Software and algorithms support a variety of satellite and in-situ data streams.

NEW ERA: Satellites and Measurements from GEOSS

Integrated Algorithm and Product Processing System

Best earth observations & products

OLD ERA: Software and algorithms tailored to specific satellite data streams
Center for Satellite Applications and Research (STAR)

Goals

- Promote new sensor and applications research
- Ensure high quality satellite data
- Advance algorithm refinement and technology infusion
- Transition research products into operational use
- Build and sustain partnerships

Science, Service, Stewardship

STAR Provides World Class Satellite Scientific Research and Applications

- To understand and predict changes in climate, weather, oceans, and coasts
- To share that knowledge and information with others
- To conserve and manage coastal and marine ecosystems and resources
- To maximize the impact of NOAA’s satellite program for the benefit of society, our communities and Nation’s economy
We Are Making a Difference:
Single Sensor Impacts: 500 hPa AC scores for
00Z 20120815-20120930 (Jim Jung)

Base includes GPSRO constellation as it existed

22 May 2014
Strengthening NESDIS: Reorganization:

- Adding advanced ground services and systems engineering capabilities
- Common Ground Services and standardizing product distribution, access and archiving
- Systems engineering approach at the enterprise level and advanced system and technology planning for future programs
- Consolidation of world-class NOAA data centers
- Reorganization authority as part of FY2015 budget process

New Organizational Structure:

<table>
<thead>
<tr>
<th>National Climatic Data Center</th>
<th>Systems Architecture and Advanced Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Geophysical Data Center</td>
<td>Office of Satellite Ground Services</td>
</tr>
<tr>
<td>National Oceanographic Data Center</td>
<td>National Environmental Information Office</td>
</tr>
<tr>
<td>Office of Systems Development</td>
<td>Office of Projects, Partnerships and Analysis</td>
</tr>
<tr>
<td>Office of Satellite Products and Operations</td>
<td>Office of Satellite Products and Operations</td>
</tr>
<tr>
<td>Center for Satellite Applications and Research</td>
<td>Center for Satellite Applications and Research</td>
</tr>
<tr>
<td>GOES-R Program Office</td>
<td>GOES-R Program Office</td>
</tr>
<tr>
<td>JPSS Program Office</td>
<td>JPSS Program Office</td>
</tr>
</tbody>
</table>
Preparing Our Users for Next Generation Satellites, Products and Services

- Support a “Weather Ready Nation”
- Protect life and property
- Support transportation and commerce
- Facilitate sustainable agriculture, fisheries and aquaculture
- Assist communities and provide recreational opportunities
- Inform renewable energy business decisions
- Safeguard communication
- Create business opportunities
Center for Satellite Applications and Research

NOAA is where science earns value
NESDIS and STAR
A Partnership
Mission

To research, maintain and transfer to operations new or improved products and services enabling NOAA to offer state-of-the-art capabilities to decision makers and the public.

Vision

To advance remote sensing science and technology to better inform the American public and safeguard the environment.
Office of Satellite Ground Services (OSGS) Status

Robin Krause

STAR-JPSS Science Team Annual Meeting

May 12, 2014
NESDIS Identified Need for a Ground Enterprise

### Today’s Ground
- Stand-alone ground systems with limited interoperability and parts commonality
  - High sustainment and O&M costs
  - Inefficient use of government & contractor personnel
- Lack of an enterprise approach to future capability development.
  - Limited use of similar capabilities across missions
  - Limited ability to leverage existing systems for new products and services
  - Difficult and costly to integrate future missions

### Ground Enterprise
- Enterprise approach with flexible, agile concepts of operation that reduce costs and speed product / service deployment
- Integrating current infrastructure with common services for interoperability and improved utilization
- Improved parts commonality for more efficient use of resources
- Separate hardware and software sustainment activities, enabling hardware refresh and new capability insertions as opportunities and budgets permit
- Establishing well-defined, common business processes & procedures, and roles & responsibilities across all ground projects
Vision and Mission Guide the Transition to Ground Enterprise ARchitecture (GEAR)

