# Draft Minutes – Task Force 13 Spring Meeting in Napa, California May 19 and 20, 2010

#### SUBCOMMITTEE TO DO LIST FOR 2010

All Subcommittee Chairs need to look at their page(s) on our website and send Duffard your comments. Each subcommittee co-chair should discuss the possibility of tubing standardization.

The Task Force 13 meeting began in joint session with the TRB Committee AFB20 – Roadside Safety. The following presentations on current research efforts were for the benefit of both organizations:

Chuck Niessner summarized current NCHRP Projects on roadside safety issues, along with their current status.

<u>NCHRP 16-05</u> Guidelines for Cost-Effective Safety Treatments of Roadside Ditches <u>Pending</u>

<u>NCHRP 17-22</u> Identification of Vehicular Impact Conditions Associated with Serious Ran-Off-Road Crashes

Completed To be published as NCHRP Report 665

<u>NCHRP 17-43</u> Long-Term Roadside Crash Data Collection Program <u>Active</u> Continuation of 17-22 to expand database.

<u>NCHRP 17-44</u> Factors Contributing to Median Encroachments and Cross-Median Crashes <u>Active</u>

<u>NCHRP 20-07/Task 257</u> Crash Tested Precast Concrete Barrier Designs and Anchoring Methods <u>Completed</u>

22-12(03) Selection Criteria and Guidelines for Highway Safety Features - Follow on to <u>NCHRP 22-12(02)</u> for TL2 to TL5 Bridgerails. Contract pending

<u>NCHRP 22-14(03)</u> Evaluation of Existing Roadside Safety Hardware Using Updated Criteria <u>Completed</u>, To be published as RRD 359

<u>NCHRP 22-20</u> Design of Roadside Barrier Systems Placed on MSE Retaining Walls <u>Completed</u> To be published as Report 663

<u>NCHRP 22-20(02)</u> Design Guidelines for TL-3 through TL-5 Roadside Barrier Systems Placed on Mechanically Stabilized Earth (MSE) Retaining Walls <u>Pending</u>. Contract just signed.

<u>NCHRP 22-21</u> Median Cross-Section Design for Rural Divided Highways <u>Active.</u> Drafting final report.

<u>NCHRP 22-22</u> Placement of Traffic Barriers on Roadside and Median Slopes <u>Pending</u> Interim report submitted <u>NCHRP 22-23</u> Criteria for Restoration of Longitudinal Barriers <u>Completed</u> Published as Report 656

<u>NCHRP 22-24</u> Guidelines for Verification and Validation of Crash Simulations Used in Roadside Safety Applications <u>Active</u> Panel reviewing draft report.

<u>NCHRP 22-25</u> Development of Guidance for the Selection, Use, and Maintenance of Cable Barrier Systems Active

<u>NCHRP 22-26</u> Factors Related to Serious Injury and Fatal Motorcycle Crashes with Traffic Barriers <u>Active</u>

<u>NCHRP 22-27</u> Roadside Safety Analysis Program (RSAP) Update <u>Active</u> Alpha version to be ready this fall.

The following FY-2011 NCHRP Projects were recently announced:

17-54 Roadside Design in HSM

22-28 Criteria Restoration of Longitudinal Barriers

22-29 Performance of Longitudinal Barriers on Curves and Super-Elevated Roadway Sections

**Artimovich** asked a question referring to an additional \$100,000 that was approved for crash testing of cable median barriers in ditches of various widths to determine the "worst case scenario" for barriers placed anywhere in the median. **Artimovich** was tasked with working with MWRSF and TTI to develop a plan to resolve this median ditch issue.

Eduardo Arispe: FHWA R&D – Recent Research at Turner-Fairbank and National Crash Analysis Center

NCAC has validated the Silverado model, and are working on finalizing NCHRP Project 22-25 on Cable barrier design & placement. They have begun development of a new small car model for MASH, the 2010 Toyota Yaris at 1078 kg and have revisited rollovers. He also discussed FOIL upgrades, semi-tractor-trailer testing, steel backed timber terminal crash testing, off tracking vehicles into cable barriers, going in depth into roadside crash data, going for ISO certification and upgrading many parts of the facility. NCAC and FOIL have also conducted crash tests into security barriers for the U.S. State Department.

