Bi-Weekly	10/03/17, 10/17/17, 10/31/17, 11/14/17, 11/28/17, 12/12/17, 01/03/18, 01/16/18, 01/30/18, 02/13/18, 02/27/18, 03/13/18, 03/27/18, 04/10/18, 04/24/18, 05/08/18, 05/22/18, 06/05/18, 06/19/18, 07/03/18, 07/17/18, 07/31/18, 08/14/18, 08/28/18	
S-NPP: Monthly VIIRS Stray Light LUT Update	Monthly	Monthly	10/19/19, 11/18/17, 12/17/17, 01/15/18, 02/14/18, (12-months recycling old files)	Re-use old files
S-NPP: Monthly VIIRS LUT update of DNB Offsets and Gains	Monthly	Monthly	10/03/17, 10/31/17, 11/29/17, 12/27/17, 01/24/18, 02/21/18, 03/28/18, 04/24/18, 05/22/18, 06/20/18, 07/24/18, 08/21/18	
NOAA-20: Weekly OMPS TC/NP Dark Table Updates	Weekly	After L+90	12/19/17, 01/10/18, 01/17/18, 01/23/18, 01/30/18, 02/06/18, 02/13/18, 02/27/18, 03/06/18, 03/13/18, 03/20/18, 03/27/18, 04/03/18, 04/11/18, 04/17/18, 04/24/18, 05/01/18, 05/08/18, 05/15/18, 05/22/18, 05/29/18, 06/05/18, 06/12/18, 06/19/18, 06/26/18, 07/03/18, 07/10/18, 07/17/18, 07/24/18, 07/31/18, 08/07/18, 08/14/18, 08/22/18, 08/28/18	12/19/17: 1 st Dark delivery; 01/10/18: start of weekly J1 Dark
NOAA-20: Bi-Weekly OMPS NP Wavelength & Solar Flux Table Update	Bi-Weekly			No need now
NOAA-20: Monthly VIIRS Stray Light LUT Update	Monthly	After L+90	02/27/18, 03/29/18, 04/25/18, 05/23/18, 06/20/18, 07/24/18, 08/21/18	
NOAA-20: Monthly VIIRS LUT update of DNB Offsets and Gains	Monthly	After L+90	02/13/18, 02/21/18, 03/29/18, 04/25/18, 05/22/18, 06/20/18, 07/24/18, 08/21/18	
NOAA-20: VIIRS LUT update of F-PREDICTED and DNB-LGS-GAINS		After L+90	03/20/18, 04/24/18	



September 2018 RMB Issue



Status as of: 09/06/2018

Problem/Issue	Programmatic Impact	Action	Status
<p>R</p> <p>The Common Configuration Management System (CCMS, or commonly called CommonCM) server hosted by Raytheon will be decommissioned by July 31, 2018</p> <p>There is a possibility that: stakeholders (including AMP, IDPS, GRAVITE, FTS, and STAR) will no longer have access to VOBs (IDPS and CPERT source code), ADL software releases, latest PCRs (regularly synced), or ADRs (PCRs need to be synced to ADRs)</p>	<p>Resulting in: inability to write or track ADRs and track PCRs for algorithm changes, loss of access to source code until the CDRL is delivered to NASA around TTO(6 to 8 week delta), and loss of electronic delivery of ADL thus extending the ADL approval timeline by more than two weeks. FTS will have to modify its interfaces to obtain ADL.</p> <p>The impact for ADR tracking alone: there have been more than 8000 DRs entered since launch of NPP and each month there are at least another 20 added. The ADR tracking system is also the tool used by the DRAT to prioritize and assign work.</p> <p>Context: The Common CM System currently resides physically at Raytheon (Aurora, CO) on a Raytheon APAN network which will be decommissioned on 7/31/18. The decommissioning is beyond the control of AMP or STAR. Presently, the only requirement that RTN has related to Common CM is to provide ADL to mission partners (CGS_1866).</p>		<p>9/6/18:</p> <ul style="list-style-type: none"> - Tag-ups are continuing - Currently on plan with expected margin - Transition plan calls for about two weeks of parallel operation of the old and new servers - - Each night, the servers' data will be sync'd - - Users will be able to use either system and report errors or discrepancies - Transition plan calls for "checkout" testing the week of 9/17/18 - - Checkout consists of performing "Day in the Life" (DITL) activities by all stakeholders - - Checkout plans are currently being devised - Pre-Ship Review approved - Hardware arrived at Greentech - NASA Security scanned and approved - Raytheon in process of loading Operating systems and security patches - - NASA will need to scan and approve again before servers can connect to network for next stages of software installation - User lists being assembled and scrubbed - User access route has been identified - - All users will be contacted by NASA IT/Security and registered in IDMAX for a NASA identity and NDC account. - - Access with be through NASA network or VPN only, since the new servers are inside the NASA Security boundary.



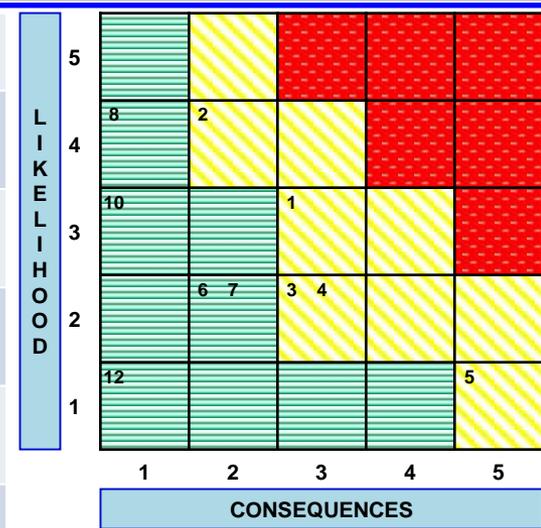
September 2018 RMB Risk Summary



Top Risks

Status as of: 09/06/2018

Rank Risk ID	Summary	LxC Trend	Aprch
1 AMP-16-005	Block 2.0 Algorithm Change Process & delivery of changes.	3x3 ↔	W
2 AMP-15-006	Continued Generation of IDPS EDRs	4x2 ↔	M
3 AMP-17-007	Lack of Communication from Flight When Making On-Board Instrument Calibration Updates with Potential Ground System Processing/Science Data Quality Impacts	2x3 ↔	M
4 AMP-18-004	NWS GFS FV3 Model Upgrade Impacts	2x3 ↓	M
5 AMP-18-005	Potential damage to VIIRS scan drive mechanism due to non-nominal Sync Loss recovery	1x5 ↔	R
6 AMP-18-002	OMPS Pre-Launch Calibration for J-02	2x2 ↔	W
7 AMP-18-003	J2 APID Changes to Accommodate New S/C Bus	2x2 ↔	W
8 AMP-17-004	Operational Data Flow to AWIPS-II	4x1 ↔	M
9 AMP-17-002	Lack of Proper Source/Procedure to Characterize ATMS G-Shelf SRFs		
10 AMP-18-008	Data Product Requirements for OMPS-Limb	3x1 ↔	M
11 AMP-15-002	J2/3/4 VIIRS Polarization		
12 AMP-18-006	Impact on Testing Ability Due to Major Build Upgrades	1x1 ↔	W



Criticality

HIGH	Approach A – Accept M – Mitigate W – Watch R – Research
MED	
LOW	

LxC Trend

↓ – Decreasing (Improving)
 ↑ – Increasing (Worsening)
 ↔ – Unchanged
 NEW – Added this month



September 2018 RMB Risks



Status as of: 09/06/2018

Rank	Risk ID	Risk Statement	Approach	Status
 <p>Block 2.0 Algorithm Change Process & delivery of changes.</p> 	AMP-16-005	<p>Given that: The CFCR is not available for "outside users" to load updated, approved algorithms (code, documents, tables)</p> <p>There is a possibility that: algorithm changes and table updates will be inefficient (slowed)</p> <p>Resulting in: an impact to the quality of the data products.</p>	Watch	<p>9/6/18: No recent updates have been provided; however most personnel have been working the more urgent Common CM tasks.</p> <p>8/1/18: From Raytheon presentation at July IDPS Splinter: Raytheon's configuration work is completed. NASA Code 400 Site Security Plan (SSP) still in work to</p> <ul style="list-style-type: none"> - Mitigate vulnerabilities, based on potential risk to CNE - * Invalid/untrusted certs and certificate chains - * Certificate encryption cipher support - * SSL/TLS levels (report shows TLSv1, 1.1, 1.2) - * RedHat kernel update/patches - * SSH algorithms - NASA to re-install Splunk and Bigfix (database utilities) on each of the four CFCR servers once the SPP is in place. - Ability to create CFCR user accounts has been verified. - Still need a delivery date for operational use. Planning to overlap use of the CFCR system with the current workaround; the workaround can continue indefinitely. - A hands-on training is to be organized once CFCR testing is finished.



September 2018 Top Risks



Status as of: 09/06/2018

Rank	Risk ID	Risk Statement	Approach	Status
<div style="display: flex; align-items: center;"> <div style="background-color: yellow; border: 1px solid black; padding: 2px; margin-right: 5px;">2</div> <div> <p>Continued Generation of IDPS EDRs</p> <p>Expected Closure: 09/2018</p> </div> </div>	AMP-15-006	<p>Given that: we are transitioning to production of EDRs on ESPC systems</p> <p>There is a possibility that: the IDPS-generated EDRs will continue running for an extended period of time</p> <p>Resulting in: additional maintenance and sustainment costs.</p>	Mitigate	<p>9/6/18: VI/GVF fix was installed on I&T on Aug 14, and is expected to go to operations in Sept. The JRR algorithm, which includes LST/LSA, was delivered by STAR in August 2018, and is expected to be installed on I&T in Sept 2018.</p> <p>8/1/18: OSPO sent an ESPC notification in early July indicating that distribution of the IDPS-generated EDRs would stop distribution on Dec 31, 2018. VI/GVF was approved by the SPSRB, but is waiting for a fix to be installed in I&T no later than Aug 10. LST/LSA are the final algorithms to be made operational. Waiting on delivery from STAR to NDE.</p>



September 2018 RMB Risks



Status as of: 09/06/2018

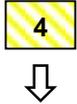
Rank	Risk ID	Risk Statement	Approach	Status
 <p>Lack of Communication from Flight When Making On-Board Instrument Calibration Updates with Potential Ground System Processing/Science Data Quality Impacts</p> 	AMP-17-007	<p>Given that: Flight instrument vendors and NASA science teams collaborate to make on-board instrument calibration updates to firmware/software with potential ground system processing and science data quality impacts unbeknownst to IDPS, AMP, or STAR.</p> <p>There is a possibility that: on-board instrument calibration and science data product algorithms (and their associated update tables) will be out-of-sync</p> <p>Resulting in: failure of IDPS to produce downstream products (SDRs/TDRs/EDRs) and/or degraded science data products.</p>	Mitigate	<p>9/4/18: No update.</p> <p>7/31/18: Nothing new of significance to report.</p> <p>6/29/18: Not all sensor PMR packages are routinely showing Waiver and anticipated Waivers. Still no way to track potential problems with sensor performance in reliable manner that allows for early responses from STAR. Suggest likelihood increase to a "2".</p>



September 2018 RMB Risks



Status as of: 09/06/2018

Rank	Risk ID	Risk Statement	Approach	Status
 <p>NWS GFS FV3 Model Upgrade Impacts</p>	AMP-18-004	<p>Given that: the NWS plans to upgrade the GFS FE3 Model resolution in the second quarter of FY19</p> <p>There is a possibility that: SDR gridding granulation of the ancillary data files could change</p> <p>Resulting in: the failure of some EDR products.</p>	Mitigate	<p>9/5/18: Latest from OSPO: "The GFS FV3 is scheduled right now for January 2019 implementation. This upgrade will be like all others, we have parallel data available to send side by side, and will do a hard switch when it goes in. So the period of both flowing is happening right now. There are no resolution changes or removals with this upgrade." Parallel flow includes NPOESS files. The 1 degree option will remain available in NDE and there is no direction to switch from the 1 degree before the end of the year, although it may go away at some point.</p>



September 2018 RMB Risks



Status as of: 09/06/2018

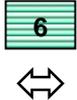
Rank	Risk ID	Risk Statement	Approach	Status
  Potential damage to VIIRS scan drive mechanism due to non-nominal Sync Loss recovery	AMP-18-005	<p>Given that: VIIRS J1 Sync Loss rate is 2.5X higher than NPP Sync Loss rate, and that recovery for Sync Loss involves non-nominal scan drive actions beyond any lifetime verification testing or analysis for these non-nominal actions</p> <p>There is a possibility that: VIIRS J1 scan drives will fail with 5 years on-orbit lifetime</p> <p>Resulting in: Loss of all VIIRS KPP products.</p>	Research	9/4/18: Nothing new of significance to report.



September 2018 RMB Risks



Status as of: 09/06/2018

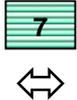
Rank	Risk ID	Risk Statement	Approach	Status
 <p>OMPS Pre-Launch Calibration for J-02</p>	AMP-18-002	<p>Given that: J-01 OMPS NP pre-launch on-satellite testing showed that the diffuser/sensor combination had degraded since calibration</p> <p>There is a possibility that: similar calibration issues may occur on J-02</p> <p>Resulting in: inaccurate J-02 OMPS pre-launch calibration and the potential for poor data quality.</p>	Watch	<p>9/5/18: OMPS PER delayed until November 2018.</p> <p>8/1/18: Under Task Order 34 BATC is developing diffuser reflectivity monitoring concepts for both nadir and limb instruments. We expect the path forward to be well-defined during the OMPS PER later this month. Once we have those details we can include here and close this risk.</p> <p>7/5/18: No update.</p>



September 2018 RMB Risks



Status as of: 09/06/2018

Rank	Risk ID	Risk Statement	Approach	Status
 <p>J2 APID Changes to Accommodate New S/C Bus</p>	AMP-18-003	<p>Given that: J2 has a new S/C Bus manufacturer and some new APIDs compared to J1 and S-NPP</p> <p>There is a possibility that: the SDR algorithms will need to be updated to accommodate new RDR format/structure</p> <p>Resulting in: additional unplanned work for Ground.</p>	Watch	9/5/18: Nothing new of significance to report.



September 2018 RMB Risks



Status as of: 09/06/2018

Rank	Risk ID	Risk Statement	Approach	Status
 Operational Data Flow to AWIPS-II 	AMP-17-004	<p>Given that: AWIPS data flow issues (esp. AWIPS Data Delivery (DD) to PDA interface) are not resolved,</p> <p>There is a possibility that: Many JPSS data products will be inaccessible to the NWS AWIPS II system for forecaster use</p> <p>Resulting in: under-utilization of JPSS data products by the NWS forecasting community.</p>	Mitigate	<p>9/6/18: No change in risk status. NWS activities (i) and (ii) listed earlier are still in progress; in addition operational use of AWIPS-DD for access to JPSS data products would likely exceed PDA's nominal support (per JERD-550) for only 100 concurrent ad-hoc file transfers. Need to understand what it would take for PDA to increase its capacity for concurrent ad-hoc file transfers.</p> <p>8/2/18: More detailed analyses of data product size and data-flow patterns, and initial steps towards defining NDE production rules for custom "thinned" products, have increased confidence that NWS forecasters will be able to access the JPSS data products they need using existing ESPDS / PDA capabilities. NWS leadership will meet Aug. 14 to consider this course of action. Still uncertain: (i) AWIPS-Data Delivery interoperability with PDA for polar data access; and (ii) Configuring AWIPS plugins (or developing new ones) for the various data products.</p>



September 2018 RMB Risks



Status as of: 09/06/2018

Rank	Risk ID	Risk Statement	Approach	Status
<div style="background-color: #cccccc; padding: 2px; display: inline-block; margin-bottom: 5px;">9</div> <p>Lack of Proper Source/Procedure to Characterize ATMS G-Shelf SRFs</p> 	AMP-17-002	<p>Given that: NGES does not currently have a proper HF source or test procedure to correctly and accurately characterize ATMS G-Shelf SRFs</p> <p>There is a possibility that: J2 ATMS will suffer the same result as J1 and to some degree S-NPP</p> <p>Resulting in: large uncertainty in the characterization of the G-Shelf SRFs.</p>	Watch	9/4/18: CCR-1512 has been approved. Corrective action for deficiency identified in this CCR now incorporated in Program Plans. ATMS SDR Team approves changes. This Risk may now be closed.