OSGS Vision
One integrated, cross-program, cross-NESDIS team creating and sustaining the Ground Enterprise ARchitecture (GEAR) System (GEARS)

OSGS Mission
- Sustain Current Ops (GOES, POES, S-NPP, …)
- Enable Future Ops (GOES-R, JPSS, …)
- Create GEARS (NDE, PDA, CLASS, …)
OSGS FY15 Mission Objectives Begin the Transition to the NESDIS GEAR System

**Sustain**
- Conduct sustainment on legacy (POEs/GOES/etc.) and NDE/PDA/CLASS infrastructure
  - Initiate cost-avoidance activities as funding and timelines allow
  - Existing staff with augmentation

**Enable**
- Provide matrixed support to GOES-R and JPSS-1 programs
  - Complete the ground segments
  - Watch for further opportunities to migrate to enterprise operations
- Prepare to lead sustainment after transition
- Existing staff

**Create**
- Finish transition plan and draft acquisition plan for FY17 GEAR System initiative
  - Prototype three types of services (security, algorithms, C3)
  - Primarily new FY15 hires
Delivering the Ground Enterprise and Strengthening Systems Engineering

Chief of Staff
Administrative Officer
Admin Support

OSGS Director
Deputy Director
Chief Ground Systems Architect

Resources Support Division
Division Chief

Programs, Engineering & Technology Division
Division Chief
Deputy Division Chief

System Engineering Division
Division Chief
Deputy Division Chief

Project Support Branch
Branch Chief

Command Control & Communication Branch
Branch Chief

Enterprise Management Branch
Branch Chief

Budget and Finance Branch
Branch Chief

Prod Generation & Distribution Branch
Branch Chief

System Engineering Branch
Branch Chief

Archive Branch
Branch Chief

Transition Branch
Branch Chief
### Technical and Programmatic Leadership in Close Coordination with Stakeholders

#### OSGS

- Plan, acquire, develop, transition to operations, and sustain the enterprise ground system for NOAA’s environmental satellite systems

#### Programs, Engineering & Technology

- Lead for capability implementation
- Project management for acquisition & sustainment
- Coordination with programs, projects, & customer/user communities
- Interface with flight projects for product generation, distribution and archival systems

#### Systems Engineering

- Coordination with users & customers for transition to ops
- Coordination for sustainment of operational ground systems
- Architectural and systems engineering standards
- NESDIS-wide enterprise ground mission assurance
- System and IT security architecture analyses & studies

#### Resources Support

- Establishment of SLA and partner agreements
- Budgetary and financial coordination
- Acquisition services
- Project management services
Functional Responsibilities: OSGS Programs, Engineering and Technology

- Engineering and technical expertise
  - Lead organization for implementing capabilities
  - Project management for acquisition and sustainment
  - Project baseline of all documentation

- Capability for development of ground system functional areas
- Coordination with programs and projects, customer and user communities, and OSGS System Engineering Division on lower level satellite data needs requirements
- Development-level integration and test
- Trade studies, technical analyses, technology assessment, and proof-of-concept development for risk reduction and technology exploitation
- Re-use or make-buy decisions
- Interfaces with flight projects for command and control and data acquisition systems and user/customer organizations, providing science development and testing for product generation, distribution and archival systems
- Establishes standards and centers of excellence for engineering/technology disciplines
Functional Responsibilities: OSGS Systems Engineering

- Primary systems engineering organization in OSGS
- Requirements flow down and tracking
- System and IT security architecture analyses and studies
- Architectural & system interface standards

- System-wide verification and validation activities
- Oversight of system integration & testing into the operational environment
- Configuration and document management functions for system assets
- Coordination with user/customer organizations in transitioning systems into operations and associated training
- Systems engineering services and operations coordination for the sustainment of operational ground systems
- Implements NESDIS-wide Mission Assurance (safety, reliability, maintainability, and quality assurance policies and procedures)
Functional Responsibilities: OSGS Resources Support

- Resources, processes, and methodologies for planning and execution
- Establishment of SLAs and partner agreements
- Development of project management policies and management practice

