



NOAA R&D Transition Policies

Fundamental Concepts

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Building a Weather Ready Nation by Transitioning Academic Research to NOAA Operations Workshop



Outline

- Setting the Stage
 - NOAA mission
 - Why transition R&D
 - History of transition at NOAA
- Transition of Research & Development
 - Improvement efforts: Process, Culture, Resources
 - NAO 216-105B on Transition of Research
 - Things that need more work
- Tracking Research and Transitions
 - Performance measures
 - NOAA R&D Database

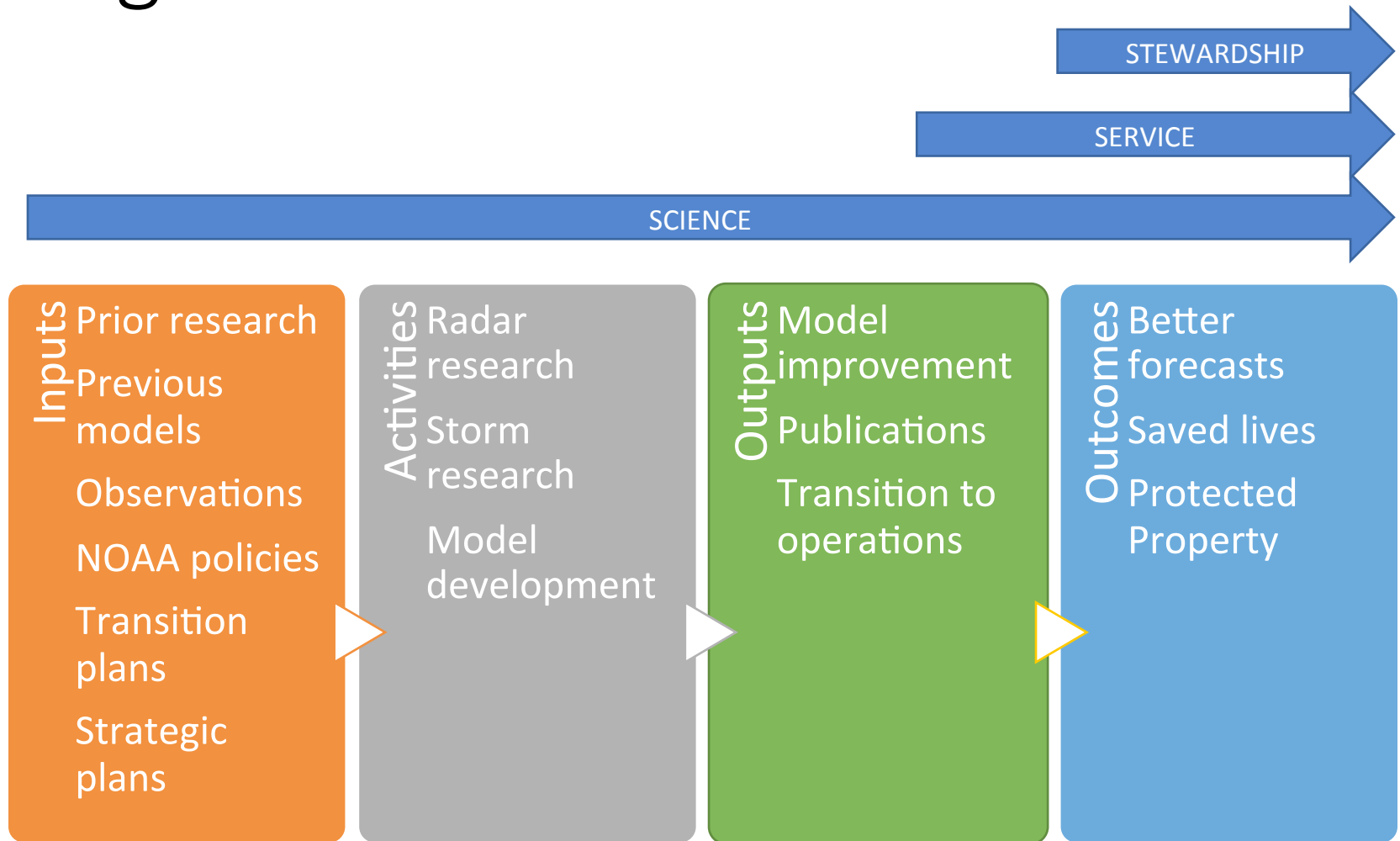


NOAA is Mission Driven

Healthy Oceans	Weather Ready Nation	Climate Adaptation & Mitigation	Resilient Coastal Communities & Economies
			