**Roger Bligh** asked why they didn't select the small car that the other test labs were using. The response was that NHTSA funded the effort to digitize the vehicle. McDonough commented that NCAC and FHWA R&D appear to be more deferential to NHTSA than to FHWA HQ.

**Karla Lechtenberg:** Discussed recent testing at MWRSF, Lincoln, Nebraska, and covered the following topics:

1)Testing wood posts to be used in the MGS transition.

2)Developed a TL-3 MGS bridge railing. Selected a weak post concept.

3)Performance limits of MGS with 6 inch curb. 37 inches above road, 31 inches above soil, 8 feet from curb, 2270P test failed as truck rolled. Went back and tried it at TL-2. 2270P passed at 6 foot offset. Can leave the rail at 31 inches above the pavement until barrier is 4 feet behind the curb.

4)A study of cost effective measures for low volume designs recommended: Remove culvert headwalls, remove 6 inch or greater trees, place barrier for 2:1 slopes or steeper, leave existing rail for long bridges, upgrade short bridges.

5) Breakaway steel post for breakaway bullnose system

6) MGS with native wood posts. White pine 6x8 posts

7) MGS on wire faced rock gabion wall, no blockouts.

8) MAXIMUM MGS rail height. Good at 34 inches? Test waiting to be run.

**Roger Bligh** Summarized recent testing done for the Washington State pooled fund research program. (The pooled fund sates are AK, CA, LA, MN, PA, TN, WA.)

1) Pinned down PCB for limited deflection. FHWA Letter B-206

2) Alternative backfill around posts in guardrail mowing strips.

3) Field applied fittings for cable barriers.

4) Converting low tension to high tension systems.

5) Addition of a  $4^{th}$  cable to a barrier.

6) Development of PCB with drainage scuppers.

7) Vehicle crashworthiness on MSE walls – wall panels are not structural and a form of shielding is needed.

8) Guardrail on 2H:1H slope. Face aligned with slope. 7 foot posts. 27.0 to the top failed 2000P

9) Synthesis on guardrail deflection.

For more info see <u>www.roadsidepooledfund.org</u>

At noon the attendees were treated to lunch during a "Pavement Friction Equipment Demo" that was done by Ennis Traffic Safety Solutions and Chrisp Company? The demo was very interesting and the pizza sure was good.



# Task Force 13 Spring Meeting in Napa, California

1:00 Noon, Wednesday, May 19

The formal meeting began with Task Force 13 State Co-Chairman **Pat Collins** announced that he was retiring from Wyoming DOT and from Task Force 13. TF13 is the most enjoyable group that Pat has worked with in his years with WYDOT. Industry Co-Chairman **John Durkos** presented **Collins** with an engraved clock and a signed softball as expressions of appreciation from TF13 members for Pat's service to the highway safety community in general and the Task Force in particular. Pat will, indeed, be missed.

**Durkos** then showed where dinner was being held that evening - Black Stallion Winery right after the Executive Board meeting today. **Durkos** acknowledged **Barry Stephens** and his wife, **Kit**, for their excellent efforts in establishing the venue for both the AFB20 and TF13 meetings. Thanks, too, to Energy Absorption and Barrier Systems for the loan of their projectors and loudspeaker system. **Gregg Frederick** was acknowledged for his assistance on Registrations.

Task Force Secretary Nick Artimovich recapped the Rehoboth, Delaware subcommittee meetings.

**Collins** noted that much of the TF's effort is done in the various subcommittees. The Publications Maintenance subcommittee does significant work in maintaining the process of getting drawings on line. After time, the TF realized that we weren't going to get much help in publishing our guides, so we went ahead with contracts to have revisions made and are now proceeding on our own to get them hosted and posted on the TTI web site.

