Research Transition (RT)

Presented to: 2010 FPAW Group
By: Thomas MacPhail (FAA RT Coordinator)
Date: October 21, 2010
RT Accomplishments in FY10

• Developed/managed an interim RT process that completed “stalled” AWTT-managed capabilities
  – G-AIRMET approved
  – GTG2 approved for operational production as a supplementary product on ADDS
  – FIPS approved for operational production as a supplementary product on ADDS
RT Accomplishments in FY10 (cont)

• Strengthened the FAA-NWS partnership through formation of “joint” Capability Transition Teams (CTTs)
  – Conducts and documents project planning
  – Guides capability through CMTD and Service Analysis to CRD
  – Ensures completion of CMTD demonstrations, evaluations, programmatic artifacts, & decision briefs
  – Facilitates partnering with producers and users of aviation weather services
RT Alignment with AMS

FAA LIFECYCLE MANAGEMENT PROCESS

Legend
1. Concept and Requirements
   - Definition Readiness Decision
2. Investment Analysis Readiness Decision
3. Initial Investment Decision
4. Final Investment Decision
5. In-Service Decision
Research for Service Analysis (RSA) Goals

• Mature operational concepts

• Reduce programmatic risk

• Define requirements and develops NAS Enterprise Architecture products for follow-on AMS activities

• Manage research as a portfolio of related initiatives as they mature and move through the AMS lifecycle
RSA Activities

• Research Engineering & Development (RE&D)
• Concept Maturity Technology Development (CMTD)
RE&D Goals

• Gain knowledge and understanding of concepts, products, or procedures that could potentially benefit the aviation community

• Inform the NAS enterprise architecture and follow-on CMTD activities
RE&D Artifacts

• Project Plans

• Scientific/technical evaluation reports
  – Demonstrate that a research concept is scientifically appropriate for transition

• CMTD Plan
  – Contains RE&D artifacts sufficient to support an agency decision to move an RE&D concept into CMTD
CMTD Goals

• Creation of potentially useful materials, devices, systems, and methods

• Advance the maturity of research concepts in order to:
  – Reduce risk
  – Define/demonstrate requirements
  – Inform follow-on AMS activities including investment decision-making and product lifecycle management
Typical CMTD Activities

- Concept feasibility studies
- Technical analyses
- Prototype demonstrations
- Operational assessments
CMTD Artifacts

• Technical Data Package (TDP)
  – ConOps
  – Application/software description
  – Assessment reports
  – Documented source code IAW with published coding practices
  – Installation guide and troubleshooting instructions
  – Test procedures and results
  – Description of internal modules and interfaces
  – S/W inventory, including any 3rd party libraries/tools
  – Description of H/W needed to run application
  – Parameter and adaptation guides
QUESTIONS?