September 2018 Top Risks



Status as of: 09/06/2018

Rank	Risk ID	Risk Statement	Approach	Status
 <p>Data Product Requirements for OMPS-Limb</p>  <p>Expected Closure: 10/2020</p>	AMP-18-008	<p>Given that: There are no JPSS (or NOAA) data product requirements for OMPS-L</p> <p>There is a possibility that: benefits/impacts analysis from users based on NPP data products may demonstrate the need for NOAA processing of OMPS-L from JPSS-2/3/4</p> <p>Resulting in: Additional funding needed for delivering the algorithm, product generation/distribution/archive, and calval of the products.</p>	Mitigate	7/30/18: Risk proposed.

Color code:

Green:

Completed Milestones

Gray:

Non-FY18 Milestones

Accomplishments / Events:

- Prepare meeting presentations for STAR JPSS Annual Science Conference from August 27 to 30
- Arrange ATMS SDR team face-to-face meeting during the annual science conference, including NG instrument vendor and ECMWF NWP users
- Discuss the reflector emission correction algorithm and associated PCT format change
- Demonstrate reflector emission correction experimental results
- Revisit S-NPP ATMS antenna pattern measurement data and derive S-NPP ATMS APC coefficients using the same derivative algorithm for NOAA-20

Overall Status:

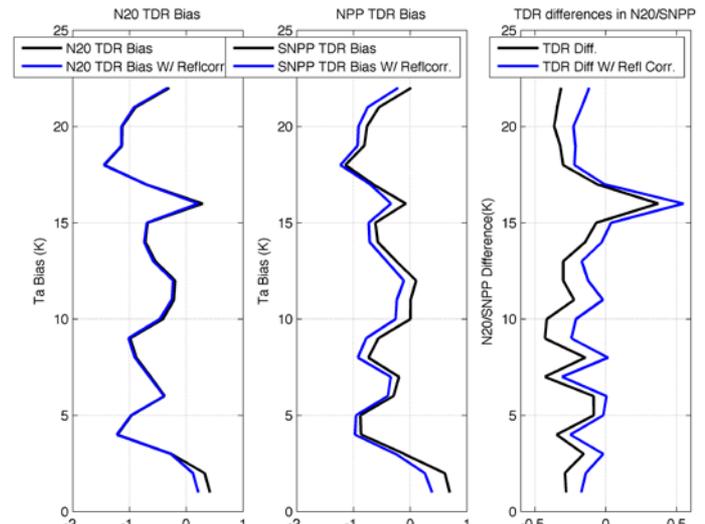
	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

Some recommendations on reflector emission correction update are given by NWP users and NASA flight project. A three-month extension is asked for more testing

Highlights:



Reflector emission correction effects on TDR data in NOAA-20 and S-NPP, as well as difference between NOAA-20 and S-NPP

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J1 post-launch calibration/validation				
Beta Maturity	Dec-17	Dec-17	12/08/17	L+20D
Provisional Maturity	Dec-17	Dec-17	01/23/18	V6 PCT Implemented
Validated Maturity	May-18	May-18	06/15/18	Scheduled 6/15
J1/N20 PCT updates	10/30/17 (V5, ADR8506/CCR3669) 12/18/17 (V6, ADR8521/CCR3702) 05/09/18 (V7, ADR8458/CCR3916)			
J1/N20 PCT update (based on the Pitch Maneuver)	Apr-18	Apr-18	05/01/28	To ASSISTT: 04/26/18
Planned Algorithm Update				
DAP to ASSISTT (science team to ASSISTT)	May-18	Jan-19	During STAR JPSS Annual Science Conference, ATMS SDR team holds a face-to-face discussion with NWP users. Some recommendations on upcoming reflector emission correction update need longer testing	
SNPP/J1 earth scene reflector emissivity correction in IDPS (PCT & code update) (ASSISTT to DPES AIT)	Jun-18	Jan-19		

Accomplishments / Events:

- Users found an inconsistency between HRD fields and IDPS fields for CrIS DBnet. Likely root cause was the CSPP (Community Satellite Processing Package) codes used by DBNet and IDPS are not synchronized.
- The calibration table and configuration files for NOAA-20 CrIS were successfully uploaded on *August 14, 2018*. The calibration table (v115) was uploaded at 17:40:16 UTC, the DSP4M configuration (Bit-Trim-Mask) and setup was performed at 17:40:48 UTC, and the DSP8S (PGA gain) was performed at 17:41:20 UTC.
- Performed an initial evaluation of NEdN, spectral and geolocation uncertainty of the NOAA-20 CrIS SDR after EPv115 upload.
- Delivery the new NEdN of the NOAA-20 CrIS SDR at FSR to the NUCAPS Team, after EPv115 upload.
- Performed and discussed a trade study about reducing the CrIS field of view size from 14 km to 7 km. The discussion is in progress.

Overall Status:

	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

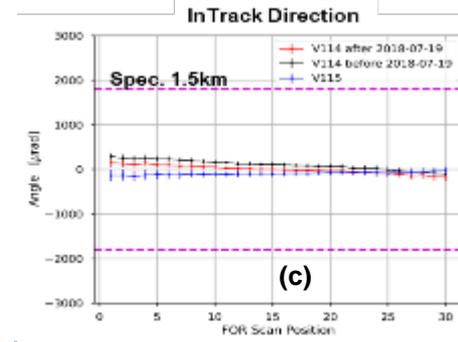
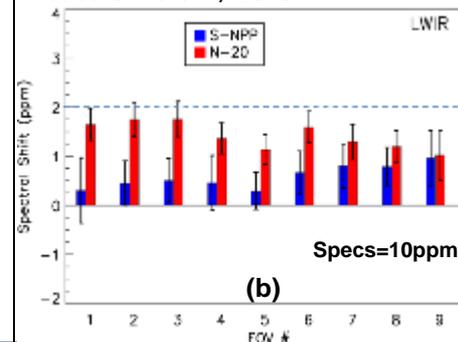
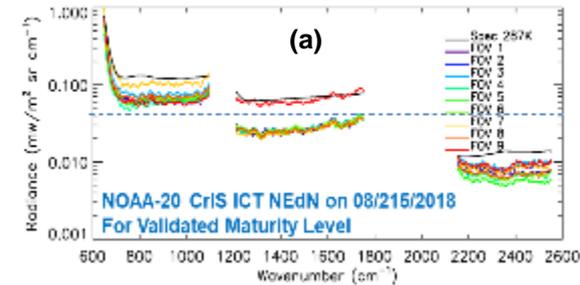
- Project has completed.
- Project is within budget, scope and on schedule.
- Project has deviated slightly from the plan but should recover.
- Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

None

Highlights:

Performance of the (a) NEdN, (b) Spectral accuracy, and (c) geolocation uncertainty for NOAA-20 CrIS SDR after EP v115 upload. Results show that NOAA-20 CrIS SDR meets the requirements and is ready to its transitions to Validate maturity Level.



FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J1 post-launch calibration/validation				
Beta Maturity	Jan-18	Jan-18	01/17/18	V113 uploaded
Provisional Maturity	Feb-18	Feb-18	02/16/18	V114 uploaded
Validated Maturity	Aug-18	Sep-18	L+9M	v115 uploaded
uploadedEngineering packet update for JPSS-1 operations	01/05/18 01/18/18 02/16/18	01/05/18 01/18/18 02/16/18	V112:01/03/18 v113:01/17/18 V114:02/16/18 V115:08/14/18	
RDR generator software package development: (1) STAR NL correction coefficient generator; (2) STAR ILS parameter generator; (3) STAR CITS unpacker to generate level 1a product; (4) STAR CITS geolocation to generate geolocation data; (5) STAR RDR generator	Mar-18	Jun-18	06/29/18	
DAP Deliveries	10/19/17 (ADR8489,8490,ADR8491/CCR3656) 02/14/18 (ADR8519/CCR3726) 03/06/18 (ADR8629/CCR3851); 03/20/18 (update) 04/05/18 (ADR8653/CCR3908) 04/20/18 (ADR8631/CCR3922)			

Accomplishments / Events:

- Generated and updated offset and gain ratio LUTs for NOAA-20 and S-NPP DNB using new moon calibration data from Aug. 11, 2018
- Generated NOAA-20 DNB stray light correction LUT from Aug. 2018 data
- Organized VIIRS splinter session during JPSS Annual Meeting and presented talks on NOAA-20 RSB bias characterization and calibration improvements as well as on *OnDemand* reprocessing
- Participated in SPIE conference with oral and poster presentations on VIIRS calibration, including (1) on-orbit NOAA-20 VIIRS RSB radiometric calibration, (2) NOAA-20 VIIRS radiometric band saturation evaluation and comparison using a PDF approach, (3) an improved algorithm for VIIRS DNB high-gain stage dark offset determination, and (4) orbital variations and impacts on observations from S-NPP and NOAA-18, -19, and -20

Overall Status:

	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

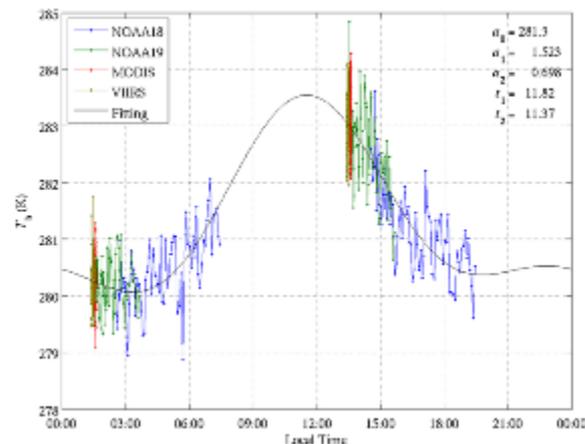
1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

none

FY18 TTA Milestones	Original Date	Forecast Date	Actual Date	Variance Explanation
N20 Post-Launch Cal/Val				
1st set of LUT updates for operations	Dec '17	Dec '17	12/27/17	CCR 3555
Beta Maturity	Jan '18	Jan '18	02/01/18	CCR 3742
2nd set of LUT updates for operations	Feb '18	Feb '18	01/30/18	CCR 3738
Provisional Maturity	Feb '18	Feb '18	02/19/18	CCR 3912
Validated Maturity	May '18	May '18	06/15/18	Review 6/15
Planned Algorithm Updates				
M6 rollover flagging correction	Sep '18	Jun '18	06/12/18	CCR 3966
LWIR FPA temperature flagging	Sep '18	Jun '18	05/30/18	CCR 3965
LUT update to reduce SDSM uncertainty	Jul '18	Aug '18	08/14/18	CCR 4069
WUCD calibration correction	Aug '18	Aug '18	08/29/18	CCR 4068
Identify algorithm updates based on JPSS-2 pre-launch test data: Pre-launch sensor characterization report	Sep '18	Sep '18		
DAP delivery	12/15/17 (ADR8528/CCR3700) 01/16/18 (ADR8559,8560,8561/CCR3742) 03/26/18 (ADR8578/CCR3857) 05/21/18 (ADR8686/CCR3963)			

Highlights:



Low-latitude mean BT of ~11- μ m channels from S-NPP VIIRS, NOAA 18-19 HIRS, and Aqua MODIS collected over six years from 2012 to 2017 vs. mean local time: with the fitted function of diurnal variation and equator crossing time drift of 10 minutes, the drift in low latitude mean BT for S-NPP VIIRS is 84 mK and 28 mK for the ascending and descending passes, respectively

Accomplishments / Events:

- Regular weekly dark deliveries for OMPS sensors were made.
- Regular bi-weekly OMPS-NP wavelength table deliveries were made for S-NPP.
- S-NPP OMPS Limb SDR processor was successfully run at NDE. This is a prototype for the JPSS-2 OMPS Limb SDR which will be an operational product.
- OMPS team held a side session meeting at the Annual JPSS Science Meeting.

Overall Status:

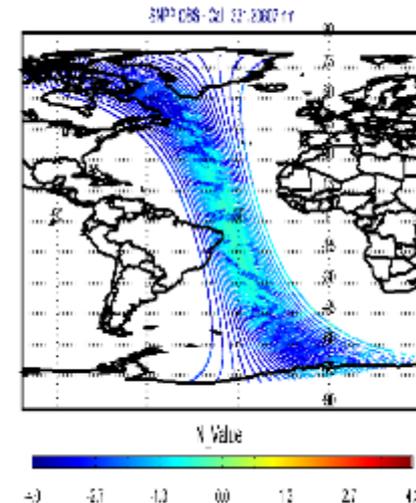
	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic			X		
Schedule			X		

1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

Recently discovered problem with OMPS-NP non-linearity. Continuing problem with OMPS-TC and OMPS-NP Sample tables.

Highlights:



A radiative transfer simulation for S-NPP OMPS TC at 331nm. The normalized radiance at this wavelength is within the expected 2% error.

