ON-GOING SUCCESS OF DOTS

+ Training and education are critical
+ Responsive and high quality
Factors Driving Need

- Demographic shifts
- Hollowing out of middle management
- Technological advancements
- Communication technology
- Budget constraints
- Knowledge curve
Growth in Knowledge

Knowledge Doubles Every 14 Months to Five Years

- Discovery of Fire
- Invention of the Wheel
- Discovery of Solar System
- Invention of the Transistor 1949
- Development of Personal Computer 1980
- Emergence of ITS 1992
- Fusion Based Energy System
Development of a Collaborative Training Program in Our Region

- DOTs
  - NDDOT
  - SDDOT
  - WYDOT

- Mountain Plains Consortium Universities
  - NDSU
  - CSU
  - SDSU
  - U of UT
  - U of WY
Potential Training Subject Matter

- Planning
- Preconstruction
- Construction
- Maintenance
- Administration
- Professional Development
- PDH’s/Certifications
- Continuing Education/Advanced Degrees
Intended Audiences

- Transportation related entities
  - State, Local, Tribal, Private (contractors, consultants, etc.)

- Two Areas of Focus
  - Technical – technicians to engineers
    - Based on TCCC/NHI Matrices
  - Management, supervisory, administrative, new employees, others as identified by customers
Intent/Benefits

- Provide cost-effective quality training
- Share expertise among DOTs
  - Tremendous amount of expertise that can be effectively shared if coordinated
- Share in the fixed cost
  - Instead of each participant paying for a comprehensive workforce development program
- Utilize a variety of training delivery platforms
  - Matched with material content, instructor proficiency, and technology available at recipients location
Cost effective use of instructors
  - More students at same cost
  - Reduce travel expenses
  - Can deliver training from most anywhere

Reduce participant cost of training
  - Reduce travel, expenses, lost production time

Similarity of training needs among members allows for delivery of same course simultaneously

Deliver training that can be captured, warehoused, and repeated on-demand
  - Content servers
Partnering with industry is easier if they can reach larger audience for sharing new technology.

Technology and training techniques are constantly changing.
- A focal point to monitor and keep abreast of change can be more cost effective than coordination by several.

Several activities in the training process of any entity are transferable (what can be done for one applies to another).

Cost effective specialized training for DOTs
- Limited numbers of people needing specialized training
- By taking the small numbers from several agencies the accumulative total for all agencies more affordable.

Partnering with several universities allows increased educational opportunities for member DOTs
- Also allows better access to research capabilities and results.
How

- Funding mechanism
  - Pooled fund project (DOTs)
  - MPC universities
  - Partnering with industry to provide instructors at effective costs
  - Use of FHWA Resource Center instructors training from Center locations (no travel or expenses)
  - Other in-kind services (NDLTAP)
    - Arrangement to deliver to NDLTAP customers at reduced cost
  - Total annual estimated cost
    - $560,000
Management Structure

- Management and Coordination
  - Upper Great Plains Transportation Institute
- Lead DOT to monitor pooled fund program
  - NDDOT
- Governance and input
  - Executive Committee
  - Program Committee
  - Marketing and and Coordination Liaison
Model allows for expansion of members
  - Share in respective reduction of fixed costs
Continually evaluate training/education needs
Monitor evolving delivery platforms and technology
Address potential changes in transportation technology, operations, and education