S-BRITE UPDATE

Steel
Bridge
Research
Inspection
Training
Engineering
Status Update

- Last year S-BRITE Center introduced at SCOBS
- INDOT has now committed approximately $1.2 million for:
  - Research
  - Training – Short Courses
  - DEN – Distributed Expertise Network
  - S-BRITE site development
- Pooled fund study TPF-5(281)
  - Participants:
    - KS, SD, IL, IA, MN
    - FHWA
Research Projects

- Risk-based bridge inspection intervals – Underway
  - INDOT providing 100% funding

- First formal POD study for steel bridges is proposed for pooled fund (Fall 2013)
  - Crack detection
  - Corrosion
  - Damage
  - Intend to include human factors
    - Vision
    - Perception issues
    - Environment (hot/cold, day/night)
Training Well Underway

- HS bolting course
  - Two offered, 3rd to be July 23/24
- Inspecting Steel Bridges for Fatigue
  - 1st offered, next is August 12/13
- Fatigue and Fracture Design of Steel Bridges
  - June 24-26, September 1-3
- More to come!
  - Welding, coatings, response and repair of impact & fire damaged to steel bridges, etc.
  - Pooled fund partners will set curriculum
Training coming to a town near you

- Members of the pooled fund study can select from courses that will be offered in their state.
- In addition, limited number of individuals will be brought to S-BRITE site.
  - Offer unique training environment.
Recent Fatigue Insp. Training
Distributed Expertise Network (DEN)

- INDOT has funded initial phase
- Identifying “experts” within next few weeks
  - Means to move their research into practice and provide input on specific issues/questions
- Pooled fund participants have access to DEN
- Will begin to develop FAQ database

- **Topic areas:**
  - Fatigue, Fracture, Welding, Coatings, Bolting, Steel Bridge Design, Stability, Fire and Impact Damage, Field Testing, Repair/retrofit, etc.
S-BRITE Bridge Component Gallery

- Includes full-scale bridge components or structures taken out of service
- Houses/collects specimens for NDE testing/validation
- Provide hands-on education for:
  - Professional Engineers,
  - Inspectors,
  - Managers,
  - Contractors,
  - Students (next generation)
S-BRITE Site Development

- 25 Acre site “provided” by Purdue
- Consultant on board to develop master plan for the site
- Goal to have first specimens on site spring 2014
  - Several large specimens have been acquired
  - More to come
Goals of S-BRITE

- Fill gaps associated with aging steel bridge expertise
- Develop and implement Performance-based Inspector Certification Program
  - Capable workforce
- Improve inspection reliability (POD)
  - Correlates to safety
- Improve bridge management tools
  - Better resource management ($$$)
S-BRITE Summary

- Project moving along
  - Pooled fund study active
  - Short courses offerings underway
  - Research projects underway
  - Component gallery design underway
  - DEN will be operation within 2-3 months

- Still looking for more partners
  - States, industrial, equipment producers, etc.
Questions

Also for more information, see pooled fund website

http://www.pooledfund.org/Details/Study/517