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J1 post-launch calibration/validation				
Beta Maturity	Jan-18	Jan-18	01/26/18	
Provisional Maturity	Feb-18	Jul-18	07/03/18	Required Mx2 TTO
Validated Maturity	Aug-18	Dec-18		Need IDPS Table Updates
LUT update for JPSS-1 operations (1 st delivery)	Dec-17	Dec-17	12/18/17	L+42D
Weekly Dark Cal for JPSS-1 operations OMPS-NP-DARKS-GND-PI OMPS-TC-DARKS-GND-PI	Feb-18	Feb-18	01/08/18	Started weekly update on 1/8/2018
NOAA-20 OMPS NP OSOL & Wavelength LUT update (ADR8508/CCR3770)	Feb-18	Feb-18	02/01/18	
NOAA-20 OMPS SDR LUT updates	01/23/18 (ADR8576/CCR3760, ADR8577/CCR3761, NM & NP FAM LUTs update) 02/15/18 (ADR8594/CCR3821, TC SDR LUT and GND-PI updates)			
OMPS code update DAP	02/16/18 (ADR8615/CCR3829) 07/12/18 (ADR8684/CCR4014 & ADR8685/CCR4015)			
Update S-NPP OMPS TC Straylight Table	05/15/18 (ADR8527/CCR3906)			

Accomplishments / Events:

- Finished reprocessing of OMPS NP and NM to March 8, 2017
- Finished the version 1 reprocessing of VIIRS SDR to March 8, 2017
- Presented the latest updates and preliminary impact analysis of S-NPP reprocessing in the 2018 JPSS Annual Science Conference, College Park, MD

Overall Status:

	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

None

Highlights:

Sensor	Data Types	Daily Volume	Date Period	Total Days	Total Volume
ATMS	TDR +SDR +GEO	1241 MB	2011/11/08~2017/03/08	1948	2.42 TB
CrIS	NSR SDR +GEO	44.3 GB	2012/03/01~2017/03/08	1834	81.25 TB
CrIS	FSR SDR	74 GB	2014/12/04~2017/03/08	826	61.12 TB
VIIRS	SDR +GEO	415 GB	2012/02/20~2017/03/08	1845	765.68 TB
OMPS NP	SDR +GEO	261 MB	2012/01/26~2017/03/08	1869	487.81 GB
OMPS TC	SDR +GEO	3 GB	2012/01/26~2017/03/08	1869	5.61 TB
Total					916.57 TB

FY18 TTA Milestones	Original Date	Forecast Date	Actual Comp Date	Variance Explanation
Development of reprocessing data distribution website	Apr-18	Apr-18	Feb-28-18	
Analyze the quality of reprocessed data	Apr-18	Apr-18	Mar-31-18	
Prepare BUFRed reprocessed data for NWS reanalysis projects (NCEP/GMAO)	Apr-18	Apr-18	Feb-28-18	
Prepare ATMS user Manuel for using ATMS reprocessed data as pilot dataset to archive in CLASS	May-18	May-18	May-18-18	
Finalize the aggregation package to be used for producing the aggregated reprocessed ATMS data to archive in CLASS	May-18	May-18	May-18-18	
Complete the preparation of aggregated reprocessed ATMS data to be transitioned to CLASS	Jun-18	Jun-18	Jun-18	
Complete the reprocessing of OMPS SDR data till March 2017	Aug-18	Aug-18	Aug-18	
Complete the version 1 reprocessing of VIIRS SDR data till March 2017	Aug-18	Aug-18	Aug-18	
Development of reprocessing data review website	Sept-18	Sept-18		

Accomplishments / Events:

- Provided near real time satellite instrument status/performance and SDR data quality monitoring report to support STAR SDR teams for 2018 JPSS SNPP/NOAA-20 annual review
- Initialized VIIRS TEBs double difference computations
- Delivered the relative spectral bias monitoring module for CrIS
- Initialized an ICVS Severe Event Watch (iSEW) system for monitoring fire, hurricane, dust storm, snow storm, and other disasters affecting life and property safety
 - 9 experimental RGB combination imaging
 - Gap-filling ATMS observations for hurricane monitoring
 - 3D-animation of ATMS/VIIRS for hurricane monitoring
- Prepared for 5 poster regarding ICVS-JPSS Sensor calibration/validation parameter as well severe event monitoring
- Supported JPSS/SMCD weekly reports

Overall Status:

	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

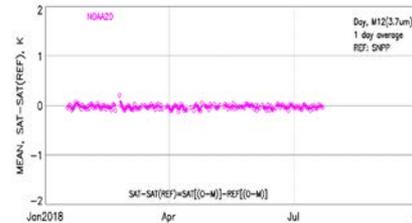
1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

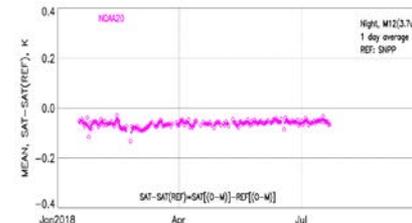
None

Highlights: VIIRS TEBs DD time series, iSEW and California fire RGB imaging monitoring

Day Time (Jun. to Aug. 2018)



Night Time (Jun. to Aug. 2018)




Evolution of Mendocino Complex Fire using Fire RGB Image (07/26 through 08/27, 2018)

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J1 Post-launch Monitoring/Trending Package	Dec-17	Dec-17	Dec-18	
CrIS SDR Data Quality Trending	Dec-17	Dec-17	Dec-17	
First version of ICVS-GRAVITE package	Mar-18	Mar-18	Mar-18	
OMPS SDR Quality Trending Phase I	Jun-18	Jun-18	May-18	
SNPP/J1 cross-comparison package initialized	Dec-17	Jun-18	Jun-18	Change Personnel
Geolocation Accuracy Trending Initialized	Mar-18	Jun-18	Jun-18	Change Personnel
ICVS-Application: ICVS Severe Weather Watch (iSEW) System	Mar-18	Dec-18		Initialized iSEW web site
JPSS-ICVS Monitoring/Trending Enhancement (On-going work)	Sep-18	Dec-18		Catch new needs from SDR team
ICVS System Maintenance Manuals and Technical Reports (On-going work for final version)	Sep-18	Dec-18		Beta version is done. Need to finalize the reports

Accomplishments / Events:

- VIIRS Imagery passed the **Validation** stage after presentations by the following:
 - D. Hillger, with an overview of the Imagery Team efforts thru the Beta and Provisional stages.
 - C. Dierking, with the Alaska user perspective, which is vital to Imagery validation, since much of the Imagery checkout is qualitative (striping, artifacts, etc.).
- **The Imagery and Geo Teams** met during the JPSS Annual Meeting about the following topics:
 - Terrain Correction progress for the I-bands, which are still experiencing some “issues”. (M-bands working, NCC yet to be attempted.)
 - Restoring the NCC LUT support function, to update the LUT by Provisional plus one year. (March 2019)

Overall Status:

	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

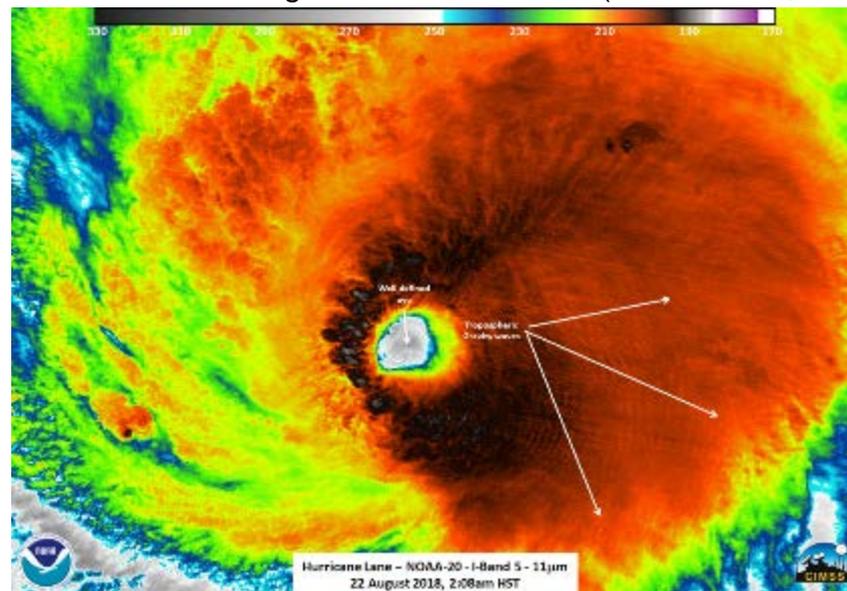
Issues/Risks:

None

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J1 post-launch calibration/validation				
Beta Maturity	Jan-18	Jan-18	02/01/18	
Provisional Maturity	Feb-18	Feb-18	02/19/18	Review: 02/20/18
Validated Maturity	Aug-18	Aug-18	08/22/18	
Algorithm Update/Testing				
NCC LUT update (DAP from science team to ASSISTT)	Sep-18	Mar-19	Provisional + 1 year	
Terrain Correction for EDR Imagery	Sep 19	Sep-19		
Long Term Monitoring				
Deliver additional product(s) to LTM website; Add J1 products to EDR monitoring web	Sep-18	Sep-19		

Highlights:

NOAA-20 VIIRS I5 for Hurricane Lane
22 August 2018 @ 2:08 am (W. Straka III, CIMSS)



Accomplishments / Events:

- Cloud Team presented at the JPSS annual science team meeting.
- Use of VIIRS I-Bands were implemented in ECM and tests showed a great impact on the yield of cloud detection.
- DCOMP can also run on I-bands and this allows seeing detailed cloud structures.
- Use of NUCAPS cloud top products were implemented as first guess for ACHA and initial analysis showed promising results.

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J1 post-launch calibration/validation				
Beta Maturity	Jul-18	Jul-18	CM: 04/18/18 CBH/ACHA/DCO MP: 07/23/18	Program Request
Provisional Maturity	Sep-18	Oct-18		
Apply CALIPSO tools to NDE Mask with Lunar Reflectance	Sep-18	Sep-18		
Validate products from SAPF and begin ARM data analysis to fill CALIOP/CloudSat void	Sep-18	Sep-18		
Continue the visualization and demonstration of CCL for the Aviation Weather Center, with focus on Alaska Region and Hawaii	Sep-18	Sep-18		
Inter-sensor calibration studies by using visible reflectance and cloud optical thickness from GOES, JPSS and MODIS	Sep-18	Sep-18		
Consistency checks for day and night retrievals	Sep-18	Sep-18		
Continuous use of microwave-based LWP data for validation (DCOMP & NCOMP)	Sep-18	Sep-18		
J1 algorithm adjustments:				
Preliminary DAP to ASSISTT (science team to ASSISTT)	Apr-18	Apr-18	2/23/18	
Preliminary DAP to NDE (ASSISTT to NDE)	Aug-18	Aug-18	7/31/18	
SNPP/J1 algorithm Refinement (Maintenance DAP)				
Reprocess regional data using cloud team calibration refinements	Sep-18	Sep-18		
Add J1 products to EDR monitoring web	Sep-18	Sep-18		
JPSS EPS algorithm updated DAPs	11/21/17; 02/02/18 (J1 capability); 04/30/18			

Overall Status:

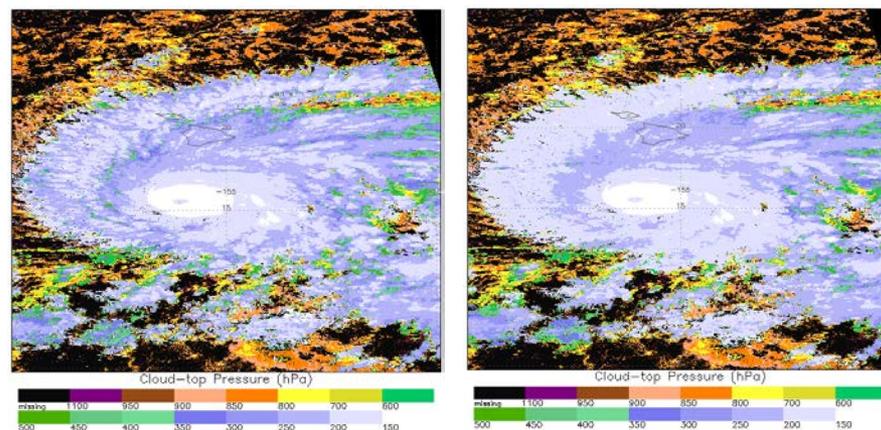
	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

None

Highlights: NUCAPS cloud properties used by ACHA



Example of cloud top pressure from SNPP for a storm case. The image on the left shows retrieval without NUCAPS and the right one uses NUCAPS. Improvement are observed in cirrus cloud height retrieval and over cloud edges.

Accomplishments / Events:

New comparisons of NOAA-20 and S-NPP ice products demonstrate the validity and consistency of the NOAA-20 products. Some simple statistics for the ice products differences between the two satellites are:

- Ice surface temperature: Bias: -0.057 K, RMS: 2.143 K
- Ice concentration: Bias: 0.123, RMS: 9.189
- Ice thickness: Bias = 0.00066 m, RMS = 0.0245 m

Differences are due primarily to the time of acquisition and the cloud masks.

Overall Status:

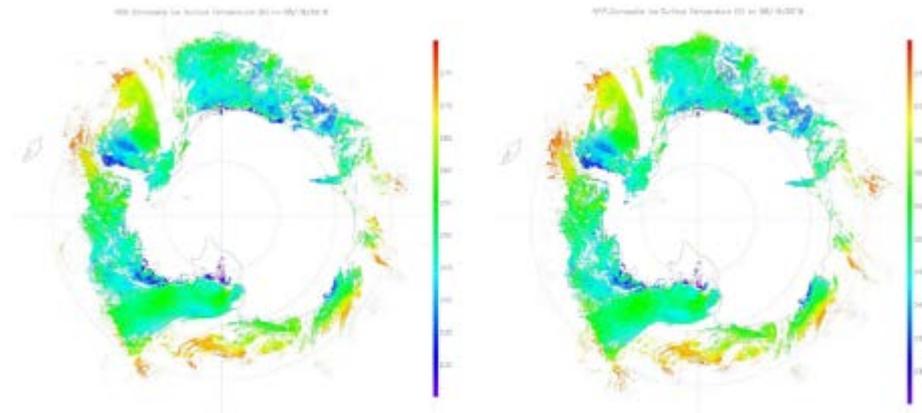
	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

None

Highlights:



NOAA-20 and S-NPP IST, Antarctic, Aug 18, 2018

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J1 post-launch calibration/validation				
Beta Maturity: IST	May-18	May-18	06/15/18	
Beta Maturity: Snow	Jun-18	Jun-18	06/15/18	
Beta Maturity: Sealce	Jul-18	Jul-18	06/15/18	
Provisional Maturity (IST, Snow, and Sealce)	Sep-18	Sep-18		
J1 algorithm adjustments:				
Preliminary DAP to ASSISTT (science team to ASSISTT)	Apr-18	Apr-18	Apr-18	
Preliminary DAP to NDE (ASSISTT to NDE)	Aug-18	Aug-18	07/31/18	
SNPP/J1 algorithm Refinement (Maintenance DAP)				
Improvements to snow and ice algorithms	Sep-18	Sep-18		
Add J1 products to EDR monitoring web	Sep-18	Sep-18		
JPSS EPS algorithm updated DAPs	11/21/17; 02/02/18 (J1 capability); 04/30/18			

Accomplishments / Events:

- Co-leads Kondragunta and Laszlo presented algorithm/product updates at the JPSS annual meeting
- Co-lead Kondragunta presented a talk on the evaluation of HRRR model predictions using VIIRS aerosol products at the annual meeting
- Team member Huff presented a talk on the use of VIIRS aerosol products in daily air quality forecasting efforts for smoke from extreme fires in August 2018
- Team member Remer gave a webinar on VIIRS aerosol products to 130 registrants from across the world. Most participants from India, China, and Brazil
- Began analyzing TROPOMI UV aerosol index to compare to VIIRS absorbing aerosol index for smoke from extreme fires in August 2018

Overall Status:

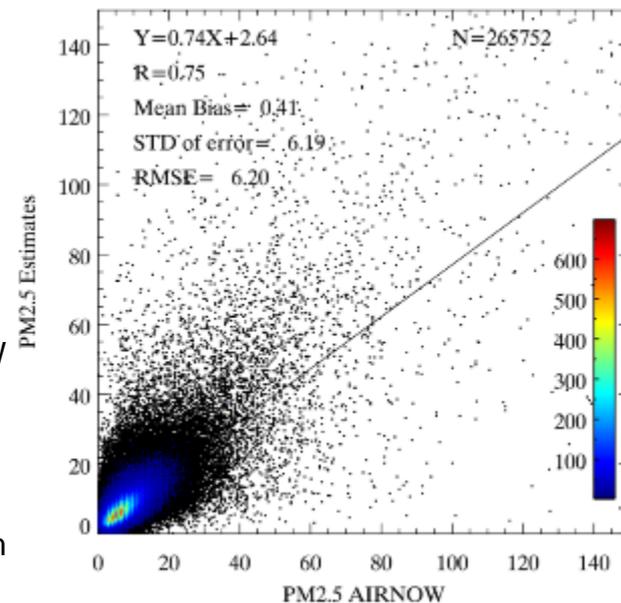
	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

None

Updates to the algorithm that derives surface PM2.5 from AOD has resulted in improvements. VIIRS PM2.5 estimates agree well with AIRNOW observations with an RMSE of 6 $\mu\text{g}/\text{m}^3$ compared to 12 $\mu\text{g}/\text{m}^3$ with previous algorithm



FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J1 post-launch calibration/validation				
Beta Maturity	Apr-18	Apr-18	04/18/18	
Provisional Maturity	Sep-18	Sep-18	04/18/18	
J1 algorithm adjustments:				
Preliminary DAP to ASSISTT (science team to ASSISTT)	Apr-18	Apr-18	Apr-18	
Preliminary DAP to NDE (ASSISTT to NDE)	Aug-18	Aug-18	07/31/18	
SNPP/J1 algorithm Refinement (Maintenance DAP)				
Validation of reprocessed SNPP VIIRS aerosol products	Sep-18	Sep-18		
Add J1 products to EDR monitoring web	Sep-18	Sep-18		
JPSS EPS algorithm updated DAPs	11/21/17; 02/02/18 (J1 capability); 04/30/18			

Accomplishments / Events:

- Added to a list of NOAA-20 VIIRS granules that were known to contain ash, but the missing granule issue continued to hamper validation efforts.
- Quantitatively compared S-NPP and NOAA-20 volcanic ash EDRs for a new case (see highlight). The S-NPP and NOAA-20 EDRs were found to be consistent.
- Continued to develop and test algorithm improvements through incorporation with CrIS measurements.