- Budgetary and financial coordination with major programs, projects, offices, and centers
- Acquisition services including coordination of legal services with the Department of Commerce, contract management and interface to NOAA Acquisition and Grants Office
- Project control including scope, schedule and cost control
- Project support to initiation, planning (e.g., cost estimation), execution, and performance monitoring (e.g., EVM and Exhibit 300s)
- Risk management services
Delivering the Benefits of an Enterprise Approach

**Mission Success**

- Accelerated deployment of new ground system capabilities
  - Elimination of redundant acquisitions of common ground system functionality
  - Common hardware and software environment for deployment of new functionality
  - Implementation of business process changes to streamline deployment

**Cost Effectiveness Success**

- Avoidance of mission ground system costs
  - Elimination of redundant development of common ground system functionality
  - Sharing of common but underutilized infrastructure resources across satellite programs
  - Simplification of ground operations to require fewer support staff
Fostering Active Engagement with Ground Enterprise Stakeholders

<table>
<thead>
<tr>
<th>Stakeholder Engagement Methods</th>
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<tbody>
<tr>
<td>Quarterly ground enterprise leadership forums or steering committee meetings</td>
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<tr>
<td>Participation in establishing ground enterprise strategy and evolution</td>
</tr>
<tr>
<td>Engagement in Cross-NESDIS working groups (or IPTs)</td>
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<tr>
<td>Tailored communication materials</td>
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<tr>
<td>And so forth…</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Ground Enterprise Stakeholders</th>
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</thead>
<tbody>
<tr>
<td>Stakeholders</td>
</tr>
<tr>
<td>• Customer &amp; user communities</td>
</tr>
<tr>
<td>• NOAA</td>
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<tr>
<td>• Oversight groups</td>
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<tr>
<td>Mission partners</td>
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<tr>
<td>• OSAAP</td>
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<tr>
<td>• GOES-R</td>
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<td>• JPSS</td>
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<td>• OPPA</td>
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<td>• NEIO</td>
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<td>• OSPO</td>
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<td>• STAR</td>
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<tr>
<td>• CIO</td>
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<tr>
<td>• Facilities</td>
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<tr>
<td>• NASA Goddard</td>
</tr>
</tbody>
</table>
Illustration of NESDIS Organizations and Their Functions

OSAAP  Policy and Governance

Enterprise Orchestration

OSGS  
Ground Systems
Development & Sustainment

CIO  
Network Infrastructure

Facilities  
Facilities Infrastructure

Infrastructure

NEIO  
Data Synthesis & Stewardship

OSPO  
Satellite Ops. & Products

STAR  
Science & Algorithms

Science & Operations

GOES-R Program

JPSS Program

OPPA  
Flight Projects

Flight Programs
# OSGS Transition Teams

<table>
<thead>
<tr>
<th>Team</th>
<th>Lead</th>
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<tbody>
<tr>
<td>Staff Planning &amp; Hiring</td>
<td>George Serafino</td>
</tr>
<tr>
<td>Facility Planning and Office Moves</td>
<td>George Serafino &amp; Debra Rodgers</td>
</tr>
<tr>
<td>Resources</td>
<td>Stan Stanczyk</td>
</tr>
<tr>
<td>Contracts</td>
<td>Greg James</td>
</tr>
<tr>
<td>Architecture Alignment</td>
<td>Robin Krause</td>
</tr>
<tr>
<td>Strategic &amp; Transition Planning (STP)</td>
<td></td>
</tr>
<tr>
<td>NESDIS Ground Integration</td>
<td>Michelle Detommaso</td>
</tr>
<tr>
<td>Organizational Change</td>
<td>Diane Schulte</td>
</tr>
<tr>
<td>Sustainment</td>
<td>Ron Smilek</td>
</tr>
</tbody>
</table>
New NESDIS GEAR System Will Serve the NESDIS Ground Enterprise

GEAR System Vision

To provide a suite of common ground services enabling accelerated deployment of capabilities and avoidance of mission ground systems costs

