



JPSS-STAR Annual Meeting



JPSS-STAR (JSTAR) Program Meeting Objectives, Agenda, and JSTAR Overview

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NCWCP, College Park, MD**



Meeting Objectives



1. Review Science Teams Readiness for JPSS-1

- SDR/EDR Algorithm Development/Improvements for J1
- R2O, Support for Operational flow Transitions
- Schedules and Milestones
- Cal Val plans
- Major Accomplishments/Highlights Moving Towards J1

2. Review Science Teams Support for Suomi NPP

- Suomi NPP Long Term Monitoring and Adaptation to JPSS-1
- Integrated Calibration Validation System (ICVS) for SDRs/EDRs

3. Interaction/Communication Among Stake Holders

4. Feedback from User Community

Please submit the RFA form or email me: Lihang.Zhou@noaa.gov



Meeting Agenda



Monday August 24	Tuesday August 25	Wednesday August 26			Thursday August 27				Friday August 28
	Session 3 - EDR Overviews	Session 5			Session 6				Session 8 - Data Access
		VIIRS (6a)	OMPS/Ozone (6b)	ATMS + CrIS (6c)	Soundings	Land / Cryo (7b)	Ocean Color (7d.1)	SST (7d.2)	
	Break	Break			Break				Break
	Session 3 (cont'd.) - EDR Overviews	VIIRS	OMPS/Ozone	ATMS + CrIS	Soundings	Land / Cryo	Ocean Color	SST	Session 9 - Science Quality Data Processing
	Lunch / Poster I	Lunch			Lunch / Poster II				
Session I - Welcome and Opening Remarks	Session 4 - Users	VIIRS	OMPS/Ozone	ATMS + CrIS	Aerosols/ Clouds (7e)	Land / Cryo	Ocean Color		
Break	Break	Break			Break				
Session 2 - SDR Overviews	Session 5 - Advanced Applications	VIIRS	OMPS/Ozone	Soundings (7a)	Aerosols/ Clouds	Land / Cryo Imagery (7c)	Ocean Color		



