



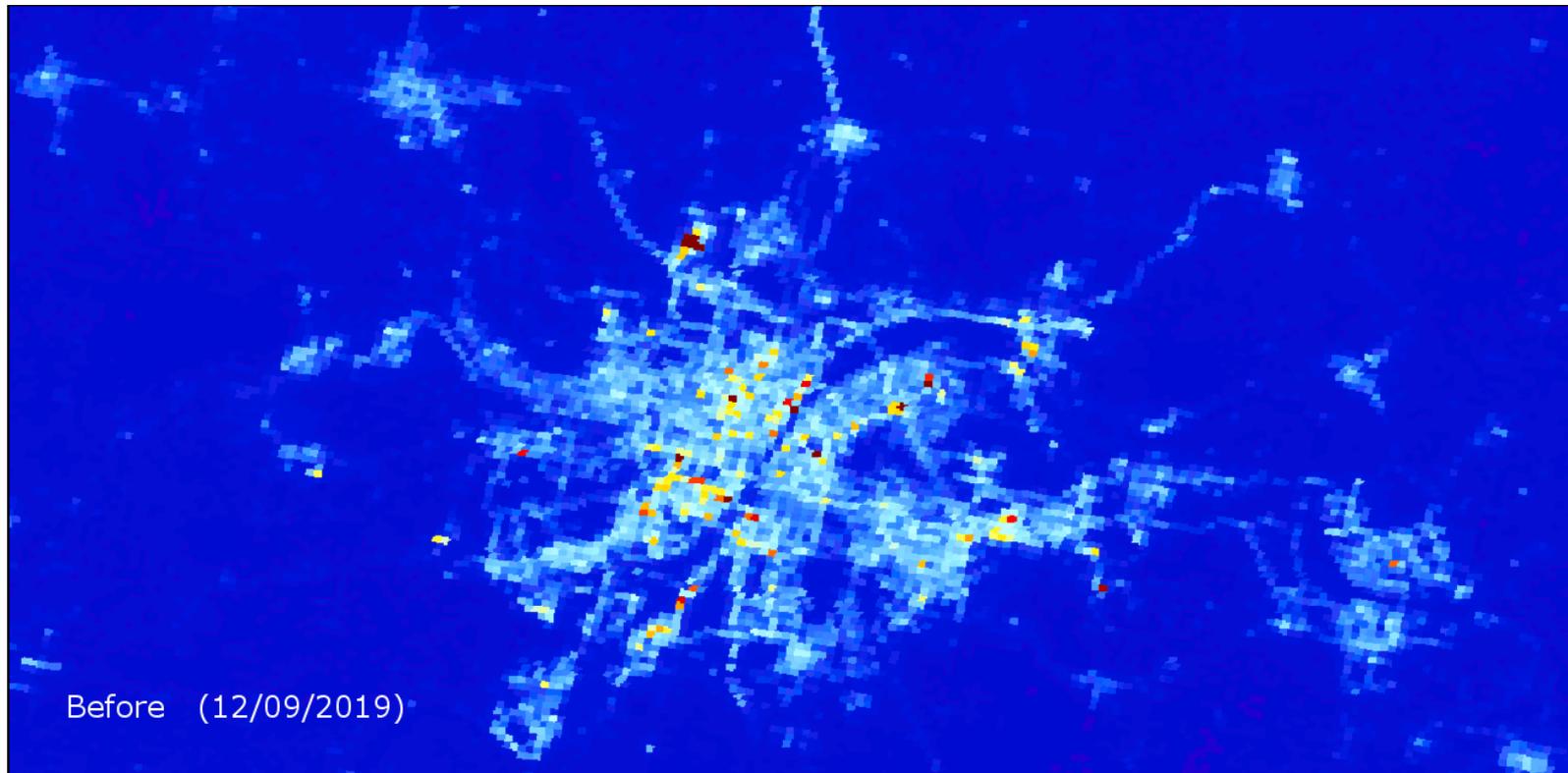
NOAA JPSS Monthly Program Office

AMP/STAR FY20 TTA

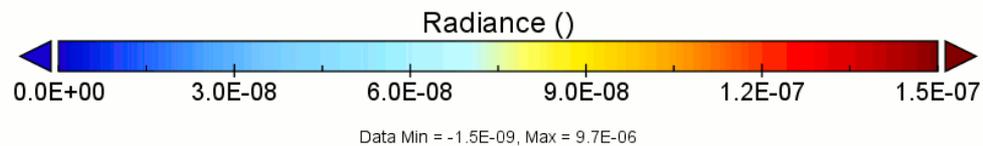
Lihang Zhou, DPMS Deputy
Bonnie Reed, Algorithm Sustainment Lead
Banghua Yan & Satya Kalluri, Acting AMP Deputies for Science
& JPSS STAR Program Managers

May 12, 2020

COVID-19 Impact Analysis using VIIRS/DNB (Wuhan lockdown)



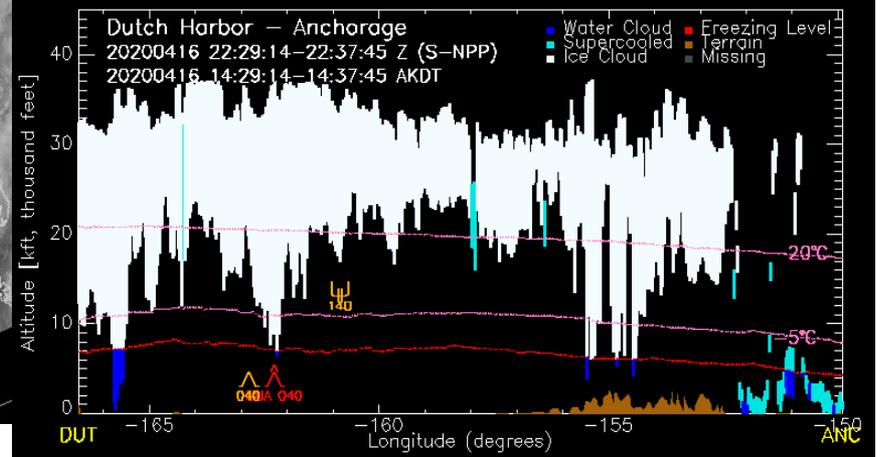
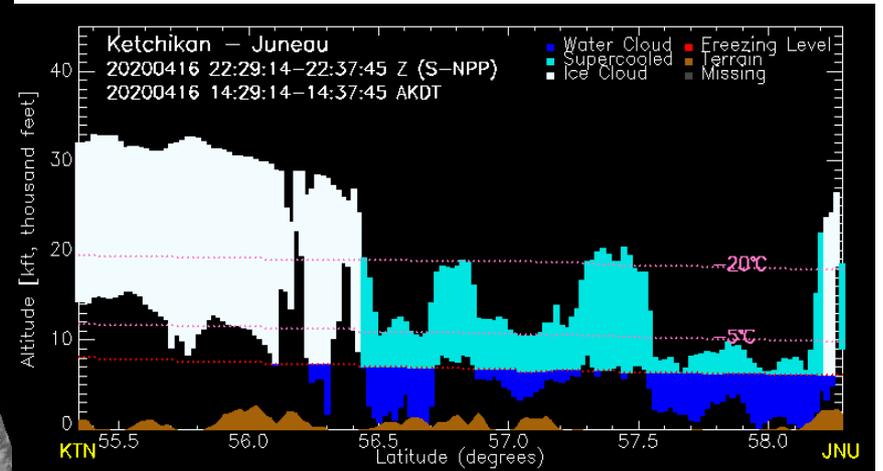
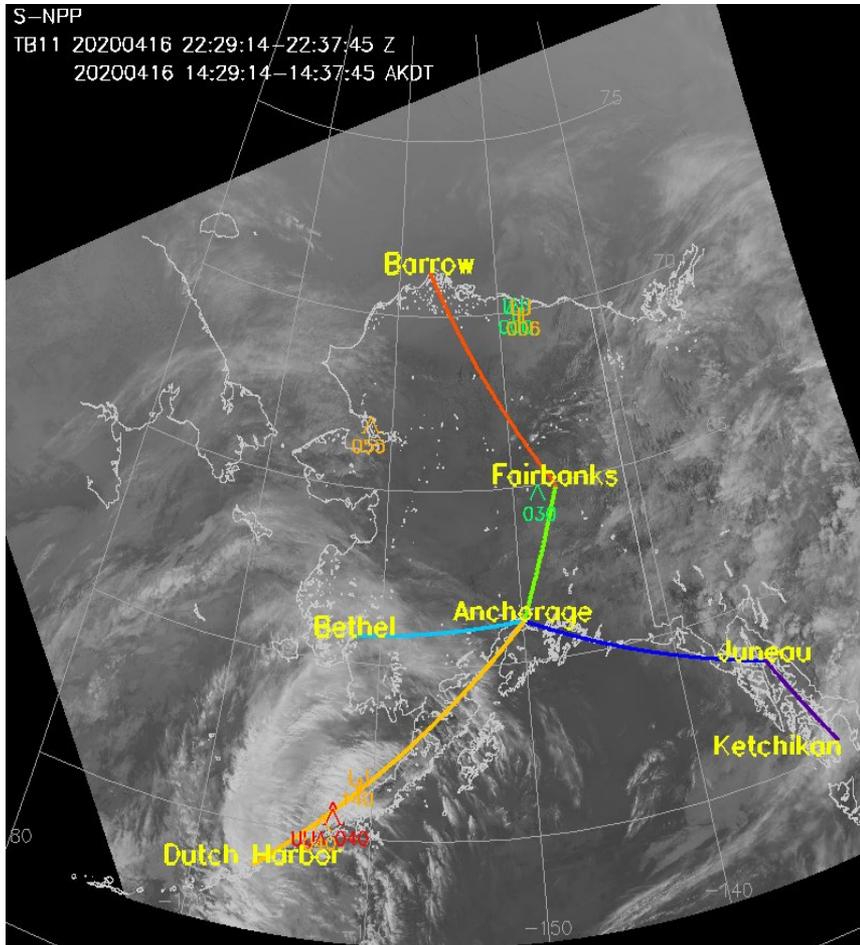
Before (12/09/2019)



Credit: NESDIS STAR VIIRS SDR Team

Highlights from the Science Teams

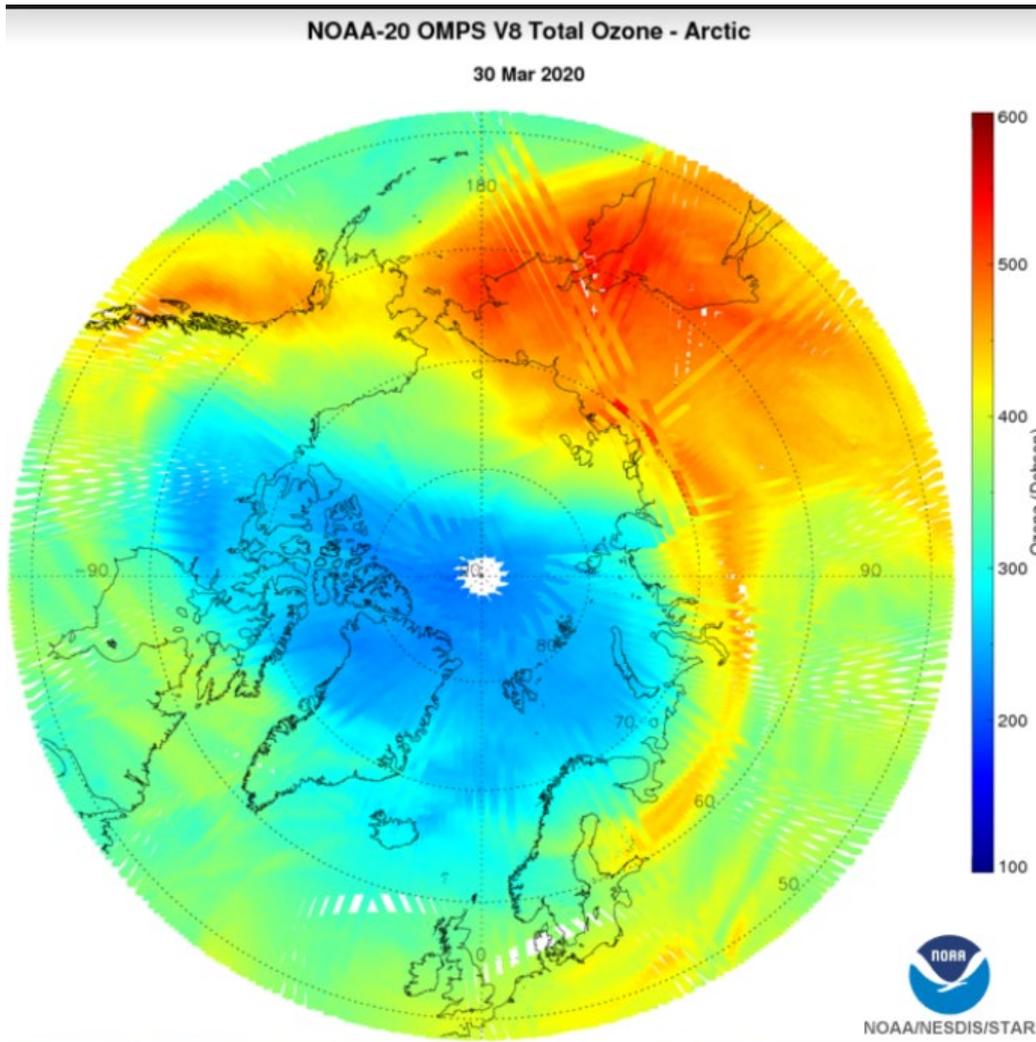
VIIRS Cloud Vertical Cross-sections along Alaska flight routes for aviation users
 (available at http://rammb.cira.colostate.edu/ramsd/online/npp_viirs_arctic_aviation.asp)



Credit: NESDIS STAR Cloud Team

Highlights from the Science Teams

NOAA-20 captures Rare Spring Ozone Hole



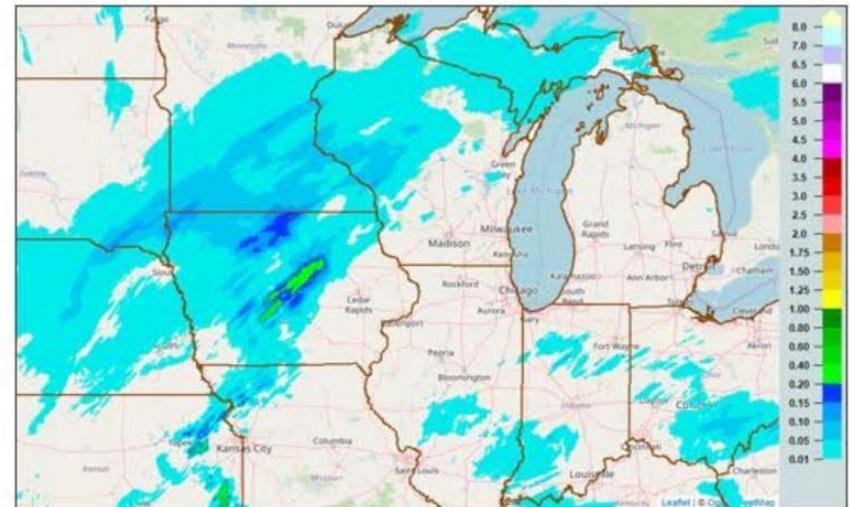
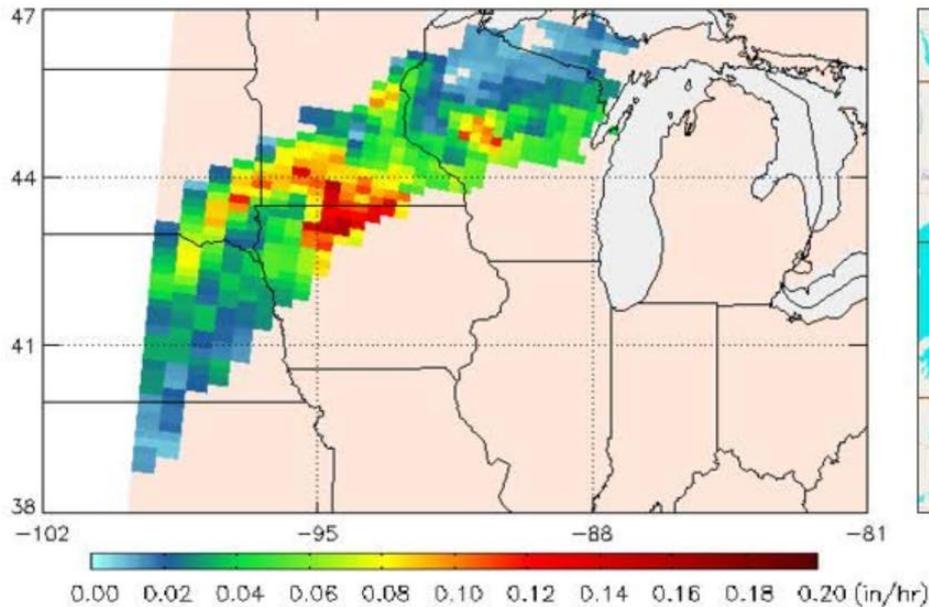
Along with the mild winter across much of the eastern United States and the return of something more like real winter in Alaska, here's something else we can blame on the [polar vortex](#): a rare "hole" in the ozone layer over the Arctic in February and March 2020.