Overall Status:

	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule			X		Missing granule issue

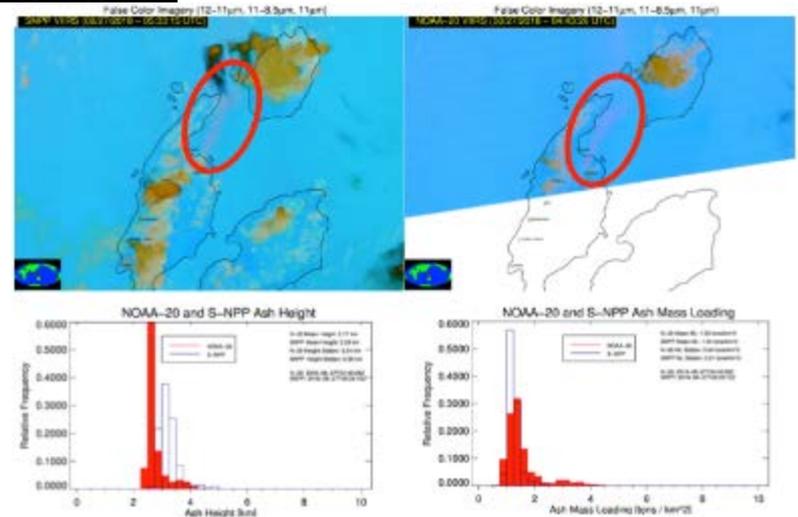
1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

The missing granule issue has limited the number of NOAA-20 validation opportunities. We will likely need to delay the provisional review.

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J1 post-launch calibration/validation				
JPSS-1 Cal/Val Plan	Dec-17	Dec-17	12/18/17	
Beta Maturity	Jul-18	Sep-18		Combine B & P
Provisional Maturity	Sep-18	Sep-18		
J1 algorithm adjustments:				
Complete development of Version 2 (V2) of the volcanic ash algorithm. Version 2 may utilize VIIRS + CrIS	Feb-18	Feb-18	Feb-18	While not needed to meet spec, algorithm enhancements will continue to be sought
Update LUT and thresholds for JPSS-1	Feb-18	Feb-18	Feb-18	
Preliminary DAP to ASSISTT (science team to ASSISTT)	Apr-18	Apr-18	Apr-18	Other than the LUT delivery, no other changes were required thus far
Preliminary DAP to NDE (ASSISTT to NDE)	Aug-18	Aug-18	07/31/18	
SNPP/J1 algorithm Refinement (Maintenance DAP)				
Add Volcanic Ash to EDR Monitoring web (SNPP & J1)	Sep-18	Sep-18		
JPSS EPS algorithm updated DAPs	11/21/17; 02/02/18 (J1 capability); 04/30/18			

Highlights: N20 vs S-NPP: Dukono, Indonesia (27 Aug 2018)



- Quantitative S-NPP/NOAA-20 height and mass loading comparisons agree very well
- Lack of NOAA-20 ash products for much of August limits ability to increase sample size of ash pixels

Accomplishments / Events:

- The NOAA-20 NDE 750m product went operational on August 13, 2018
- Provided feedback on the iMET Quick Guide on VIIRS active fire detection
- Delivered processing code for the 375m product to CSPP
- Presented on VIIRS product status at the STAR JPSS Science Team meeting
- The NOAA-20 750m VIIRS NDE Active Fire product was implemented in JSTAR Mapper on August 20, 2018

Overall Status:

	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

None

Highlights:

Credit: JSTAR Mapper Team



Fires in Western US as shown by the NOAA-20 VIIRS 750m FRP product in JSTAR Mapper on August 20, 2018 at 20:40 UTC

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J1 post-launch calibration/validation				
Beta Maturity	Jun-18	Jun-18	03/22/18	Virtual Review
Provisional Maturity	Dec-18	Dec-18	04/18/18	
J1 algorithm adjustments:				
Preliminary DAP to ASSISTT (science team to ASSISTT)	Aug-18	Aug-18	Oct-17	
Preliminary DAP to NDE (ASSISTT to NDE)	Oct-18	FY19	11/21/17	
SNPP/J1 algorithm refinement (Maintenance DAP)				
J1 data analysis and feedback	Sep-18	Sep-18		
Enterprise algorithm evaluation	Sep-18	Sep-18		
Suomi NPP reprocessing analysis	Sep-18	Sep-18		
Add J1 products to EDR monitoring web	Sep-18	Sep-18		

Accomplishments / Events:

- Worked with the Vegetation Index and Aerosol teams to further understand observed differences between the IDPS and NDE Surface Reflectance retrievals
- Understanding these differences is critical for downstream Vegetation Index and Green Vegetation Fraction Products
- Some differences are expected due to differences between the IDPS and NDE aerosol products
- Investigation continues to quantify the impacts of upstream aerosol information and LUTs

Overall Status:

	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

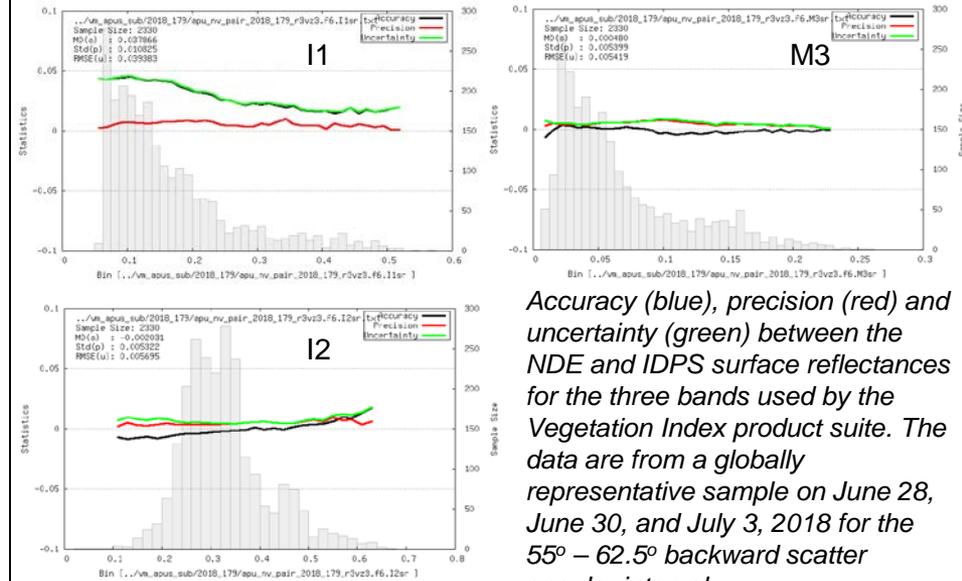
1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

None

Highlights:

Tomoaki Miura (UHI)



Accuracy (blue), precision (red) and uncertainty (green) between the NDE and IDPS surface reflectances for the three bands used by the Vegetation Index product suite. The data are from a globally representative sample on June 28, June 30, and July 3, 2018 for the 55° – 62.5° backward scatter angular interval

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J1 post-launch calibration/validation				
Beta Maturity	May-18	May-18	06/15/18	Scheduled 6/15
J1 algorithm adjustments:				
Preliminary DAP to ASSISTT (science team to ASSISTT)	Jun-18	Jun-18	Jun-18	
Preliminary DAP to NDE (ASSISTT to NDE)	Aug-18	Aug-18	07/27/18	
SNPP/J1 algorithm Refinement (Maintenance DAP)				
Add SR to EDR monitoring web (SNPP & J1)	Sep-18	Sep-18		
Enterprise algorithm testing and updates	Sep-18	Sep-18		
Patch DAPs to NDE				10/06/17 (global attribute, endianness) 12/11/17 (QF2 attribute text fix) 01/29/18 (file name change) 02/21/18 (QCAI flag value change)

Accomplishments / Events:

- To improve the efficiency of the gridded LST, switch the gridded method from tile by tile to granule by granule. To support the new method, we run the gridding tool to output both tile index and granule index information.
- A couple of update have been made for the gridded LST output, including the quality flag design and output the global data to one file. A case of 20180621 has been tested. (Highlight & Slide 2, 3)
- The first version of VIIRS gridded LST CDR slide is ready.
- Two issues have been found and report to ASSIST: one is NOAA 20 enterprise LST of the recent day are all filled value; another is scaled value overloading issue in the enterprise LST output.
- Two poster are prepared for the JPSS annual meeting: "Preliminary quality assessment of NOAA 20 LST EDR product" and "VIIRS gridded LST product development".
- A manuscript for summary of the enterprise LST algorithm development and evaluation is undergoing (80% Finish).
- Continue to monitor the NOAA 20 LST data at granule and global scale.
- Support to model group: since EMC prefer to use Enterprise LST than IDPS one, one week data (20180504-20180510) was generated for the comparison. The enterprise LST was provided to the model group along with the readme file and ATBD.

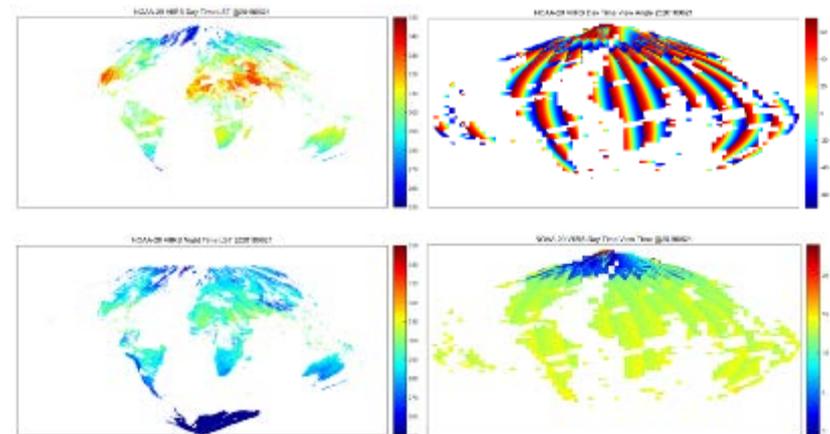
Overall Status:

	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

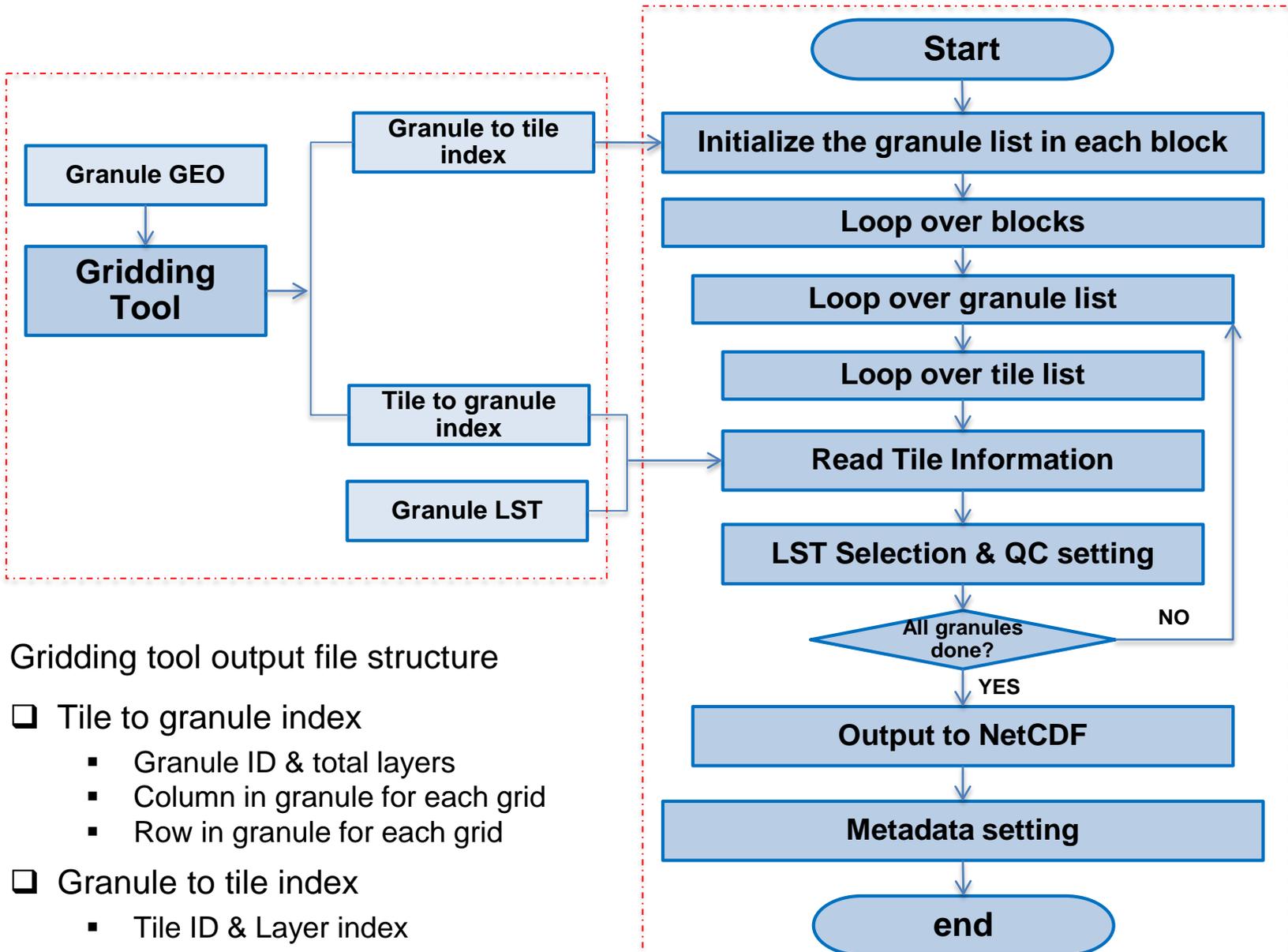
Highlights:



NOAA-20 VIIRS Global gridded LST at day time and nighttime, along with the view zenith angle and the view time (local solar time). Case of June 21st, 2018..

