



NWS/OAR Off-Site



MADIS Lessons Learned: Example of a “Successful” (on-going) Transition

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Outline

Key Milestones

Next Steps

Lessons Learned and
Remaining Challenges



Key Milestones

- **2001:** MacDonald approved MADIS project initial development at GSD (FSL) to prototype new access, integration, quality control, and distribution techniques for real time observation data
- **Mar 2006:** Koch Acting GSD Director. MADIS enters OSIP Gate 1.
- **2006-2007:** Disagreements about approach & funding (**warning sign**)
- **Nov 2007:** Gate 2 decision is MADIS-T “not ready” to pass through
 - Comments:
 - Andy Edman: Project “not making effective use of people who are doing the prototype/operational work now” [GSD]
 - Dave Manning: “There are many issues yet to be resolved by getting the right folks together to talk and come to find common ground”
 - Rusty Billingsley: “GSD and NWSH need to come together on the alternatives and project plan. Plan seems to have a pre-destined solution.”
- **Jan 2008:** OAR/NWS Transition Managers agree to convene a NOAA Independent Review Team for alternatives evaluation, leveraging NOAA-wide expertise



Key Milestones (cont.)

- **May 29, 2008:** IRT meets to consider NWS Nortell “MADIS-T” and GSD/NWS Partnership “MADIS” Alternatives
 - IRT unanimously selected GSD-based alternative: “The partnership between OAR and NWS led to a solid technical solution and provided a smoother (lower risk) transition from research to operations”
- **FY08Q4:** Transfer of funds from NWS to OAR for MADIS
- **October 30, 2008:** LOA signed by NWS & OAR AAs
 - Includes MADIS transition Phase and future enhancements Phase
 - Multi-year budget coordinated between NWS and OAR CFO includes all one-time and recurring costs including GSD system maintenance to FOC
- **May 12, 2009:** MADIS unconditionally passes OSIP Gate 3
- **Sept 2009:** MADIS I/O software installed at the NWS TOC



Next Steps – IOC and FOC Milestones



Initial Operating Capability (IOC): FY2010-Q3

- Raw ingest (ftp/http/ldm) at NWS/TOC
- Distribution servers (ftp/http/ldm) at NWS/TOC
- Operator monitoring for data ingest and distribution servers at NWS/Gateway
- Operator monitoring for processing servers at NWS/NCO
- Help Desk (GSD primary/NWS backup)
- Real-time processing subsystems running at NWS/NCO
- Security Certification and Accreditation completed on NWS/TOC server
- Other current MADIS capabilities sustained at OAR/ERSL/GSD

Full Operating Capability (FOC): FY2011-Q3

- Observation web displays on NWS/Gateway MADIS web server
- Cooperative Agency Profiler Hub (including dialers) at NWS/TOC
- Surface data recovery system at NWS/NCO
- Additional operator and software documentation
- Help Desk (NWS primary/GSD backup)
- Archive (saved real-time data) development with NESDIS/NCDC



Lessons Learned for a Successful Transition



- Define mission requirements and identify capability gaps early. NWS communicates with OAR clearly to guide R2O.
- Agree upon roles and responsibilities at start of the transition process, including funding responsibilities, not afterwards.
- Jointly develop a high level push-pull R2O transition schedule to guide longer term planning on both sides.
- Conduct analysis of alternatives in a thorough and transparent way. Need to consider intangible and derived benefits when making in-/out-source decisions.
 - GSD had built significant relationships with NCEP (RTO), mesonet network providers, and data users. Lowered risk. Customer focus.
 - Leveraged existing NWS IT and NOC I/O systems. Training program.
 - GSD proposal was developed jointly with NWS



Budgetary Lessons & Challenges



- Reliance upon WWS and C&T Goal Teams has been problematic:
 - ST&I strategy in FY10 of splitting OAR contributions into Integrated Observations Systems initiative failed, resulting in loss of \$800K for MADIS – only part of which may be recovered. Similarly, IOS \$5.5M budget increase in FY07 (\$1.0M for MADIS) was cut entirely by NBO.
 - NWS CFO directed addition of MADIS to AWX NextGen in FY11 was then cut by NOAA CFO, requiring NWS to search for other funding sources.
 - LFW refusal to include MADIS O&M alternative in FY12 budget.
- Major lessons here for transitions:
 - Fully involve program managers during LOA development to assure the transition project can be framed as contributing to the program objectives.
 - But, this is not sufficient: required funding to complete multi-year transitions is vulnerable to cuts during the budget process.



Challenges Remaining for a Successful Transition



- Cooperation within NOAA is hindered by the diversity of methods by which OAR labs calculate their **indirect cost rates**, including use of full cost accounting practices to support facilities – this remains an obstacle for OAR labs to work with NWS, which uses a different accounting system.
- Despite having an LOA and commitment of NOAA leadership to support some transition projects, in general, **NOAA has not made explicit investments in transitions** (budgeting and personnel). Instead, transition managers continue to rely upon PPBES and risky Goal Team strategies for packaging alternatives to fund the multi-year transitions.
- *These problems plague transition projects like MADIS, which began as an OAR outreach project, then grew rapidly into a pseudo-operational capability for NOAA before a transition strategy had been negotiated and the funding sources needed to transition the project had been identified.*