MDSS Project
Major Tasks & Milestones – FY2002

Presented by

Bill Mahoney

National Center for Atmospheric Research
Overview – MDSS Project Schedule

FY2000: Requirements Analysis
Technology Review by Labs

FY2001: Conceptual Prototype Development
(storyboard concepts & user feedback)

FY2002: Functional Prototype Development
Demonstration
Documentation
Technology Release
MDSS Project Objectives – FY2002

• To develop an automated end-to-end functional prototype MDSS that includes integration of environmental, road condition, and operational data.

• To develop a generalized prototype capability and display (CHI) that provides decision support based on STWDSR results. The display design process will be supported by a small group (~5) of DOT representatives.
MDSS Project Objectives – FY2002

• To continue development and verification of MDSS component algorithms in order to improve the accuracy of system products.

• To continue to build advocacy for programs and technologies that improve surface transportation weather and road condition information.
The development process in FY2002 will include:

a) System design process  
b) Sample data gathering  
c) User feedback process  
d) Software development  
e) System integration and testing  
f) System documentation  
g) System release
Major Tasks & Milestones – FY2002

Phase 1:

• Identification of DOT design group
• Display design meeting @ NCAR
• Collect sample operational data
• Collect weather & operational data
• Finalize IOC rules of practice
• FP Design Document
• Software development
• FP integration testing
• Key Decision Point meeting

<table>
<thead>
<tr>
<th>Task</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identification of DOT design group</td>
<td>early October</td>
</tr>
<tr>
<td>Display design meeting @ NCAR</td>
<td>25-26 October</td>
</tr>
<tr>
<td>Collect sample operational data</td>
<td>Nov-Dec</td>
</tr>
<tr>
<td>Collect weather &amp; operational data</td>
<td>Nov-Feb</td>
</tr>
<tr>
<td>Finalize IOC rules of practice</td>
<td>Nov-Feb</td>
</tr>
<tr>
<td>FP Design Document</td>
<td>31 Dec</td>
</tr>
<tr>
<td>Software development</td>
<td>Oct-Mar</td>
</tr>
<tr>
<td>FP integration testing</td>
<td>1-16 Apr</td>
</tr>
<tr>
<td>Key Decision Point meeting</td>
<td>17 Apr</td>
</tr>
</tbody>
</table>
Major Tasks & Milestones – FY2002

Phase 2:

- Continue software development Apr-May
- Prepare for Review 4 meeting Jun
- Review 4 meeting 13-14 Jun
- Continue software development Jun-Jul
- Documentation preparation Aug-Sep
- FP integration testing Aug-Sep
- Review 5 meeting 19-20 Sep
- MDSS FP Release 1 20 Sep
Primary Deliverables - FY2002

- MDSS FP Design Document
- MDSS Project First, Second, Third Quarter Reports
- Participation in KDP Meeting
- Definitive Licensing Terms for MDSS Components
- Participation in Reviews 4 and 5
- Delivery and Documentation of MDSS Components:
  - Road Weather Forecast System
  - Ensemble Model System
  - Precipitation Type Algorithms
  - Road Temperature Algorithm
  - Road Chemical Concentration Algorithm
  - Rules of Practice Module
  - MDSS Display System
Primary Technical Responsibilities of the Labs FY2002

NCAR:  Lead Research Lab (LRO)
        MDSS System Engineering Lead
        Road Weather Forecast System
        System Software Integration & Testing
        MDSS Display

CRREL:  Prime Contracting Organization (PCO)
        Road Temperature Algorithm
        Road Chemical Concentration Algorithm
        Rule of Practice Module Development
Primary Technical Responsibilities of the Labs
FY2002

LL: Rule of Practice Development & Coding

FSL: Mesoscale Modeling
Ensemble Modeling
LDADS Data Conversion

NSSL: Precipitation Type Algorithms
Mesoscale Modeling