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J1 post-launch calibration/validation				
Beta Maturity	Jul-18	Jul-18	July 19	
J1 algorithm adjustments:				
Preliminary DAP to ASSISTT (science team to ASSISTT)	Apr-18	Apr-18	03/09/18	
Preliminary DAP to NDE (ASSISTT to NDE)	Aug-18	Aug-18	08/04/18	
SNPP/J1 algorithm Refinements				
Enterprise Algorithm Final DAP	Feb-18	Mar-29	Init DAP: 11/15/17 Final DAP: 4/2/18	Passed SR: Feb-18
CDR review ready for global gridded LST production	Jun-18	Oct-18		The CDR is scheduled at early Oct-18
Additional cloud filtering	Sep-18	Sep-18		
Add J1 products to EDR monitoring web	Sep-18	Sep-18		
Deep-dive analysis for the anomaly watch	Sep-18	Sep-18		

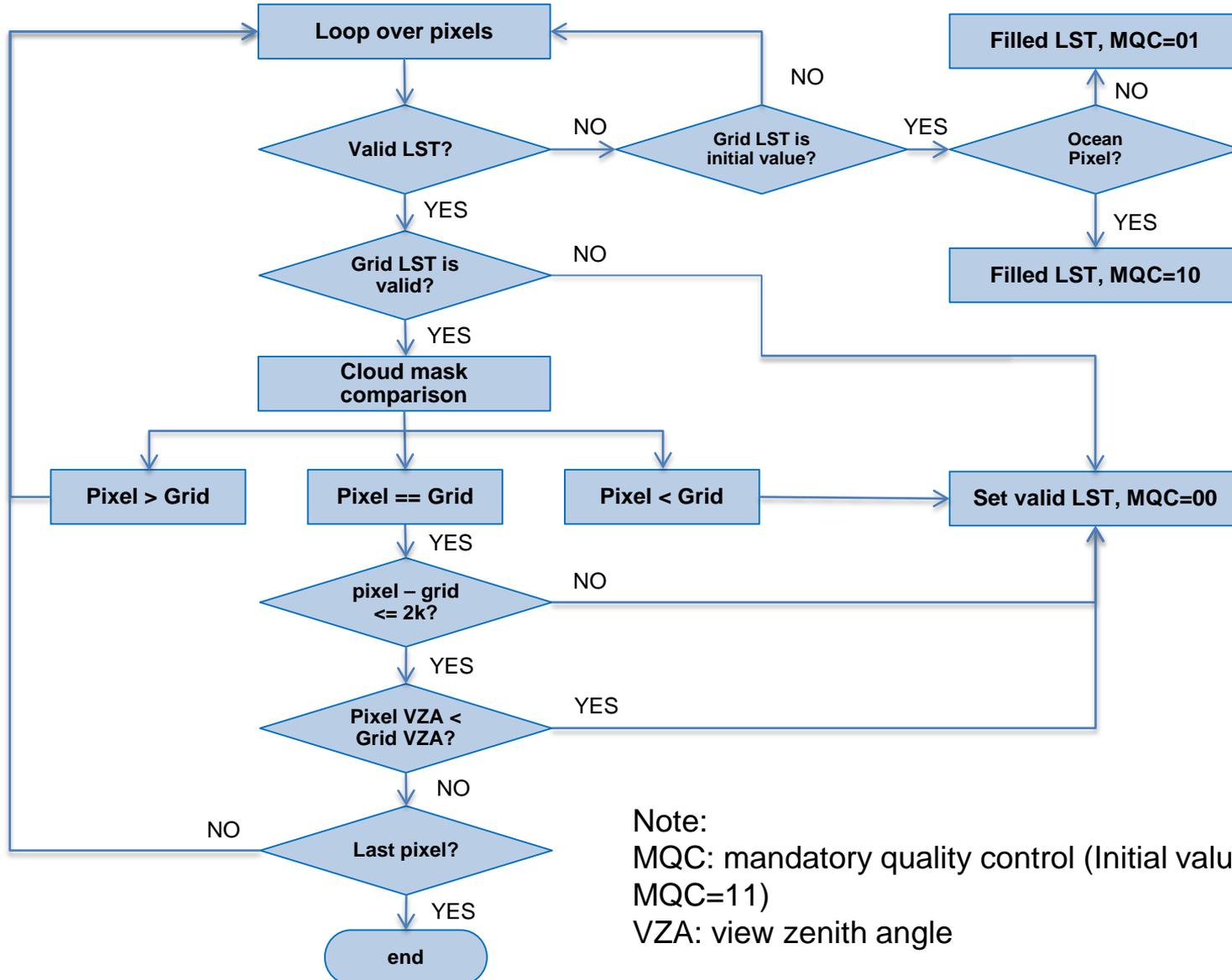
Gridded LST flow chart



Gridding tool output file structure

- ❑ Tile to granule index
 - Granule ID & total layers
 - Column in granule for each grid
 - Row in granule for each grid
- ❑ Granule to tile index
 - Tile ID & Layer index

LST Composition method



Accomplishments / Events:

- Run radiative simulations with N20 VIIRS spectral response functions (Slide 2)
- Generated the updated LUTs for NOAA-20 VIIRS Albedo (Slide 3)
- Verified the LUTs for NOAA-20 VIIRS Albedo (highlight)
- Studied various gridding systems for Gridded Albedo Product
- Conducted
- Preparing for Gridded Albedo Critical Design Review (Slide 4)
- Prepared the presentation and poster for NOAA JPSS satellite meeting
- Attended and presented the poster at the meeting

Overall Status:

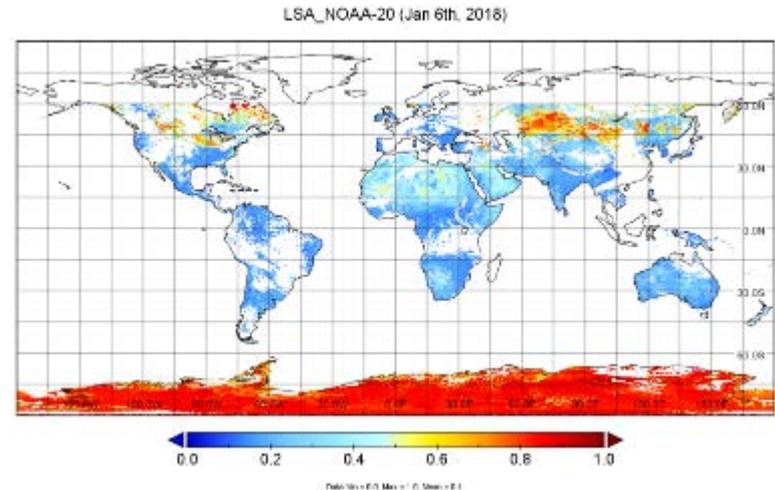
	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

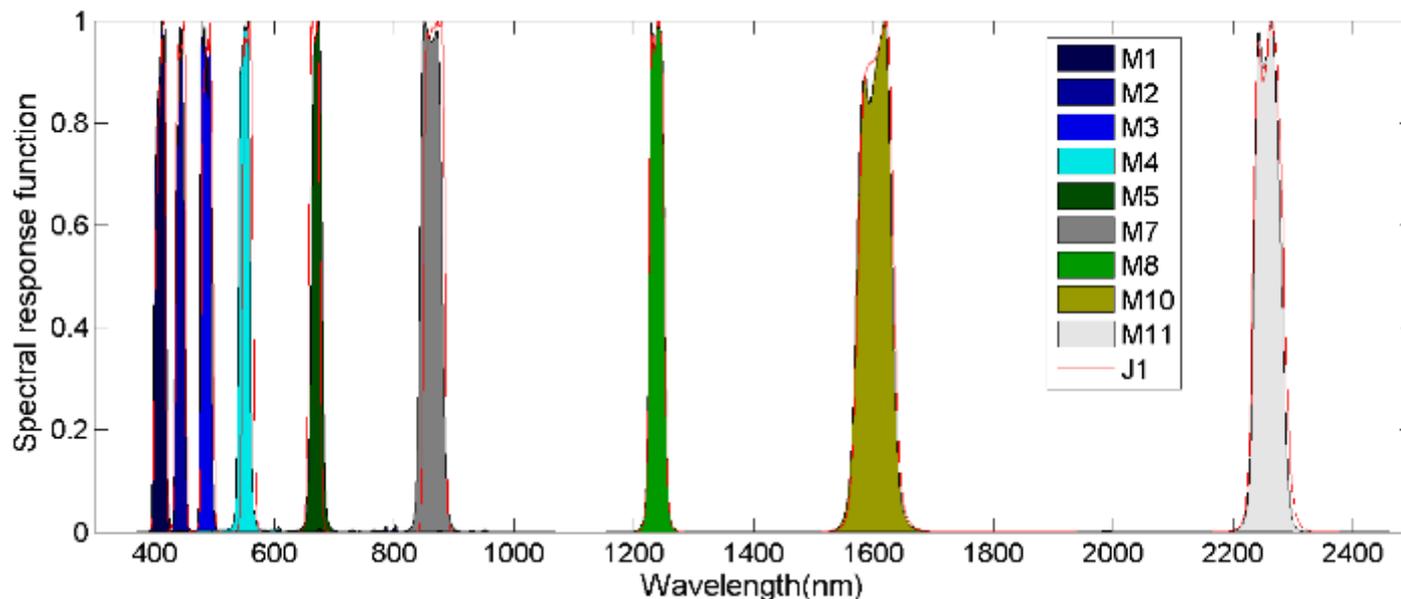
Highlights:

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J1 post-launch calibration/validation				
Beta Maturity	Jul-18	Jul-18	Jul-18	
J1 algorithm adjustments:				
Preliminary DAP to ASSISTT (science team to ASSISTT)	Apr-18	Apr-18	03/09/18	Completed
Preliminary DAP to NDE (ASSISTT to NDE)	Aug-18	Aug-18	08/04/18	
SNPP/J1 algorithm Refinements				
Enterprise Algorithm Final DAP	Feb-18	Feb-18	Init: 11/15/17; Final: 4/2/18	Passed SR: Feb-18
LUT for Sea Ice Albedo computation	Dec-17	Dec-17	03/05/18	Completed
Developing improved albedo climatology	Jul-18	Jul-18	02/23/18	Completed
Refining codes of gridded VIIRS albedo	Sep-18	Sep-18		CDR rescheduled
Deep-dive analysis for the anomaly watch	Sep-18	Sep-18		
Add J1 products to EDR monitoring web	Sep-18	Sep-18		
Enterprise Algorithm LSA ARR			03/14/18	



A new set of N20 VIIRS Albedo LUT was generated with the updated response functions. The new LUT was tested with the actual N20 VIIRS data (map shown here). Additional extensive evaluation is underway.

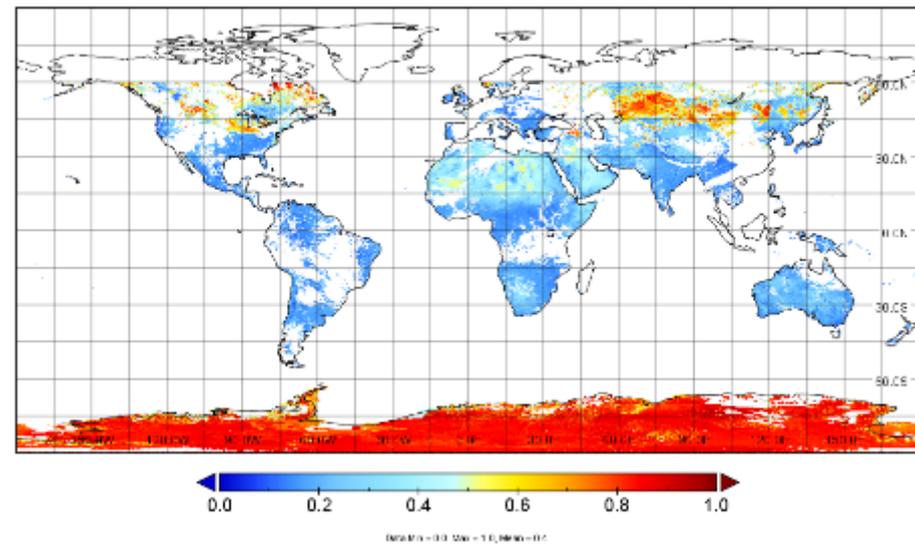
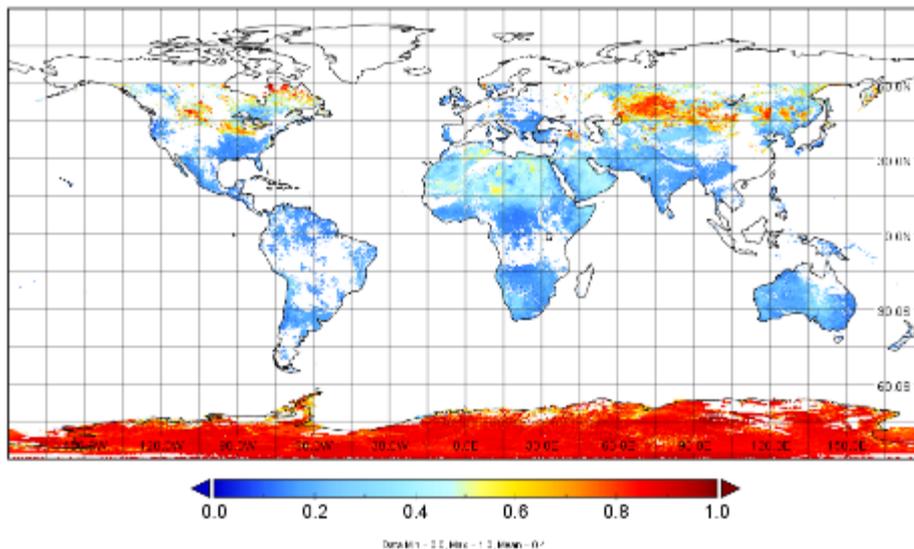
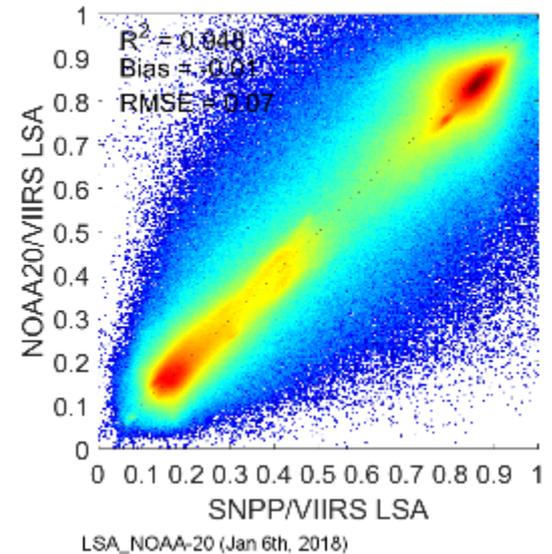
- The SNPP VIIRS albedo LUT is currently used to generate N20 VIIRS albedo product.
- Difference exists between the SNPP and N20 VIIRS spectral response function.
- The 6s radiative transfer model was run with the updated N20 spectral response function as input.
- Four aerosol types considered
- Surface BRDF models used