Read more at:
<https://climate.gov/news-features/event-tracker/spring-2020-brings-rare-ozone-%E2%80%9Chole%E2%80%9D-arctic> ,

Credit: NESDIS STAR Ozone Team

Late Winter Storm Captured by Snowfall Rate Product

A late season storm system brought a swath of significant snow to parts of northeast Iowa, southeast Minnesota, and western into north-central Wisconsin on Easter Sunday, April 12th, 2020



Left: Metop-C SFR on April 12, 2020 15:46 UTC

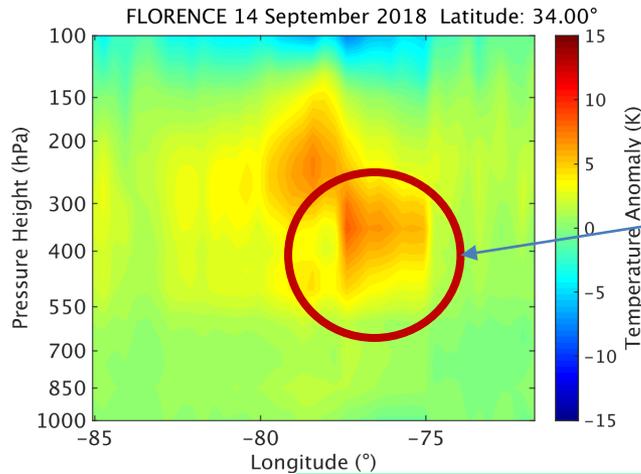
Right: the corresponding gauge corrected hourly Multi-Radar Multi-Sensor (MRMS) precipitation product ending at 16:00 UTC.

Credit: NESDIS STAR Precip and Hydro Team

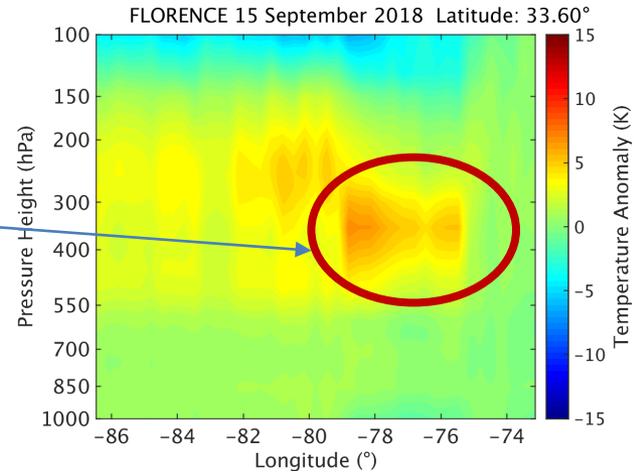
Highlights from the Science Teams

ICVS-ATMS Hurricane Warm Core Algorithm Improvement

Old
Alg.(ATMS
Ch. 5 to 12)

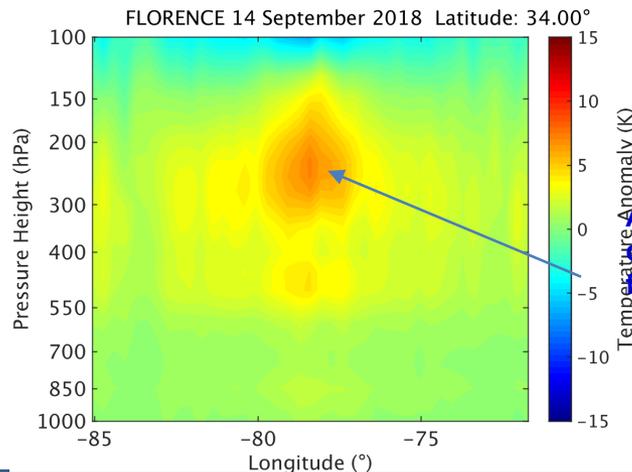


Artificial
discontinuous
feature

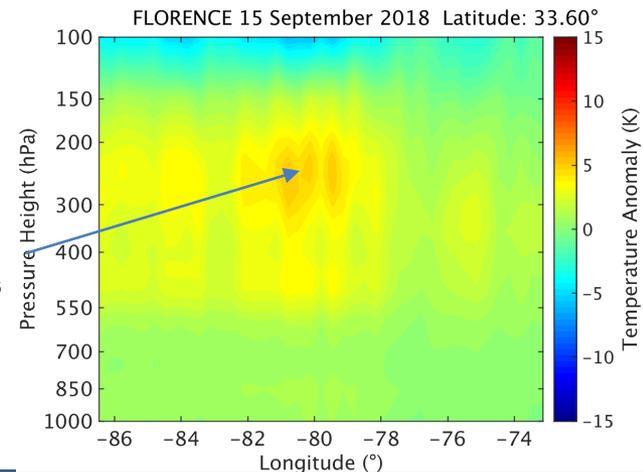


New algorithm improves the discontinuity from clear skies to cloud conditions over land providing a more reasonable warm core feature

New Alg.
(ATMS Ch.
8 to 12)



Artificial
discontinuous
feature disappears



Credit:
NESDIS
STAR
ICVS
Team

Highlights from the Science Teams

April NOAA-20 Product Maturity Review

On April 23, STAR JPSS hosted a monthly maturity review to discuss the readiness of several products for their next assigned maturity levels. The NUCAPS CO₂ products from both SNPP and N20 were reviewed for Provisional Maturity, while the NUCAPS methane product for both satellites was up for Validated Maturity. Additionally, the N20 VIIRS Green Vegetation Fraction and Vegetation Indices, and the N20 OMPS Nadir Profiler SDR were considered for Validated Maturity.

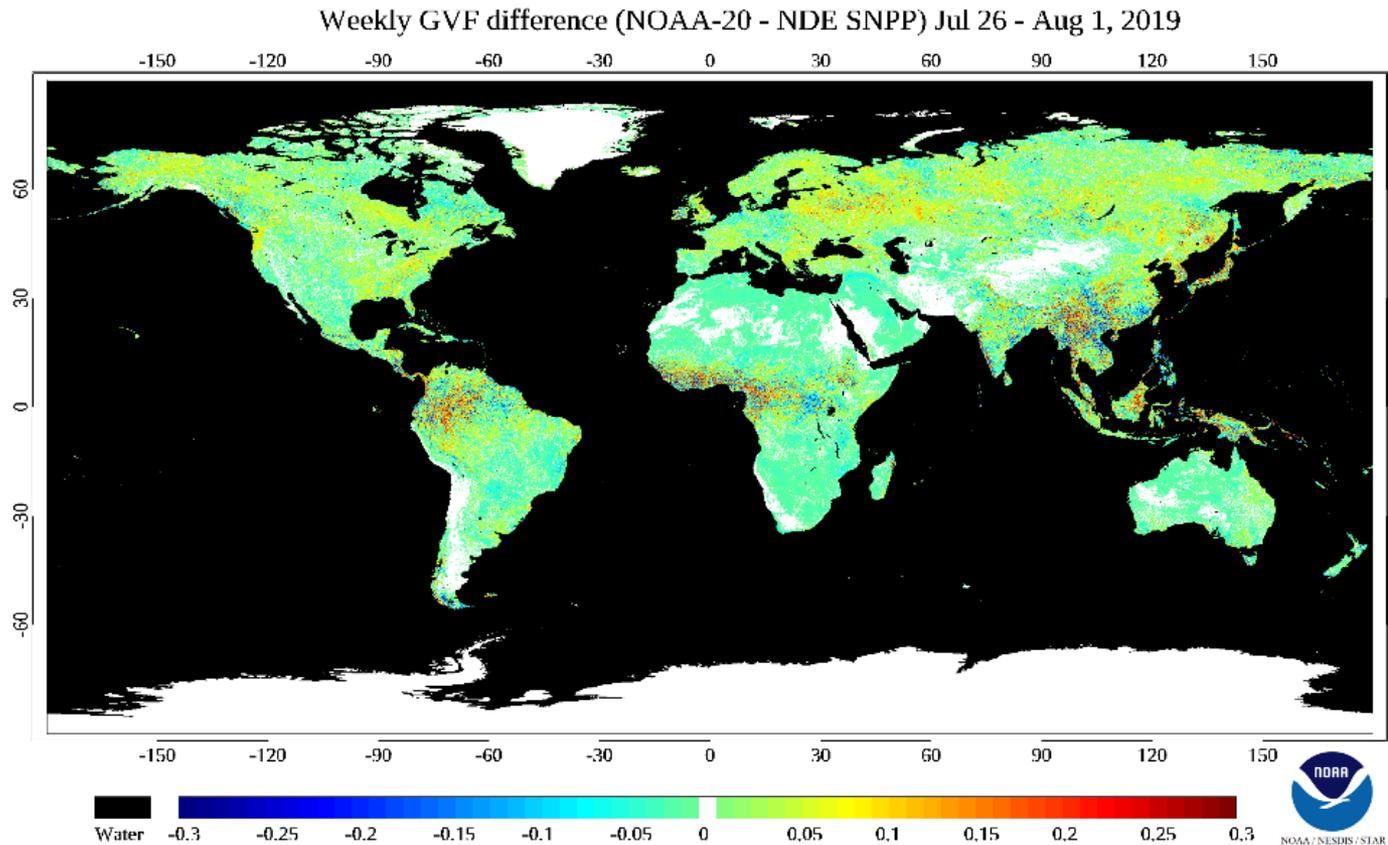


Figure.

N20-SNPP GVF difference for July 26-Aug1 shows generally small differences between the satellites.

Credit: NESDIS
STAR Land Product
Development Team

April NOAA-20 Product Maturity Review for OMPS NP SDR

On April 23, STAR JPSS hosted a monthly maturity review to discuss the readiness of several products for their next assigned maturity levels. One of them is the NOAA-20 OMPS NP SDR for Validated Maturity Review. The NOAA-20 NP SDR calibration has been demonstrated to be well characterized meeting the requirements. The SDR data product performance has been demonstrated over a large and wide range of representative conditions, showing a good agreement with NASA NOAA-20 SDR data (Figure below) and AURA OMI SDR data. Further investigation is expected to mitigate residual inconsistency between SNPP and NOAA-20 NP SDR data over Polar Regions at some channels that is caused by two instrument spectral differences.

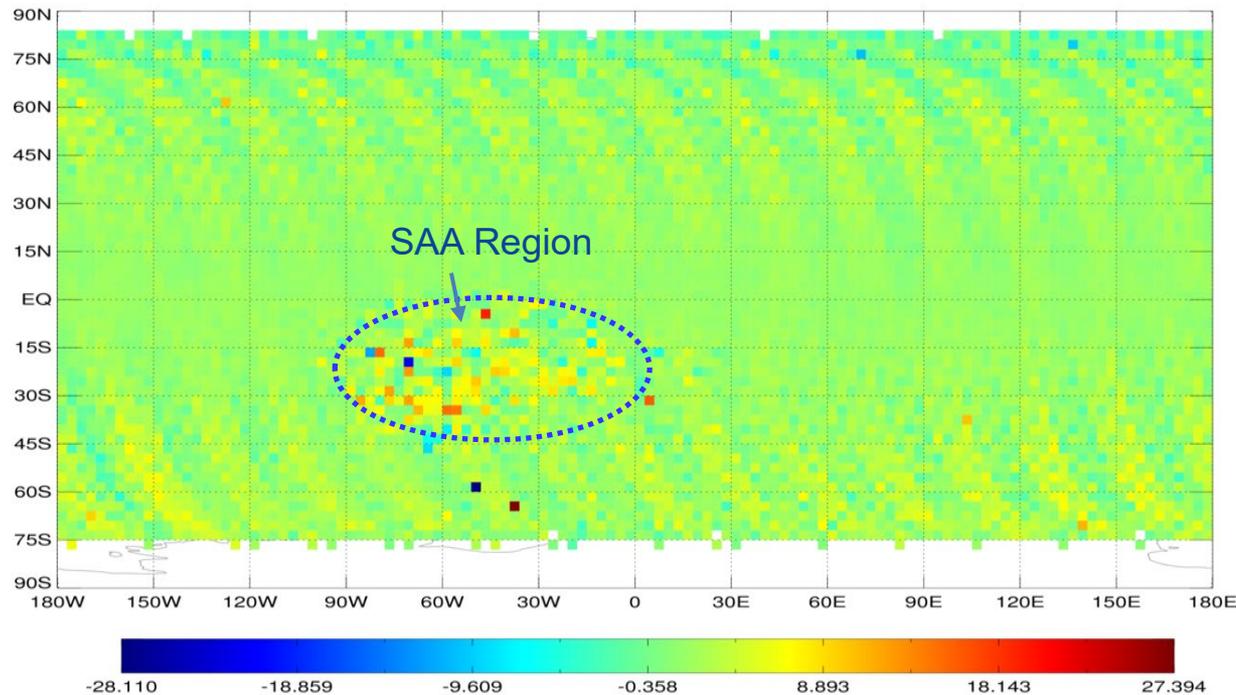


Figure. 32-day average of N-value differences between NOAA-20 and SNPP OMPS NP SDR data at 305.7 nm, showing a good agreement globally. Impact of South Atlantic Anomaly (SAA) is also caught in the averaged differences.

