



# GS AW 2016

## NOAA / NESDIS / OSGS / SED

**Mr. Eric Gottshall**  
**Systems Engineering Division Chief**  
**Satellite Ground Services (OSGS)**  
**National Environmental Satellite, Data and Information Service**  
**(NESDIS)**  
**National Oceanic and Atmospheric Administration (NOAA)**  
**Department of Commerce (DOC)**



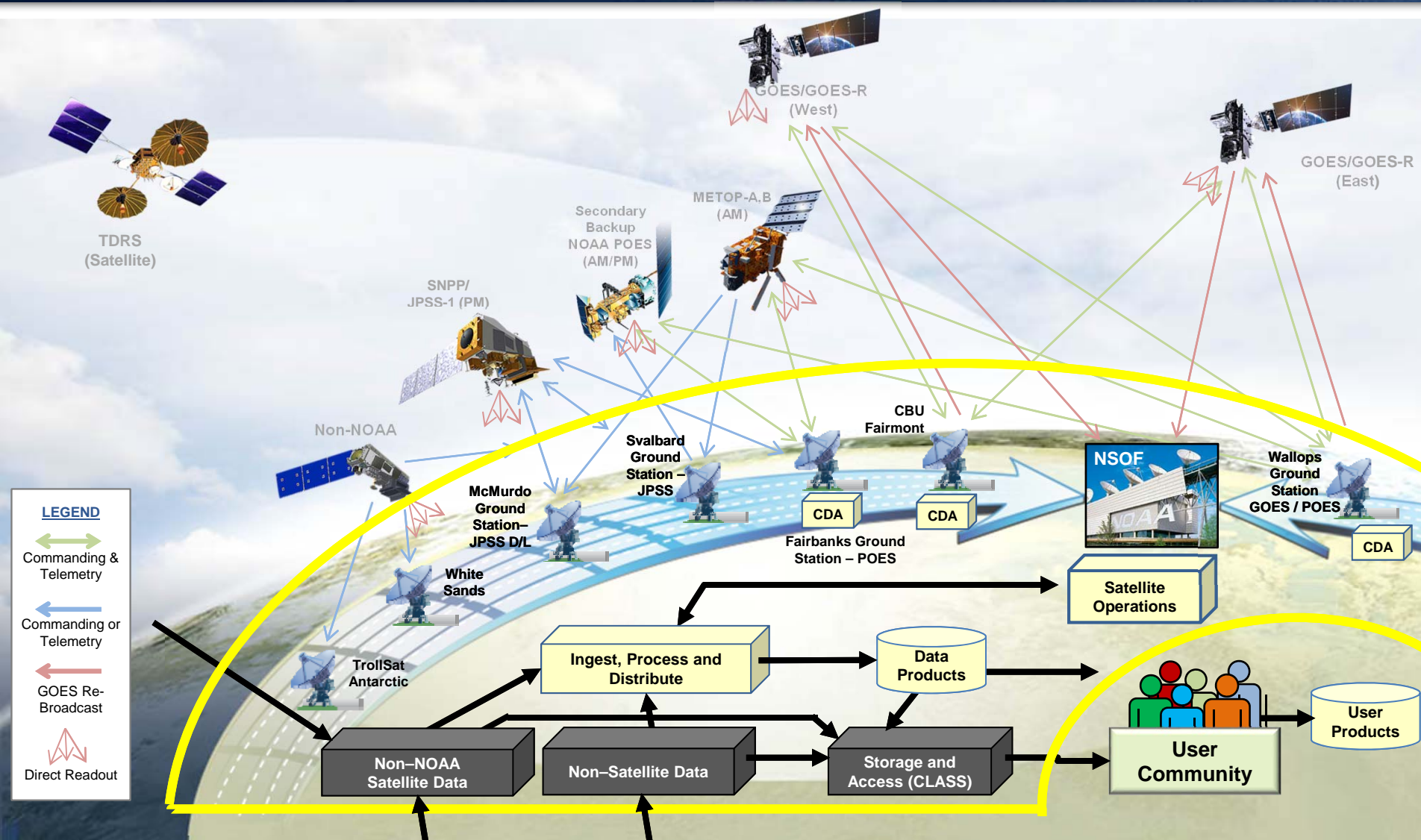
# NESDIS Ground Enterprise (NGE)



- **Overview**
- **History of OSGS and the SE Division**
- **OSGS Mission: Sustain, Enable, Create**
- **Top Three Concerns**