Difference between SNPP and N20 VIIRS spectral response functions

Generating and Testing N20 VIIRS Albedo LUT

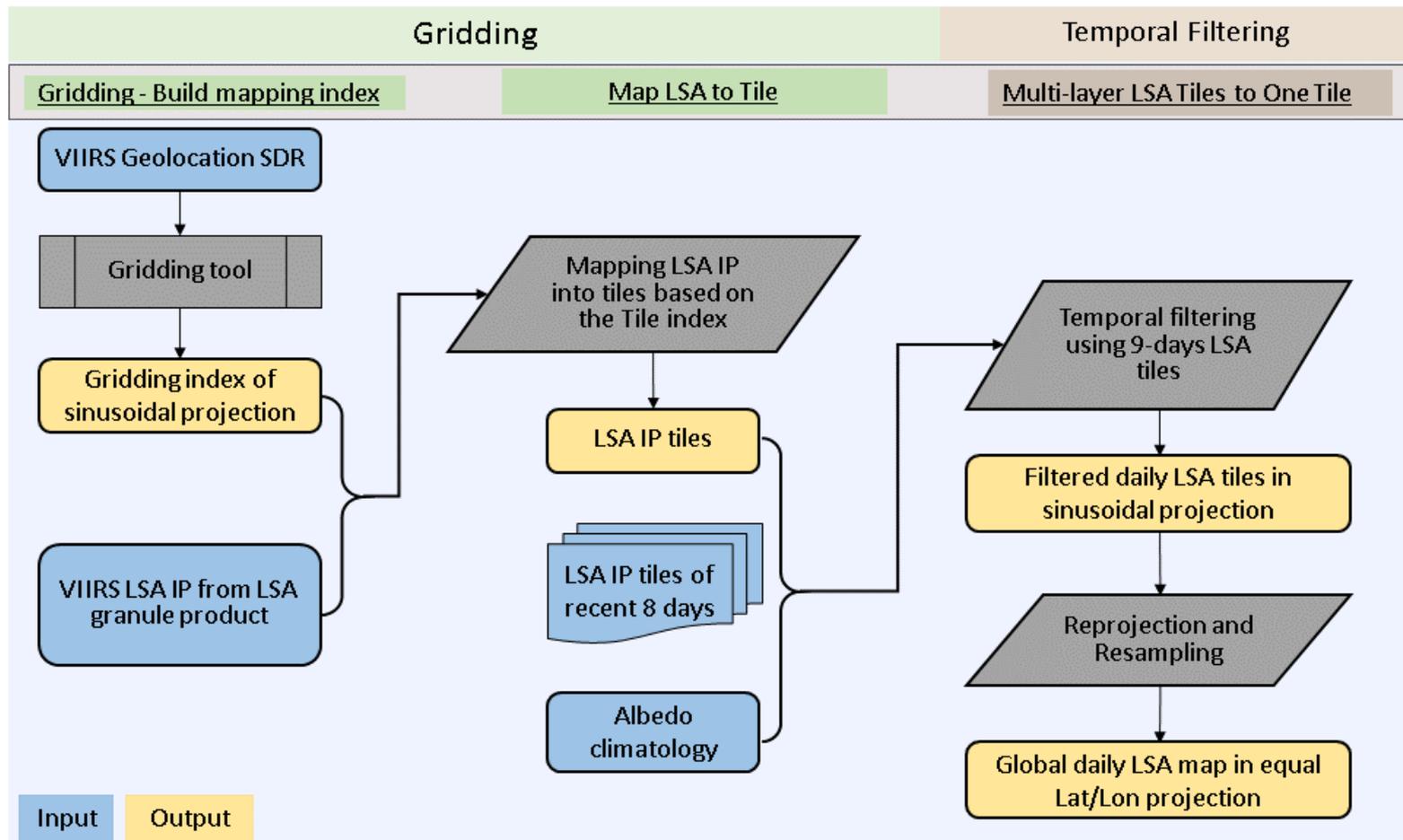
- Regress coefficients for albedo was generated based on the results of 6s radiative transfer simulations.
- The coefficients are binned by solar zenith angle, view zenith angle and relative azimuth angle and stored in LUT.
- Three groups of LUTs were generated for generic, desert and snow surfaces.
- The new LUTs were tested over the N20 VIIRS data and compared with the SNPP albedo data



Comparison between the N20 albedo generated from the new LUT and the SNPP VIIRS albedo product.

Test results from Gridded Albedo Algorithm

- Preparing for Gridded Albedo Critical Design Review
- The gridded albedo software package will generate a gridded, gap-filled and noise-reduced global albedo product.
- The processing chain include two major parts: gridding and temporal filtering (shown below).



Accomplishments / Events:

- The team has completed the development of the 2017 Annual Surface Type (AST) products. These products have been delivered to NOAA and released to the public at:
 - ftp://vct.geog.umd.edu/ST/S-NPP_VIIRS_GST_IGBP_2017.zip
 - ftp://vct.geog.umd.edu/ST/S-NPP_VIIRS_GST_IGBP_2017_30arcsec.zip
- The team used VIIRS daily observations to examine large fires and resultant surface type changes in California.

Overall Status:

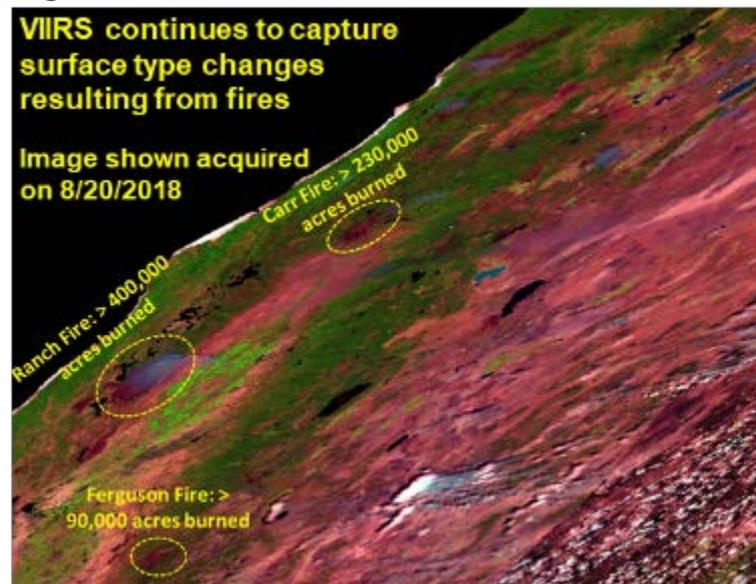
	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

None

Highlights:



FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J1 post-launch calibration/validation				
Comparison of GST16 with surface type validation data	Sep-18	Sep-18		
Planned Algorithm Delivery				
Complete monthly composites of global gridded VIIRS data (9 land bands + thermal bands) for VIIRS GST17 based on VIIRS 2017 data	Sep-18	Sep-18	Aug-18	
Generate VIIRS GST17 based on VIIRS 2017 data using SVM algorithms	Sep-18	Sep-18	Aug-18	
ATBD update		Sep-18		

Accomplishments / Events:

- Produced NOAA-20 vegetation index product using sample NOAA-20 input data from July,16, 2018 – July,24, 2018
 - Passed the Beta Maturity Review successfully
 - Identified the difference between NDE VI and IDPS VI
 - Refined the visualization website for providing better VIIRS VI product access to users
- https://www.star.nesdis.noaa.gov/smcd/viirs_vi_web/landwatch.php

Overall Status:

	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

The issue of inconsistency between IDPS surface reflectance and NED surface reflectance was discussed with the reflectance team; a solution at reflectance side is on the way

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J1 post-launch calibration/validation				
Beta Maturity	Aug-18	Aug-18	08/22/18	
J1 algorithm adjustments:				
Preliminary DAP to ASSISTT (science team to ASSISTT)	Sep-18	Sep-18		
Preliminary DAP to NDE (ASSISTT to NDE)	Nov-18	FY19		
SNPP/J1 algorithm Refinement (Maintenance DAP)				
Add J1 products to EDR monitoring web	Sep-18	Sep-18		
Enterprise Algorithm Final DAP	Jan-18	Jan-18	Initial DAP: 06/26/17 Final DAP: 02/06/18 Delta DAP: 03/15/18	
NVPS ARR			12/21/17	

Highlights:

Beta Maturity End State	Assessment
Product is minimally validated, and may still contain significant identified and unidentified errors	Yes.
Information/data from validation efforts can only be used to make initial qualitative or very limited quantitative assessments regarding product fitness-for-purpose	Yes. The validation is based on a limited data set and limited time period. The statistics is not significant enough for a sound quantitative evaluation yet.
Documentation of product performance and identified product performance anomalies, including recommended remediation strategies, exists	Yes

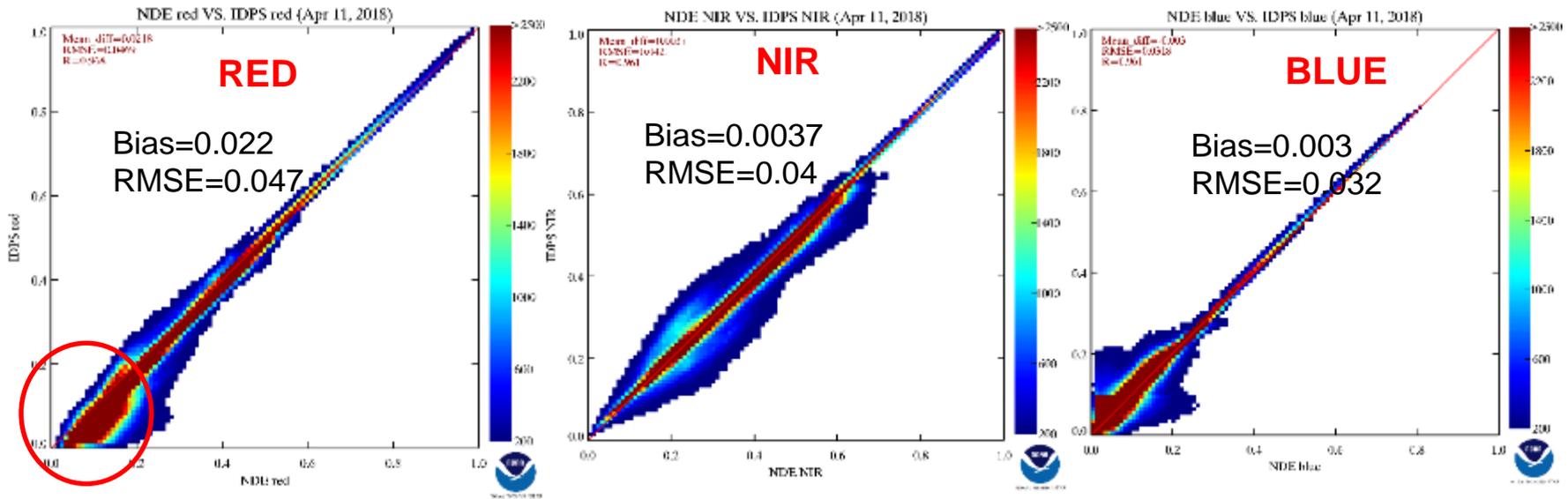
We have successfully passed the NOAA-20 VIIRS VI product Beta Maturity Review, and are moving toward the provisional release of NOAA-20 VIIRS VI product by February, 2019

Beta Maturity End State	Assessment
Product is minimally validated, and may still contain significant identified and unidentified errors	Yes.
Information/data from validation efforts can only be used to make initial qualitative or very limited quantitative assessments regarding product fitness-for-purpose	Yes. The validation is based on a limited data set and limited time period. The statistics is not significant enough for a sound quantitative evaluation yet.
Documentation of product performance and identified product performance anomalies, including recommended remediation strategies, exists	Yes

NOAA-20 VIIRS VI science team has passed the Beta Maturity Review. We are moving toward the phase of provisional release of NOAA-20 VIIRS VI product.

- Near-term (DAP to ASSISTT (Sep.) & NDE (FY19))
 - VI product: obtain initial APU estimates by cross-comparison against MODIS Aqua
 - VI QA reorganization
 - VI & GVF operational code merge
- Mid-to-long term
 - Full evaluation of updated science algorithm and code
 - Provisional release of VI EDR by February, 2019
 - Validated Version 1 status by February, 2020

We have set up both near term and middle-to-long term tasks for both provisional release and validation release of NOAA-20 VIIRS VI product



NOAA-20 VIIRS VI product has passed the Beta Maturity Review. Yet we have noticed the inconsistency between NDE VIIRS surface reflectance product (RED band) and IDPS VIIRS surface reflectance product (RED band), which leads to the discrepancy between NDE VI product and IDPS VI product. The inconsistency is mostly likely due to the aerosol layer inputs after discussion with surface reflectance team. Currently the surface reflectance team is working to figure out the issue.

Accomplishments / Events:

- Produced NOAA-20 GVF from July 16 to July 24, 2018
- Passed the Beta Maturity Review successfully
- Identified the difference between NDE GVF and IDPS GVF
- Updated the visualization website for providing better VIIRS GVF access to users in the following website.
https://www.star.nesdis.noaa.gov/smcd/viirs_vi_web/landwatch.php

Overall Status:

	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

The issue of inconsistency between IDPS surface reflectance and NED surface reflectance was discussed with the reflectance team; a solution at reflectance side is on the way

Highlights:

Beta Maturity End State	Assessment
Product is minimally validated, and may still contain significant identified and unidentified errors	Yes.
Information/data from validation efforts can only be used to make initial qualitative or very limited quantitative assessments regarding product fitness-for-purpose	Yes. The validation is based on a limited data set and limited time period. The statistics is not significant enough for a sound quantitative evaluation yet.
Documentation of product performance and identified product performance anomalies, including recommended remediation strategies, exists	Yes

We have successfully passed the NOAA-20 VIIRS GVF product Beta Maturity Review, and are moving toward the provisional release of NOAA-20 VIIRS GVF product by February, 2019

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J1 post-launch calibration/validation				
Beta Maturity	Aug-18	Aug-18	08/22/18	
J1 algorithm adjustments:				
Preliminary DAP to ASSISTT (science team to ASSISTT)	Sep-18	Sep-18		
Preliminary DAP to NDE (ASSISTT to NDE)	Nov-18	FY19		
SNPP/J1 algorithm Refinement (Maintenance DAP)				
Add J1 products to EDR monitoring web	Sep-18	Sep-18		

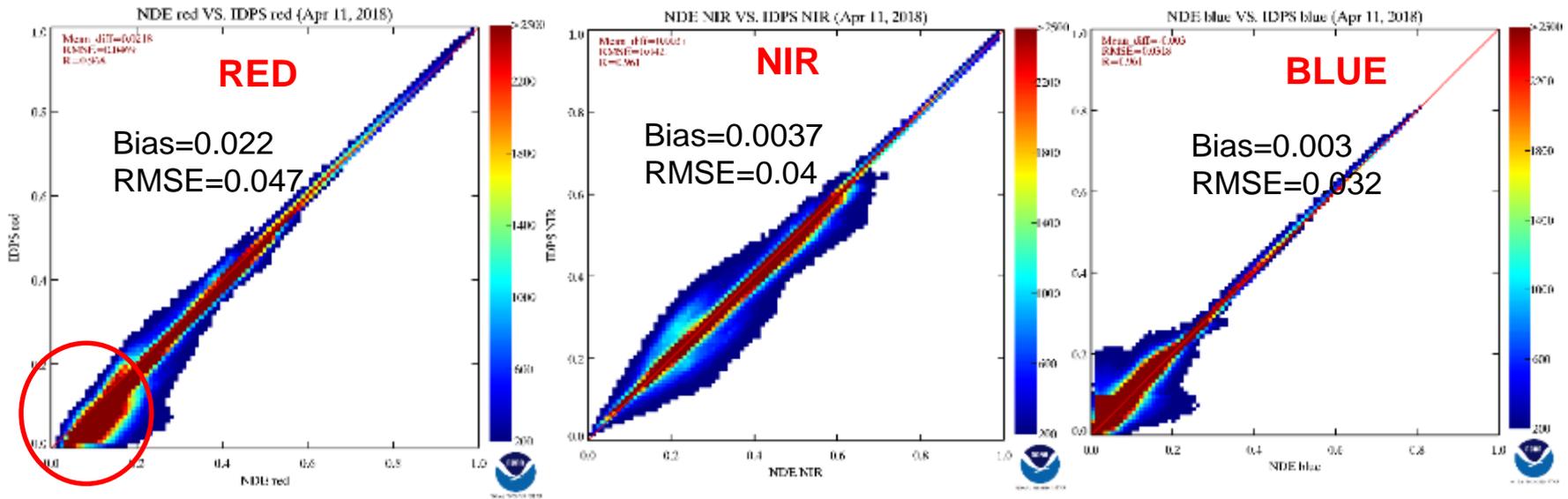
Beta Maturity End State	Assessment
Product is minimally validated, and may still contain significant identified and unidentified errors	Yes.
Information/data from validation efforts can only be used to make initial qualitative or very limited quantitative assessments regarding product fitness-for-purpose	Yes. The validation is based on a limited data set and limited time period. The statistics is not significant enough for a sound quantitative evaluation yet.
Documentation of product performance and identified product performance anomalies, including recommended remediation strategies, exists	Yes

NOAA-20 VIIRS GVF science team has passed the Beta Maturity Review. We are moving toward the phase of provisional release of NOAA-20 VIIRS GVF product.

