Meeting Objectives and Agenda

Presented by

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NOAA/NESDIS/STAR

Objective

- Review the progress of the Algorithm Working Group (AWG) over the past year and review objectives of the coming year;
- Inform the GOES-R Program Office and the AWG Technical Advisory Committee (TAC) on the status of the AWG and receive guidance.
- Product application team presentations on algorithm development and validation for baseline and option 2 products;
  - » Provide feedback on Algorithm Development Executive Board's (ADEB) independent peer review report of the baseline products;
- Algorithm Integration Team (AIT) side meetings with product application teams to review algorithm code development
- GOES-R Risk Reduction annual review

Agenda

- GPO Status Report (Mandt)
- AWG Overview (Goldberg)
  - Algorithm status and ramping up of the sustained validation effort
- Science Code to delivered Algorithm Packages (Wolf)
- Algorithm Development Executive Board Summary (Powell)
- Calibration Working Group Report (Cao)
- Algorithm Implementation Report (Kaiser)
- GOES-R Proving Ground Report (Gurka)
- Poster Reception

- Tuesday /Wednesday - AWG algorithm team status reports
- Working Lunches

- Thursday AM - TAC Comments

AWG/R3 Technical Advisory Committee

- Paul Menzel (UW)
- Tom Schott (NESDIS/OSD)
- Russ Schneider (NWS/SPC)
- Dave Byers (NRL)
- Jim Yoe (NWS/NCEP)
- Mike Johnson (NWS/Office Science & Technology)
- Kevin Schrab (NWS/OCWWS/Observing Services Division)
- Tom Vonder Haar (CSU)
- John LeMarshall (Australia's Bureau of Meteorology)
- Jim Gleason (NASA)

Current AWG Emphasis

AWG Deliverables…

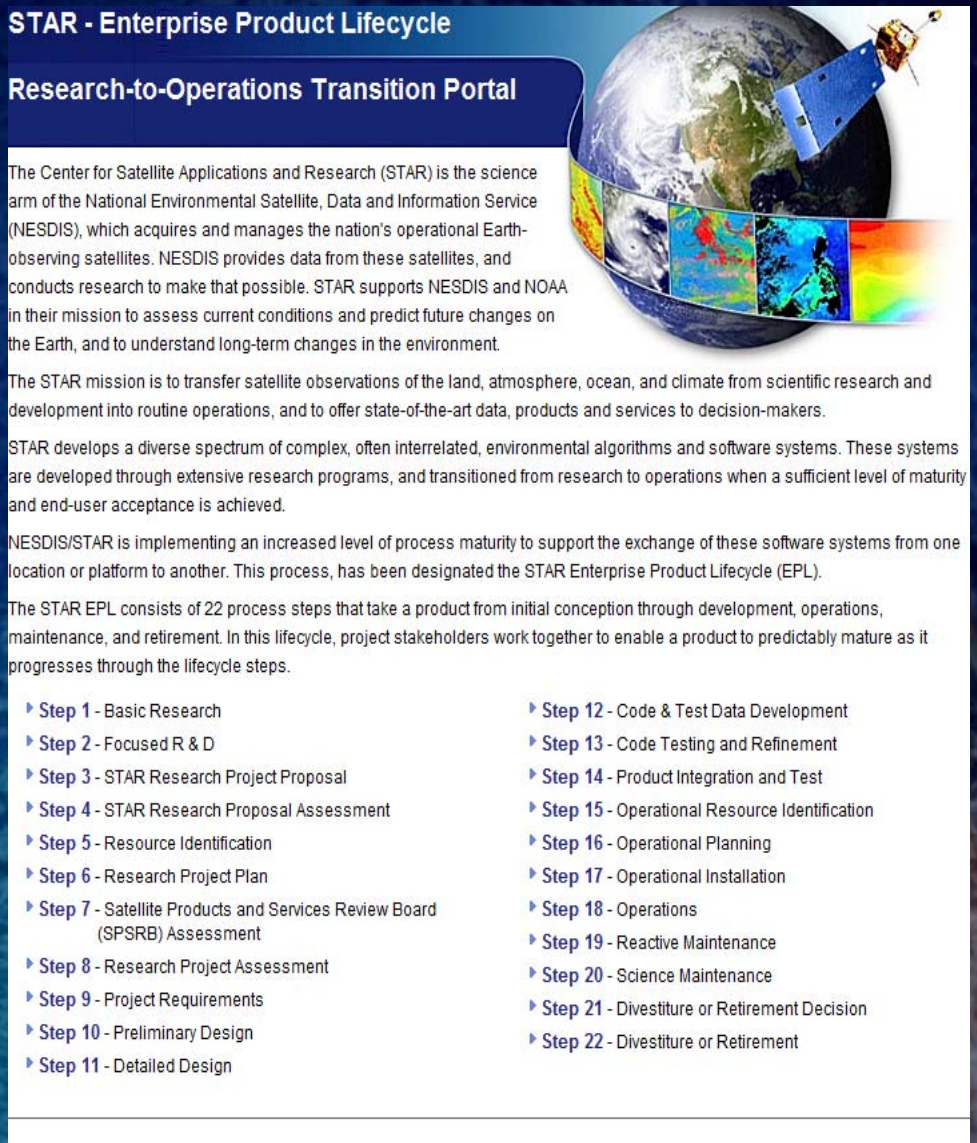
- **Algorithm Packages (APs)**
  - Algorithm Theoretical Basis Documents (ATBD)
  - Instrument proxy datasets
  - Product output datasets (for comparison)
  - Algorithm Interfaces and Ancillary Data Description (AIADD) document