Credit: NESDIS STAR OMPS SDR Team

Accomplishments

- **Delivery Algorithm Packages (DAPs) - Mission Unique Products:**
 - 4/27/2020: ATMS DAP (ADR9035/CCR4985, ATMS TDR/SDR discrepancy between ADL and IDPS over lunar intrusion regions) delivered to DPES
 - 5/5/2020: CrIS SDR DAP (ADR9286/CCR5012, CrIS Enable Fringe Count Error (FCE) Algorithm) delivered to DPES
- **DAPs – Enterprise Products:**
 - 4/1/2020: Final J1 ACSPO SST DAP for the cloud pilot project
 - 4/8/2020: Patch DAP for Blended Hydro (J1) and Docs DAP to NDE
 - 4/8/2020: CSPP Delivery of HEAP for CrIS (and IASI)
 - 4/20/2020: MiRS v11.5 DAP delivered to OSPO/NDE/ASSISTT
 - 4/28/2020: N4RT BUFR v4-10 DAP (for S-NPP & GCOM) delivered to NDE
 - 4/29/2020: Super DAP Patch for updated ECM LUT delivered to NDE
 - 5/4/2020: Active Fires DAP delivered to NDE/OSPO (for software code review)
- **New Data Distributions/Availability:**
 - 4/16/2020: OMPS V8PRO v3r3 operational (NDE build 2.0.22)
 - VIIRS Annual Surface Type AST-2018 is available at: <https://www.star.nesdis.noaa.gov/jpss/>
 - Reprocessed S-NPP VIIRS V2 data is available at: <http://viirs.astro.umd.edu/SatData/FileSearch/>
- **April 2020 Maturity Review (4/23/2020):**
 - NOAA-20 OMPS NP SDR (Validated Maturity)
 - NOAA-20 Green Vegetation Fraction (Validated Maturity)
 - NOAA-20 Vegetation Index (Validated Maturity)
 - S-NPP & NOAA-20 NUCAPS CH₄ product (Validated Maturity), and CO₂ product (Provisional Maturity)
- **IDPS Builds Checkouts:**
 - STAR submitted Block 2.2 Mx0 I&T deploy regression review/checkout report to AMP/RTN/OSPO on 4/7/2020
 - STAR submitted Block 2.2 Mx1 SOL (and I&T) deploy regression review/checkout data request on 4/17/2020

Accomplishments – JPSS Cal Val Supports

- NOAA-20/S-NPP Operational Calibration Support:
 - S-NPP Weekly OMPS TC/NP Dark Table Updates: 04/07/20, 04/14/20, 04/21/20, 04/28/20
 - NOAA-20 Weekly OMPS TC/NP Dark Table Updates: 04/07/20, 04/14/20, 04/21/20, 04/28/20
 - S-NPP Bi-Weekly OMPS NP Wavelength & Solar Flux Update: 04/07/20, 04/21/20
 - NOAA-20 Bi-Weekly OMPS NP Wavelength & Solar Flux Update: 04/14/20, 04/28/20
 - S-NPP Monthly VIIRS StrayLight LUTs Update: 04/01/20
 - S-NPP Monthly VIIRS LUT Update of DNB Offsets and Gains: 04/01/20
 - NOAA-20 Monthly VIIRS LUT Update of DNB Offsets and Gains: 04/01/20

- Simulated/Proxy JPSS-2 test data sets:

SDR	Data Type	Dates/Granules	Location
Proxy JPSS-2 ATMS SDR Data	ATMS TDR, SDR, and Geolocation (TATMS, SATMS, & GATMO)	2019-08-30 all granules 2020-03-20 all granules	/data/smcd5/qliu/J2_D ATA_Coeff/DATA_J2/A TMS/
Proxy JPSS-2 CrIS SDR Data	CrIS FSR (Full Spectral Resolution) SDR, and Geolocation (SCRIF & GCRSO)	2020-03-20 all granules	/data/data516/ychen/D ata/J2_SDR_TestData/ 20200320_j02/
Simulated JPSS-2 VIIRS SDR Data	DNB: SDR, and Geolocation (SVDNB & GDNBO) I-Band: SDR (SVI01-SVI05), and Geolocation (GIMGO & GITCO) M-Band: SDR (SVM01-SVM16), and Geolocation (GMODO & GMTCO)	2017-06-22 18 granules 2017-06-24 8 granules 2017-07-21 16 granules 2017-07-23 18 granules	/data/smcd5/SimJ2_VII RS_SDR/
OMPS SDR	Current resolution (May)	Coming soon	Coming soon

Upcoming Cal/Val Maturity Reviews

- June, 2020 Maturity Review:
 - Full Validated Maturity:
Snow Cover (Binary Map & Snow Cover Fraction)
Surface Reflectance

- July, 2020 Maturity Review:
 - Full Validated Maturity:
Ocean Color
OMPS NP Ozone EDR (V8Pro)

- September, 2020 Maturity Review:
 - Provisional/Validated Maturity:
GST (Global Gridded Surface Type)

- December, 2020 Maturity Review:
 - Full Validated Maturity:
NUCAPS CO₂ product (S-NPP & NOAA-20)

- JSTAR Code/LUT/Product Deliveries:

DAP to DPES:

- Sep-20: NCC Imagery LUT N20 update
- Sep-20: Initial J2 LUTs (VIIRS & OMPS SDRs)
- VIIRS SDR, ADR9171 DAP
- OMPS SDR, ADR9095/ADR9172 DAPs

NOAA-20 Algorithm DAP to NDE/CoastWatch:

- May-20: Initial/Final I-band Active Fires DAP, include initial J2 DAP
- Sep-20: Initial J2 DAP (JRR/VPW/LST/LSA, include NPP/N20 updates)
- Oct-20: Initial J2 DAP (Surface Reflectance, include NPP/N20 updates)
- Nov-20: Initial J2 DAP (SST/NUCAPS/MiRS, include NPP/N20 updates)
- Dec-20: Initial J2 DAP (VI/GVF/Ozone, include NPP/N20 updates)
- Dec-20: Vegetation Health – Final N20 DAP, and initial J2 DAP
- Dec-20: Ocean Color – Final N20 DAP, and initial J2 DAP



FY20 STAR JPSS Milestones

Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
Algorithm Updates DAPs				
OMPS DAP: Remove VIIRS SnowIce and QST tile dependency (ADR8550)	Oct-19	Oct-19	10/28/19	
OMPS: J2 pre-launch sensor characterization report	Dec-19	July-20		Need NASA sharepoint access permission
ATMS: J2 pre-launch sensor characterization report	May-20	Jun-20		PSR changed
CrIS: J2 pre-launch sensor characterization report	May-20	Jul-20		PSR changed
J2 pre-launch Algorithm Updates Review - SDRs and Imagery	Jun-20	Jun-20		
J2 pre-launch Algorithms/PCT/LUT packages - SDRs and Imagery	Aug-20	Oct-20		PSR changed
OMPS: High resolution SDR implementation (17km x 17km OMPS TC)	Aug-20	Aug-20		
Imagery: All 16 M-bands as Imagery EDRs	Sep-21	Sep-21	RTN will work on this	Work_under_PCR
N20 NUCAPS final DAP to NDE	Nov-19	Nov-19	11/01/19	
N20 Vegetation Health final DAP to NDE	Mar-20	Dec-20		With init J2 DAP To ASSISTT: Jul-20
I-band Active Fires DAP to NDE	Mar-20	May-20		With init J2 DAP
J2 pre-launch Algorithm Updates Review - EDRs	Sep-20	Sep-20		
Initial J2-ready EDR DAPs (include NPP/N20 updates)	Sep-20	Dec-20		
AST-2019 (VIIRS Annual Surface Type)	Sep-20	Sep-20		



FY20 STAR JPSS Milestones

Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
Algorithm Cal/Val				
J2 Cal Val Plans - Draft Delivery (all SDR/EDR products)	Jun-20	Jun-20		
N20 NUCAPS Full Validated Maturity (all NUCAPS products except CH4 & CO2)	Oct-19	Oct-19	10/28/19	
N20 Land Surface Temperature Full Validated Maturity	Nov-19	Nov-19	11/21/19	
N20 Surface Albedo Full Validated Maturity	Nov-19	Nov-19	11/21/19	
N20 OMPS NP SDR Full Validated Maturity	Jan-20	Apr-20	04/23/20	
N20 OMPS NP EDR (V8Pro) Full Validated Maturity	Jan-20	Jul-20		
N20 M-band and I-Band Active Fires Full Validated Maturity	Jan-20	Jan-20	02/06/20	Combined Jan/Feb review
N20 Green Vegetation Fraction Full Validated Maturity	Feb-20	Apr-20	04/23/20	
N20 Vegetation Index Full Validated Maturity	Feb-20	Apr-20	04/23/20	
NUCAPS CH4 Full Validated Maturity (N20 & NPP)	Feb-20	Apr-20	04/23/20	
NPP side-2 CrIs SDR Full Validated Maturity	Feb-20	Feb-20	02/06/20	
N20 Surface reflectance Full Validated Maturity	Apr-20	Jun-20		
N20 Snow Cover Full Validated Maturity	Apr-20	Jun-20		
N20 Ocean Color Full Validated Maturity	Jun-20	Jul-20		
N20 Surface Type Full Validated Maturity	Sep-20	Sep-20		



FY20 STAR JPSS Milestones

Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
Operational/Program Support				
S-NPP: Weekly OMPS TC/NP Dark Table Updates	Weekly	Weekly	10/01/19, 10/08/19, 10/16/19, 10/22/19, 10/29/19, 11/05/19, 11/13/19, 11/19/19, 11/26/19, 12/03/19, 12/11/19, 12/17/19, 12/30/19, 01/07/20, 01/14/20, 01/22/20, 01/28/20, 02/04/20, 02/11/20, 02/18/20, 02/25/20, 03/03/20, 03/10/20, 03/17/20, 03/24/20, 03/31/20, 04/07/20, 04/14/20, 04/21/20, 04/28/20	
S-NPP: Bi-Weekly OMPS NP Wavelength & Solar Flux	Bi-Weekly	Bi-Weekly	10/08/19, 10/22/19, 11/05/19, 11/19/19, 12/03/19, 12/17/19, 12/30/19, 01/14/20, 01/28/20, 02/11/20, 02/25/20, 03/10/20, 03/24/2, 04/07/20, 04/21/20	
S-NPP: Monthly VIIRS LUT update of DNB Offsets and Gains	Monthly	Monthly	10/08/19, 11/05/19, 12/10/19, 01/07/20 (Jan), 01/28/20 (Feb), 03/03/20, 04/01/20	
S-NPP: Monthly VIIRS Stray Light LUT Update	Monthly	Monthly	10/08/19, 11/06/19, 12/10/19, 01/07/20 (Jan), 01/29/20 (Feb), 02/12/20 (Feb updated), 03/03/20, 04/01/20	Re-use LUT after 12 months. The 12 th NPP LUT will be Apr-20
NOAA-20: Weekly OMPS TC/NP Dark Table Updates	Weekly	Weekly	10/01/19, 10/08/19, 10/16/19, 10/22/19, 10/29/19, 11/05/19, 11/13/19, 11/19/19, 11/26/19, 12/03/19, 12/11/19, 12/17/19, 12/30/19, 01/07/20, 01/14/20, 01/22/20, 01/28/20, 02/04/20, 02/11/20, 02/18/20, 02/25/20, 03/03/20, 03/10/20, 03/17/20, 03/24/20, 03/31/20, 04/07/20, 04/14/20, 04/21/20, 04/28/20	
NOAA-20: Bi-Weekly OMPS NP Wavelength & Solar Flux	Bi-Weekly	Bi-Weekly	10/01/19, 10/16/19, 10/29/19, 11/13/19, 11/26/19, 12/11/19, 01/07/20, 01/22/20, 02/04/20, 02/18/20, 03/03/20, 03/17/20, 03/31/20, 04/14/20, 04/28/20	
NOAA-20: Monthly VIIRS LUT update of DNB Offsets and Gains	Monthly	Monthly	10/08/19, 11/05/19, 12/10/19, 01/07/20 (Jan), 01/28/20 (Feb), 03/03/20, 04/01/20	
NOAA-20: Monthly VIIRS Stray Light LUT Update	Monthly	Monthly	10/08/19, 11/06/19, 12/10/19	Re-use LUT after 12 months. The 12 th N20 LUT will be Dec-19
Monthly quad-chart report (all SDR/EDR products)	Monthly	Monthly	10/31/19, 11/30/19, 12/31/19, 01/31/20, 02/29/20, 03/31/20	
IDPS Mx build SOL and I&T deploy regression verification review (bl2.1-Mx8/bl2.2-Mx0/1)	Nov-19 Mar-20 Jun-20	Nov-19 Mar-20 Jun-20	Block 2.1 Mx8 I&T report: 11/13/2019 Block 2.2 Mx0 SOL report: 02/14/2020 Block 2.2 Mx0 I&T report: 04/07/2020	
IDPS Cloud Implementation Verification (Based on Nov 2020 TTO)	Sep-20	Sep-20		

STAR JPSS Schedule

STAR JPSS Schedule: TTA Milestones

Task	2019			2020												2021									
	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	
ATMS SDR/TDR							◆	◆	▲	▼		▲	▲		▼							▲			
CrIS SDR				■				◆	▼	▲			▲	▲	▼							▲			
VIIRS SDR						◆			▼		▲				▼							▲			
OMPS SDR	◆	■					■	▲	▼	▲	▲				▼							▲			
Imagery EDR									▼				◆		▼										
Sea Surface Temperature									▼					◆	◆	▼								◆	
Ocean Color									■	▼					◆	◆	▼							◆	
OMPS Ozone (TC: V8TOz)			◆						▼						▼										◆
OMPS Ozone (NP: V8Pro)	◆					◆			■	▼					▼										◆
Aerosol Optical Depth (AOD)			◆				◆		▼				◆		▼								◆		
Aerosol Detection (ADP)			◆				◆		▼				◆		▼								◆		
Volcanic Ash (VolAsh)			◆				◆		▼				◆		▼								◆		
Cloud Mask			◆				◆		▼				◆		▼								◆		
Cloud Properties			◆				◆		▼				◆		▼								◆		
Ice Surface Temperature			◆				◆		▼				◆		▼								◆		
Sea Ice (Age/Concentration)			◆				◆		▼				◆		▼								◆		
Snow Cover			◆				◆	■	▼				◆		▼								◆		
Active Fires				■				◆	▼						▼								◆		
Surface Reflectance								■	▼					◆		▼							◆		
Surface Albedo	◆	■	◆				◆		▼				◆		▼								◆		
Land Surface Temperature	◆	■	◆				◆		▼				◆		▼								◆		
Vegetation Indices							■		▼						◆	◆	▼						◆		
Green Vegetation Fraction							■		▼						◆	◆	▼						◆		
Vegetation Health									▼						◆	◆	▼						◆		
Annual Surface Type									▼				■	■	▼									◆	◆
NUCAPS	◆	■				◆	■		▼					◆	■	▼							◆		
MIRS							◆		▼					◆	▼								◆		
Snow Fall Rate (SFR)									▼					◆	▼								◆		
VIIRS Polar Winds			◆				◆		▼				◆		▼								◆		
GCOM													◆		▼										

■ Beta
 ■ Prov
 ■ Val
 ◆ iDAP
 ◆ fDAP
 ◆ mDAP
 ▲ Report
 ▲ Algo
 ▲ iLUT
 ▲ fLUT/MI
 ▼ iCVplan
 ▼ fCVplan

Color code:

Green:

Completed Milestones

Gray:

Non-FY20 Milestones

Accomplishments / Events:

- Discussed ATMS thermal vacuum testing deficiency and recommended improvements for future ATMS testing configuration
- Reviewed JPSS-2 ATMS Calibration Data Book to ensure information and analysis results are accurate and ready for JPSS-2 ATMS ground processing PCT generation
- Improved ATMS data quality monitoring results using COSMIC RO data by screening out missing temperature data in low layers. The standard deviation is reduced from 4 K to 0.8 K
- Reprocessed S-NPP and JPSS-1 ATMS TVAC data and generated comparison charts using S-NPP, JPSS-1, and JPSS-2 ATMS analysis result to support JPSS-2 ATMS pre-ship review

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			

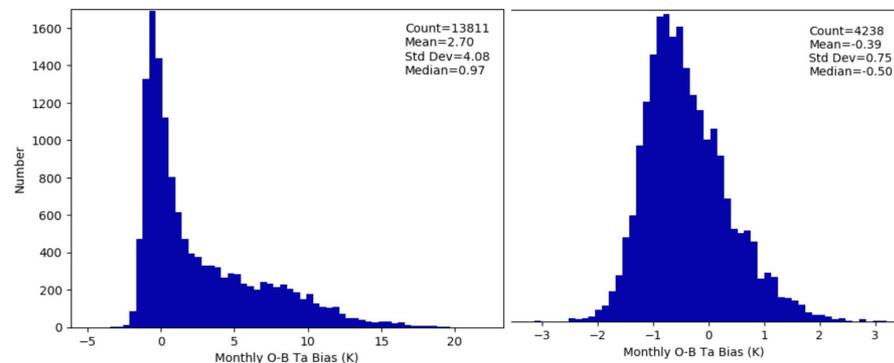
1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

None

Highlights:

Improved ATMS data quality monitoring results using COSMIC RO data by screening out missing temperature data in low layers. The standard deviation is reduced from 4 K to 0.8 K (figures below).



Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J2 pre-launch test data (TVAC) review/analyze	Apr-20	Apr-20	Apr-20	TVAC: Dec-19
J2 pre-launch evaluation tools development	Sep-20	Sep-20		
J2 Cal/Val Plan - draft delivery	Jun-20	Jun-20		
Pre-launch sensor characterization report	Jun-20	Jun-20		PSR + 3m
Algorithm update based on pre-launch test data and other changes (e.g. APID, sampling frequency, FSW, and RDR)	Sep-20	Sep-20		PSR + 6m
PCT update based on pre-launch test data and other changes	Sep-20	Sep-20		PSR + 6m
Algorithm Updates Review	Jun-20	Jun-20		
J2 SDR data (based on TVAC) available for EDRs	Apr-20	Apr-20	03/25/20	Proxy Data
ATMS TDR/SDR discrepancy between ADL and IDPS over lunar intrusion regions (ADR 9035)	Sep-20	Sep-20	04/27/20	
NOAA-20 and S-NPP cross-calibration/comparison	Sep-20	Sep-20		
Annual ATMS TDR/SDR performance report	Feb-20	Feb-20	Feb-20	
Verification of cloud implementation	Sep-20	Sep-20		
IDPS Mx build I&T deploy regression support:				
BL2.1 Mx 8 I&T ATMS data review/checkout	Nov-19	Nov-19	11/13/19	
BL2.2 Mx 0 I&T ATMS data review/checkout	Apr-20	Apr-20	04/01/20	
BL2.2 Mx 1 I&T ATMS data review/checkout	Jun-20	Jun-20		

Accomplishments / Events:

- S-NPP/N20 CrIS: completed the implementation of polarization correction into operational data stream
- J2 CrIS TVAC LUT in progress and simulated data completed

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			

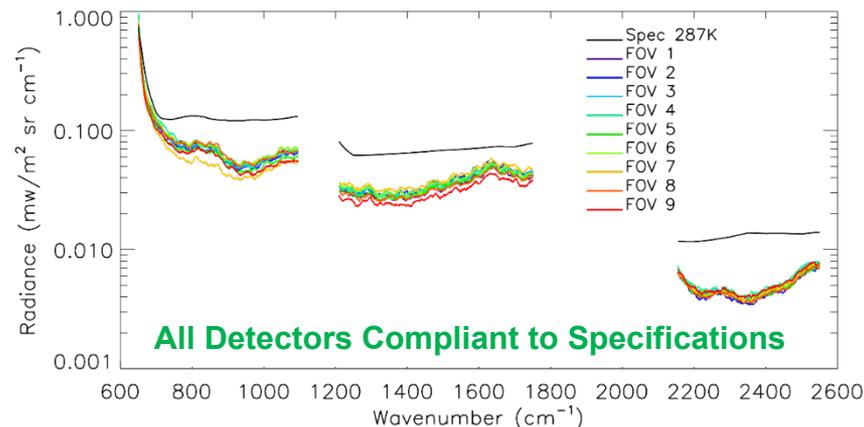
- Project has completed.
- Project is within budget, scope and on schedule.
- Project has deviated slightly from the plan but should recover.
- Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
NPP (side-2) Validated Maturity	Feb-20	Feb-20	02/06/20	Prov + 6m
J2 pre-launch test data (TVAC) review/analyze	Apr-20	Apr-20	Apr-20	TVAC: Jan-20
J2 pre-launch evaluation tools development	Sep-20	Sep-20		
J2 Cal/Val Plan - draft delivery	Jun-20	Jun-20		
Pre-launch sensor characterization report	Jul-20	Jul-20		PSR + 3m
Algorithm update based on pre-launch test data and other changes (e.g. APID, sampling frequency, FSW, and RDR)	Oct-20	Oct-20		PSR + 6m
PCT update based on pre-launch test data and other changes	Oct-20	Oct-20		PSR + 6m
Algorithm Updates Review	Jun-20	Jun-20		
J2 SDR data (based on TVAC) available for EDRs	Apr-20	Apr-20	03/26/2020	Proxy Data
Update Quality flag and threshold for Spike Detection algorithm (ADR8820)	Aug-20	Aug-20		
Optimize/update FCE detection and correction algorithm	Aug-20	Aug-20	05/05/20	
Turn off Truncated Spectrum CrIS Data (ADR8761)	Sep-20	Sep-20		5/1/20 CCR Approved
NOAA-20 and S-NPP cross-calibration/comparison	Sep-20	Sep-20		
Annual CrIS SDR performance report	Feb-20	Feb-20	02/26/2020	
Verification of cloud implementation	Sep-20	Sep-20		
IDPS Mx build I&T deploy regression support:				
BL2.1 Mx 8 I&T CrIS data review/checkout	Nov-19	Nov-19	11/12/19	
BL2.2 Mx 0 I&T CrIS data review/checkout	Apr-20	Apr-20	04/01/20	
BL2.2 Mx 1 I&T CrIS data review/checkout	Jun-20	Jun-20		

Highlights:

J2/CrIS TVAC Data Analysis in Progress. Instrument Compliant to Noise Specifications.



Accomplishments / Events:

- S-NPP/N20 VIIRS lunar calibration and DNB monthly calibration 55% completed
- J2 VIIRS TVAC LUT and simulated data completed

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.

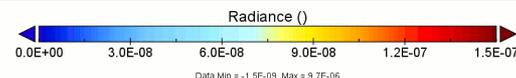
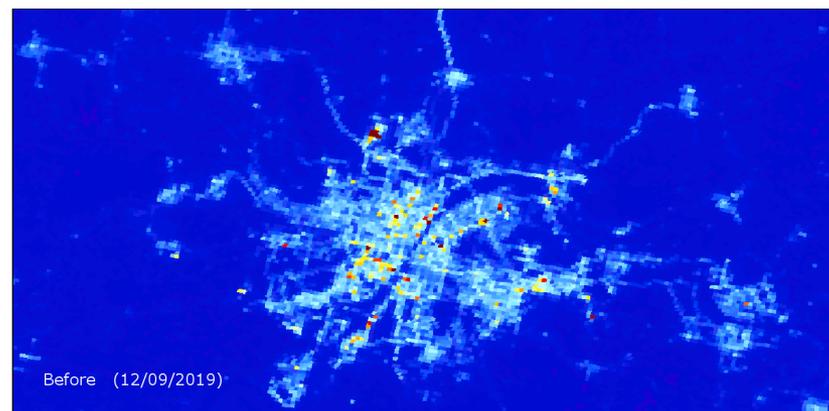
Issues/Risks:

none

Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J2 pre-launch test data (TVAC) review/analyze	Jan-20	Jan-20	01/31/2020	
J2 pre-launch evaluation tools development	Sep-20	Sep-20		
J2 Cal/Val Plan - draft delivery	Jun-20	Jun-20		
Launch-ready LUTs (initial delivery)	Aug-20	Aug-20		
Algorithm Updates Review	Jun-20	Jun-20		
Simulated J2 SDR data available for EDRs	Jan-20	Jan-20	01/31/2020	
DAP: Lunar contamination (code & LUT updates)	Jun-20	Jun-20		
S-NPP VIIRS Geolocation LUTs Update (ADR9254)			03/25/2020	
NOAA-20 and S-NPP cross-calibration/comparison	Sep-20	Sep-20		
Annual VIIRS SDR performance report	Feb-20	Feb-20	02/28/2020	
Verification of cloud implementation	Sep-20	Sep-20		
IDPS Mx build I&T deploy regression support:				
BL2.1 Mx8 I&T VIIRS data review/checkout	Nov-19	Nov-19	11/06/2019	
BL2.2 Mx0 I&T VIIRS data review/checkout	Apr-20	Apr-20	04/01/2020	
BL2.2 Mx1 I&T VIIRS data review/checkout	Jun-20	Jun-20		

Highlights:

COVID-19 Impact Analysis using VIIRS/DNB (Wuhan lockdown)



Accomplishments / Events:

- Successfully presented the NOAA-20 OMPS NP SDR validated maturity report at 04/23/20 JPSS cycle review meeting
- Delivered SNPP/NOAA-20 OMPS weekly Dark tables and solar irradiance LUTs to GRAVITE
- Discussed J2 OMPS flight sample tables and proposed two sample tables: one has a higher resolution than NOAA-20, another has the same resolution as NOAA-20 as a backup.
- Worked on the code change for ADL/IDPS to handle high resolution of J02 OMPS SDR data
- Continued to investigate the root cause of the negative EV360 radiance issue.

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.

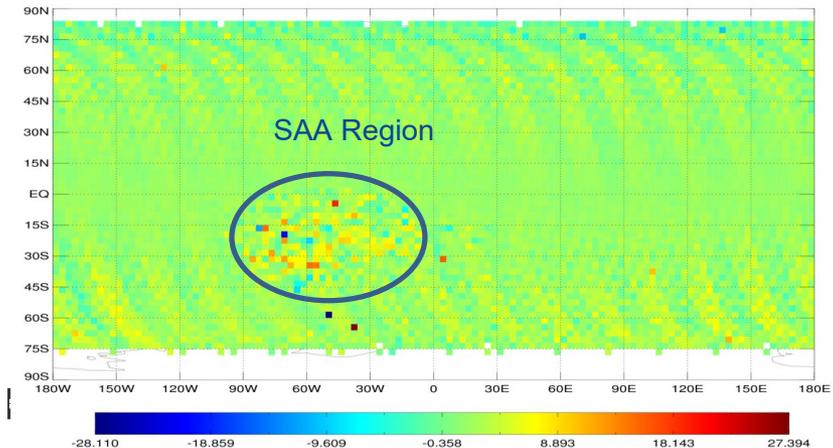
Issues/Risks:

- 1- EDR team requested additional analysis to better understand difference between SNPP and NOAA-20 as part of validation review – review completed 4/23/20, 3 months delayed compared to plan - DRs generated and need to be resolved – resources diverted so lower priority milestones had schedule slip.
- 2- Unable to access OMPS TVAC data – working with AMP to resolve

Highlights:

While analyzing differences between SNPP and NOAA_20 NP the team is able to clearly see region of South Atlantic Anomaly (SAA)

32-Day averaged N-value differences between SNPP and NOAA-20 NP at 305.7 nm



Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
Validated Maturity: OMPS-NP	Jan-20	Apr-20	4-23-20	See Issues/Risks
J2 pre-launch test data (TVAC) review/analyze	Apr-20	July-20		See Issues/Risks
J2 pre-launch evaluation tools development	Sep-20	Sep-20		
J2 Cal/Val Plan - draft delivery	Jun-20	Jun-20		
Pre-launch sensor characterization report	Dec-19	Jun-20		See Issues/Risks
Algorithm update based on pre-launch test data and other changes (e.g. APID, sampling frequency, FSW, and RDR)	Jun-20	Jun-20		
Launch-ready LUTs (initial delivery)	Jun-20	Jun-20		
Algorithm Updates Review	Jun-20	Jun-20		
J2 SDR data (based on TVAC) available for EDRs	Apr-20	Jun-20		See Issues/Risks
Remove VIIRS Snowice and QST tile dependency (ADR8550/CCR4589)	Oct-19	Oct-19	10/28/19	8/1/19 to ASSIST
NaN Values in SOMPS Products (ADR8526)	Jun-20	Jun-20		
High resolution SDR implementation (17km x 17km OMPS TC)	Aug-20	Aug-20		
NOAA-20 and S-NPP cross-calibration/comparison	Sep-20	Sep-20		
Annual OMPS SDR performance report	Feb-20	Feb-20	Feb-20	
Verification of cloud implementation	Sep-20	Sep-20		
IDPS Mx build I&T deploy regression support:				
BL2.1 Mx 8 I&T OMPS data review/checkout	Nov-19	Nov-19	11/12/19	
BL2.2 Mx 0 I&T OMPS data review/checkout	Apr-20	Apr-20	04/07/20	
BL2.2 Mx 1 I&T OMPS data review/checkout	Jul-20	Jul-20		

Accomplishments / Events:

- JPSS ICVS inter-sensor comparison 80% completed
- Completed an ICVS GSICS prototype for LEO-LEO and LEO-GEO inter-sensor comparison in NRT mode
- Improved ATMS hurricane warm core algorithm as the hurricane is landing by developed a 5-channel algorithm from 8 through 12
- Revised the ATMS warm core manuscript in response to two reviewers' comments
- Conducted the inter-sensor comparison between SNPP and NOAA-20 OMPS NP SDR data

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.

