



# JPSS EDR Team Annual Review

Ivan Csiszar

September 21, 2012

8:00 – 5:00

Greentech S600

Call-in: : [1-877-675-0519](tel:1-877-675-0519)

Participant code: 7161483

<https://nasa.webex.com/nasa/j.php?ED=190152027&UID=0&PW=NNWM2ODQ4N2Nh&RT=MiMxMQ%3D%3D>

Password: Meeting1234%



# Purpose of the meeting

- Major FY12 accomplishments
- Issues, challenges, setbacks
- Changes in strategy
- FY13 schedule and milestones
- Path forward (FY14-FY17)



# SNPP/JPSS Algorithm Science and Product Working Group



**STAR ASPWG**  
Ivan Csiszar, Chair NESDIS/STAR

**NJO**  
**STAR management**  
**DPA**  
**DPE**  
**NGAS**  
**RAYTHEON**  
**NASA SNPP**

**STAR Team leads**  
 Soundings – Chris Barnet  
 Imagery – Don Hillger  
 SST – Sasha Ignatov  
 Clouds – Andrew Heidinger  
 Aerosols – S. Kondragunta, I. Laszlo  
 Cryosphere – Jeff Key  
 Land – Ivan Csiszar  
 Net Heat Flux – X. Li  
 Ocean Color – Menghua Wang  
 Ozone – Larry Flynn  
 CERES – Istvan Laszlo



**Cal/val leads**  
 Soundings – Chris Barnet, STAR  
 Imagery – Tom Kopp, Aerospace  
 SST – Bob Arnone, NRL  
 Clouds – Andrew Heidinger, Tom Kopp (VCM)  
 Aerosols – S. Kondragunta, I. Laszlo  
 Cryosphere – Pablo Clemente-Colon, STAR  
 Land – Jeff Privette, NOAA/NCDC  
 Net Heat Flux – TBD  
 Ocean Color – Bob Arnone, NRL  
 Ozone – Larry Flynn, STAR  
 CERES – Istvan Laszlo



# Major FY12 EDR achievements



- Finished early orbit check-out and phased into intensive calibration and validation
- Established Beta Maturity process and declared upstream products Beta
- Continuing support of SDR evaluation, working on remaining issues after SDR “beta” approvals by AERB
- EDR feedback on upstream products
- Continuing reporting and discussion of discrepancies / issues through the Discrepancy Report system
  - Team leads took leadership in establishing priorities and scheduling DRs
- Updates tested for implementation in IDPS drops
- Supported seeded/granulated/intermediate data (NDVI, QST, LWM, LSA17Day, Snow-Ice-Cover Rolling)
- Quality flag evaluation and science support for QF testing
- Technical meetings and tag-ups: NGAS tutorials (April); VCM workshop (April 17-18); NASA NPP Science Team meeting (May 9-11), TIMs etc.



# Issues, challenges, setbacks

- Impact of continuing high level discussions on specific roles and responsibilities
- Delays in funding and issues with funding allocation
- Reduced funding for algorithm and cal/val work
- Reduced funding for management and STAR AIT support
  - Limited coordinated ADL / data system support etc.
- Insufficient SDR-EDR interaction for some teams
  - Improving after SNPP launch
- Overall program complexity
  - Systems, procedures, information exchange



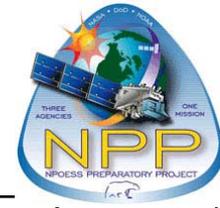
# SNPP EDR Maturity levels



NPP EDR Product Maturity Levels	
<p><b>1. Beta</b></p> <ul style="list-style-type: none"> <li>• Early release product</li> <li>• Minimally validated</li> <li>• May still contain significant errors.</li> <li>• Versioning not established until a baseline is determined.</li> <li>• Available to allow users to gain familiarity with data formats and parameters</li> <li>• Product is not appropriate as the basis for quantitative scientific publications studies and applications</li> </ul>	
<p><b>2. Provisional</b></p> <ul style="list-style-type: none"> <li>• Product quality may not be optimal</li> <li>• Incremental product improvements are still occurring.</li> <li>• Version control is in affect</li> <li>• General research community is encouraged to participate in the QA and validation of the product, but need to be aware that product validation and QA are ongoing</li> <li>• Users are urged to consult the EDR product status document prior to use of the data in publications</li> <li>• May be replaced in the archive when the validated product becomes available</li> <li>• Ready for operational evaluation</li> </ul>	
<p><b>3. Validated</b></p> <ul style="list-style-type: none"> <li>• Product performance is well defined over a range of representative conditions</li> <li>• Ready for use by the Centrals and in scientific publications</li> <li>• There may be later improved versions</li> <li>• There are three validation stages (see next column)</li> </ul>	<p><b>Stage 1 Validation:</b> Product performance has been demonstrated to comply with the specification using a small number of independent measurements obtained from selected locations, periods, and associated ground-truth/field program efforts.</p> <hr/> <p><b>Stage 2 Validation:</b> Product performance has been demonstrated to comply with the specification over a widely distributed set of locations and periods via several ground-truth and validation efforts.</p> <hr/> <p><b>Stage 3 Validation:</b> Product performance has been demonstrated to comply with the specification and the uncertainties in the product well established via independent measurements in a systematic and statistically robust way representing global conditions.</p>



