

J20.6 RESEARCH AND INNOVATION TRANSITION TEAM: FACILITATING TRANSITIONS INTO OPERATIONS

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1. INTRODUCTION

Research and innovation are the lifeblood of National Weather Service (NWS) operations. Advancements in weather forecasting, observing, modeling, etc., and the development of new and improved products and services, can only occur when there is a successful transition into operations (R2O). However, the NWS, and its parent agency the National Oceanic and Atmospheric Administration (NOAA), have had a long standing struggle with optimizing the transitions of research and development (R&D) into operations. The current NWS and NOAA transition function could be more productive (for more information on the latest efforts of how NOAA is improving transitions of R2O, go to www.weather.gov/mdl/RITT/lotm/docs/Final_report_to_LOTMs_1-12-11docx). This paper addresses the basic premise that the NWS must invest in a process, staffing, and infrastructure that support bringing results of innovation (a term used internally to the NWS describing field efforts to meet more immediate needs) and research into NWS operations. In response to this premise, in March 2009, the NWS Office of Science and Technology (OST) created the Research and Innovation Transition Team (RITT) in the Meteorological Development Laboratory (MDL).

2. RITT DESCRIPTION

First and foremost, the RITT is a team of people, not a process. The core RITT team consists of 4 full-time federal employees, with part-time contributions from numerous people within OST, the Office of Hydrologic Development (OHD), and the Office of Climate, Water, and Weather Services (OCWWS). The RITT mission is to facilitate the transition of innovation (a term used to describe internal NWS field development efforts) and research projects into NWS operations. To learn more about the RITT, go to the RITT website at www.nws.noaa.gov/mdl/RITT/ (Fig. 1) or email the RITT team at NWS.HQ.RITT@noaa.gov.

2.1 RITT Core Functions

The RITT has five core functions: (1) to serve as a “help desk” for transition issues, (2) to provide accountability for NWS transition performance, (3) to ensure transparency of transition activities both internal to the NWS and between the NWS and external collaborators, (4) to serve as a neutral party without personal or hidden agendas, and (5) to build smart processes and R2O

infrastructure. A short description of each core function follows.

2.2 “Help Desk” Function

The RITT serves as the focal point, or as a “help desk” for NWS transition issues. The RITT is the “go to” resource for questions, comments, documentation, exposure of needs or problems, and it links those transition issues to the appropriate people within NWS and/or NOAA. Documentation takes many forms within the R2O arena. Early project planning is critical to successful transitions, with the identification of an operational system owner as early in the R&D process as possible. The RITT members have experience with the NWS Operations and Services Improvement Process (OSIP) and assists project team leaders with required documentation and navigation through the OSIP gates. If a transition occurs between the NWS and a NOAA Line Office (or external NOAA partners like academia or other government agencies), the RITT assists on formal transition agreements (e.g., Letters of Agreement, Memorandums of Understanding). An essential and often extremely challenging issue requiring RITT engagement is the identification of funding for transition and operations and maintenance (O&M). The RITT works with all NWS Headquarters Offices, Regional Headquarters, and the National Centers for Environmental Prediction (NCEP) to fill funding shortfalls. Often, this is performed in a tactical response to a need, where the longer-term planning failed to acquire the necessary funds.

2.3 Transition Accountability

Because of the nature of transitions, which are neither core R&D nor operations responsibilities, there is a lack of accountability. When transitions fail or take many more years to complete than

originally planned, no organization or individual is directly held accountable. A core RITT function is to staff the OST Director and the NWS Transition Manager. Performance plans of the RITT personnel are tied to transition successes. If the RITT is participating on a transition project working team, it is the RITT’s responsibility to ensure issues are resolved in a timely manner.

2.4 Transition Transparency

The RITT promotes transparency by managing a publicly accessible website (refer to Fig. 1 and website address in section 2.) and hosting a monthly “RITT Forum” (an hour-long meeting with a transition project or project with transition potential presented via GoToMeeting®). Archives of past presentations are posted on the RITT website.

2.5 RITT as a Neutral Party

During the facilitation of transitions into operations, and throughout the R2O process (from long-term planning and priority-setting, to short-term acquisition of funding), the RITT maintains complete neutrality. There are no “pet projects,” hidden agendas, or other personal goals of the RITT that drive transition activities. Instead, the RITT acts to foster collaboration between the R&D community and NWS operational organizations. In the event of disputes, even between NWS interests and external interests (e.g., other NOAA Line Offices or NOAA partners), the RITT works to achieve acceptable resolutions for all.

2.6 Smart Processes and Infrastructure

The RITT works with all levels of NWS and NOAA to improve R2O processes. OSIP is just one formal process that transition projects must successfully pass through to be implemented operationally.

The RITT has focused on gaining efficiency and reducing bureaucracy throughout all the necessary documentation. Simply stated, the RITT attempts to slice through bureaucracy, not add to it. Not only are successful transitions a part of the RITT mission, but fast, responsive transitions. A related component of building smart processes is also building a better R2O infrastructure that fosters collaboration. R&D environments, such as testbeds or web-based “sandboxes” can be directly tied into operational systems (e.g., NWS Consolidated Internet Farms). In contrast, R&D performed on non-operational platforms, requiring a time consuming and often expensive transition, incur many more obstacles to overcome. External partnerships can be strengthened when there is an R2O infrastructure set up.

3. NOAA TECHNOLOGY SUMMIT

In 2010, the RITT participated as an active planner and coordinator of the 3rd annual NOAA Technology Summit. This summit, led by NWS/OST, is a 3-day event hosted on the NOAA Headquarters campus in Silver Spring, Maryland. This past year, on November 2-4, 2010, there was an NWS day #1, a NOAA day #2, and a Federal Partners day #3. Each day consisted of a series of presentations on innovative technology-centric R&D that could be applied to other needs. The main objective is the fostering of collaboration and the sharing of ideas with non-traditional partners. For more information on the NOAA Technology Summit, including archived presentations, go to <http://www.weather.gov/ost/>.

4. RITT PROJECTS

The RITT participates in several large-scale research projects and innovation field projects, depending on priority and limited resources. Along with all the other

core functions stated above, RITT members facilitate the transition of these projects at the working level. A list of current RITT projects (as of January 2011) can be found at www.nws.noaa.gov/mdl/RITT/projects.php with posted project presentations. One example of a successful transition, facilitated by the RITT, is the National Public Observing Program (NPOP).

5. CONCLUSION

R2O transitions do not happen automatically, by accident, or by luck. There are myriad reasons why transitions of R&D into operations are so challenging. The RITT provides one critical ingredient needed for successful transitions to happen, a focused team of people whose sole job responsibility is to facilitate transitions. The RITT facilitates transitions by improving communication and fostering collaboration, building smarter transition processes and R&D infrastructure environments, identifying transition needs (e.g., funding) during the planning phase of a project, and helping overcome the ubiquitous obstacles that inherently exist for transitions to occur. The RITT provides within the NWS a focal point for others to engage with to transition R&D projects into operations.

National Weather Service
Research and Innovation
Transition Team (RITT)

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Research and Innovation Transition Team



Mission: To Facilitate the
Transition of Innovation and
Research Projects into NWS
Operations.

On Our RADAR:

- RITT Projects
- Line Office Transition Managers Meetings
- Innovation Advisory Board

Figure 1. Screen capture of the RITT homepage accessible at www.nws.noaa.gov/mdl/RITT/.