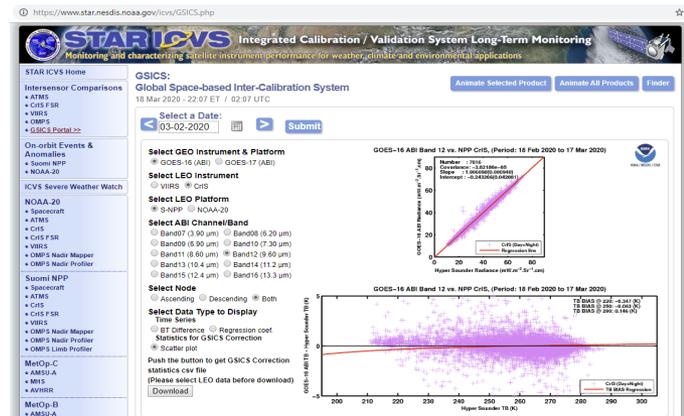
Issues/Risks:

Large ICVS Intersensor task relatively new and original schedule overly optimistic, pushed back ICVS interactive module task schedule due to resource constraints

Highlights: Significantly contribute to STAR SDR Teams

ICVS GSICS web portal prototype for LEO-LEO and LEO-GEO inter-sensor comparison in near-real time mode

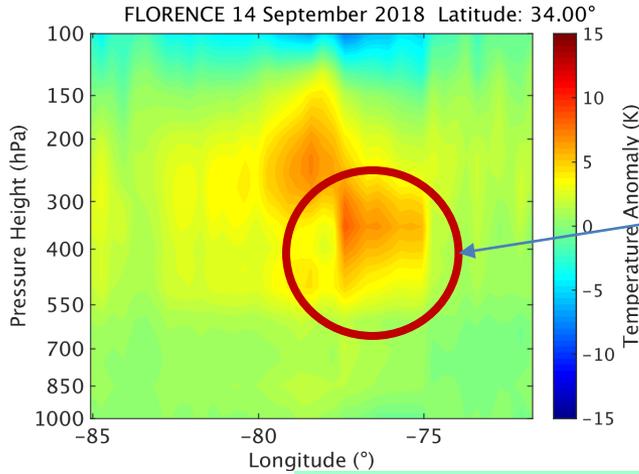
(<https://www.star.nesdis.noaa.gov/icvs-beta/GSICS.php>)



Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
<ul style="list-style-type: none"> • ICVS Intersensor web site beta version (e.g., direct, CRTM, 3rd instrument as transfer) • ICVS-J2 prototype beta version using J1 as proxy data • ICVS-reprocessing tool prototype 	Dec-19	June-20		See Issues/Risks
<ul style="list-style-type: none"> • ICVS interactive modules: beta version • OMPS geolocation error development • Cloud mask module improvement using AI-based cloud detection algorithm: beta version 	Mar-20	Sep-20		Low priority and schedule conflict with the new task
<ul style="list-style-type: none"> • Develop a LEO-GEO GSICS portal beta version 	Ma-20	Apr-20	Apr-20	
<ul style="list-style-type: none"> • Develop a LEO-GEO GSICS portal final 	Jun-20	Jun-20		
<ul style="list-style-type: none"> • ICVS intersensor and reprocessing web site improvement (operational version) • ICVS Interactive modules: operational version • ICVS Module improvements (each instrument on both SNPP and NOAA-20) (with proper QCs in particular cloud mask over snow-free land) • ICVS-AI modules for each instrument lifetime performance assessment: beta version • OMPS geolocation error monitoring module 	Jun-20	Jun-20		
<ul style="list-style-type: none"> • ICVS-AI modules for each instrument lifetime performance assessment: operational version • ICVS-AI modules for each instrument SDR data quality assessment: beta version • ICVS upgrade (if new servers are ready) 	Sep-20	Sep-20		
<ul style="list-style-type: none"> • JPSS-ICVS System Standardization and ICVS Annual Performance Review 	Feb-20	Feb-20	Feb-20	

ICVS-ATMS Hurricane Warm Core Algorithm Improvement

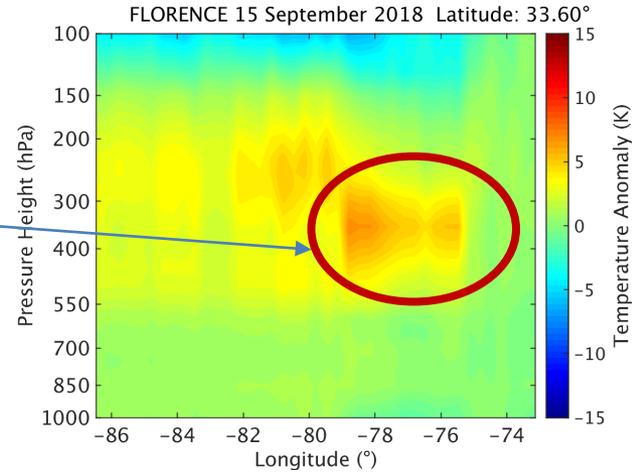
2018/09/14



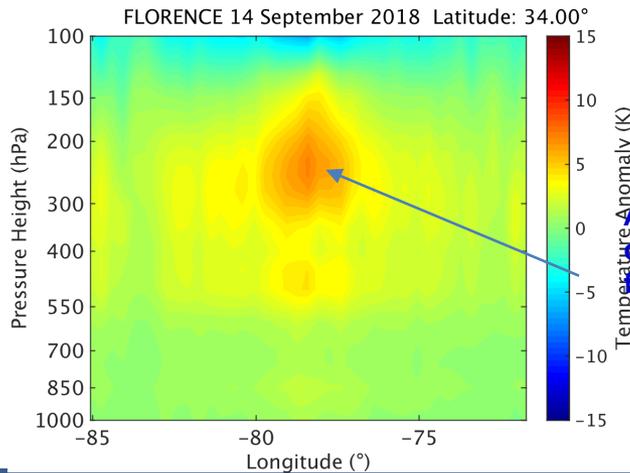
Old Alg. (ATMS Ch. 5 to 12)

Artificial discontinuous feature

2018/09/15

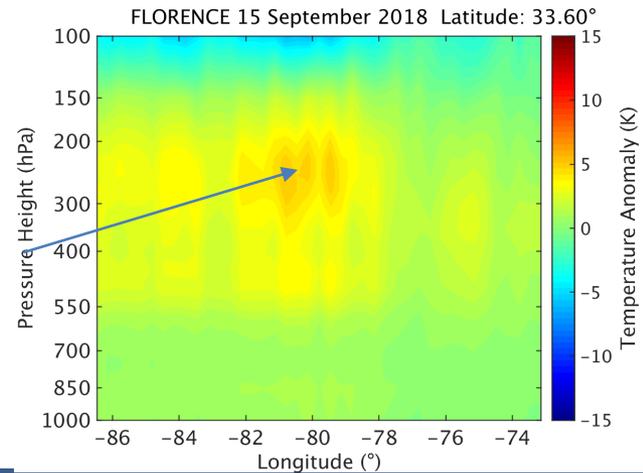


New algorithm improves the discontinuity from clear skies to cloud conditions over land providing a more reasonable warm core feature



New Alg. (ATMS Ch. 8 to 12)

Artificial discontinuous feature disappears



Accomplishments / Events:

- **VIIRS EDR TC code changes** into ground systems testing for implementation in Q4.
- VIIRS NOAA-20 DNB-to-NCC LUT update being tested.
- Expanding effort: **6 to 16 M-band VIIRS EDR Imagery** documentation changes started

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.

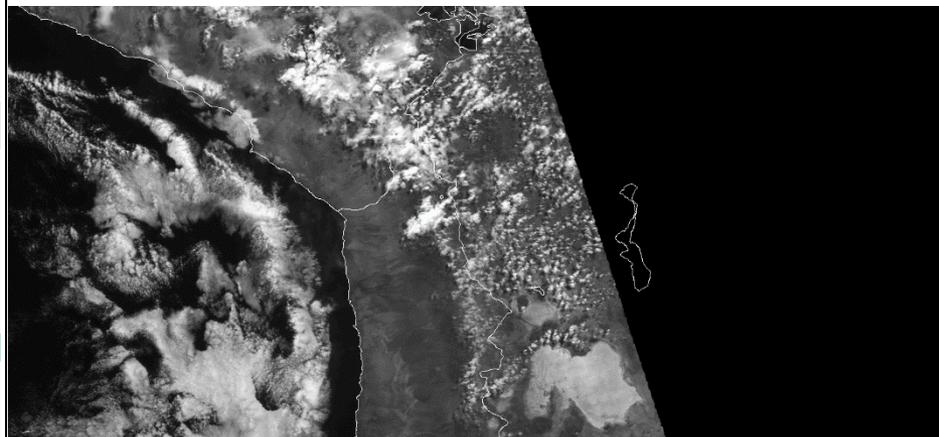
Issues/Risks:

None

Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J2 pre-launch test/proxy data review/analyze	Sep-20	Sep-20		
J2 Cal/Val Plan - draft delivery	Jun-20	Jun-20		
Algorithm Updates Review	Jun-20	Jun-20		
N20 NCC LUT update	Sep-20	Sep-20		
All 16 M-bands as Imagery EDRs	Sep-21	Sep-21		Work-under-pcr
NOAA-20 and S-NPP cross-calibration/comparison	Sep-20	Sep-20		
Cal/Val visualization tool development/improvement (increase Polar SLIDER storage for longer archive and more imagery/combo products with multiple satellites)	Sep-20	Sep-20		
Annual VIIRS Imagery performance report	Feb-20	Feb-20	Feb-20	
Verification of cloud implementation	Sep-20	Sep-20		
IDPS Mx build I&T deploy regression support:				
BL2.1 Mx 8 I&T ATMS data review/checkout	Nov-19	Nov-19	11/12/19	
BL2.2 Mx 0 I&T ATMS data review/checkout	Apr-20	Apr-20	04/01/20	
BL2.2 Mx 1 I&T ATMS data review/checkout	Jun-20	Jun-20		

Highlights: Terrain Correction tested successfully

DNB/NCC (VNCCO) - zoom
npp_d20200330_t1904189, npp_d20200330_t1905443



High-altitude regions of the central Andes (4000-6000 m MSL) were viewed near nadir by NOAA-20 and **near edge of scan by S-NPP** with no apparent motion between orbits

Accomplishments / Events:

- Cloud Mask for VIIRS updated for Cryosphere issues, delivered March and should be operational soon.
- AI method implemented to validate Cloud Products.
- High-res cloud properties generated for COVID-19 impact study (Contrails and CDNC studies).

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			

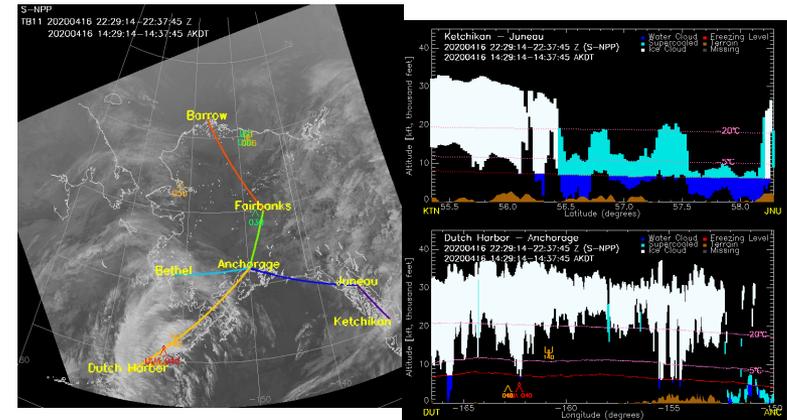
1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

None

Highlights:

VIIRS Cloud Vertical Cross-sections along Alaska flight routes for aviation users (available at http://rammb.cira.colostate.edu/ramsd/online/npp_viirs_arctic_aviation.asp)



Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J2 pre-launch test/proxy data review/analyze	Sep-20	Sep-20		
J2 Cal/Val Plan - draft delivery	Jun-20	Jun-20		
Initial J2 ready DAP to NDE (include NPP/N20 updates)	Sep-20	Sep-20		
Algorithm Updates Review	Sep-20	Sep-20		
Algorithm update DAP to ASSISTT:				
<ul style="list-style-type: none"> • Cloud Mask: Implement DNB • Cloud Mask: Implement DNB • Cloud Phase/Type: Optimize cloud phase thresholds for NOAA-20 • ACHA: Improving multilayer ACHA • CBH: Leverage DCOMP nighttime COD (DNB) to improve performance over IR-only • CCL: Include super-cooled and convective fraction • DCOMP: Incorporate improved surface reflectance for DCOMP channels • NCOMP: Extend NCOMP cloud optical depth range to include larger values 	Apr-20	Apr-20	Apr-20	With initial J2 DAP
Verification of direct readout EDRs	Sep-20	Sep-20		
Annual algorithms/products performance report	Feb-20	Feb-20	Feb-20	
NOAA-20 and S-NPP cross-calibration/comparison	Sep-20	Sep-20		
Cal/Val Visualization tool and LTM webpage development/improvement	Sep-20	Sep-20		
Support Alaska Demo and ESRL usage	Sep-20	Sep-20		

Accomplishments / Events:

- Began compiling summer 2019 AOD data to conduct in depth evaluation against AERONET

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		

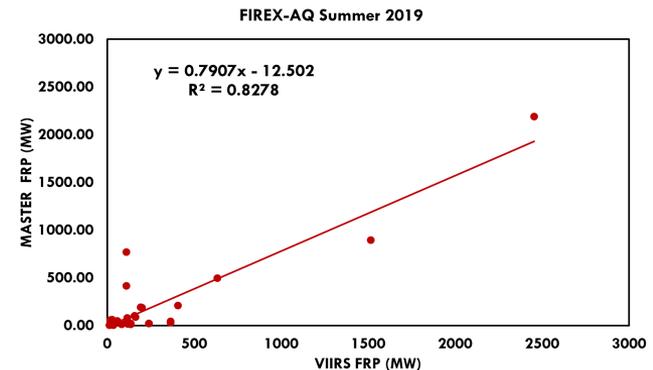
- Project has completed.
- Project is within budget, scope and on schedule.
- Project has deviated slightly from the plan but should recover.
- Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

None

Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J2 pre-launch test/proxy data review/analyze	Sep-20	Sep-20		
J2 Cal/Val Plan - draft delivery	Jun-20	Jun-20		
Initial J2 ready DAP to NDE (include NPP/N20 updates)	Sep-20	Sep-20		
Algorithm Updates Review	Sep-20	Sep-20		
Algorithm update DAP to ASSISTT:				
<ul style="list-style-type: none"> Re-derive surface reflectance (dark and bright land) relationships Update thresholds in internal tests of sea ice and heavy aerosol over water for NOAA-20 Fix issue with misidentification of bright surface. Retrieve AOD using dark-surface relationship ADP algorithm updates to improve correct detection and minimize false detection over high latitudes 	Apr-20	Apr-20	Apr-20	With initial J2 DAP
Verification of direct readout EDRs	Sep-20	Sep-20		
Annual algorithms/products performance report	Feb-20	Feb-20	Feb-20	
NOAA-20 and S-NPP cross-calibration/comparison	Sep-20	Sep-20		
Cal/Val visualization and LTM tool development/improvement, update aerosol cal/val & AerosolWatch website	Sep-20	Sep-20		

Highlights:



- Compared SNPP VIIRS FRP matched up with DC8 aircraft MASTER instrument observed FRP
- Very high correlation with about -67 MW mean bias
- SNPP VIIRS hot spots aligned well with fire fronts on most days

Accomplishments / Events:

- VOLCAT:** Lightning measurements were integrated into the alerting system, thermal anomaly detection and characterization were improved, **SO₂ alerts were integrated into the VOLCAT Event Dashboard**, users are evaluating the Event Dashboard
- ProbSevere:** Continued to develop AI techniques for various severe weather nowcasting applications