- Near-term (DAP to ASSISTT (Sep.) & NDE (FY19))
 - GVF product: obtain initial APU estimates by comparing against high resolution images.
 - GVF QA production
 - VI & GVF operational code merge

- Mid-to-long term
 - Full evaluation of updated science algorithm and code
 - Provisional release of GVF EDR by February, 2019
 - Validated Version 1 status by February, 2020

We have both near term and middle-to-long term tasks to both provisional release and validation release of NOAA-20 VIIRS VI product



NOAA-20 VIIRS GVF product has passed the Beta Maturity Review. Yet we have noticed the inconsistency between NDE VIIRS surface reflectance product (RED band) and IDPS VIIRS surface reflectance product (RED band), which leads to the discrepancy between both NDE GVF product and IDPS GVF product. The inconsistency is mostly likely due to the aerosol layer inputs after discussion with surface reflectance team. Currently the surface reflectance team is working to figure out the issue.

Accomplishments / Events:

- Prepared NOAA-20 VHP product- Beta Maturity Review presentation and documents;
- Prepared NOAA-20 DAP, including code to run daily and weekly processing, and 19 weeks of weekly ND data files;
- Prepared the most recent 16 weeks 1 and 4km NOAA_20 and S-NPP data files for NDE;
- Verified 2018 NOAA-20 VHI vs. Agro Data;
- Modified the webpage to show weekly global scale comparison between VIIRS S-NPP and NOAA-20

Overall Status:

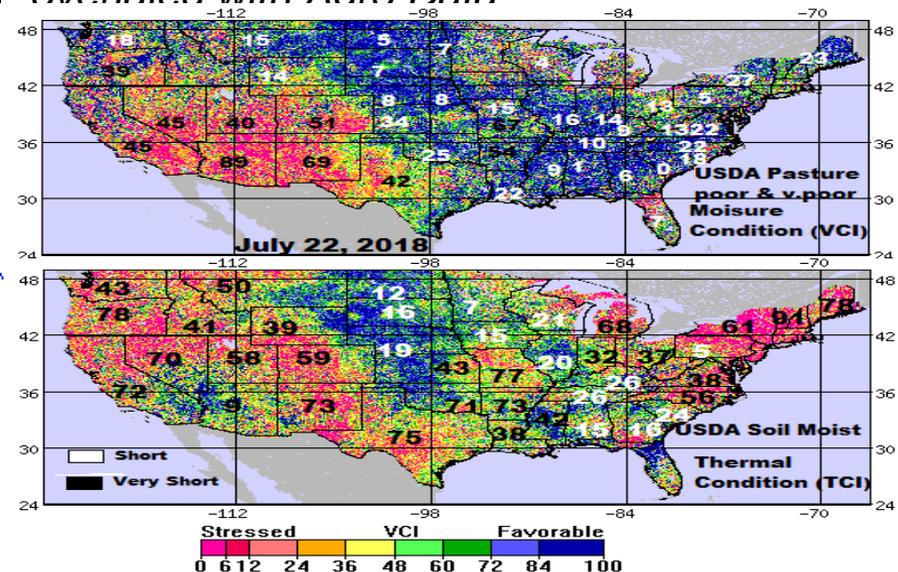
	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

None

Highlights: Validation - 22, 2018 VHI overlaid with Agro Data



FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J1 post-launch calibration/validation				
Beta Maturity	Aug-18	Aug-18	08/22/18	
J1 algorithm adjustments (1-km & 4-km VH):				
Preliminary DAP to NDE	Aug-18	Aug-18	08/28/18	
SNPP/J1 algorithm Refinement (Maintenance DAP)				
Add J1 products to EDR monitoring web	Sep-18	Sep-18		
Vegetation Health (1-km) Algorithm Final DAP	Nov-17	Nov-17	11/13/17	
Updated DAP to NDE (metadata statistic update; code change to process SDR files from specific satellite only → can process J01/N20 VIIRS SDR)			12/14/17	
Vegetation Health (1-km) Algorithm Readiness Review			12/13/17	

Accomplishments / Events:

The STAR Ocean Color EDR team:

- Participated in the STAR JPSS Annual Science Meeting Oceans Plenary and also held an Ocean Color side meeting at which external VIIRS Cal/Val team members were present to report their work along with user presentations and other stakeholders.
- Participated in the NOAA CoastWatch/OceanWatch/PolarWatch Program annual science meeting at which CoastWatch Regional Node members, CoastWatch Central members and Program support people all participated. Potential new interests in the use of VIIRS ocean color data were discussed.
- Ongoing work with NOAA-20

Overall Status:

	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

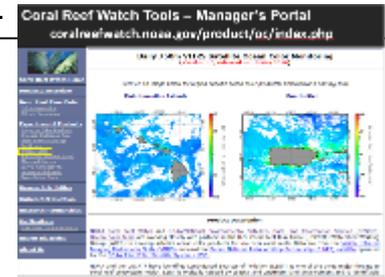
1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

- SDR calibration error –identify how to avoid same error in future
- Concern with 9-month funding (end in March 2018) for FY17. Continuation of funding started in April 2018 is quite important, as we plan to conduct the fourth Cal/Val cruise in Spring 2018 (for VIIRS-SNPP and particularly VIIRS-J1 OC validation), as well as work on VIIRS-J1 OC data processing.

Highlights:

The STAR Ocean Color EDR team held a full day side meeting on Tuesday, 28 August 2018, during the STAR/JPSS Annual Science Meeting at NCWCP.



The external Cal/Val Pis were present and reported out on their ongoing work. Users such as Erick Geiger from Coral Reef Watch (water quality) and Daniel Tong from OAR/ARL (air quality) showed how they are using science quality ocean color data in tools used routinely in multiple applications for decision-makers. Ocean Color EDR team members reported developments from the past year and some new items on the horizon (e.g., NOAA-20 EDRs, gap-filled ocean color products, merged sensor chlorophyll products and chlorophyll anomaly products).

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J1 post-launch calibration/validation				
Work on J1 instrument pre-launch characterization and calibration, including addressing the out spec polarization sensitivity issue, first report	Mar-18	Mar-18	Mar-18	
Work on J1 specific lookup tables etc. and other needed modifications for VIIRS-J1 ocean color data processing system using MSL12	Aug-18	Aug-18	Aug-18	
Cal/Val team will finish the 2016 VIIRS dedicated cruise report (Fall 2017) and in situ data analyses (e.g., improve in situ data quality)	Mar-18	Mar-18	Cruise report published October 2017	
In situ data collections including NOAA dedicated cruise in May 2018 and continue Cal/Val for VIIRS ocean color EDR	May-18	May-18	May-18	
SNPP/J1 algorithm Refinement (Maintenance DAP)				
With significantly improved MSL12, VIIRS mission-long ocean color data products will be reprocessed (the second data reprocessing). Both NRT and science quality data streams will be going forward using the new MSL12	Dec-17	Dec-17	Dec-17	
Work with CoastWatch/NCEI for the second reprocessed ocean color data distributions	Sep-18	Sep-18		
Add J1 products to EDR monitoring web	Sep-18	Sep-18		

Accomplishments / Events:

- Following ACSPO v2.60 delivery to NDE, two reprocessing efforts, SNPP RAN2 & N20 RAN1 from Jan 2018-on continue
- The RDR-to-SDR conversion is done by SST Team using the code delivered by SDR Team, which corrects for WUCD artifacts in VIIRS brightness temperatures (BTs) for both SNPP and N20, and for LWIR offsets in N20 during the anomaly investigation
- Reprocessed are 6+ months of SNPP & N20 data (see Figure). Performance of N20/NPP SSTs is consistent & within specs. SNPP RAN2 initially focuses on 2018, to support N20 RAN1
- Once ACSPO 2.60 is operational in NDE, archival of N20 SST will commence with PO.DAAC. Operational record will be back-filled to Jan 2018-pr using N20 RAN1 data.
- Update of NOAA SST LTM completed 1 month ahead of schedule

Overall Status:

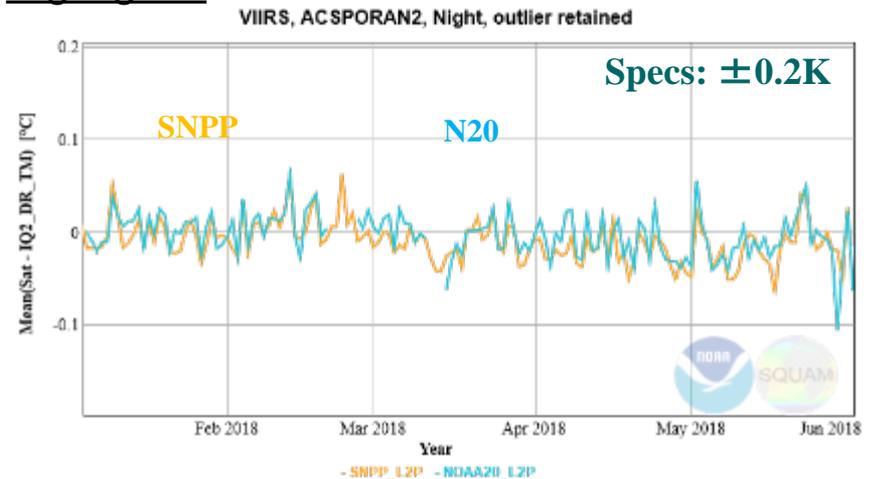
	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

None

Highlights:



N20 RAN1 and NPP RAN2 now cover 6+ months in 2018 and SNPP. Shown are mean nighttime biases wrt. in situ SSTs (Accuracy), which are consistent across sensors and well within the $\pm 0.2K$ specs.

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J1 post-launch calibration/validation				
Beta Maturity	Apr-18	Apr-18	04/18/18	
Provisional Maturity	Sep-18	Sep-18	04/18/18	
Set up RAN2 in STAR, test end-to-end	May-18	May-18	05/31/18	
J1 algorithm adjustments:				
ACSPO 2.5 (improved SST Imagery, fixed bow-tie gaps/distortions)	Nov-17	Nov-17	11/16/17	
Preliminary ACSPO 2.6 DAP to NDE (improved clear-mask in coastal/dynamic areas; ocean fronts; N20 adjustments)	Jul-18	Jul-18	06/14/18 to ASSISTT 07/05/18 to NDE	
SNPP/N20 Algorithms Refinement (Maintenance DAP), LTM				
Release updated SQUAM v2.1, iQuam v2, and ARMS v2.1	Sep-18	Sep-18	Completed 08/31/2018	
Add J1 products to EDR monitoring web	Sep-18	Sep-18		

Accomplishments / Events

- A first upgrade to our June 15 DAP was implemented. This is a correction in the temperature channel list. A preliminary assessment of this newer namelists has been performed and represents our new baseline upon which we will build the next DAP.
- We are making progress towards collecting N20 CERES data in preparation of the OLR provisional review. We also acquired a newer version of the OLR model to use for complementing the OLR validation.
- A first global ensemble of ozone sondes was collected in collocation with N20 NUCAPS retrievals. This is in preparation for the next provisional review.
- We worked with the SDR calibration team to acquire the latest N20 CrIS instrument noise file and created a newer namelist version which is being tested.

Overall Status:

	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

None

Highlights:

- The NUCAPS team participated in the 2018 JPSS Annual Meeting with two oral presentations by Gambacorta et al. and Nalli et al. and three posters by Tan et al., Bloch et al. and Wilson et al.
- Cally Bloch's manuscript on the MADIS-NUCAPS blended product was accepted for publications in BAMS.

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J1 post-launch calibration/validation				
Beta Maturity	Jun-18	Jun-18	06/15/18	
Provisional Maturity	Sep-18	Sep-18	06/15/18 (AVTP/AVMP)	
Matchup J1 CrIS SDR with CERES data; generate regression coefficients for CrIS OLR	Jun-18	August 18	Aug-18	NOAA-20 OLR coefficients have been computed. We have experienced problems acquiring CERES OLR data.
Validation against ECMWF data and radiosondes; SNPP and J1 EDRs cross comparisons	Sep-18	Sep-18		
Validation with NPP CERES radiation products	Sep-18	Sep-18		
Validation NUCAPS trace gas EDRs against MOPITT, AIRS, TCCON, OCO-2	Sep-18	Sep-18		
J1 algorithm adjustments:				
Preliminary DAP to ASSISTT (team to ASSISTT)	Apr-18	Apr-18	04/27/18	
Preliminary DAP to NDE (ASSISTT to NDE)	Aug-18	Aug-18	07/16/18	Updated deliveries: 8/10 & 8/15
SNPP/J1 algorithm Refinement (Maintenance DAP)				
Add J1 products to EDR monitoring web	Sep-18	Sep-18		
NUCAPS Emergency DAP	07/12/18 (update to the NUCAPS codes to handle the changes to the JPSS-RR Clouds files)			

Accomplishments / Events:

- Continuing to work with NDE and with U. Wisconsin to integrate MiRS v11.3 into operations and DB/CSPP package, respectively. NDE is now successfully running V11.3 in the I&T string, and CSPP_MIRS 2.1 is ready for public release.
- Validation activities continuing, comparisons of T and WV soundings with both ECMWF and radiosondes have been done (see highlights). Performances are currently meeting requirements.

Overall Status:

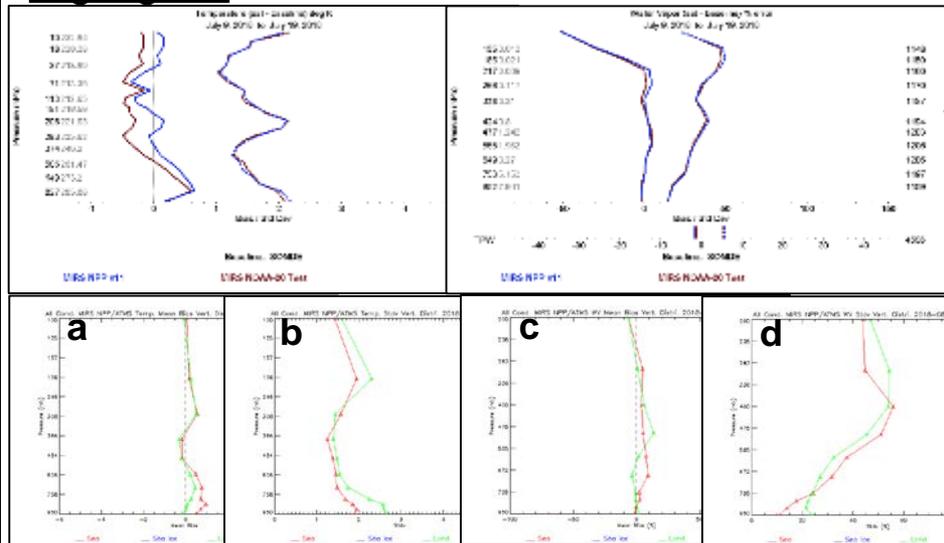
	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

None

Highlights:



MiRS N20 comparison of T and WV profiles vs. radiosondes (top). Comparison with ECMWF (bottom). Bottom row: T bias (a), T standard deviation (b), WV bias (c), WV standard deviation (d).

