

# Enhancing the Research-to-Operations Process to support Global and Domestic Missions through the Aviation Weather Testbed

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## OPERATIONS

## RESEARCH

**Readiness Level 9**  
- Operational System  
- Product fully available within the NWS

**Readiness Level 1**  
- Innovation! Research is at its most basic form

**Readiness Level 8**  
- Assessment completed  
- Output/product ready for operational use  
- Resource stability testing  
- Open for use as an experimental product  
- Full support levels ensue

**Readiness Level 2**  
- Active research  
- Investigating basic principles in a development environment

**Readiness Level 7**  
- Prototype on operational platform  
- Capability made available to operational users for evaluation  
- Formal assessment  
- Transition documents prepared  
- Limited support levels

**Readiness Level 3**  
- Proof-of-concept  
- Introduction to the testbed  
- Concept of operations developed

**Readiness Level 6**  
- Demonstration of capability in end-to-end process  
- Established requirement and begin 10-102 notification  
- Initiate official Request for Change  
- Move processing to development staging  
- Password-protected public viewing

**Readiness Level 4**  
- Testing of tool/capability in experimental environment  
- R2O Strategy is developed  
- Begin version control (i.e. Vlab)  
- Peer reviewed scientific review  
- Requirements established (CaRDS)

**Readiness Level 5**  
- Evaluation in development environment  
- Prototype data is usable in the AWT (Visible only by AWT)  
- Draft implementation notices  
- Version controlled

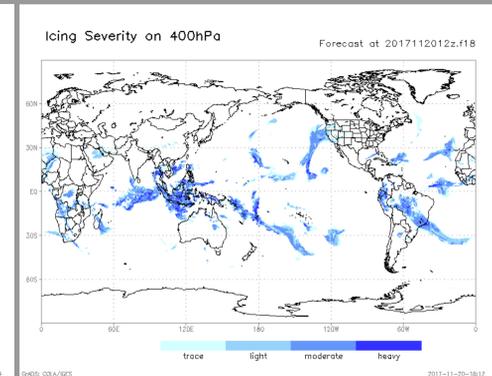
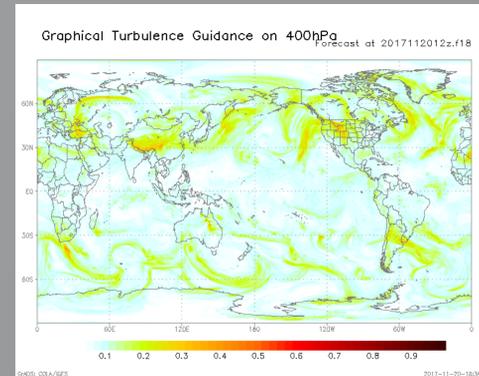
### Recent Activities

The AWC/AWT have actively participated in a collaborative R2O process. In order to support our mission, the AWC collaborated with EMC, NCAR, and the FAA to successfully implement global turbulence and icing algorithms into the Unified Post Processor for the GFS model.

### Concept

The AWT has constructed a playbook to guide both internal and external development partners in the R2O process, both as a way to track enhanced capability research, and also as a way to make transition more efficient and repeatable.

This concept guides developers through the Readiness Level construct and maps the various components within the AWT to those levels on the path to operational readiness. Such components include computing resources, approval levels, requirements, and public interface.



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