SCIENCE, SERVICE, STEWARDSHIP			

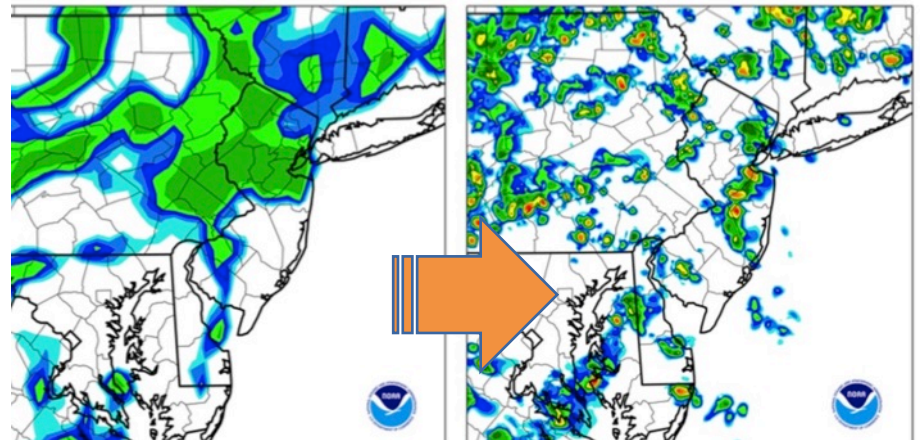
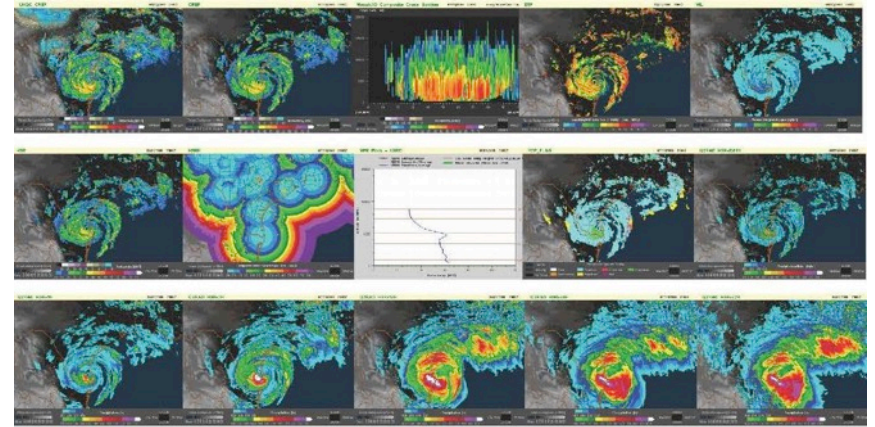


Logic Model for Transition



No Transitions, No Outcomes

- Transitions require partnerships
 - Early joint planning is essential
- Many transitions are “high risk” early on
- Transitions require joint ownership
- Research “Push” and Research “Pull”



Why Transition R&D?



VS.



