1. National Tunnel Inventory (NTI)
2. National Tunnel Inspection Standards (NTIS) – What’s ahead
3. Tunnel Research
National Tunnel Inventory (NTI)

- 473 Tunnels on public roads in 41 States
  - Preliminary data collected in December, 2015
  - 39 State DOTs and 4 Federal Agencies
    - 180 have HAZMAT restrictions
    - 182 (38%) are complex
    - 13 have tolls

- Longest – 13,300’, Anton Anderson in AK
- Shortest – 11’, Apishapa Arch in CO
- Oldest – 1882, Bluefield in WV
- Highest Traffic – 261K, Kennedy Expy in IL
- Highest Truck Traffic – 23K, I-10 in Phoenix, AZ
The state with the most tunnels
- California @ 70
  - State and local @ 63
  - Federal @ 7

The most tunnels by owner
- National Park Service @ 63
- WSDOT @ 47
- Caltrans @ 43

The owner with the most tunnel mileage – MassDOT, 38 tunnels @ 14.2 centerline miles
All existing tunnels are to have an initial inspection by August 2017

Complete load ratings based on initial inspection by November 13, 2017

First NTI submittal with element and condition data – Spring 2018
  - Further information will be coming later this year
  - Error checking and submission will be available soon
NTIS – What's Ahead

- Tunnel Oversight Program
  - Developing a process similar to Oversight of NBIS
  - 15 Metrics based on regulatory requirements
    - Organization
    - Qualifications of Personnel
    - Inspection Interval
    - Tunnel Procedures
    - Inventory (data)
Ongoing Tunnel Research

- UTC for Underground Transportation Infrastructure at Colorado School of Mines
  - [http://underground.mines.edu/utc-uti.html](http://underground.mines.edu/utc-uti.html)

- Technical Working Groups:
  - TWG01 – Tunnel Safety
  - TWG02 – Major Projects
  - TWG03 – Inspection and Maintenance
  - TWG04 – Resilience
  - TWG05 – Security
New Tunnel Research

- Integrated Design of FFFS and EV
- Augment TOMIE
  - Functional systems
    - Maintenance
    - Inspection
  - NDE
  - Load Rating
- Precast Concrete Fiber Only Design
- Risk Management