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J1 post-launch calibration/validation				
Beta Maturity	Jun-18	Jun-18	03/22/18	Virtual Review
Provisional Maturity	Sep-18	Sep-18	04/18/18	
Validation against ECMWF data and radiosondes	Sep-18	Sep-18	08/28/18	
Validation against other reference data for MiRS EDRs (e.g. RR, SWE,SIC, etc.)	Sep-18	Sep-18		
J1 algorithm adjustments:				
Preliminary DAP to NDE (Extend/Optimize MiRS for J1)	Aug-18	Aug-18	06/14/18	Passed OSPO code review
SNPP/J1 algorithm Refinement (Maintenance DAP)				
Add J1 products to EDR monitoring web	Sep-18	Sep-18		

Accomplishments / Events:

A comprehensive study was conducted to develop NOAA-20 snowfall detection (SD) algorithm where both antenna temperatures (Ta) and the principle components of the observations were explored to achieve the best SD model. In addition, various channel combinations were tested when training SD model against the QCLCD ground observations of snowfall and no-snowfall data. The variables used for the selected satellite-based SD model include six frequencies (mostly water vapor channels) and the local zenith angle. Probability of detection is 87.9% and false alarm rate 5%. The final SD algorithm will optimally combine the satellite-based model and a GFS data-based model. One potential issue is the limited amount of data available for SD development since NOAA-20 ATMS TDR achieved provisional maturity in late January 2018 and the snow season effectively ended in late March 2018. More data will undoubtedly improve the reliability of the SD model.

Overall Status:

	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

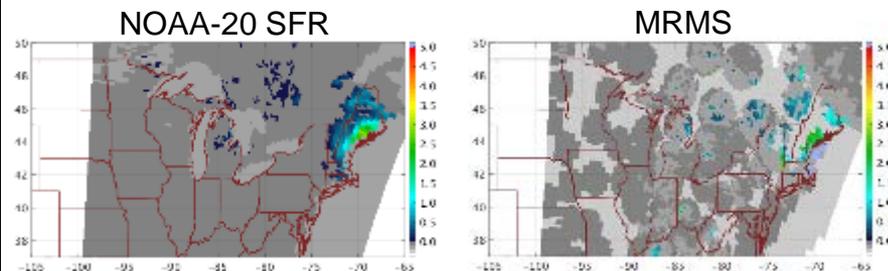
1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

None

Highlights:

NOAA-20 SD for A Snowfall Case



In this case, NOAA-20 (left) detects a snowstorm in the northeast. The MRMS radar instantaneous precipitation product (right) only detects a portion of the snowfall that is captured by NOAA-20. The lightest grey in this image indicates no radar coverage. The missing snow in MRMS is apparently caused by the limitation in radar coverage.

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
SNPP/J1 calibration/validation				
Snow Fall Rate (SFR) Cal/Val plan (draft delivery)	Dec-17	Dec-17	12/30/17	
Snow Fall Rate (SFR) Cal/Val plan (final delivery)	Mar-18	Mar-18	03/28/18	
S-NPP SFR Provisional Maturity	Jun-18	Jun-18	06/20/18	
NOAA-20 SFR Beta Maturity	Jun-18	Jun-18	06/20/18	
SNPP/J1 algorithm development/adjustments:				
S-NPP/NOAA-20 SFR DAP to NDE	Aug-18	Aug-18	06/14/18	Passed OSPO code review
SNPP/J1 algorithm Refinement (Maintenance DAP)				
Add SFR to EDR monitoring web	Sep-18	Sep-18		

Accomplishments / Events:

New validation statistics indicate that the NOAA-20 VIIRS winds product continues to meet requirements:

Observed:
Accuracy: 5.79-5.99 m/s
Precision: 3.58-3.64 m/s

Requirements:
Accuracy: 7.5 m/s
Precision: 4.2 m/s

Overall Status:

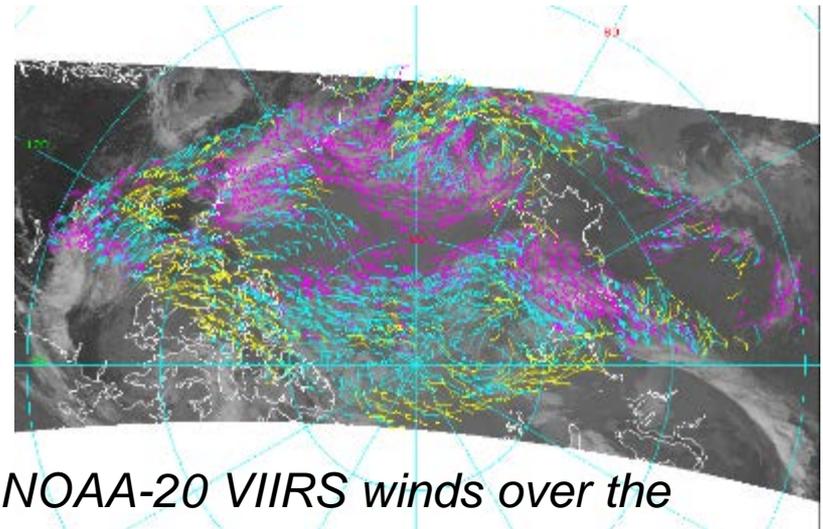
	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

None

Highlights:



NOAA-20 VIIRS winds over the Arctic, 28 Jul 2018, 1942Z

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J1 post-launch calibration/validation				
Beta Maturity	Jun-18	Sep-18		Combine Beta & Provisional
Provisional Maturity	Sep-18	Sep-18		
J1 algorithm adjustments:				
Preliminary DAP to ASSISTT (science team to ASSISTT)	Apr-18	Apr-18	Apr-18	
Preliminary DAP to NDE (ASSISTT to NDE)	Aug-18	Aug-18	07/31/18	
SNPP/J1 algorithm Refinement (Maintenance DAP)				
Add J1 products to EDR monitoring web	Sep-18	Sep-18		

Accomplishments / Events:

- GCOM status presentation plus specific EDR posters presented at 2018 JPSS STAR Annual Meeting
- Continued product cal/val; all products meeting requirements
- Comparing EDR's with counterpart JAXA EDR's
- Continue to work with IA, NJO and OSGS to respond to JAXA requests for NOAA needs for AMSR-2 follow-on and orbit preference
- Participated in relevant project meetings/discussions with NJO, OSGS and OSPO

Overall Status:

	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

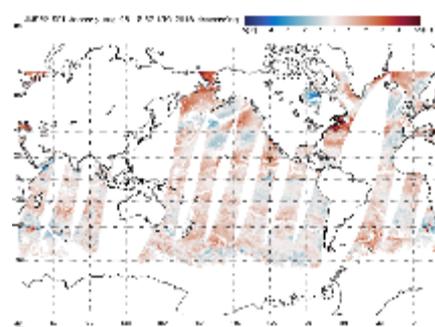
None

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
Updated Wind Speed Product (Coastal and accuracy improvements)	Nov-17	Nov-17	Nov-17	
Conduct technical information meeting with JAXA GCOMW-1 scientists and engineers	Nov-17	Nov-17	Nov-17	
GAASP V2.1 DAP to NDE (switch SST ancillary file to CMC SST)	Jan-18	Jan-18	Jan-18	
Updated AMSR2 brightness temperature calibration analysis and corrections (V2.1)	Feb-18	Apr-18	Apr-18	Latest L1 S/W not implemented on NDE on Time
Soil Moisture, snow and precipitation product updates finalized for integration into GAASP	Jun-18	Jun-18	Jun-18	
DAP to ASSISTT (science team to ASSISTT)	Jul-18	Jul-18	Jul - 18	
Delivery of updated GAASP Package to OSPO (ASSISTT to NDE)	Aug-18	Sep-18		Final testing almost completed
Reprocessing EDRs based upon updated GAASP package	Sep-18	Dec-18		Missing NRT data; GFS changes, etc.

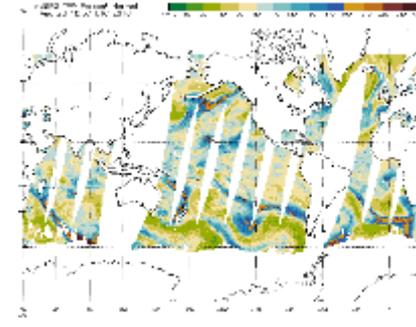
Highlights:

New Ocean Anomaly Products

SST Anomaly 28 Aug 2018



TPW Anomaly 28 Aug 2018



GCOM AMSR-2 products compared with independent climatologies (e.g., Banzon et al. (2014) SST from NCEI and NVAP-M TPW (1988-2009 base period). The anomaly products highlight regions that could be conducive for tropic cyclone formation (SST) and heavy rainfall potential (TPW).

Accomplishments / Events:

- OMPS Ozone EDR delta deliveries for V8TOz and V8TOS were checked by ASSIST and delivered to NDE.
- Additional codes to incorporate OMPS NM EDR products into the SO2 alert pages were provide to OSPO.
- Code capabilities for TOAST blended products tested for the use of NOAA-20 OMPS NP NV8Pro and CrIS NUCAPS EDRs.
- Monitoring site content expansion to include more NOAA-20 OMPS products continued.

Overall Status:

	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule			X		# SDR Schedule

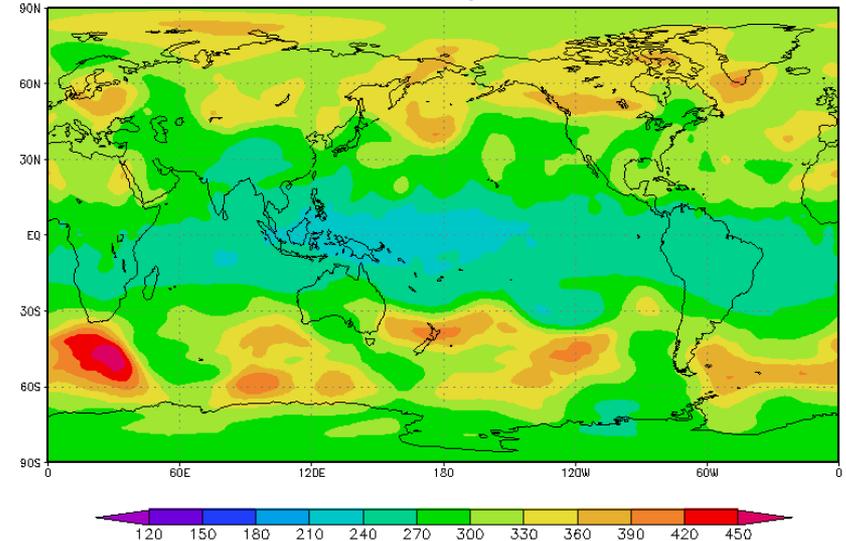
1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

Code Changes for OMPS SDR on path to maturity will not be implemented at IDPS until July and September 2018.

FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
NOAA-20 calibration/validation				
Beta Maturity	Feb-18	Mar-18	03/22/18	Virtual Review
Provisional Maturity	Apr-18	Aug-18		SDR Provisional , Mx2 TTO
Validated Maturity	Aug-18	Oct-18		16-Granule Fix, Mx3 TTO
Prepare, demonstrate and exercise tools for J-01	Dec-17	Dec-17	Dec-17	
Trending of ground-based comparisons	Jun-18	Jan-19		Varying SDR calibration
NOAA-20 algorithm adjustments				
DAP to ASSISTT (science team to ASSISTT)	Apr-18	May-18	5/28/2018	Combined with table delivery
Soft Calibration for J-01 (DAP) (ASSISTT to NDE)	May-18	June-18 Sep-18	06/01/18 LFSO2 06/06/18 V8Pro 06/08/18 V8TOz	Final will await SDR fixes.
SNPP/N20 algorithm refinement (Maintenance DAP)				
Algorithm improvements (outliers, EOFs, solar, Wavelengths, bandpasses)	Sep-18	Sep-18		
Add N20 products to EDR monitoring	Sep-18	Sep-18		Work is progressing well

NPP Global CrIS Analysis on 2018183



S-NPP CrIS Ozone Map. This is an intermediate product in the blended TOAST processing.

Accomplishments / Events:

- Provided review of new NUCAPS EDR sounding v2.1.12
- Provided case study reviews in support of NUCAPS AWIPS-2 and JPSS Hydrological Initiatives **(Highlight)**
- Compiled final NPROVS “Special” reprocessed radiosonde dataset and initiated satellite product collocation phase.
- Compiled Radiosonde Inter-comparison and VALidation (RIVAL) field campaign observations into NPROVS
- Facilitated coordination of Global Space-based Inter-Calibration System (GSICS) MW subgroup, GCOS Reference Upper Air Network (GRUAN) and RIVAL via NPROVS
- Added VIIRS I-5 Band descending images to the JSTAR Mapper website which is now public and linked to the JPSS website. **(Highlight).**

Overall Status:

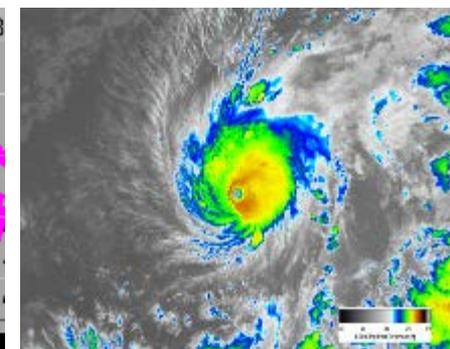
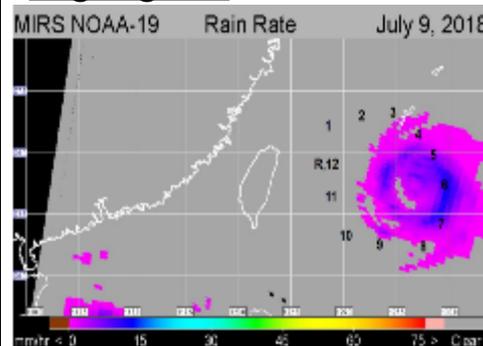
	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

None

Highlights:



NPROVS: 12 Dropsondes in the vicinity of Typhoon Maria, depicted by timely NOAA-19 MiRS RainRate image, supports a robust assessment of satellite soundings in a severe weather environment; JPSS Hydrological Initiative.

EDR-LTM: JSTAR Mapper image of NOAA-20 VIIRS I-5 Band depicting Hurricane Lane as it approaches Hawaii on August 22, 2018.

Team	FY18 TTA Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
EDR LTM	Maintain / expand existing EDR LTM web pages and integrate available NOAA-20 EDR	Aug-18	Sep-18		
NPROVS	Maintain and support operational transition and algorithm upgrades for NUCAPS (and MiRS) sounding EDR from S-NPP, MetOp, and pending NOAA-20.	Aug-18	Aug-18	Aug-18	
	Maintain support of GRUAN, ongoing NOAA/GRUAN/ARM RIVAL Coordination and GRUAN / GSICS activities	Aug-18	Aug-18	Aug-18	
	Support NWS Radiosonde Transition and AWIPS-2 (NUCAPS user) programs/initiatives	Aug-18	Aug-18	Aug-18	