After the Minutes of the Rehoboth meeting were approved, those in attendance introduced themselves. The diverse group consisted of 80+ participants from industry, academia, consultants, and federal, state, and local governments.

#### SUBCOMMITTEE MEETINGS

<u>Subcommittee #1 Publications Maintenance</u>. Wes Duffard, our website contractor from Texas Transportation Institute, demonstrated the developmental site's operation. He has converted the website from the one hosed at Virginia DOT to a language that TTI uses. All Subcommittee Chairs need to look at their page(s) and send Duffard your comments. Duffard noted that security was a needed feature for accessing /reviewing drawings. You can change your password, be reminded of your password through links on the website.

**Mac Ray's** guides are currently posted at the <u>http://guides.roadsafellc.com</u> web site. Guides are currently posted at different places hosted by different people and the goal is to put them all at TTI. Each click on the TF13 site opens the page in a new window. The TTI relational database will allow all the modules on our website to connect for searches, associate with manufacturers and members, etc.

The drawing review system will tally "yes" votes for each drawing, and require an explanation for "no" votes. Subcommittee co-chairmen **Duffard and Mark Bloschock** will take over the job of assigning Designators. Designator protocol will know not to assign a new designator that is the same as an existing drawing designator.

**Duffard** also showed the Production site and how to download drawings, comment, and upload the drawing with the comment. **Will Longstreet** co-chair of Subcommittee #2 on Barrier Hardware will prepare a note on how to add comments to a drawing. Not all planned features have been implemented.

System will log you off after two hours of inactivity.

**Duffard** also covered the member database operations for updating info and for authorized users to make changes. A user's guide will be developed to help members navigate through the various pages and drawings. The Sub Committee will establish a process to take FHWA Acceptance Letters and put drawings up on the site. **Longstreet** noted that the established Standard Operating Procedure will still be followed.

**Collins** asked what we do with obsolete drawings. It would be simple to archive – just ask TF officers to flag the drawing as 'Do Not Display'. **Duffard** also showed the search capability of the Bridge Rail guide.

# AFFILIATED COMMITTEE ACTIVITIES / REPORTS

Gregg Frederick: AASHTO Sub Committee On Bridges and Structures.

T-7 Will look at MASH ramifications and LRFD specs that require 400 kip loads on piers or protection. T-12 Will look at bending of aluminum tube structures. Also fatigue testing of cast aluminum bases. There are numerous NCHRP Studies on Fatigue: NCHRP Projects: 10-70; 10-74 Rational loading analysis and inspection of high mast towers; 10-80 Convert Sign Specs to LRFD methodology. Will be talking about other state studies including the effects of galvanizing of poles and base plates.

## Donna Clark of ATSSA.

The 2 day GR installation training course and Longitudinal Barrier Training course have been joined by a Guardrail Installer Training Certification program. They have a model specification for installation training and certification. Clark also detailed the roadside hardware webinars that are coming up including free MUTCD webinars.

ATSSA has a new booklet on Understanding Transportation Management Plans

The Association has trained over 25 000 people under the Work Zone Safety Grant.

Toward Zero Deaths is the key program they are now promoting. Association members have been busy on Capitol Hill to push for a new Transportation Bill. April 2010 fly-in had 63 ATSSA members visited their reps in DC.

National Work Zone Memorial travels around the country. NWZ Awareness Week was held in NYC in April. The 2010 Mid Year meeting will be in Chicago August 18-20. On Feb 13-17, 2011, the annual meeting and expo will be in Phoenix. The last GR committee meeting was on Feb 15, 2010. Clark listed the major topics covered by formal presentations at that meeting.

Phil Demery of National Association of County Engineers.