JPSS-STAR (JSTAR) Program

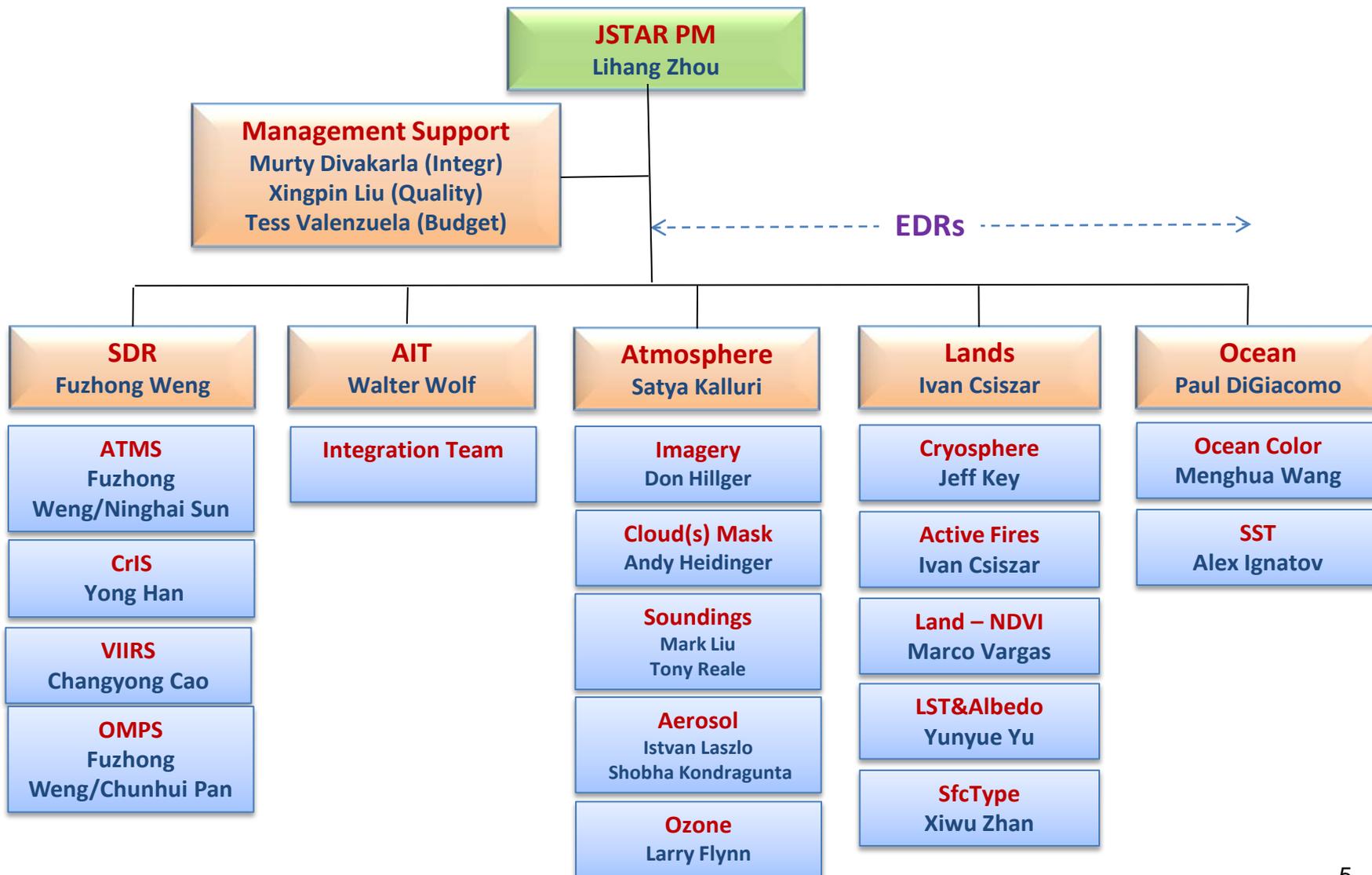


PURPOSE: To provide **robust, affordable, and flexible** state-of-art scientific solutions to meet JPSS requirements

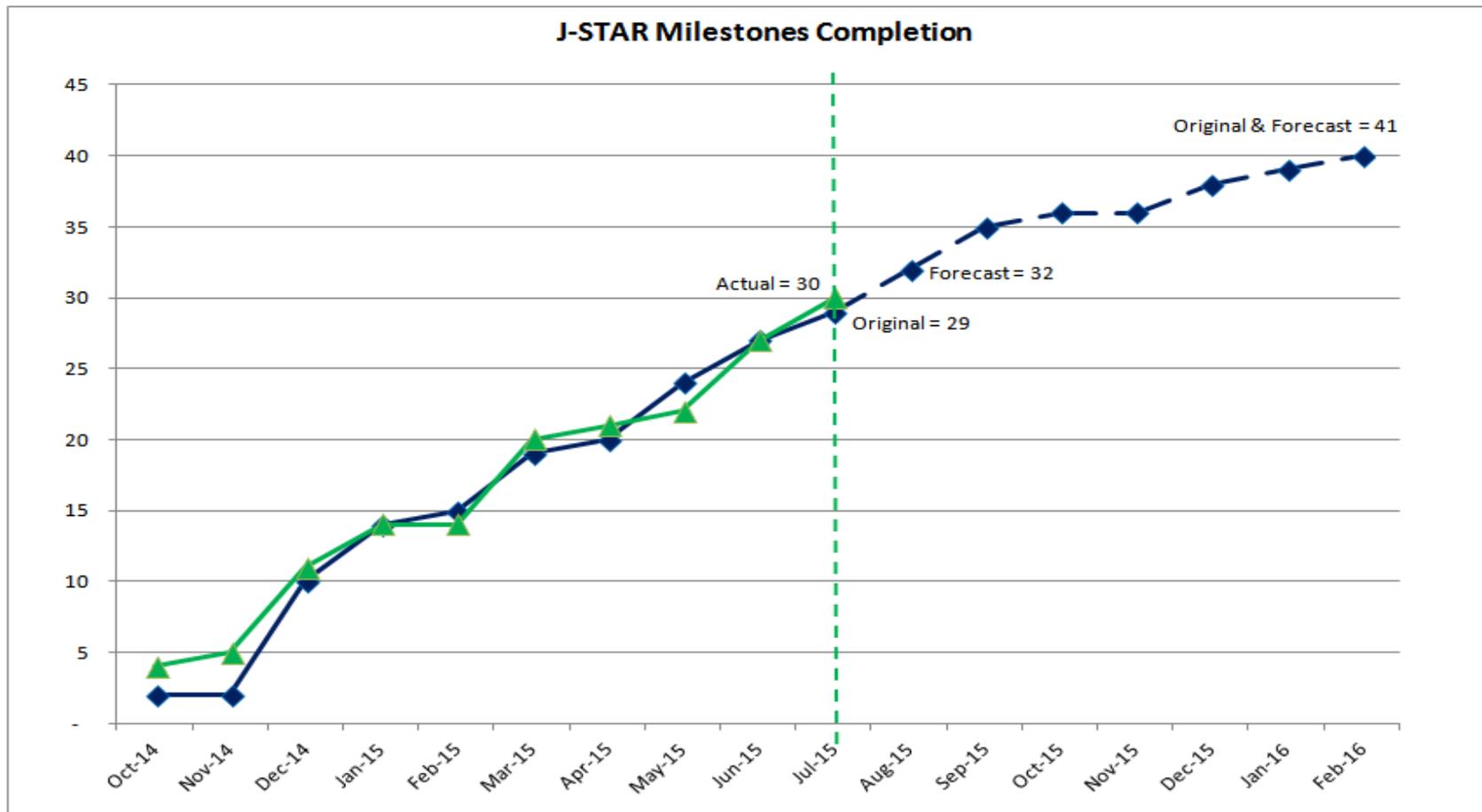
- Leverages hundreds scientists from NOAA, NASA, DOD, and NOAA's Cooperative Institutes (University partners) and Industry Partners
- Applies first-hand knowledge of algorithms and cal val, developed in POES, GOES, DMSP, EOS, MetOP, and GOES-R, for JPSS Program
- Works closely with JPSS Program Science and all other elements to ensure the developments are in line with the users' requirements, and efficient science to operation transitions
- Facilitate algorithm consistency across platforms
 - **Supports science for multiple satellite systems (Enterprise Approaches)**