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			

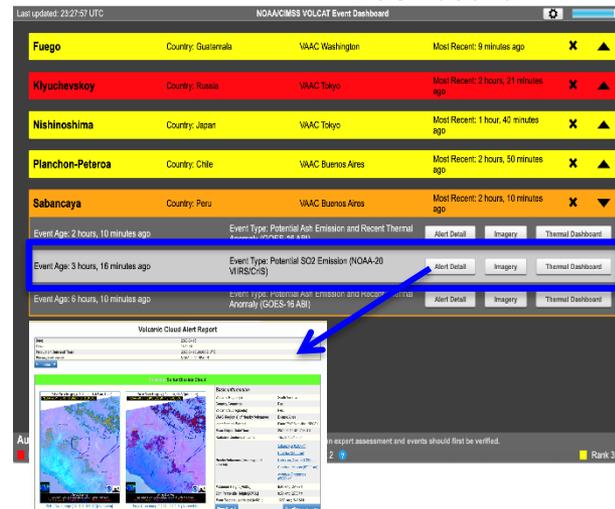
- Project has completed.
- Project is within budget, scope and on schedule.
- Project has deviated slightly from the plan but should recover.
- Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

None

Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J2 pre-launch test/proxy data review/analyze	Sep-20	Sep-20		
J2 Cal/Val Plan - draft delivery	Jun-20	Jun-20		
J2 Cal/Val Plan - final delivery	Dec-20	Dec-20		
Initial J2 ready DAP to NDE (include NPP/N20 updates)	Sep-20	Sep-20		
Final J2 ready DAP to NDE (include NPP/N20 updates)	Jul-21	Jul-21		DAP to ASSISTT: Dec-20
Algorithm Updates Review	Sep-20	Sep-20		
Algorithm update DAP to ASSISTT: <ul style="list-style-type: none"> Refine thresholds and LUT's for S-NPP and NOAA-20 as needed 	Apr-20	Apr-20	Apr-20	With initial J2 DAP
Pursue algorithm enhancements, including eventual transition to VOLCAT	Sep-20	Sep-20		
Verification of direct readout EDRs	Sep-20	Sep-20		
Annual algorithms/products performance report	Feb-20	Feb-20	Feb-20	User Summit
NOAA-20 and S-NPP cross-calibration/comparison	Sep-20	Sep-20		
Cal/Val visualization and LTM tool development/improvement	Sep-20	Sep-20		

Highlights: VIIRS/CrIS SO2 Alerts on VOLCAT Event Dashboard



Accomplishments / Events:

- Tested new Enterprise Cloud Mask look-up-tables and identified improvements to snow cover products
- Critical Design Review for Enterprise Algorithm Migration snow cover was successful – VIIRS algorithm will be used.
- Blended ice motion (VIIRS, AMSR2, SAR) development is making good progress.
- STAR ASSISTT's "Framework" code has been installed by the CIMSS polar winds team. It will be used by the cryosphere team.

Overall Status:

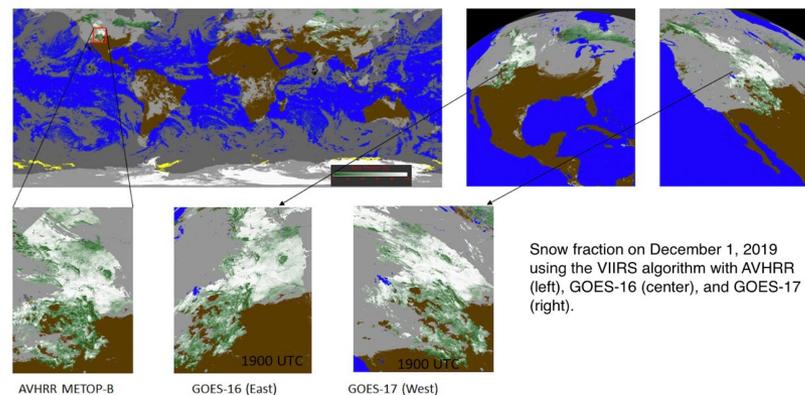
	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

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 Snow Cover Algorithm shown to work well with GOES E/W ABI and METOP-B AVHRR

Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
Validated Maturity: Snow Cover (Binary Map & Snow Cover Fraction)	Apr-20	May-20		CM LUT
J2 pre-launch test/proxy data review/analyze	Sep-20	Sep-20		
J2 Cal/Val Plan - draft delivery	Jun-20	Jun-20		
Initial J2 ready DAP to NDE (include NPP/N20 updates)	Sep-20	Sep-20		
Algorithm Updates Review	Sep-20	Sep-20		
Algorithm update DAP to ASSISTT:				
<ul style="list-style-type: none"> ▪ Add passive microwave filters to improve ice products ▪ Implement I-band ice products ▪ Evaluation of two Enterprise snow algorithms (VIIRS and ABI) and possible replacement 	Apr-20	Apr-20	Apr-20	With initial J2 DAP
Verification of direct readout EDRs	Sep-20	Sep-20		
Annual algorithms/products performance report	Feb-20	Feb-20	Feb-20	
NOAA-20 and S-NPP cross-calibration/comparison	Sep-20	Sep-20		
Cal/Val visualization and LTM tool development/improvement	Sep-20	Sep-20		

Accomplishments / Events:

- Implemented VIIRS I-band algorithm with persistent anomaly flag in STAR production and in JSTAR Mapper
- Passed Critical Design Review for Enterprise Fire algorithm and processing framework

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		OSPO / NDE implementation

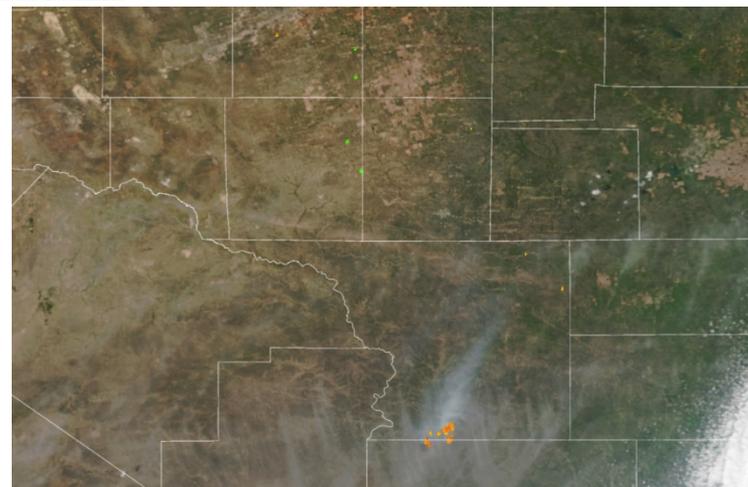
1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

Delay in OSPO / NDE's readiness to implement I-band algorithm

Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
Validated Maturity (M-Band & I-Band)	Jan-20	Jan-20	02/06/20	Scheduled: 2/6/20
Initial/Final DAP (I-Band)	May-20	May-20		With initial J2 DAP
J2 pre-launch test/proxy data review/analyze	Sep-20	Sep-20		
J2 Cal/Val Plan - draft delivery	Jun-20	Jun-20		
Initial J2 ready DAP to NDE (include NPP/N20 updates)	May-20	May-20		With I-Band DAP
Algorithm Updates Review	Sep-20	Sep-20		
Algorithm update DAP to ASSISTT: ▪ I-band algorithm improvements	Jun-20	Jun-20	Feb-20	
ATBD update	Dec-19	Jan-20	01/29/20	M-band update
Verification of direct readout EDRs	Sep-20	Sep-20		
Annual algorithms/products performance report	Feb-20	Feb-20	Feb-20	
NOAA-20 and S-NPP cross-calibration/comparison	Sep-20	Sep-20		
Cal/Val visualization and LTM tool development/improvement	Sep-20	Sep-20		

Highlights:



Suomi NPP VIIRS I-band Fire Radiative Power data of a large fire complex (shades of orange and red) and persistent anomaly detections of gas flares (green) in Texas on April 21, 2020. Display from JSTAR Mapper (<https://www.star.nesdis.noaa.gov/jpss/mapper/>).

Accomplishments / Events:

New product data selection from LPCS adds S-NPP VIIRS data to compare near-IR surface reflectance time-series graph with Landsat 8 OLI, Terra and Aqua MODIS, for a 50 by 50 km region centered on the Central Plains Experimental Range CEOS Super Site (see image)

Overall Status:

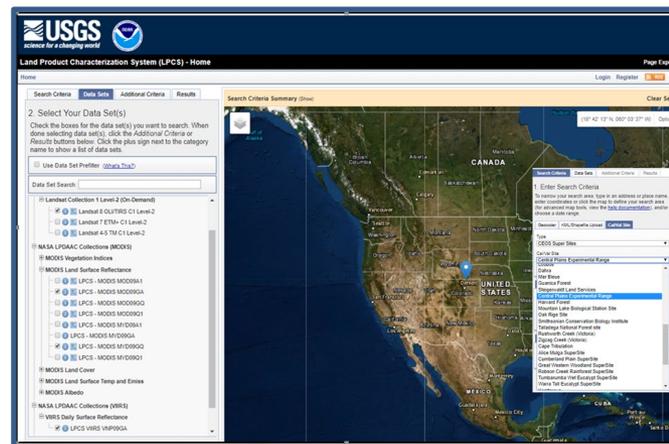
	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget			X		Temporary funding delay
Technical / Programmatic			X		Large data volume for validated analysis
Schedule			X		Delay validated review

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: delay in preparation for validated review. Low impact on product performance.

Highlights:

Daily VIIRS reflectance data available for comparative analysis



Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
Validated Maturity	Apr-20	May-20		
J2 pre-launch test/proxy data review/analyze	Sep-20	Sep-20		
J2 Cal/Val Plan - draft delivery	Jun-20	Jun-20		
Initial J2 ready DAP to NDE (include NPP/N20 updates)	Oct-20	Oct-20		
Algorithm Updates Review	Sep-20	Sep-20		
Algorithm update DAP to ASSISTT:				
<ul style="list-style-type: none"> Update aerosol and cloud quality information and their use Possibly adjust of some retrieval LUTs Streamline internal processing code Make product content compatible with CEOS Analysis Ready Data for Land requirements 	Jun-20	Jun-20		With initial J2 DAP
Verification of direct readout EDRs	Sep-20	Sep-20		
Annual algorithms/products performance report	Feb-20	Feb-20	Feb-20	
NOAA-20 and S-NPP cross-calibration/comparison	Sep-20	Sep-20		
Cal/Val visualization and LTM tool development/improvement	Sep-20	Sep-20		

Accomplishments / Events:

- Daily VIIRS data from S-NPP and N-20 have been processed for AST2019 product development
- STAR-UMD VIIRS Annual Surface Type team has downloaded and processed S-NPP and NOAA-20 VIIRS granule data acquired in April 2020.
- The team has produced the global annual metrics required for generating AST 2019.
- Evaluation of a prototype daily surface product suite demonstrated that multi-source snow products could be used together with AST to capture short term snow cover change.

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				

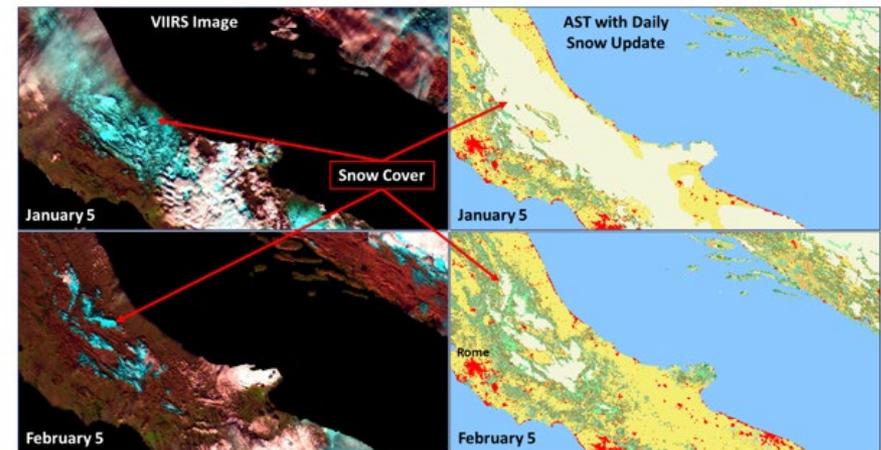
1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

None

Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
Provisional Maturity	Sep-20	Sep-20		
Validated Maturity	Sep-20	Sep-20		
Annual performance report	Feb-20	Feb-20	Feb-20	
J2 Cal/Val Plan - draft delivery	Jun-20	Jun-20		
AST19 (Annual Surface Type):				
Collaborate with land teams on daily and monthly product gridding and compositing for NDE Enterprise Algorithm (SR/NDVI/EVI/Temperature)	Sep-20	Sep-20		
Complete monthly composites of global gridded VIIRS data (9 land bands + thermal bands) for VIIRS AST19 based on 2019 VIIRS data	Aug-20	Aug-20		
Generate VIIRS AST19 based on 2019 VIIRS data using SVM algorithm	Aug-20	Aug-20		
Comparison of AST19 with surface type validation data (Accuracy statistics of the new AST19 and LWM)	Aug-20	Aug-20		
Delivery of AST19 (available for users through STAR FTP)	Sep-20	Sep-20		
AST18 NDE delivery (ASSISTT)				
<ul style="list-style-type: none"> Download AST18 from JSTAR web Chain-run to make sure the delivery works for the down-stream products Deliver AST18 DAP to NDE 	Sep-20	Sep-20		With JRR DAP

Highlights: Multi-source snow products



AST updated using multi-source snow products can capture large snow cover change even when VIIRS images are contaminated by clouds.

Accomplishments / Events:

- Further enhanced the long-term monitoring webpage (LST and Albedo) for routine automatic product evaluation

Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
Validated Maturity	Nov-19	Nov-19	11/21/19	
Validation of global gridded LST product (B/P/V ?)	Sep-20	Sep-20		
J2 pre-launch test/proxy data review/analyze	Sep-20	Sep-20		
J2 Cal/Val Plan - draft delivery	Jun-20	Jun-20		
Initial J2 ready DAP to NDE (include NPP/N20 updates)	Sep-20	Sep-20		
Algorithm Updates Review	Sep-20	Sep-20		
Algorithm update DAP to ASSISTT:				
<ul style="list-style-type: none"> ▪ Update of coefficients with better stratification for TPW ▪ Uncertainty study of the JPSS LST product ▪ Additional cloud filtering ▪ Improved emissivity dataset ▪ LUT update 	Apr-20	Apr-20	Apr-20	With initial j2 DAP
Verification of direct readout EDRs	Sep-20	Sep-20		
Annual algorithms/products performance report	Feb-20	Feb-20	Feb-20	
NOAA-20 and S-NPP cross-calibration/comparison	Sep-20	Sep-20		
Cal/Val visualization and LTM tool development/improvement	Sep-20	Sep-20		

Overall Status:

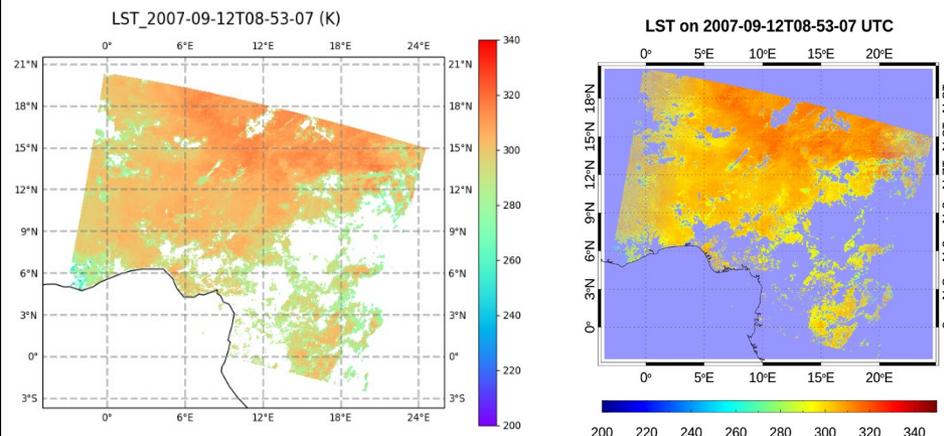
	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

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:

Schedule change due to the government shutdown

Highlights: VIIRS work is being leveraged for Metop-SG LST



Sample MetOP-SG LST derivation (left) using VIIRS data as proxy. Original VIIRS LST image is compared at right.

