Implementation of AASHTO’s Manual for Assessing Safety Hardware (MASH) 2016

Update from the Technical Committee on Roadside Safety
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Background and Context

  - Revolution
- MASH 2009 to MASH 2016
  - Evolution
- MASH 2016 Implementation Agreement
  - Issued in January
  - Sunsets NCHRP 350 for new devices
MASH 2016 Ballot Results/Dates

- TCRS – final draft approved April 13th
- SCOD – passed May 18th
- SCOH – pending
- MASH 2016 publish date?
Implementation Agreement Highlights

- **Urges** replacement of devices not meeting NCHRP 350 (or later) criteria
- **Encourages** upgrade to MASH 2016 when device is damaged beyond repair
- Staggered implementation dates based on device category
Implementation Dates

- **December 31, 2017**: w-beam barriers and cast-in-place concrete barriers
- **June 30, 2018**: w-beam terminals
- **December 31, 2018**: cable barriers, cable barrier terminals, and crash cushions
- **December 31, 2019**: bridge rails, transitions, all other longitudinal barriers (including portable barriers installed permanently), all other terminals, sign supports, and all other breakaway hardware
Availability of MASH Hardware

- **W-beam barrier and cast-in-place concrete barrier (12/31/17):**
  - W-beam should be ready, as many systems and configurations have already been tested
  - Some cast-in-place concrete systems may need additional tests with small car

- **W-beam terminals (6/30/2018):**
  - One available, one submitted to FHWA
Availability of MASH Hardware

- Cable barriers, cable barrier terminals, crash cushions (12/31/2018)
  - Expect cable barrier to be ready
  - Cable terminals will be more challenging but are also expected to be ready
  - Crash cushions should be ready; thrie-beam bullnose testing needs additional funding
Availability of MASH Hardware

- Bridge rails, transitions, all other longitudinal barriers and terminals; all breakaway hardware (12/31/2019)
  - Many types of bridge rails in use among the states; testing needs not yet fully known
  - NCHRP 20-7 project to evaluate “grandfathering” of historical bridge rail designs
  - NCHRP 03-119 project to examine common sign supports and breakaway hardware
Available Resources

- Task Force 13 Barrier Hardware Guide

- FHWA website of crash-tested hardware
Implementation Needs

- MASH hardware “catalog”
- Sharing state QPLs
- Sharing draft state policies
- Encourage pooled fund participation!
  - Midwest Pooled Fund (University of Nebraska)
  - Roadside Pooled Fund (Texas A&M)
Questions?