Demery is currently the President of NACE. He is also the Transportation and Public Works Director of Sonoma County. NACE was formed in 1966 and they now have over 1900 member counties. Professional networking and monitoring Fed legislation and advocacy. Have a good annual trade show. Also pushing for a new transportation bill but of course funding is a problem. Discussions of bills talk about focus on funding highest priority projects, and that concerns local agencies. Plethora of set-aside programs have been consolidated so much that programs that benefit locals have disappeared. Local roads and bridges are where the greatest maintenance priorities are. Also have the greatest safety needs as most fatalities are on local two lane roads. Hope to be able to partner with us to advocate streamlining of projects. Project can be obsolete by the time it takes the project to get through the bureaucratic process. Unless there is funding for county projects, they can't take advantage of all the good work that TF-13 does.

**Dick Albin** also summarized the AFB20 meetings that were held Sunday through Wednesday of this week.

#### Andy Artar of the Task Force's Marketing Subcommittee:

Began a quest to develop a logo for the TF at Rehoboth. Ended up with a great variety of designs and finally picked one for use on the giveaway bags received from this meeting. New Logo was voted and approved. Looking for suggestions how Marketing Committee can use website to promote our activities. **Artar** will step down and **Rick Mauer** will work with **Donna Clark** now.

#### New Standardization Areas:

Discussion of tubing initiated by **Longstreet** and **Marvin Phillips**, **Atlas Tube.** Bridgerails and Guardrails and ancillary structures all use various types and sizes of tubing. These products should be standardized by canvassing states and find out what sizes and materials are most popular. Then settle on the common designs so that quantities of tubing in these sizes will become less expensive. Each subcommittee co-chair should discuss the possibility of tubing standardization.

#### What about standardizing hardware placed on top of barriers?

**Lance Bullard** says it is too early since we do not know how they can be safely accommodated yet. Talked about **standardizing portable concrete barrier segments** – shape, height, end connections, reinforcing steel, concrete strength, etc.

#### Technical Presentation on NCHRP Project22-25 by Dhafer Marzoughi.

Cable Barrier location. Listed 8 tasks and focused on Task 5 on guideline development. Identified 7 different areas needing research. Lateral placement: Conducted simulations varying vehicle type, median profiles, median slopes, median widths, approach speed, and approach angles. Showed illustration of vehicles interfacing cable system and the two critical points that determine redirection. Showed underride and override plots. Report will provide guidelines for placing cable systems on slopes with respect to ditches and slope break points.

Barrier Deflection. Varied barrier design, installation length, end anchor spacing, post spacing, cable tension, impact location (at or between posts.) Used Test 3-11 criteria . Used Brifen, Cass, Gibraltar. All these simulations were done on flat terrains. Should be done by end of July 2010.

Will have a two day workshop for committee members and other users to evaluate the usefulness of the guidelines.

Executive Board Meeting, Wednesday, May 19, 2010 in Napa, California.

# In attendance were Collins, Stenko, Duffard, Artimovich, Longstreet, Frederick, Schertz, Takach, Durkos, Smith, Bligh, Chiu, Bloschock, Bullard, Mauer, and Clark.

Secretary was asked if the TF13 web site password process was cumbersome. That position is allowed to create authorized user ids, maintain manufacturer info, member information, etc. As the Secretary has maintained such information on a spreadsheet in the past, and has successfully emailed members with their login and password information, the Secretary does not consider it a problem. Co chairs should be allowed to set up members and tech reps for their subcommittees. Members can only review documents and comment on them.

**Clark** asked if we can use web site to register for meetings. **Durkos** noted that many people asked if they could register by credit card. **Duffard** agreed that this is possible as a future effort. **Mauer** mentioned the proposed Task Force newsletter and will submit it in PDF format. Looking for a paragraph or two with some photos for use in the newsletter.

We comped three state DOT people, but were lucky to get a few Caltrans engineers to attend. We will have to look at this on a case by case basis as to whether we comp the locals, or use it for distant DOT folks who need to travel further.

**Clark** agreed to check with the DOT people who attended AFB20 but did not stay for TF13. **Bloschock** noted that brochures are helpful in generating attendance. Kurt Brauner was registered, but his travel was pulled.