Accomplishments / Events:

- Performed an evaluation on a surface albedo climatology set for the JPSS Albedo mission
- Reusability feature of the JPSS Albedo algorithm has been greatly applied in developing the albedo algorithm for MetOp-SG mission.

Overall Status:

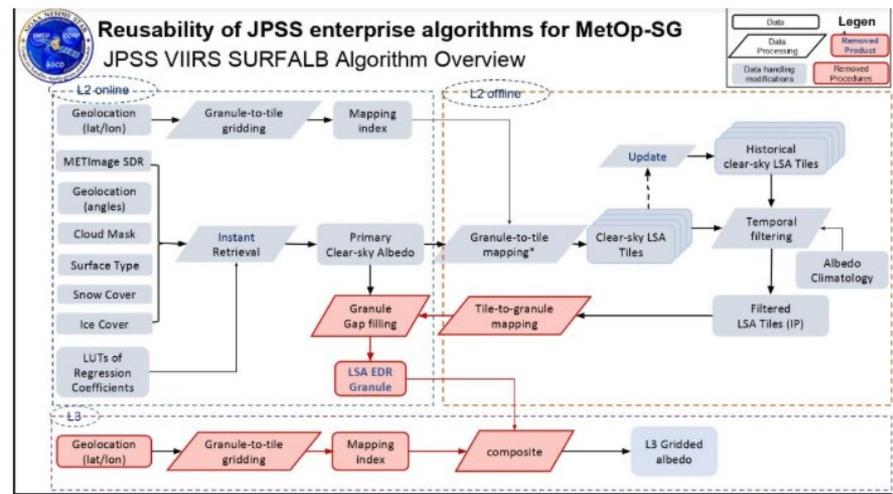
	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

- 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:

Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
Validated Maturity	Nov-19	Nov-19	11/21/19	
Validation of global gridded SURFALB product (B/P/V ?)	Sep-20	Sep-20		
J2 pre-launch test/proxy data review/analyze	Sep-20	Sep-20		
J2 Cal/Val Plan - draft delivery	Jun-20	Jun-20		
Initial J2 ready DAP to NDE (include NPP/N20 updates)	Sep-20	Sep-20		
Algorithm Updates Review	Sep-20	Sep-20		
Algorithm update DAP to ASSISTT:				
<ul style="list-style-type: none"> Improve the heterogeneity uncertainty analysis method Refining the 1-km climatology LSA 	Apr-20	Apr-20	Apr-20	With initial j2 DAP
Developing a blended albedo product	Sep-20	Sep-20		
Verification of direct readout EDRs	Sep-20	Sep-20		
Annual algorithms/products performance report	Feb-20	Feb-20	Feb-20	
NOAA-20 and S-NPP cross-calibration/comparison	Sep-20	Sep-20		
Cal/Val visualization and LTM tool development/improvement	Sep-20	Sep-20		

Highlights: Reusable features of JPSS leveraged for MetOp-SG



Accomplishments / Events:

- Validated maturity review of NOAA-20 Vegetation Index and Green Vegetation Fraction product

Overall Status:

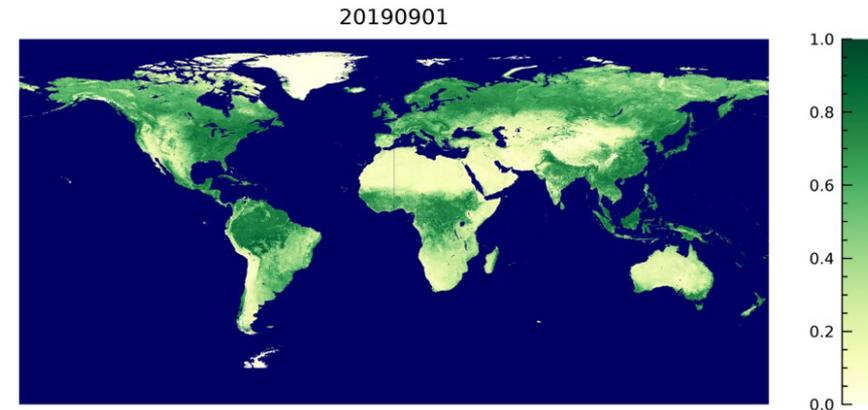
	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

- 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:



NOAA-20 Green Vegetation Fraction Product

Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
Validated Maturity	Feb-20	Apr-20	04/23/20	Combine review
J2 pre-launch test/proxy data review/analyze	Sep-20	Sep-20		
J2 Cal/Val Plan - draft delivery	Jun-20	Jun-20		
Initial J2 ready DAP to NDE (include NPP/N20 updates)	Dec-20	Dec-20		
Algorithm Updates Review	Sep-20	Sep-20		
Algorithm update DAP to ASSISTT:				
<ul style="list-style-type: none"> NVPS algorithms optimization and improvement (to reduce the process time) Sensitivity analysis of the GVF/VI gridding algorithms 	Jul-20	Jul-20		With initial J2 DAP
Verification of direct readout EDRs	Sep-20	Sep-20		
Annual algorithms/products performance report	Feb-20	Feb-20	Feb-20	
NOAA-20 and S-NPP cross-calibration/comparison	Sep-20	Sep-20		
Cal/Val visualization and LTM tool development/improvement	Sep-20	Sep-20		
Deep-dive analysis for the anomaly watch	Sep-20	Sep-20		

Accomplishments / Events:

- Examine the new VH data corrected by EMD (version4)(Highlighted);
- As response to updates from IT department, a series of operation were conducted to keep our operational product normal;
- Drafting an invited paper on vegetation health product;
- Obtained several decades of crop production data for validation of VHP;
- Generated a series of data and figures of VIIRS/VHP-1 and -4, -16 km resolution products, covering April 2020.

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			

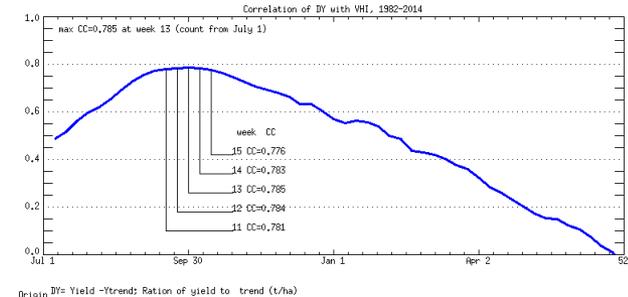
1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

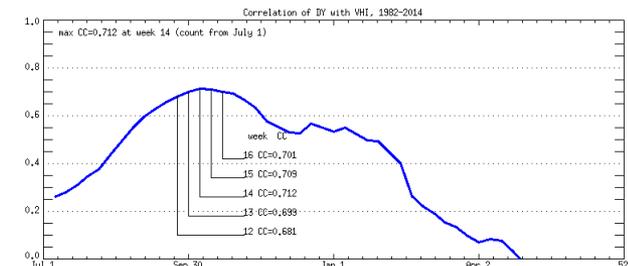
None

Highlights: Correlation between yield of wheat and VHI

Original VH



EMD corrected VH



Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
N20 Final DAP (to NDE)	Dec-20	Dec-20		Combine with initial J2 ready DAP
J2 pre-launch test/proxy data review/analyze	Sep-20	Sep-20		
J2 Cal/Val Plan - draft delivery	Jun-20	Jun-20		
Initial J2 ready DAP to NDE (include NPP/N20 updates)	Dec-20	Dec-20		With final N20
Algorithm Updates Review	Sep-20	Sep-20		
Algorithm update DAP to ASSISTT: ▪ Algorithm updates/improvements	Jul-20	Jul-20		With initial J2 & final N20 DAP
Verification of direct readout EDRs	Sep-20	Sep-20		
Annual algorithms/products performance report	Feb-20	Feb-20	Feb-20	
NOAA-20 and S-NPP cross-calibration/comparison	Sep-20	Sep-20		
Cal/Val visualization and LTM tool development/improvement	Sep-20	Sep-20		

Accomplishments / Events:

- Routinely producing global ocean color products from VIIRS SNPP and NOAA-20.
- Continue the work for the improvement of the MSL12 ocean color data processing system.
- Continue the work for the improvement of the OCView tool and ocean color product routine data monitoring system functions well.
- Continue the work for the improvement of VIIRS-NOAA-20 ocean color products, in preparing for the delivery of the validation status for VIIRS-NOAA-20.
- Worked on the NOAA-20 ocean color data improvement for the validation status in the summer 2020.
- A paper published showing that significant more amount ocean color data can be derived using the NOAA MSL12 compare with that from NASA L2GEN.

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:

Big jumps in NOAA-20 SDR have impacted the schedule for validation of NOAA-20 MSL12 ocean color EDR

Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
Validated Maturity	Jun-20	Aug-20		Complex N20 SDR analysis
N20 Final DAP to CoastWatch	Dec-20	Dec-20		Cpmbine with init J2 DAP
J2 pre-launch test/proxy data review/analyze	Sep-20	Sep-20		
J2 Cal/Val Plan - draft delivery	Jun-20	Jun-20		
Initial J2 ready DAP to NDE (include NPP/N20 updates)	Dec-20	Dec-20		With final N20 DAP
Algorithm Updates Review	Sep-20	Sep-20		
Improve the merged VIIRS OC data from SNPP and NOAA-20	Sep-20	Sep-20		
Vicarious calibration for VIIRS-NOAA-20 using MOBY in situ data	Jun-20	Jun-20		
Complete the Sixth VIIRS ocean color dedicated cruise	Apr-20			
Complete the fifth VIIRS cruise report and in situ data analyses (e.g., improve in situ data quality)	Sep-20	Sep-20		
Routine ocean color data production for both NRT and science quality data streams	Sep-20	Sep-20		
Verification of direct readout EDRs	Sep-20	Sep-20		
Annual algorithms/products performance report	Feb-20	Feb-20	Feb-20	
NOAA-20 and S-NPP cross-calibration/comparison	Sep-20	Sep-20		
Cal/Val visualization and LTM tool development/improvement	Sep-20	Sep-20		

Highlights:

Publication shows that with similar high data quality, NOAA MSL12 produces about twice the number of satellite ocean color data retrievals globally, compared with NASA L2GEN.

Hu, C., B. B. Barnes, L. Feng, M. Wang, and L. Jiang, "On the interplay between ocean color data quality and data quantity: Impacts of quality control flags," *IEEE Geosci. Remote Sens. Lett.*, **17**, 745–749, 2020. <https://doi.org/10.1109/lgrs.2019.2936220>

Accomplishments / Events:

- NPP/N20 VIIRS SSTs production and monitoring continues. Performance of the products fully meets and exceeds users' expectations. Time series show VIIRS minus in situ SST, for the full missions of NPP and N20.
- Progress towards Jul'20 archival milestone: VIIRS SST access points and data largely populated:
 - PO.DAAC NPP L2P: <https://doi.org/10.5067/GHVRS-2PO61>
 - PO.DAAC NPP L3U: <https://doi.org/10.5067/GHVRS-3UO61>
 - PO.DAAC N20 L2P: <https://doi.org/10.5067/GHV20-2PO61>
 - PO.DAAC N20 L3U: <https://doi.org/10.5067/GHV20-3UO61>
 - NCEI NPP L2P: <https://doi.org/10.7289/v5pr7sx5>
 - NCEI NPP L3U: <https://doi.org/10.7289/v5kk98s8>
 - NCEI N20 L2P: <https://doi.org/10.25921/sfs7-9688>
 - NCEI N20 L3U: <https://doi.org/10.25921/7c1m-rw73>

Overall Status:

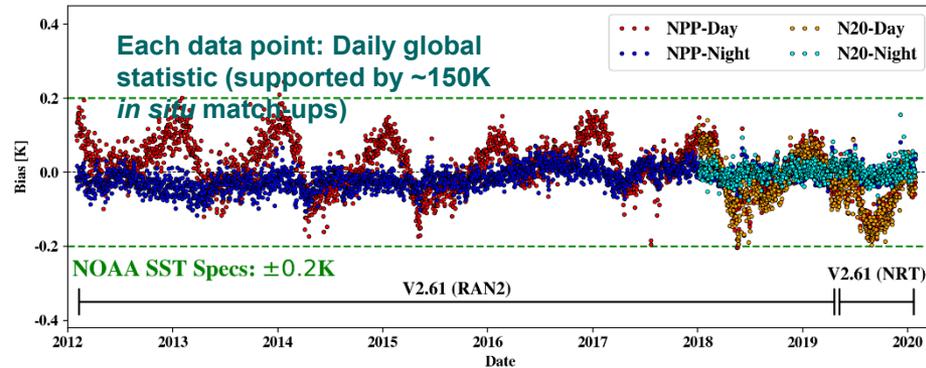
	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

- 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

Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
Updated DAP (ACSPO 2.80, implement thermal fronts, improvements to support data fusion, J2 readiness) to ASSISTT	Aug-20	Aug-20		With initial J2 DAP
J2 pre-launch test/proxy data review/analyze	Sep-20	Sep-20		
J2 Cal/Val Plan - draft delivery	Jun-20	Jun-20		
Initial J2 ready DAP from ASSISTT to NDE (include NPP/N20 updates)	Nov-20	Nov-20		With ACSPO 2.80
Algorithm Updates Review	Sep-20	Sep-20		
Complete VIIRS RAN2 archival with PO.DAAC & NCEI	Aug-20	Aug-20	Dec-19: DAAC	
Verification of direct readout EDRs	Sep-20	Sep-20		
Annual algorithms/products performance report	Feb-20	Feb-20	Feb-20	
NOAA-20 and S-NPP cross-calibration/comparison	Sep-20	Sep-20		
Cal/Val visualization and LTM tool development/improvement	Sep-20	Sep-20		
Maintain SQUAM/iQuam/ARMS. Resolve anomalies	Sep-20	Sep-20		



- NPP (1 Feb 2012-on) and N20 (5 Jan 2018 – on) SSTs consistently reprocessed with ACSPO v2.61 constituting “VIIRS RAN2”
- RAN2 runs up to Apr 2019 and supplemented w/NRT operational processing at NDE from Apr'19-on
- RAN2 + NRT data are archived w/PO.DAAC (record complete & uniform) & NCEI (record less complete and less uniform).