GEAR System Drivers

- Transition without harm to launch of GOES-R and JPSS 1 & 2
- Define enterprise ground services
- Enable the evolution of the ground architecture as NESDIS needs change
- Promote interoperability between observing systems, common ground, and diverse partners
- Maximize acquisition flexibility

Look to the Future

Meet Mission Needs
### Architectural Principles

- Avoid cost while maintaining value
- Develop common services
- Share information
- Be technology independent
- Control technical diversity
- Be interoperability

### General Attributes

- Enterprise management
  - Shared infrastructure
  - Mission isolation
- Hardware agnostic
  - Location agnostic
  - Acquisition approach agnostic
- Service oriented architecture
  - Common services reuse
  - Standards-based
- Automation capable
- Highly secure
## Common Services
- Available to any Enterprise application
- Registered in the enterprise service registry
- Negotiated SLA with each user of the service
- Maintained by Enterprise
- Changes require approval by the GEAR System Governance Board

## Private Services
- Specific to a particular Enterprise-hosted application
- Not visible or usable outside that application
- Not approved or funded by Enterprise
- Maintained by the application provider
Status of GEAR

• Current focus on high priority services
  • Overarching target architecture
  • Transition plan that embraces ongoing activities and maximizes on what can be done to avoid costs in the near term
  • Product Management (Algorithm Framework, Product Generation, Product Distribution and Archive) and Infrastructure

• Early Prototyping
  • Common algorithm framework, Blended Products, IT Security
  • Will be integrated into a lab in Suitland when it’s available

• Concept of Operations under NESDIS directorate-level review

• Independent Reviews:
  • IIRT #3 was held on 27 March 2014
  • Focused on approach to capture target architecture and performance goals
  • IIRT #4 is scheduled for 4 September 2014
  • Focus will be on transition roadmap and supporting documentation
• Vision and Mission Established
• Organization Structure and Staffing Plan completed
• Interactions with peer organizations underway
• GEAR System Concept of Operation in coordination
Questions?
Algorithm and User Assessments

Mitch Goldberg
JPSS Program Scientist
# General Comments Form

**2014 STAR JPSS Science Teams Annual Meeting**  
**May 12–16, 2014**  
**NCWCP, College Park, MD**

<table>
<thead>
<tr>
<th>Originator Name:</th>
<th>Phone #:</th>
<th>Org</th>
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</thead>
</table>

**Title:**  
Comment/Recommendation (include presentation section and page #)

**Rationale:**

**Clarification:**

**Assigned To:**  
Assignee Phone #

**Date Closed:**
JPSS EDRs

VIIRS (25)
- ACTIVE FIRES
- AEROSOL OPTICAL THICKNESS
- AEROSOL PARTICLE SIZE
- ALBEDO (SURFACE)
- CLOUD BASE HEIGHT
- CLOUD COVER/LAYERS
- CLOUD EFFECTIVE PART SIZE
- CLOUD OPTICAL THICKNESS
- CLOUD TOP HEIGHT
- CLOUD TOP PRESSURE
- CLOUD TOP TEMPERATURE
- GREEN VEGETATION FRACTION
- ICE SURFACE TEMPERATURE
- IMAGERY
- LAND SURFACE TEMPERATURE
- OCEAN COLOR/CHLOROPHYLL
- POLAR WINDS
- QUARTERLY SURFACE TYPE
- SEA ICE CHARACTERIZATION
- (AGE & CONCENTRATION, proposed)
- SEA SURFACE TEMPERATURE
- SNOW COVER
- SURFACE REFLECTANCE (proposed)
- SURFACE TYPE
- SUSPENDED MATTER
- VEGETATION HEALTH PRODUCT
- SUITE
- VEGETATION INDICES

OMPS (2)
- OZONE TOTAL COLUMN
- NADIR PROFILE OZONE
- AEROSOLS (proposed)
- SO2 (proposed)

CrIS (5)
- INFRARED OZONE PROFILE
- OUTGOING LW RADIATION
- TRACE GASES (CO2, CH4, CO)