- **Schedule of Deliveries:**
  - ✓ September 2008: As-Is ATBDs
  - ✓ September 2009: 80% APs for Baseline Products
  - September 2010: 80% APs for Option 2 Products
    100% APs for Baseline Products
  - September 2011: 100% APs for Option 2 Products

Rigorous CMMI Process to get to the Algorithm Packages

Five major reviews

- Algorithm Design Review (ADR)
- Critical Design Review (CDR)
- Test Readiness Review (TRR)
- Code Unit Test Review (CUTR)
- Algorithm (System) Readiness Review (ARR, was SRR)



STAR - Enterprise Product Lifecycle

Research-to-Operations Transition Portal

The Center for Satellite Applications and Research (STAR) is the science arm of the National Environmental Satellite, Data and Information Service (NESDIS), which acquires and manages the nation's operational Earth-observing satellites. NESDIS provides data from these satellites, and conducts research to make that possible. STAR supports NESDIS and NOAA in their mission to assess current conditions and predict future changes on the Earth, and to understand long-term changes in the environment.

The STAR mission is to transfer satellite observations of the land, atmosphere, ocean, and climate from scientific research and development into routine operations, and to offer state-of-the-art data, products and services to decision-makers.

STAR develops a diverse spectrum of complex, often interrelated, environmental algorithms and software systems. These systems are developed through extensive research programs, and transitioned from research to operations when a sufficient level of maturity and end-user acceptance is achieved.

NESDIS/STAR is implementing an increased level of process maturity to support the exchange of these software systems from one location or platform to another. This process, has been designated the STAR Enterprise Product Lifecycle (EPL).

The STAR EPL consists of 22 process steps that take a product from initial conception through development, operations, maintenance, and retirement. In this lifecycle, project stakeholders work together to enable a product to predictably mature as it progresses through the lifecycle steps.

- Step 1 - Basic Research
- Step 2 - Focused R & D
- Step 3 - STAR Research Project Proposal
- Step 4 - STAR Research Proposal Assessment
- Step 5 - Resource Identification
- Step 6 - Research Project Plan
- Step 7 - Satellite Products and Services Review Board (SPSRB) Assessment
- Step 8 - Research Project Assessment
- Step 9 - Project Requirements
- Step 10 - Preliminary Design
- Step 11 - Detailed Design
- Step 12 - Code & Test Data Development
- Step 13 - Code Testing and Refinement
- Step 14 - Product Integration and Test
- Step 15 - Operational Resource Identification
- Step 16 - Operational Planning
- Step 17 - Operational Installation
- Step 18 - Operations
- Step 19 - Reactive Maintenance
- Step 20 - Science Maintenance
- Step 21 - Divestiture or Retirement Decision
- Step 22 - Divestiture or Retirement

Algorithm Development Progress

	ADR	1st Del. to AIT	2nd Del. to AIT	ATBD Draft	CDR	Test Plan	3rd Del. to AIT	TRR	Val Plan	ATBD 80%	4th Del. to AIT	CUTR		5th Del. to AIT	ATBD 100%	ARR (SRR)	1st Val. Del.
												Comments	Review				
Air Quality																	
Aerosol Imagery	●	✓	✓	●	●	●	✓	●	●	✓	✓	●	●			08/05/10	
Aerosol	●	✓	✓	●	●	●	✓	●	●	✓	✓	●	●			08/05/10	
Total Ozone	●	✓	✓	●	●	●	✓	●	●	✓	✓	●	●			08/05/10	
Clouds																	
Cloud Layers/Heights and Thickness	●	✓	✓	●	●	●	✓	●	●	✓	✓	●	●			07/07/10	
Cloud Mask	●	✓	✓	●	●	●	✓	●	●	✓	✓	●	●	✓		07/07/10	
Cloud Phase and Cloud Type	●	✓	✓	●	●	●	✓	●	●	✓	✓	●	●			07/07/10	
Daytime Cloud Optical Depth, Particle Size, LWP and IWP	●	✓	✓	●	●	●	✓	●	●	✓	✓	●	●	✓		07/07/10	
Nighttime Cloud Optical Depth, Particle Size, LWP and IWP	●	✓	✓	●	●	●	✓	●	●	✓	✓	●	●			07/07/10	
Land																	
LST	●	✓	✓	●	●	●	✓	●	●	✓	✓	●	●	✓		07/15/10	
NDVI	●	✓	✓	●	●	●	✓	●	●	✓	✓	●	●	✓		07/15/10	
Fire	●	✓	✓	●	●	●	✓	●	●	✓	✓	●	●			07/15/10	