Maintenance Decision Support System

Intellectual Property Treatment

September 2001
MDSS – Intellectual Property

Where IP is an issue:

• The holding and licensing of rights to intellectual property created with federal assistance is stipulated by the Bayh-Dole Act, as amended.

• Procedures implementing legislative and executive patent and licensing policy regarding "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms" are codified at 37 CFR 401.
Bayh-Dole Act

- **Unrestricted Rights** – When US Government supports 100% of the development. The Government can use the technology as it pleases for Government purposes. License fees for other uses may apply.

- **Limited Rights** – When US Government supports part of the development, a license agreement may be required for Government use and fees may be required.

- **Restricted Rights** – When US Government supports none of the development, then the IP owner can restrict use as it pleases and charge fees as supported by the open market for both Government and private sector uses.
Bayh-Dole Act

• In all cases shown, a license agreement and fees may be required for non-Government, and private sector uses.
Eight primary components

- Ensemble Forecasting
  - FSL

- Mesoscale Weather Models
  - FSL/NSSL

- Maintenance Decision Support System
  - Road Weather Forecast System - NCAR
  - Road Chemical Concentration - CRREL
  - Road Mobility Index - CRREL
  - Road Surface Temperature - CRREL
  - Rules of Practice Module – CRREL & LL
  - Precipitation Type - NSSL
# General IP Restrictions

<table>
<thead>
<tr>
<th>Technology</th>
<th>Restriction</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSL Ensemble System</td>
<td>Public Domain</td>
<td>Free</td>
</tr>
<tr>
<td>¹NCAR Road Weather Forecast system</td>
<td>License Needed</td>
<td>$15,000 per VAM</td>
</tr>
<tr>
<td>NSSL Precipitation Type Algorithm(s)</td>
<td>Public domain</td>
<td>Free</td>
</tr>
<tr>
<td>CRREL/LL Rules of Practice - Coded</td>
<td>License Agreement may be required</td>
<td>Free to US Government and VAMS</td>
</tr>
<tr>
<td>CRREL Road Temperature Alg.</td>
<td>Public Domain</td>
<td>Free</td>
</tr>
<tr>
<td>CRREL Road Chemical Concentration Alg.</td>
<td>Public Domain</td>
<td>Free</td>
</tr>
<tr>
<td>CRREL Road Mobility Index Alg.</td>
<td>Public Domain</td>
<td>Free</td>
</tr>
<tr>
<td>NOAA Mesoscale Weather Models</td>
<td>Public Domain</td>
<td>Free</td>
</tr>
</tbody>
</table>

¹NCAR’s Road Weather Forecast System uses core technology that was developed with private funds.
Road Weather Forecast System
License Restrictions

- Commercial License
  - Cost is $15,000 per VAM
  - Restricted to surface transportation applications

- Government License
  - Cost is free (Federal, State, Local Government)
  - Restricted to surface transportation applications
MDSS – Intellectual Property During FOT

- MDSS prototype components shall be licensed at no cost to the U.S. Government (State, Federal) and private sector partners, if any, during an MDSS FOT.
MDSS – Intellectual Property

The following are methods that may be used to transfer MDSS technology:

- Technical specification (algorithm specification, system specification, etc.)
- Scientific or technical publication
- Object code
- Source code
- Pseudo code (e.g., PDL, AEL)
- Others