# Maturity matrix: VIIRS



Sensor	Algorithm	Beta	Provisional	Val 1	Val 2	Val 3	Dependency
VIIRS	RDR						
VIIRS	SDR - Cal	Apr-12	Oct-12	Aug-13			
VIIRS	SDR - Geo	Apr-12	Oct-12	Apr-13			
VIIRS	Imagery (Not NCC)	May-12	Oct-12	Aug-13	Aug-13	Aug-13	VSDRCAL
VIIRS	NCC Imagery	Jan-13	Jul-13	Jan-14	Jan-14	Jan-14	VSDRCAL
VIIRS	Cloud Mask	Apr-12	Mar-13	Sep-13	Mar-14	Dec-14	VSDRCALp
VIIRS	Cloud COP	May-13	Mar-14	TBD	TBD	TBD	VCMp
VIIRS	Cloud CTP (CTH, CTT, CTP)	May-13	Mar-14	Jul-14	Jan-15	Jan-16	VCMp
VIIRS	Cloud CBH	May-13	Mar-14	Jul-14	Jan-15	Jan-16	VCMp
VIIRS	Cloud CCL, PPC & GCE	May-13	Mar-14	Jul-14	Jan-15	Jan-16	VCMp
VIIRS	Aerosols (AOT & SM)	Jul-12	May-13	May-14	Nov-14	Nov-15	VCMp
VIIRS	Aerosol Particle Size	Jul-12	May-13	May-14	Nov-14	Nov-15	VCMp
VIIRS	Surface Temps - SST	Oct-12	Jul-13	Jan-14	Jul-14	Apr-15	VCM
VIIRS	Surface Temps - IST	Mar-13	Sep-13	Dec-13	Mar-14	Sep-14	VCM, VSDR Cal, Surf Type
VIIRS	Surface Temps - LST	Dec-12	May-13	Dec-13	May-14	May-15	VCM, VSDR Cal, Surf Type
VIIRS	Land Surf Type	Dec-12	Sep-13	May-14	May-15	Aug-15	SR, VI, Active Fire and Snow Cover EDRs
VIIRS	Land Surface Albedo	Sep-13	Mar-14	Jul-14	Jan-15	Jan-16	VCM, VSDR Cal, AOT
VIIRS	Sea Ice Albedo & Combined Surface Albedo	Jun-13	Dec-13	Jun-14	Dec-14	Dec-15	VCM, VSDR Cal, AOT
VIIRS	Land Active Fires	Aug-12	May-13	May-14	May-15	Aug-15	VSDR Cal
VIIRS	Land Veg Index	Sep-12	Jul-13	Jul-14	Jan-15	Jan-16	Surface Reflectance
VIIRS	Land Surface Reflectance IP	Sep-12	Jul-13	Jul-14	Jan-15	Jan-16	AOT
VIIRS	Ocean OCC / ACO	Oct-12	Apr-13	Feb-14	Feb-15	Feb-16	VSDR Cal
VIIRS	Ocean NHF and Ocean Surface Albedo						
VIIRS	Sea Ice Char - Quality IP						
VIIRS	Sea Ice Char - Conc	Jun-13	Dec-13	Mar-14	Oct-14	Mar-15	VCMp
VIIRS	Sea Ice Char - Age	Jun-13	Dec-13	Oct-14	Dec-14	Jun-15	VCMp
VIIRS	Snow Cover - Binary mask	Jun-13	Dec-13	Mar-14	Oct-14	Mar-15	VCMp
VIIRS	Snow Cover - Fraction	Jun-13	Dec-13	Oct-14	Oct-14	Mar-15	VCMp



# Maturity matrix: ATMS, CrIS, OMPS



Sensor	Algorithm	Beta	Provisional	Val 1	Val 2	Val 3	Dependency
ATMS	RDR						
ATMS	SDR - Cal & Geo	Feb-12	Jul-12	Oct-12			
CrIS	RDR						
CrIS	SDR - Cal&Geo	Apr-12	Oct-12	Jan-13			
CrIS	EDR - AVTP, AVMP & AVPP	Jul-12	Dec-12	Jun-13	Dec-13	Dec-14	ATMS SDR and CrIS SDR
OMPS	RDR	Feb-12					
OMPS	SDR - Ozone TC EV	Mar-12	Mar-13	Jun-13			
OMPS	SDR - Ozone NP EV	Mar-12	Mar-13	Jun-13			
OMPS	SDR Ozone TC Cal	Mar-13	Jun-13	Sep-13	Mar-14	Mar-15	
OMPS	SDR Ozone NP Cal	Mar-13	Jun-13	Sep-13	Mar-14	Mar-15	
OMPS	SDR - Ozone TC Geo	Mar-12	May-12	Aug-12			
OMPS	SDR - Ozone NP Geo	Mar-12	May-12	Aug-12			
OMPS	EDR - Ozone TC	Jul-12	Dec-12	Jul-13	Sep-13	Feb-14	CrIS & VIIRS EDRs
OMPS	EDR(IP) - Ozone NP	Jul-12	Oct-12	Jul-13	Sep-13	Feb-14	

# EDR Annual Review Agenda

## Friday, September 21

8:15 – 9:00 Aerosols

9:00 – 9:45 Sea Surface Temperature

9:45 – 10:30 Ocean Color

Break

11:00 – 11:45 Imagery

11:45 – 12:30 Clouds

Lunch

1:30 – 2:15 Land Surface

2:15 – 3:00 Soundings

3:00 – 3:45 Ozone

Break

4:00 – 5:00 EDR Discussion and Wrap-Up

I wish everyone a productive  
review!