Accomplishments / Events:

-Transition of NPP/NOAA-20 VIIRS winds processing to the ASSIST Processing Framework 2.0 is in progress. (Faster processing, more efficient R20)

Overall Status:

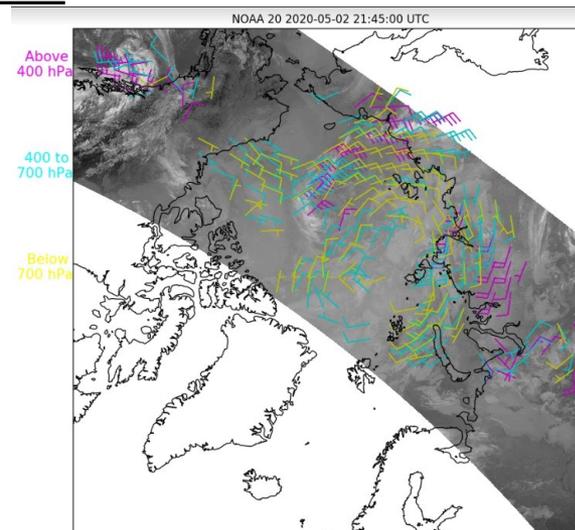
	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule		X			

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:



Near-real-time VIIRS winds images (example above) are available at <http://stratus.ssec.wisc.edu/products/rtpolarwinds/>

Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J2 pre-launch test/proxy data review/analyze	Sep-20	Sep-20		
J2 Cal/Val Plan - draft delivery	Jun-20	Jun-20		
Initial J2 ready DAP to ASSISTT	Apr-20	Apr-20	Apr-20	
Initial J2 ready DAP to NDE (include NPP/N20 updates)	Sep-20	Sep-20		
Algorithm Updates Review	Sep-20	Sep-20		
Wind product updates/improvements: continue routine generation of combined S-NPP/NOAA-20 global winds	Sep-20	Sep-20		
Verification of direct readout EDRs	Sep-20	Sep-20		
Annual algorithms/products performance report	Feb-20	Feb-20	Feb-20	
NOAA-20 and S-NPP cross-calibration/comparison	Sep-20	Sep-20		
Cal/Val visualization and LTM tool development/improvement	Sep-20	Sep-20		

Accomplishments / Events

1. Successfully completed NUCAPS validated maturity for CH₄ and provisional review for CO₂ on April 23, 2020

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			

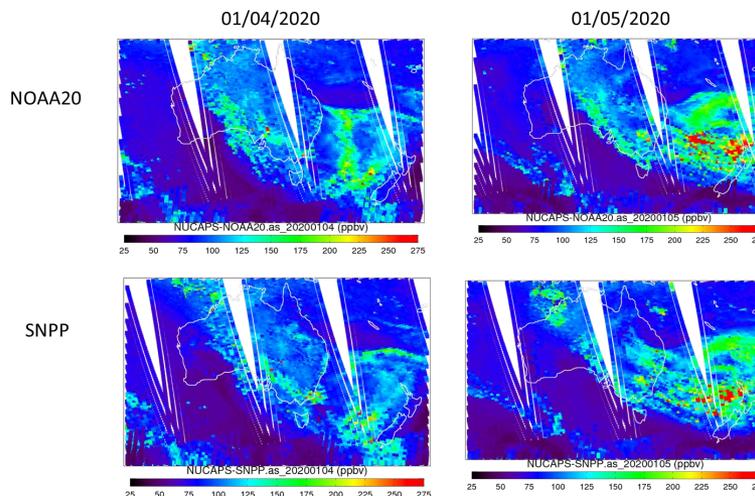
1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
Validated Maturity: CH ₄ (S-NPP & NOAA-20)	Feb-20	Apr-20	04/23/20	Combine review
Provisional Maturity: CO ₂ (S-NPP & NOAA-20)	Feb-20	Apr-20	04/23/20	Combine review
J2 pre-launch test/proxy data review/analyze	Sep-20	Sep-20		
J2 Cal/Val Plan - draft delivery	Jun-20	Jun-20		
Initial J2 ready DAP to NDE (include NPP/N20 updates)	Nov-20	Nov-20		
Algorithm Updates Review	Sep-20	Sep-20		
Algorithm update DAP to ASSISTT:				
<ul style="list-style-type: none"> Optimization of CO related look up tables Improve NOAA-20 CH₄/CO₂ algorithms J2 HEAP algorithm 	Jul-20	Jul-20		With initial J2 DAP
Validation against NUCAPS SNPP trace gas EDRs, other instruments (MOPITT, AIRS, IASI) and in situ measurements (TCCON, ATom, WE-CAN, KORUS)	Sep-20	Sep-20		
Verification of direct readout EDRs	Sep-20	Sep-20		
Annual algorithms/products performance report	Feb-20	Feb-20	Feb-20	
NOAA-20 and S-NPP cross-calibration/comparison	Sep-20	Sep-20		
Cal/Val visualization and LTM tool development/improvement	Sep-20	Sep-20		
Peer reviewed paper on NUCAPS HEAP cal/val	Sep-20	Sep-20		

Highlights

NUCAPS Carbon Monoxide (ascending orbit) at 500 hPa
Australian 2019-2020 New Year Fires



Accomplishments / Events:

- MiRS for MOC algorithms completed and delivered to OSPO in Version 11.5 (Liu, Meng, Gassotti, Dong)

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			

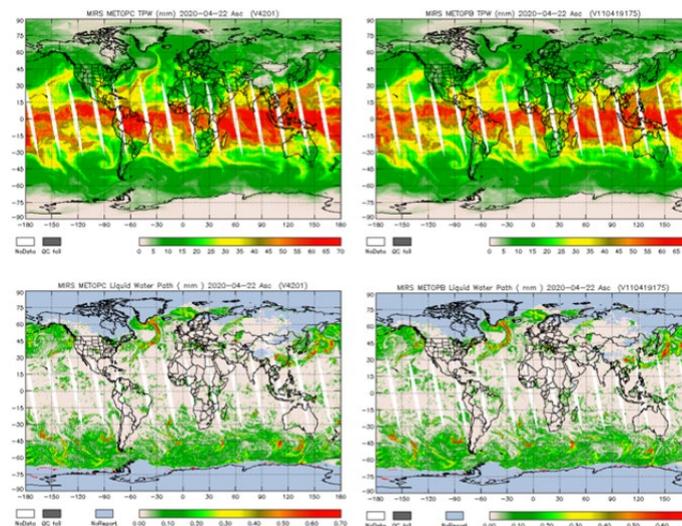
1. Project has completed.
2. Project is within budget, scope and on schedule.
3. Project has deviated slightly from the plan but should recover.
4. Project has fallen significantly behind schedule, and/or significantly over budget.

Issues/Risks:

None

Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
J2 pre-launch test/proxy data review/analyze	Sep-20	Sep-20		
J2 Cal/Val Plan - draft delivery	Jun-20	Jun-20		
Initial J2 ready DAP to NDE (include NPP/N20 updates)	Nov-20	Nov-20		
Algorithm Updates Review	Sep-20	Sep-20		
Algorithm update DAP to ASSISTT: <ul style="list-style-type: none"> Optimize MiRS for NOAA-20 and SNPP SFR integration; Algorithm test and verification 	Jul-20	Jul-20		With initial J2 DAP
Verification of direct readout EDRs	Sep-20	Sep-20		
Annual algorithms/products performance report	Feb-20	Feb-20	Feb-20	
NOAA-20 and S-NPP cross-calibration/comparison	Sep-20	Sep-20		
Cal/Val visualization and LTM tool development/improvement	Sep-20	Sep-20		

Highlights: MIRS with METOP-C



MiRS retrievals of total precipitable water (top) and liquid water path (bottom) from Metop-C (left) and Metop-B (right), indicating a high consistency in the retrieval products from the two satellites.

Accomplishments / Events:

- SFR for MOC algorithms completed and delivered to OSPO in Version 11.5 (Liu, Meng, Gassotti, Dong). Provided a complete reorganization of the snowfall rate algorithm to support a more unified approach across all ATMS or MHS carrying satellites; a more modular system design will allow more efficient maintenance and updating of snowfall rate software going forward. Bias correction and other coefficients in the snowfall rate algorithm were also completely recalibrated for all ATMS and AMSUA-MHS carrying satellites.

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.

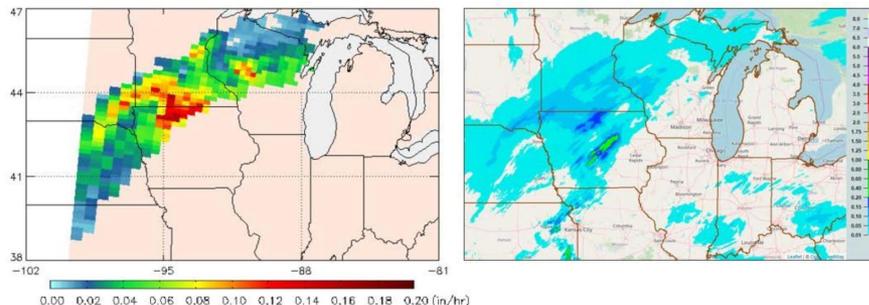
Issues/Risks:

None

Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
Annual algorithms/products performance report	Feb-20	Feb-20	Feb-20	
Enhance the calibration method to mitigate existing issues including reducing non-convergence rate	May-20	May-20		
J2 Cal/Val Plan - draft delivery	Jun-20	Jun-20		
Deliver updated SFR package to MiRS team	Jun-20	Jun-20		
J2 pre-launch test/proxy data review/analyze	Sep-20	Sep-20		
Initial J2 ready DAP to ASSISTT	Jul-20	Jul-20		MiRS delivery
Initial J2 ready DAP to NDE (include NPP/N20 updates)	Nov-20	Nov-20		ASSISTT delivery
Algorithm Updates Review	Sep-20	Sep-20		
Verification of direct readout EDRs	Sep-20	Sep-20		
NOAA-20 and S-NPP cross-calibration/comparison	Sep-20	Sep-20		
Cal/Val visualization and LTM tool development/improvement	Sep-20	Sep-20		

Highlights: Late Winter Storm Captured well by Snowfall Rate Product

A late season storm system brought a swath of significant snow to parts of northeast Iowa, southeast Minnesota, and western into north-central Wisconsin on Easter Sunday, April 12th, 2020



Left: Metop-C SFR on April 12, 2020 15:46 UTC

Right: the corresponding gauge corrected hourly Multi-Radar Multi-Sensor (MRMS) precipitation product ending at 16:00 UTC.

Accomplishments / Events:

- Validating OMPS V2Limb SDRs and EDRs.
 - Product is at Provisional maturity performance on NDE I&T.
 - Operational Briefing provided to SPSRB on April 15th.
 - Transfer to NDE Operations expected in early June.
- Investigating S-NPP / NOAA-20 OMPS product differences.
 - Preparing refined V8PRo model fidelity DAP.
 - Identified In-Band Stray Light contamination for NOAA-20 OMPS NP measurements.
- OMPS SO₂
 - Revised journal paper accepted for publication.
 - Hazards monitoring web site goes live.
- Continued development of V8TOz enterprise algorithm for Cloud and validation applications.

Overall Status:

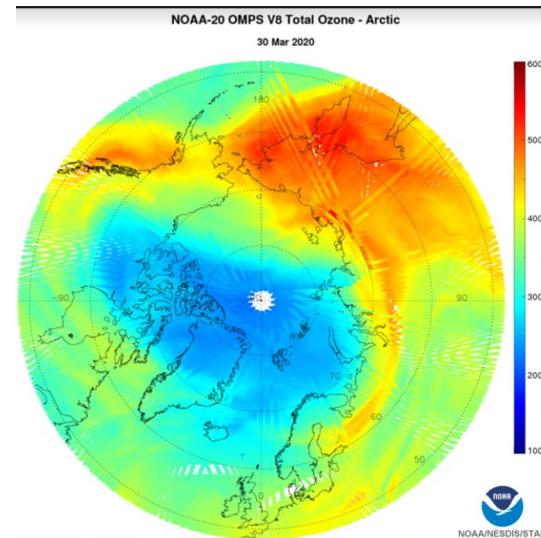
	Green ¹ (Completed)	Blue ² (On-Schedule)	Yellow ³ (Caution)	Red ⁴ (Critical)	Reason for Deviation
Cost / Budget		X			
Technical / Programmatic		X			
Schedule			X		# SDR Schedule, code change

- 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:

Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
Validated Maturity: V8Pro	Jan-20	Jun-20		Bandpass differences
Limb SDR and EDR to operations	Feb-20	May-20		NDE errors
J2 pre-launch test/proxy data review/analyze	Sep-20	Sep-20		
J2 Cal/Val Plan - draft delivery	Jun-20	Jun-20		
Initial J2 ready DAP to ASSISTT	Jul-20	Jul-20		With NPP/N20 updates
Initial J2 ready DAP to NDE (include NPP/N20 updates)	Dec-20	Dec-20		
Algorithm Updates Review	Sep-20	Sep-20		
RT Tables with Wavelengths, Bandpasses	Jul-20	Jul-20		
V8TOz with Cloud top optical centroid algorithm	Aug-20	Aug-20		With Jul-20 DAP ?
Annual algorithms / products performance report	Feb-20	Feb-20	Feb-20	
NOAA-20 and S-NPP cross-calibration/comparison	Sep-20	Jun-20		
Cal/Val visualization and LTM tool development/improvement	Sep-20	Sep-20		

Highlights: NOAA-20 captures Rare Spring Ozone Hole



Per <https://climate.gov/news-features/event-tracker/spring-2020-brings-rare-ozone-%E2%80%99chole%E2%80%99d-arctic>, “Along with the mild winter across much of the eastern United States and the return of something more like real winter in Alaska, here’s something else we can blame on the [polar vortex](#): a rare “hole” in the ozone layer over the Arctic in February and March 2020.”

Accomplishments / Events:

- AMSR-2 V3 rainfall product implemented at OSPO (Ferraro)

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.

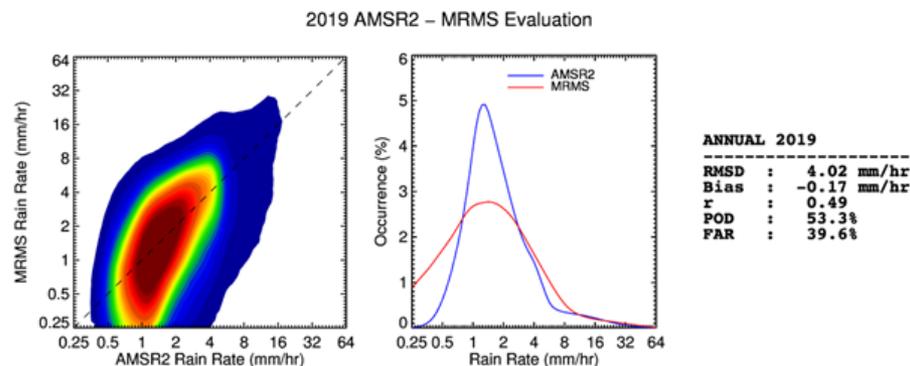
Issues/Risks:

None

Milestones	Original Date	Forecast Date	Actual Completion Date	Variance Explanation
Annual report on AMSR2 algorithms and data products performance	Feb-20	Feb-20	Feb-20	
Algorithm Cal/Val	Sep-20	Sep-20		
Algorithm improvement/bug fix	Sep-20	Sep-20		
Deliver updated algorithm DAP to NDE	Sep-20	Sep-20		
Long-term monitoring tool/website development/improvement	Sep-20	Sep-20		
Complete reprocessing of entire mission dataset of AMSR2	Sep-20	Sep-20	Mar-20	

Highlights:

Results from 2019 cal/val of AMSR-2 Rain EDR (new algorithm upgrade GPROF2010V3)



Meets Requirement – 5 mm/hr over land