CrIS/ATMS (2)
- ATMOSPHERIC VERT MOISTURE PROFILE
- ATMOSPHERIC VERT TEMPERATURE PROFILE

GCOM AMSR-2 (11)
- CLOUD LIQUID WATER
- IMAGERY
- PRECIPITATION TYPE/RATE
- SEA ICE CHARACTERIZATION
- SEA SURFACE TEMPERATURE
- SEA SURFACE WIND SPEED
- SNOW COVER/DEPTH
- SNOW WATER EQUIVALENT
- SOIL MOISTURE
- SURFACE TYPE
- TOTAL PRECIPITABLE WATER

ATMS (11)
- CLOUD LIQUID WATER
- IMAGERY
- LAND SURFACE EMISSIVITY
- LAND SURFACE TEMPERATURE
- MOISTURE PROFILE
- RAINFALL RATE
- SEA ICE CONCENTRATION
- SNOW COVER
- SNOW WATER EQUIVALENT
- TEMPERATURE PROFILE
- TOTAL PRECIPITABLE WATER

(GREEN - NOAA-LEGACY PRODUCTS)
Algorithm Assessments

● IDPS algorithms we need the following assessment:

1. NPOESS algorithm has evolved into the NOAA-endorsed JPSS algorithm.
2. NPOESS algorithm will not meet requirements or effort is too large, replace with NOAA-endorsed JPSS algorithm
3. NOAA-endorsed algorithm should be used even if NPOESS algorithm meets performance because of legacy, enterprise, blended products, and other considerations.

● All algorithms

1. Are the algorithms meeting the specifications?
2. Are the validation plans sound and include user feedback?
3. What is the long-term strategy for enhancements including data fusion>
Users Assessments

- Describe how SNPP/JPSS products provide continuity from legacy POES, METOP, DMSP, EOS?
- For new capabilities from SNPP/JPSS describe the benefits
- Provide Details on:
  - when do you plan to use the SNPP/JPSS Product?
    - Is there an actionable plan?
    - Is it funded?
    - What is the priority?
    - How have you documented the decisions for the use of SNPP/JPSS data?
    - Have you thought about how you will get the data and have you identified the issues with your operational use of SNPP/JPSS?
  - What improvements do you expect from SNPP/JPSS?
  - Are the current legacy products well utilized?
  - Is the SNPP/JPSS product part of a blended product?
  - What additional work needs to be done to ensure that the SNPP/JPSS product is/will be well utilized?
Are enhancements needed for:

- Accessibility (data flow, latency, format)
- Product performance (accuracy, precision)
- User applications (modifications to modeling, decision tools, visualization to use the new products)
For breakout meetings Thursday
10:30 -2:30

• Answer the questions on slides 3 and 4
• Report back at 1:30
Breakout groups

- Land data assimilation (Mike Ek, Ivan Csiszar) – Gary McWilliams
- Cryosphere (Sean Helfrich, Jeff Key) – Ray Godin
- Imagery /cloud applications (Michael Folmer, Don Hillger, Heidinger, Bill Ward) – Victoria Ozokwel and Bill Sjoberg
- CrIS atmospheric chemistry (CO, CH4...) (Monika Kopacz, Chris Barnet) – Laura Ellen Dafoe
- CrIS OLR (Pingping Xie, Mark Liu) – Murty Divakarla
- Microwave precipitation (Ralph Ferraro, Limin Zhao, Dave Kitzmiller) – Lance Williams
- Ozone monitoring (Craig Long, Larry Flynn) – Wayne Feltz
- VIIRS aerosol assimilation (Shobha Kondragunta, Sarah Lu) Julie Price
- Ocean color (Menghua Wang, Rick Stumpf, Cara Wilson, EMC?) – Arron Layns
- SST (Alexander Ignatov, Ken Casey, Bob Grumbine) – John Furgerson
JPSS Annual Science Meeting
S-NPP to JPSS-1 Making the Transition

Eric Gottshall
eric.gottshall@noaa.gov
(240) 684-0957
What’s the Same?