ON BUILDING BRIDGES

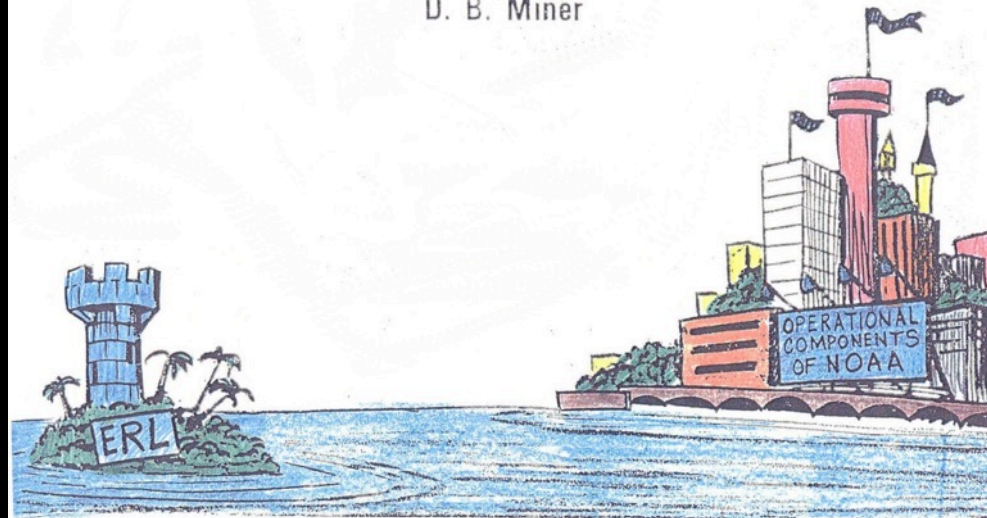
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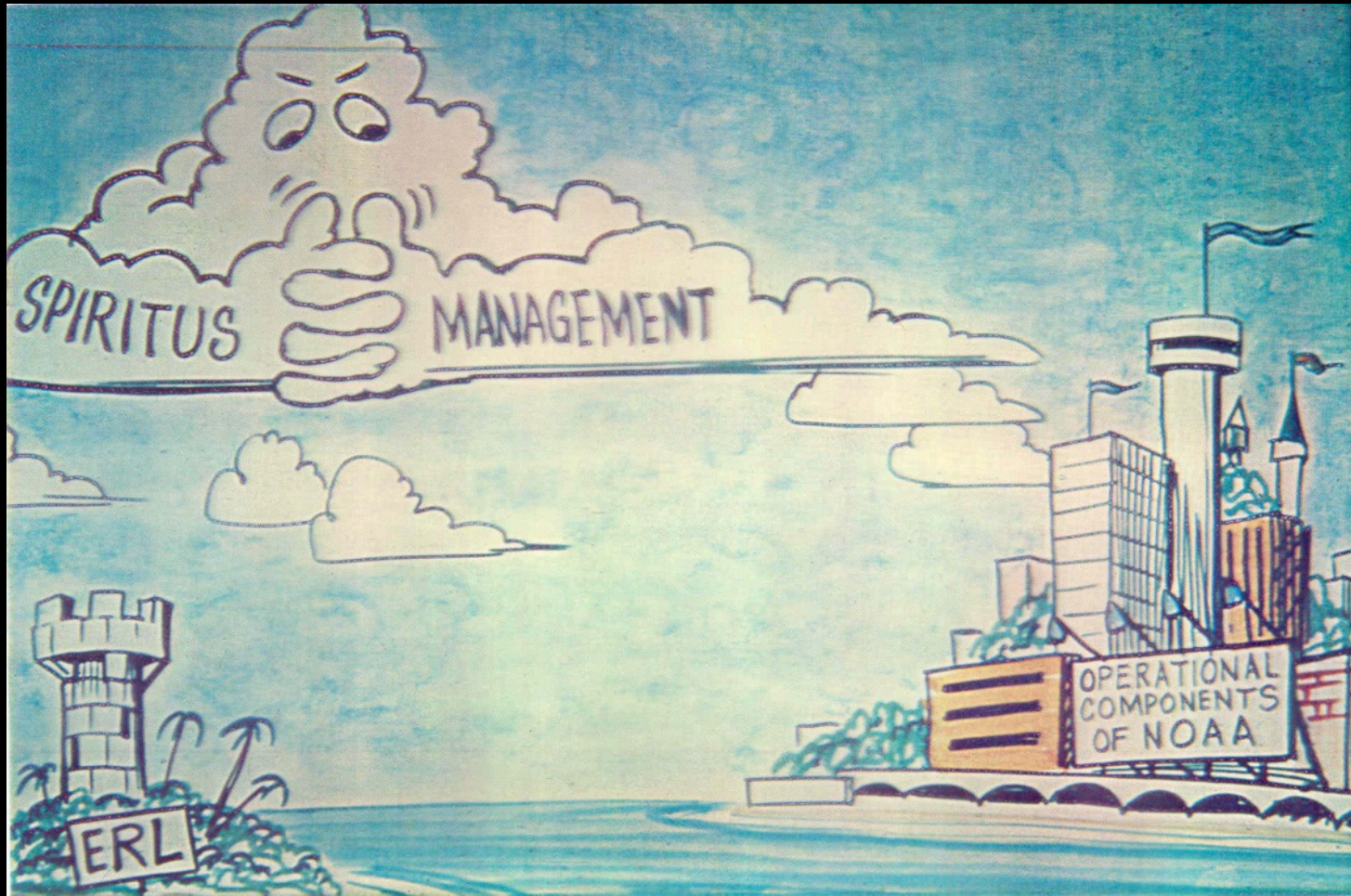
ALTERNATIVE METHODS FOR ACHIEVING
TECHNOLOGY TRANSFER IN NOAA