**Durkos** suggested we have a webinar to bring folks into a particular segment of TF13. Longstreet agreed that we could use their input and have corresponding members to help with review. Could have a videoconference for the whole session. **Clark** noted the cost was \$500 plus \$50 for each site to log in. **Longstreet** will look into NHI webinar system for TF13.

**Durkos** suggested that the NHI Roadside Safety Design course highlight the TF13 connection. **Artimovich** noted that FHWA and AASHTO usually put together a CD on the changes. The TF13 connection could be highlighted when we do this for the 2010/2011 edition.

How could we train members on the new TF13 website? Options considered include 1) have all members bring their laptops to the meeting 2) meet at TTI, 3) have a webinar on the new website. **Bligh** thought we should get website up and running smoothly before we invite all to work with the system.

Could have subscriptions for email blasts on our website updates. Similar to a listserve.

Duffard sent out list for designators and the drop down menus. Please review those.

Subcommittees need to review the new online systems as soon as they are uploaded to make sure that no obsolete systems remain.

**Bligh** asked about an automated submittal process to upload drawings, photos, supplemental info, etc. Manufacturers would upload their material and subcommittee co chairs would be alerted. Processes developed for the bridgerail guide may be more than other subcommittees need, but the capabilities will be there for their use.

Only co-chair we need is the State Co-Chair for the Task Force. **Mauer** has replaced **Andy Artar** for Marketing. All co chairs need to review their own sites to see that data is up to date.

**Schertz** asked what a Technical Rep does. Longstreet noted the current list is out of date, but Tech Reps are 4 separate groups that are notified when a drawing is available for review. Tech Rep notifies all group members that there is a drawing to review. Bridge Rails has four working groups, each with its own tech rep.

**Bligh** suggested that members be required to be part of a working group. **Schertz** agreed, but noted that it might scare state DOT people away because they are already overworked. **Duffard** suggested that we could offer an incentive of advertising links for active industry participants.

**Durkos** noted that we are really asking an hour a month from most members. We need to present this as a minimal effort. If we could point to a specific task we might get more participation than just asking for help in general. There are also a lot more benefits to TF members than the work they do.

Kansas City meeting to be held in conjunction with the AASHTO Technical Committee on Roadside Safety will be week of September 19<sup>th</sup>, 2010.

#### Thursday, May 20, 2010 Napa, California.

#### Subcommittee Breakout Sessions.

TF13 is a unique environment of industry, researchers, government,

Co-chairs need to get their minutes to the TF Secretary, preferably by email. Co chairs should also check their Subcommittee page on the web site and update your information.

**Barrier Hardware Subcommittee #2:** Longstreet reviewed mission statement and minutes, the ready drawings, and new drawing review and update. We are heading towards on line review and comment using Adobe by marking up drawings downloaded from our website.

**Karla Lechtenberg** updated/corrected the drawings that went through their final review in Delaware last fall: SER03, SGR31, STC01. The STC01 is a transition from the cable to the BCT and will stay in barriers. Should it also be referenced in the Bridgerail and Transition Guide? In either event need to be able to search on keyword for "transition" among others. Numerous semi-rigid to rigid transitions not associated with bridges will be added. Consensus was that STC01 belongs in the new Transitions guide but additional discussion ensued and the proposal was not finalized. Motion was made and seconded and approved to move the drawings to the ready tank.

Drawing # SWM11 was distributed for review. Multiple section A-A are shown, only need one on page 1 of 8. Sections on various pages should be labeled AA, BB, etc. Tubing size is not shown on drawing. Isometric view is preferred but plan and elevation views are OK and up to the manufacturer. Too many font sizes. English units are not supposed to have hash marks. Arrowheads missing from some dimension lines. Need an alpha designation since the various height systems may be used with or without the rails. Questioned why 150 feet of barrier was shown – typically only show one device / unit. Should also explain that this needs the steel rail to be a barrier and it is just a channelizer or channelizing device without the rails.

**Duffard** explained the system for downloading drawings, making comments, and re-posting the drawing. **Karla** and **Ken Kochevar** noted that it would be very advantageous to have all comments recorded on one version of the drawing sets rather than having each reviewer put their comments on a separately saved file.