JPSS-STAR (JSTAR) Teams



- **Cost, Performance, Schedules and Milestones**
 - Coordinate with leads on budget/schedule/milestones
 - Consolidated NJO STAR Technical Task Agreement (TTA)
 - Integrated Master Schedule (IMS)





JSTAR FY15 Key Deliveries/Milestones to the JPSS Program



Milestones	Delivery Date
CrIS SDR: Full spectral resolutions SDR	Jan-15
CrIS SDR: Fringe Count Error module update	Jun-15
CrIS SDR: JPSS-1 Instrument Test Data Analysis Report	Mar-15
VIIRS SDR: JPSS-1 Instrument Test Data Analysis Report	Aug-15
OMPS SDR: JPSS-1 Instrument Test Data Analysis Report	Jul-14
OMPS SDR: Algorithm improvements to support extended spectral range, and reduced horizontal cell size at nadir	Apr-15 (TC) May-15 (NP)
OMPS Ozone NP: V8Pro	Feb-15
OMPS Ozone TC: V8TOz	Jul-15
Vegetation Indices: Add top-of-canopy NDVI	Mar-15
Ocean Color: OCC for coastal and inland water	Apr-15
Active Fires: 2D fire mask; include water for global coverage	Jun-15
JPSS-1 Cal Val Plans Draft Delivery	Jul-15
VIIRS SDR: LUT and GEO code update for JPSS-1	Aug-15



JSTAR FY15 Other Accomplishments



Milestones	Review Date
EDR Long Term Monitoring (LTM) Workshop	Oct-14
Cal/Val Maturity Readiness Review: Validated Maturity: LST, LSA, Surface Type	Dec-14
Transitioned ATBD documents from NASA CM to STAR CM	Jan-15
JPSS-2 and Beyond Sensor Improvement Science Recommendations	Jan-15
JPSS-1 Instrument Waiver Analysis	Jan-15
Participated NASA Post-Launch-Test (PLT) Planning and Provided Science Teams Inputs	Feb-15
JPSS Enterprise Algorithms Meetings for Priority 3 and 4 Products	Feb-15
Cal/Val Maturity Readiness Review: Validated Maturity: OCC	Mar-15
CrIS FS SDR Meeting with Key NWP Users	Mar-15
Coordinated Science Inputs to the JPSS Mission Operation Readiness (MOR) Review	Apr-15
STAR ICVS Instrument Status Annual Review	May-15



JPSS-1 Test Data Sets



- JPSS Test Data Working Group (TDWG) generated J1 RDRs from J1 TVAC and Suomi NPP data sets as desired by STAR SDR teams.
- STAR teams utilized J1 RDRs to develop and test SDR algorithms for sensor changes and waiver mitigations.
- STAR SDR teams also developed tools to manipulate the data sets and create new proxy data sets to verify SDR and EDR algorithms at several levels.
- Running J1 test data sets through the algorithms helps us better prepare for J1 post launch cal val activities.



JSTAR Program Priorities Moving Forward



- **Ensure Cal/Val Team Readiness for JPSS-1**
 - Develop roadmap/plans toward *enterprise algorithms*
 - Algorithm development/Improvements for J1
 - Implement code to meet JPSS-1 requirements
 - Develop and update the Cal/Val plans
- **Continue Support for Suomi NPP Mission Objectives**
 - Provide Suomi NPP data products to support NOAA's operational missions.
 - Provide a pre-operational demonstration for JPSS *user engagement* (Testbed)
 - *Science quality data processing*



Websites of Importance



STAR JPSS Website



<http://www.star.nesdis.noaa.gov/jpss/index.php>

- ATBDs
- Cal/Val Docs
- OAD and CDFCB
- Requirements Documents
- SDR/EDR Team Leads/Contacts
- Links to ICVS
- Links to EDR websites



Summary



- **Highly Experienced:** Developed the algorithms for NOAA's satellite programs since their inception over 40 years ago; Understand how to calibrate, validate and verify algorithms using techniques appropriate for instrument, product, and spectral characteristics
- **Very Capable:** Developed tools and products for SNPP; Capable of generating proxy data sets for all JPSS-1 instruments (ATMS, CrIS, VIIRS, and OMPS) for use in pre-launch characterization and risk mitigation
- **Well Coordinated:** Work with all elements of the JPSS Program, maintain, upgrade, demonstrate, document, and deliver algorithms to meet program requirements
- **On-time:** Demonstrated clear progress toward our algorithm development plan
 - Draft JPSS-1 Cal Val plans for all the products have been delivered on schedule
 - JPSS-1 updates have been delivered as planned
 - All scheduled SNPP validation maturity reviews have been completed
- **Enterprise Solution:** Same science supporting multiple satellites / systems. Establish JSTAR management processes with a defined schedule that is aligned with JPSS Program to provide status and track progress



Thank You and Enjoy the Meeting!