by

C. Gordon Little

D. B. Miner



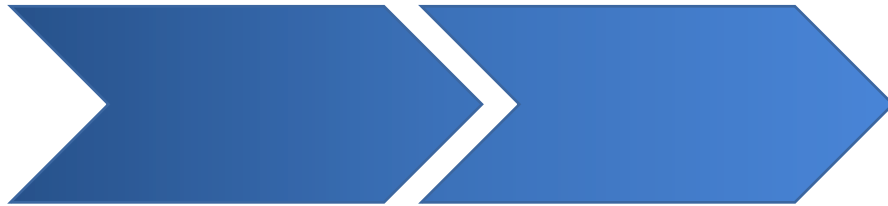


How do we transition R&D to operations and application?



Method 1 – The Policy Statement

Process: NOAA Policies on R&D Transition

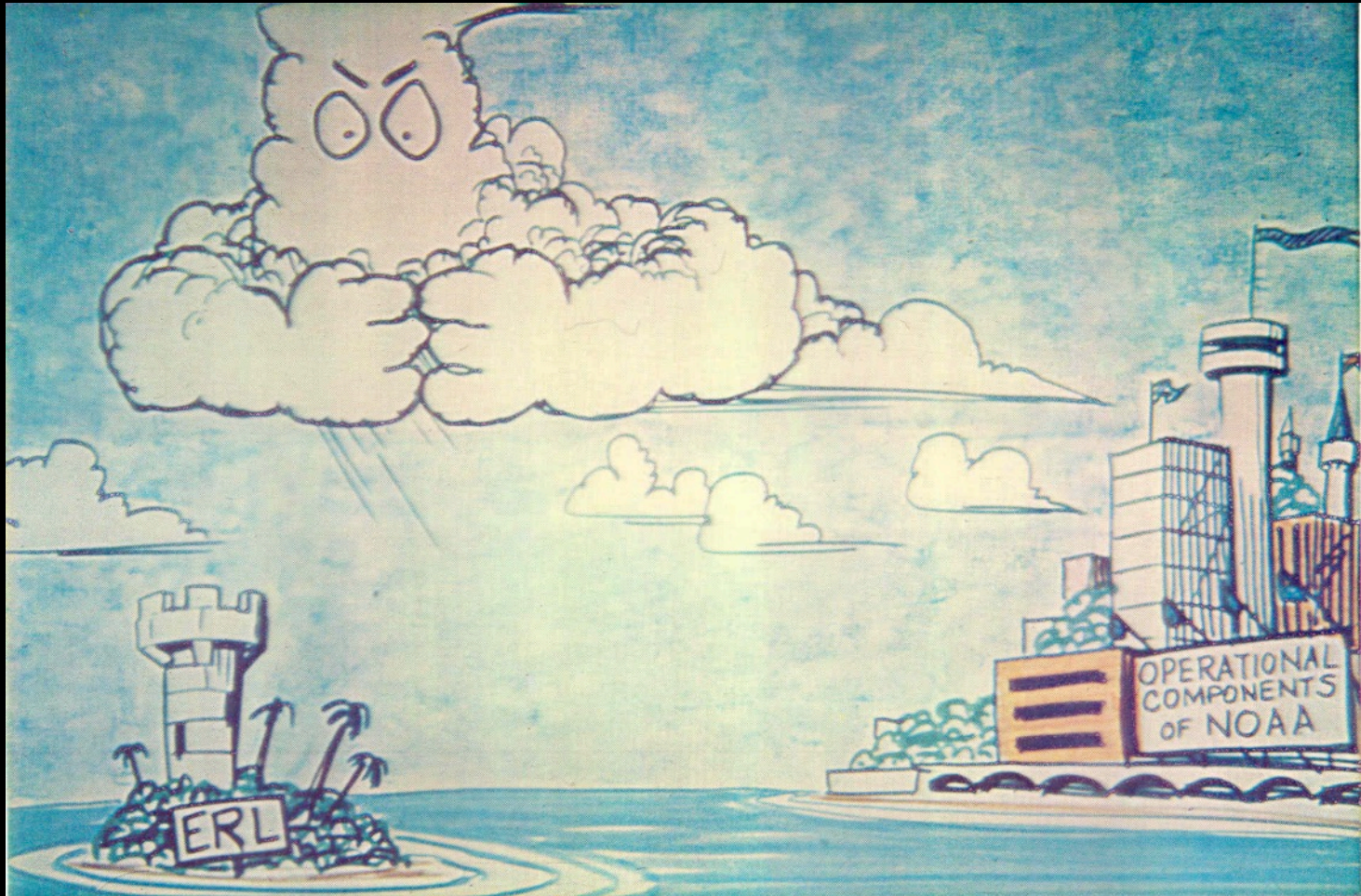


2005

- First NOAA policy on R2A
- Established a Transition Board
- Defined need for a transition plan, but not required
- Lacked RL definitions

2008

- Updated NOAA policy on R2A
- Expanded the definition of a transition project
- Defined LOTMs
- Heavily tied to NOAA PPBES process



