

Department of Commerce • National Oceanic & Atmospheric Administration • National Weather Service

NATIONAL WEATHER SERVICE POLICY DIRECTIVE 80-8

MARCH 29, 2010

Science and Technology

TRANSITION OF INNOVATION AND RESEARCH TO OPERATIONS

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OPR: W/OST1 (S. Pritchett)

Certified by: W/OST (D. Berchoff)

Type of Issuance: Initial

1.0 This policy describes the authorities, roles, and responsibilities of National Oceanic and Atmospheric Administration's (NOAA) National Weather Service (NWS) associated with the transition of research and innovations to operations (R2O). NWS must invest in a process, staffing, and infrastructure that support transitioning results of innovation and research into NWS enterprise operations in a cost-effective manner.

2.0 Transition is the transfer of research or innovation projects from one financial management center (FMC), conducting research or innovation, to another FMC providing operations and maintenance (O&M) of the transitioned project. The policy applies to NWS R2O activities with other NOAA line offices (or other external research organizations). The policy will not apply to activities conducted internally within one distinct FMC of the NWS, except when there is a significant NWS enterprise-wide impact to operations and resources. All existing programs may undergo a review by the NWS Line Office Transition Manager (LOTM) to ensure efficient and cost effective transitions to operations. Based on the findings of any review, the LOTM may direct modifications to planned R2O activities that are in the best interest of the NWS. LOTM decisions are subject to appeal, and arbitration will be conducted by the NWS Director or the Director's designee. The R2O transition portfolio that falls under the LOTM responsibilities will be defined in the implementation instructions for this policy. NWS will maximize the application of NOAA sponsored research, NWS innovations, and capitalize on non-NOAA research for operations. NWS will:

- a. Establish processes for identifying valid needs and opportunities, and transitioning research and innovation results to operations;
- b. Maintain an operations environment capable of transitioning proven research and innovation results into operations while continuing to maintain reliable cost effective services for users;

- c. Implement and manage processes that identify new opportunities and needs for research and innovation, develop project plans, formulate budgets, report status information, and create test and evaluation procedures, and effectively transition to operations.

2.1 The policy requires an effective and efficient pathway from research to operations including strategic partnerships and effective collaboration between the research and operational communities.

3.0 This directive establishes the following NWS roles, and responsibilities:

3.1 The Director of the Office of Science and Technology (OST) serves as the NWS research to operations LOTM. The LOTM also serves as the manager of NWS field, regional, national center, and headquarters innovation to enterprise operations transition activities. Under this authority the OST Director is responsible for:

- a. Ensuring NOAA Administrative Order 216-105, Policy on Transition of Research to Application, is implemented. The LOTM assesses and approves NOAA research projects for transition to NWS enterprise operations;
- b. Enhancing relationships with NOAA research organizations, NOAA Program Managers, and NOAA Goal Teams for PPBES including identifying research thrusts in support of NWS needs and fostering the interactive feedback process between operational capabilities and researchers;
- c. Overseeing the NWS R2O transition portfolio, including those in recognized test beds, by tracking project performance, addressing issues, identifying research incubation projects ready for transition to NWS enterprise operations, and risks that endanger transition success;
- d. Establishing criteria for test beds and other transition projects that includes setting priorities based on tactical and strategic needs identified in the NOAA Annual Guidance Memorandum, NOAA and NWS Strategic Plans, the NWS Science and Technology Roadmap, and other scientific review processes;
- e. Tracking and providing reports to NWS leadership on the status of the transition portfolio including any issues related to resource gaps, schedule modifications, and changes in priorities;
- f. Instituting transition “best-practices” including test bed activities, operational testing, research activities performed on operational platforms, and common information technology architecture (e.g. software & hardware compatibility);

- g Ensuring all training requirements for the transition to operations are submitted to the Office of Climate, Water, and Weather Services (OCWWS) as per NWS Directive Manual 20-102;
- h. Ensuring that all potential licensing, intellectual property rights, distribution, and agreement issues associated with technology transfer are properly addressed.

3.2 The NWS OST Meteorological Development Laboratory's (MDL) Research and Innovation Transition Team (RITT) supports the LOTM and assists working teams in facilitating transition of research and innovation projects into NWS operations.

