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# Challenges and solutions for executing best practices in transferring NOAA's research to NWS operations (1-8)











# Oversight and Strategic Direction

## Challenge

 Centralizing priorities and developing a consistent vision for NOAA's agencies, cooperative institutes, and private partners to function effectively

## Risks

- Lack of alignment between research portfolio and operational requirements
- Delayed R2O process resulting from funding cycle

# Solutions

Appoint a coordinator of proving ground activities

 Joint governance between the NWS Operational Advisory Team (NOAT) and research community

# Challenges

- Assuring operational meteorologists stay current with subject-matter expertise in satellite remote sensing
- Integrating new satellite products into the operational workflow
- Collecting relevant feedback
- Providing a pathway to operations following a successful demonstration

### Risks

- Does not necessarily replicate operational setting
- Potential for inadequate training and misinformation
- Unclear responsibility for integrating demonstrated products into software systems

## Solutions

- Employ satellite liaisons to facilitate training exercises and work with operations to prepare meteorologists for capabilities of the new generation weather satellites
- Hire technical liaisons and fund cooperative institutes to develop plug-ins for the Advanced Weather Interactive Processing System (AWIPS)

# R2-No – Popular Excuses

#### **Tight Budgets**

Necessitate prioritization of products to transition

#### Rigid Policies

Impede R2O progress and agility

#### No Personnel on the Interface

No process owner to facilitate the "2" in R2O

#### Limited IT Infrastructure

Delays implementation of new products in the field

#### **Cumbersome IT Security Regulations**

Compromise the mission

## Challenges

- Building relationships with operations to discover worthy research topics
- Understanding types of information that would add value to the operational mission
- Developing an algorithm for a new instrument based on current capabilities
- Maintaining an algorithm and/or product following completion of the original proposal

#### Risks

- Funding research activities that do not return value to operations
- Operationally-relevant research proposals with scientific merit may go unfunded if importance to operations is unclear or understated

### Solutions

- Hold technical interchange meetings and working groups with both operational and research participants
- Use proxy and simulated imagery from existing instruments and/or numerical models