... And the Response to the Policy Statement



Method 2 – The Mandate



... And the Products

Process: NOAA Policies on R&D Transition



2005

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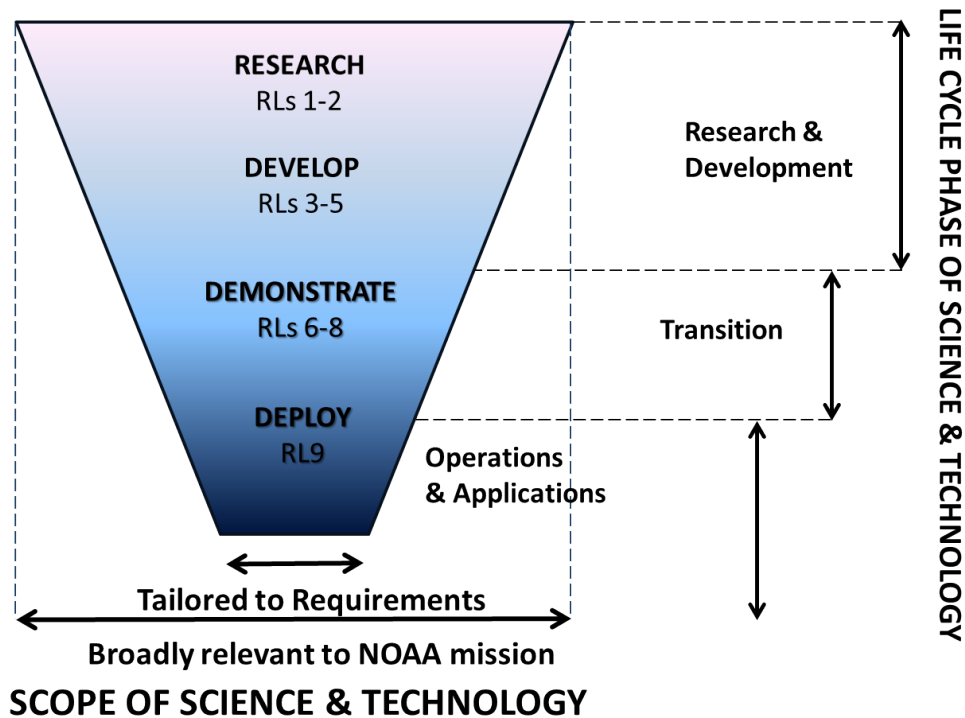
2011-2016

- Developed transition measures
- 2014 Pilot to measure RL 8 to RL 9
- 2015 Pilot to record all R2X projects at NOAA
- 2016 OAR SES R2X index
- FY16-17 APG

Late 2016

- Current NOAA policy on R2X
- Defines RLs
- Requires transition plans (conditional)