3.3 The NWS regional Innovation Advisory Board (IAB) assesses field office innovation and recommends to the LOTM innovation projects for transition to national operations. The IAB consists of NWS Regional Headquarters staff operating in accordance with the IAB charter.

3.4 The NWS Chief Financial Officer ensures NWS corporate budget planning supports the approved NWS transition portfolio.

3.5 The OCWWS is a partner with OST in facilitating research and innovation to NWS enterprise operations. OCWWS collaborates with the LOTM and the RITT through identification and validation of service needs requiring additional research. OCWWS leads the Operations and Services Improvement Process (OSIP) process for the NWS and collaborates with the RITT, the LOTM, and the other NWS offices. OCWWS (and other NWS) - staffed NOAA PPBES Program managers, e.g., Local Forecast and Warning Program managers, will participate with the LOTM, RITT, and transition team leads in planning for transition activities.

3.6 The NWS field offices, the National Centers for Environmental Prediction, the NWS Regional Headquarters, and other NWS Headquarters Offices are responsible for leading, conducting, staffing, and managing individual transition projects and associated activities. They are responsible for identifying and validating program gaps and research needs in collaboration with the LOTM, the IAB, and the RITT; utilizing the NWS OSIP, or other change management processes throughout the programming, planning, budgeting and execution phases of the transition project.

4.0 The NWS will measure effectiveness of innovation and research to operations transition.

5.0 This policy directive is supported by the references and glossary of terms listed in attachment 1. Procedural directives and instructions will be issued to implement this policy as needed and determined by the OST Director.

signed	March 15, 2010
John L. Hayes	Date
Assistant Administrator for Weather Services	

APPENDIX A

REFERENCES AND GLOSSARY OF TERMS

References

NOAA Administrative Order 216-105, Policy on Transition of Research to Application
NWS Policy Directive 10-1, NWS Requirements, Operations, Services Improvements
NWS Policy Directive 10-103, Operations and Services Improvement Process
NWS Policy Directive 80-4, Science and Technology Planning and Programming
NWS Instruction 80-801, Innovation and Research to Operations Procedures (in Draft)

Glossary

Application: The use of research results in furthering the NWS mission.

Innovation Project: NWS Regional efforts to improve NWS Operations based on localized needs that could be expanded to national capability. An innovation project includes the collective set of activities necessary to transfer one, or a collection of NWS innovative results developed or initiated by NWS field, regional, or headquarters staff, to national operational status. An example is the transition of the public observer program from a NWS regionally operated program developed and supported by one field office to a national program approved through OSIP and supported by the NWS telecommunications gateway.

Incubation Project: Exploratory research or innovation project addressing one or more objectives of NOAA 5-year research plan and/or NWS requirements

NOAA Planning, Programming, Budgeting, and Execution System (PPBES): A formal, systematic structure for making decisions on policy, strategy, capability development/deployment, and resource allocation to accomplish NOAA's mission. It is a cyclic process containing distinct, but interrelated phases: planning; programming; budgeting; and execution.

Operations Enterprise: NWS sustained, systematic, reliable, and robust mission activities with an NWS national institutional commitment to deliver appropriate specified cost-effective products and services. NWS applications resulting from transition activities are included as enterprise operations for the purpose of this policy directive.

Project Plan: An OSIP document, which should be updated as appropriate, identifying the comprehensive activities necessary to transfer a research result to operations. This document should be used for planning purposes as well as to ensure that the project is being executed per the terms and conditions of the plan.

Research: The systematic study directed toward a more complete scientific knowledge or understanding of the subject studied. Research and associated development are included under the general definition for this policy.

Research to Operations Transition Portfolio: The centralized management and resultant oversight of the comprehensive set of programming, planning, budgeting, and execution of all projects approved for transition from research or innovation to enterprise operations within the NWS.

Transitions: The transfer of research or innovation and development from one financial management center (FMC) conducting research or innovation and development to another FMC providing operations and maintenance of the transitioned activity in order to meet mission needs

Transition Project: Incubation project deemed mature, scientifically valid and technically ready for implementation into NWS Operations. This includes the collective set of activities necessary to transfer one, or a collection of research results, to operational status or to an information service between NOAA Line Offices or between separate and distinct organizations within the NWS. Examples include the research, development, and transition to operations of the dual-pole radar, improvements to existing systems (i.e. AWIPS), installation of a ground system upgrade or placement of a buoy system into operations.