• Suomi-NPP in Routine Operations
  – From the NOAA/NASA Management Plan:
    • The primary objectives of this mission, in equal priority, are
      – 1) to provide quality data to meet scientific requirements for continuity of a group of NASA Earth Observing System (EOS) observations,
      – 2) to provide a pre-operational demonstration and validation risk reduction for the Joint Polar Satellite System (JPSS), and
      – 3) to provide Suomi NPP sensor data and data products to support NOAA’s operational missions.
What’s Changing?

• JPSS-1 Launch Readiness becomes the priority
  – Greater end-user interaction
  – Limited Algorithm Change Activity
    • Maintain S-NPP Sensor Data Record Calibration
    • Implement code to meet JPSS-1 requirements
    • Develop and Mature Environmental Data Record algorithms off-line
    • Transition to ops after IDPS 2.0 is stable

• NASA moves from ROSES 2010 S-NPP activities to ROSES 2013 S-NPP activities
  – Impacts TBD
The existence and timings of Mx releases for Blk 2.0 are tentative and subject to other PCRs being worked off.
How do we make ourselves “Brilliant at the Basics”? (1/3)

- What are our Basics?
  - Who are we?
    - NOAA/NASA – JPSS/STAR “Partnerships”
  - What are we doing?
    - JPSS Program – A Big “System”
How do we make ourselves “Brilliant at the Basics”? (2/3)

• Two Government Agencies, NOAA and NASA and Two Line offices, JPSS and STAR, working together is a Partnership
  – Partnership Essentials:
    • Open and honest communication
    • Compromise
      – there are no winners or losers
      – results won’t always be fair or equitable
How do we make ourselves “Brilliant at the Basics”? (3/3)

• Building and operating a big system (JPSS) within a big system (The US Government) requires system thinking basics
  – Teamwork and cooperation
  – There is no outside, no us and them, and no blame
TPS STAR (JSTAR) Mission

- To develop, implement, and maintain science algorithms for the production of the Sensor Data Records (SDRs) and Environmental Data Records (EDRs) data products as well as their sustainment in the operational phase of the program, calibration, validation, long term monitoring, and product enhancements
JSTAR Vision

• Develop consistent approaches for algorithm development and Cal Val

• Empower the user community with highly accurate products and associated error characteristics from the next generation of polar satellites, in a timely, cost effectively, and efficient manner
Meeting Objectives

- Review the progress of the JPSS STAR program over the past year and review objectives of the coming year.

- Present results/issues/science from the JPSS STAR science teams including: algorithm validation and maturity status, SNPP science results, plans for the coming year, and progress in preparing for JPSS-1.

- Hold individual meetings with the science teams and management to review the work plan, budget, and other management matters for the upcoming Fiscal Year.

- Hold user splinter meetings to develop plans for improved utilization of selected JPSS products.

- Inform the JPSS Program Office and NESDIS management on the status of the program
Science Team Assessment

• Overview
  – Brief Project Overview and Objectives

• SNPP Algorithms Evaluation:
  – Algorithm Description, Validation Approach and Datasets, Performance vs. Requirements, Quality Monitoring
  – Alternate Algorithms and Evaluation
  – Risks/Issues/Challenges, Recommendations