NAO 216-105B on the Transition of Research

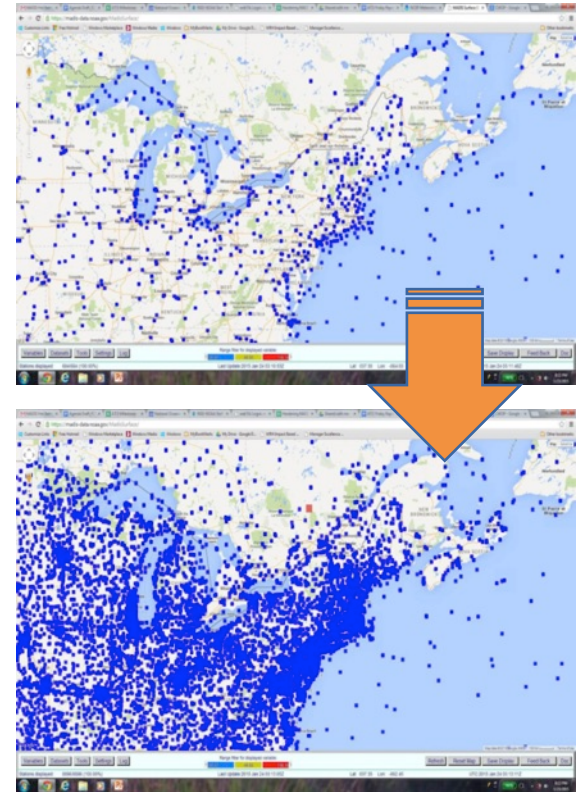


- Key components of the NAO
 - Definitions
 - Readiness Levels (RLs)
 - Process for transition plan approval
 - Roles/responsibilities
- Handbook details implementation

http://www.corporateservices.noaa.gov/ames/administrative_orders/chapter_216/216-105B.html

Transition plans

- Strongly recommended at RL 4
- Require signatures from both Research and Operations
- Includes (but not limited to):
 - Project description
 - Business case
 - Transition activities
 - Schedule and deliverables
 - Roles and responsibilities
 - Budget and cost



Building a Culture of Transition at NOAA

What gets MEASURED gets done

- Agency Priority Goal
- GPRA measure
- SES performance metric
- Count of NOAA patents
- Draft FY18 measure

What gets TRACKED gets done

- NOAA R&D Database
- Transition Plans
- Transitions from RL 8 to RL 9

Tracking R&D (and R2X)