# NESDIS Ground Enterprise





# OSGS / SED History



- **2012 NESDIS Review Team recommends dedicated Systems Engineering Activity.**
- **2015 Commerce, Justice, Science, and Related Agencies appropriations bill authorizes NESDIS reorganization establishing OSGS.**
- **FY 2016 Dedicated Funding for Architecture Activities: \$2.717M**

## Strengthening NESDIS

**“Strengthening NESDIS” is a comprehensive reorganization plan to keep NESDIS meeting mission objectives in a cost-effective manner into the coming decades.**

- Team is in the midst of detailed work to complete concept of operations that will inform transition to new state. Changes being implemented are reflected in a proposed NESDIS reorganization, which has been submitted in concert with FY 2015 budget process.
- More robust systems architecture at enterprise level and common ground services to standardize product distribution, access, archiving and compression
- Laying groundwork for consolidation of world-class NOAA National Data Centers
- Studies underway to enhance robustness of the operational Polar Weather Constellation beyond the JPSS program considering most timely and cost-effective options



# OSGS Mission



Create



Architecture – Design –  
Implementation - Enterprise

Enable



Under Development:  
JPSS / GOES-R  
Future Missions

Transition  
to Common  
Services

Sustain



POES / GOES

Jason / COSMIC  
/ DSCVR

Services:  
Product  
Generation and  
Distribution /  
SARSAT / DCS

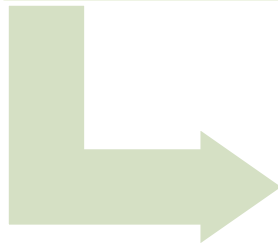


# Create (The Enterprise)



## Enterprise Architecture

- Reference Models
- Requirements
- Operational Concept and Use Cases



## Enterprise Design Rules

- Approved Software and Hardware Lists
- Approved Interface Designs and Configurations
- Implementation Roadmap



## Execution Processes

- Management Controls
- Configuration and Engineering Boards

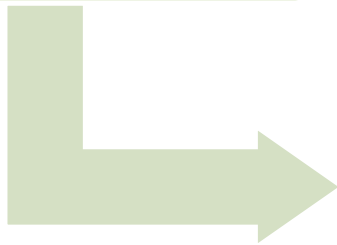


# Enable (JPSS & GOES-R)



## Transition Steering Group (TSG)

- Broad Guidance
- Interagency Consensus
- Progress Oversight



## Transition IPT

- Transition Plans
- RACI Mapping
- Training NOAA personnel to take charge



## Budget Transfers

- Novation of Contracts
- Interagency Agreements and support
- NASA integrated into OSGS sustainment team



# Sustain (Legacy Missions)



## Legacy Investments

- Trading Risk v. Cost
- Make them more Enterprise Friendly

## Quick Wins

- Demonstrate Enterprise Value
- Converge Tool Use
  - CM, Risk, Requirements

## Planning for Obsolescence

- Fly out the function
- Transfer the function
- Eliminate the function



# More Than Engineering



- **The Five Dimensions of Government Project Management**
  - Contract Space
    - NOAA has no FAR Supplement
  - Requirements Space
    - NOAA is a Science-based organization
  - Budget Space
    - Annual Funding Cycles
  - Schedule Space
    - Many parallel activities with potential for non-linear feedback
  - Resource Space
    - Operational activities take priority and drive allocations



# GSAW Top Three



- **Transition from Architecture to System Design**
  - How do we shorten decision cycles through Migration Planning?
- **Creating an Enterprise Culture**
  - How to incentivize enterprise behaviors?
- **Making Architecture and Artifacts sound more compelling**
  - Any good elevator speeches on Enterprise Architecture?



Back up



# Systems Engineering Branch



## OSGS SE:

1. Working all phases of the acquisition cycle across multiple systems of varying heritages and maturities.
2. Working in all levels of the innovation pyramid

### Innovation

Virtual Test Laboratory  
IT PODs Study

### Transformation

JPSS Ground Segment 3 and Multi-Mission Requirements Review  
Mission Science Network

### Transition

Himawari-8  
CHOPS Position Paper  
JPSS Block 2.0 Verification (Jae Choe)  
Mission Support Services

### Foundation

Systems Engineering Plan \* Configuration Management  
Work Breakdown Structure (WBS) \* Sustainment IPT  
Level 2 Requirements \* IT Security