• Future Plans
  – Plan for JPSS-1 Algorithm Updates and Validation Strategies, Schedule and Milestones
<table>
<thead>
<tr>
<th>Maturity</th>
<th>Definitions</th>
<th>Artifacts (Deliverables)</th>
</tr>
</thead>
</table>
| **1. Beta** | - Product is minimally validated, and may still contain significant identified and unidentified errors.  
- Information/data from validation efforts can be used to make initial qualitative or very limited quantitative assessments regarding product fitness-for-purpose.  
- Documentation of product performance and identified product performance anomalies, including recommended remediation strategies, exists. | - Beta PowerPoint Presentation:  
  - Performance Evaluation  
  - Products Status and Error Matrix  
  - Considerations/Know Risks  
  - Summary of Findings and Recommendations  
  - Readme Document for Data Users (goes to CLASS) |
| **2. Provisional** | - Product performance has been demonstrated through analysis of a large, but still limited (i.e., not necessarily globally or seasonally representative) number of independent measurements obtained from selected locations, time periods, or field campaign efforts.  
- Product analyses are sufficient for qualitative, and limited quantitative, determination of product fitness-for-purpose.  
- Documentation of product performance, testing involving product fixes, identified product performance anomalies, including recommended remediation strategies, exists.  
- Product is recommended for operational use (user decision) and in scientific publications. | - Provisional PowerPoint Presentation  
  - Performance Evaluation  
  - Product status and accuracy assessment including error budget  
  - Considerations/Know Risks (Closed DRs, and Assessment of any Open DRs)  
  - Feedback from key users  
  - Summary of Findings and Recommendations  
  - Readme Document for Data Users (goes to CLASS)  
  - ATBD  
  - Users Manuals |
| **3. Validated** | - Product performance has been demonstrated over a large and wide range of representative conditions (i.e., global, seasonal).  
- Comprehensive documentation of product performance exists that includes all known product anomalies and their recommended remediation strategies for a full range of retrieval conditions and severity level.  
- Product analyses are sufficient for full qualitative and quantitative determination of product fitness-for-purpose.  
- Product is ready for operational use based on documented validation findings and user feedback.  
- Product validation, quality assurance, and algorithm stewardship continue through the lifetime of the instrument. | - Validated PowerPoint Presentation  
  - Product Evaluation including Quality Flags analysis/validation  
  - Product status and accuracy assessment including error budget  
  - Identify know issues and assessment (Closed DRs, and Assessment of any Open DRs)  
  - Feedback from key users  
  - Summary of Findings and Recommendations  
  - Readme Document for Data Users (goes to CLASS)  
  - ATBD  
  - Users Manuals |
## Meeting Sessions: May 12-16, 2014

### STAR/JPSS Annual Science Meeting (5/12-5/16)

<table>
<thead>
<tr>
<th>Date</th>
<th>Session 1: Plenary 1:30-2:45 PM</th>
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<tbody>
<tr>
<td>5/12/2014</td>
<td>Welcome Opening Remarks</td>
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<tr>
<td></td>
<td>Meeting Objectives</td>
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<tr>
<td></td>
<td>Coffee Break 2:45 – 3:00 PM</td>
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<thead>
<tr>
<th>Date</th>
<th>Session 2: Plenary 3:00 – 5:00 PM</th>
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<tbody>
<tr>
<td></td>
<td>SDR Team Leads Reports/Overview</td>
</tr>
<tr>
<td></td>
<td>ATMS CrIS VIIRS OMPS ICVS</td>
</tr>
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<td></td>
<td>(20 Minutes Each)</td>
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<table>
<thead>
<tr>
<th>Date</th>
<th>Session 3: Plenary 8:30 – 12:00 Noon</th>
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<tbody>
<tr>
<td></td>
<td>EDR Team Leads</td>
</tr>
<tr>
<td></td>
<td>Reports/Overview</td>
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<tr>
<td></td>
<td>Aerosols Clouds Soundings Ozone</td>
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<td>(20 Minutes Each)</td>
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| Date       | Coffee Break: 9:50 – 10:20 AM       |

<table>
<thead>
<tr>
<th>Date</th>
<th>Session 4: SDR Science Break-out Sessions 1:30 – 6:00 PM</th>
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<td>VIIRS CrIS OMPS ICYS</td>
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<tr>
<th>Date</th>
<th>Session 4: SDR Science Break-out Sessions Continued...</th>
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<thead>
<tr>
<th>Date</th>
<th>Session 5 EDR Science Break-out Sessions 1:30 – 5:00 PM</th>
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Logistics

EVACUATION ROUTING AND ASSEMBLY AREA

Attention: The no food and drink in the auditorium
Congratulations to: Ivan Csiszar, Larry Flynn, Andrew Heidinger, Don Hillger, Alexander Ignatov, Jeff Key, Shobha Kondragunta, Istvan Laszlo, Tony Reale, Marco Vargas, Menghua Wang, Yunyue Yu, and Xiwu Zhan

“For timely creation and leadership of the team whose work increased the scientific value of Suomi NPP environmental data products to meet NOAA users’ needs”
Thank You!