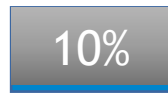


DEPLOYMENT
RL 9



10%

DEMONSTRATION
RLs 6-8



10%

DEVELOPMENT
RLs 3-5



29%

RESEARCH
RLs 1-2



51%

NESDIS
213
projects,
10%

USEC/OEd
18 projects,
1%

NMFS
31 projects,
2%

NOS
553
projects,
26%

OAR
1102
projects,
53%

NWS
173 projects,
8%

**1,604 total
projects**



Resources are essential



Before FY15

- USWRP at \$2.5M

FY15

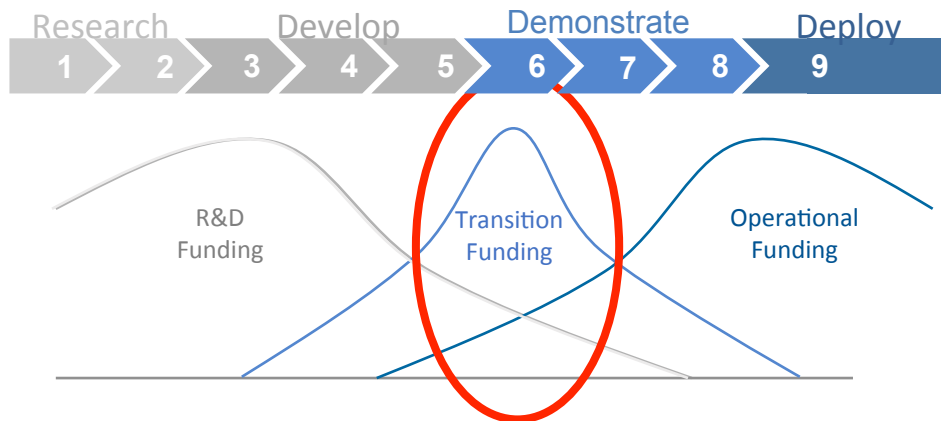
- NGGPS transition funding at \$3M

FY16-17

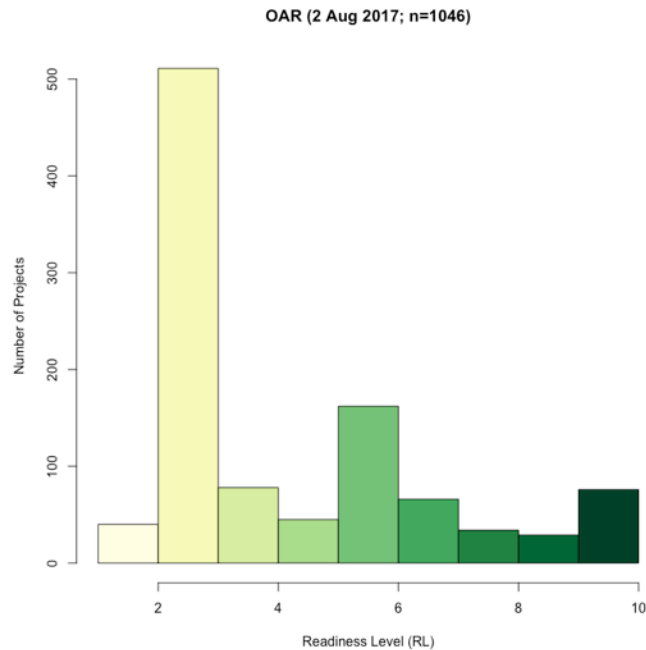
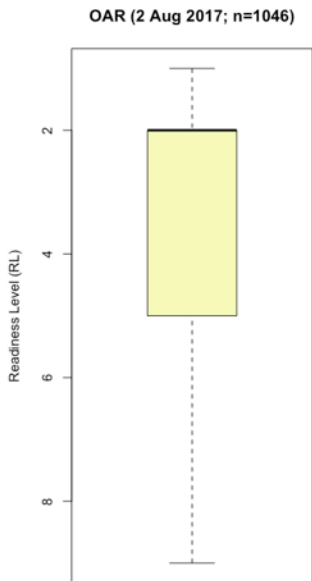
- RTAP at \$1M
- JTTI at \$10M

FY18+

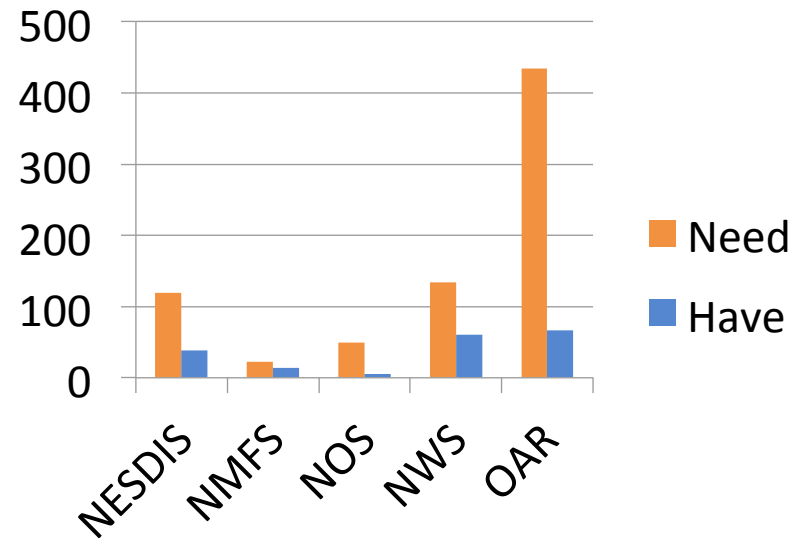
- Potentially...



NOAA Still has Work to Do



Transition Plans Completed



In Summary

- R2X requires early planning
- R2X requires early partnerships
- R2X requires institutional process, culture, and resources
- NOAA needs to improve tracking of R&D
- NOAA needs to improve transition from RL 8 to RL 9
- Resources needed for the operators to fund operations of proven R&D



Thank You



Planning Research

- R&D planning establishes objectives, priorities, performance expectations, and resource requirements
- NOAA Strategic Plan
- 20-yr Research Vision
- 5-yr R&D plan
- Strategic Research Guidance Memo (SRGM)



Readiness Levels in More Detail