#### Bridge Rail and Transition Subcommittee #3 44 participants.

**Bligh** asked for volunteers to sign up for the various working groups. He also described the process for submitting new drawings to the guide. Need a cross section, a photo, and the FHWA Acceptance Letter number. Most cross sections are poor quality. Video files not acceptable on the site yet.

Began with a demonstration of the site by **Ray**. Now at <u>http://guides.roadsafellc.com</u> Sign, Luminaires, and Transitions guide are all on this site. When commenting be aware that they have to be reviewed prior to posting. Approximately 250 systems are in the guide so far, and you can browse by viewing all rails using cursor. Can also *search* bridge railings. Need to set to 'Any Approved' to seek out railings.

There was much discussion about the cross section sketch that is on each Railing Detail page. What dimensions would we want on the cross section? Height, width, window openings, or should there be a

dimensionless cross section and put these features in the SEARCH feature? **Bligh** noted the features that reviewers ought to check:

- One good photograph of the system (make sure the photo is of the correct system and has reasonable quality and resolution)
- Cross section drawing (basic dimensions should include overall height, curb height (if any), and vertical openings; quality/resolution is reasonable)
- Attributes listed in table on railing page are complete and correct
- Link to acceptance letter is functional (if one exists many bridge rails do not have acceptance letters)
- Link to point of contact is functional and information is correct
- Set of drawings for system is attached (no specified format may be crash test drawings, state standard details, etc.)
- Other attached files (photos, videos, test reports, etc.) are relevant and for the correct system

File Numbers ought to have a more descriptive moniker.

Should have a means for granting Conditional Approval (as long as certain info is added/corrected.) Some railings have only minimal information and all contacts are obsolete. Currently they just stay in "In Review" status. **Bligh** suggested these railings be discarded eventually.

The Subcommittee voted on the following option:

Keep current situation and have good cross section with dimensions 12 Add search criteria for height and width and keep basic cross section 12 Get rid of cross section and have search criteria. 0 votes

No new submissions have been received since this publication process began. **Ray** will prepare a template for submitting drawings for this guide to include cross section, photo, FHWA link, etc. **William Williams** reviewed the Concrete task group's review efforts and noted common findings. **Lechtenberg** said Faller's group reviewed and found 4 ready to vote on. Lack of photos, wt per ft is usually missing. **Bligh** asked that Working Group leaders prepare to present drawings that are ready to approve in Kansas City.

There was no meeting of the Drainage Hardware subcommittee #4.

#### Breakaway Sign and Luminaire Supports Subcomm #5

**Mike Stenko** reported. **Ray** updated the sign manual and luminaire manual. Over 100 small sign supports have been uploaded, now need to pick some for review and approval. Manufacturers of proprietary devices need to review their drawings and confirm that all is ok. Need system photos of sign mounted on support with base. Members should also use the comment system to comment on drawings. **Plaxico** reported on draft luminaire guide. Went over the nomenclature listing, there is a huge variety of poles, arms, bases, heights, etc. **Durkos**: is there a trigger to get manufacturers to correct/update their info? **Stenko** has a plan. Could **Duffard** launch an email to the manufacturer when a comment is made? Should have such a system for sign supports, too. **Mike and Greg** will contact **Mac and Wes** to see if this is feasible.

#### Work Zone Hardware Subcommittee #6

**Ken Smith** reported on WZ. He and **Greg Schertz** are new co chairs. 15 attendees. With the success of TF13 on labeling of plastic water filled barriers and the acceptance of this by DOTs and Feds, the next

step should be to look at non redirective crash cushions. **Stephens** will prepare that draft for presentation at the next meeting. The DOT people in attendance said this would be of help to them. Second, the SubComm decided to begin creating an area on the TF website regarding FHWA Accepted WZ devices. Prepared a letter for an NCHRP research statement on deterioration of portable concrete barriers. Going to run that through the subcommittee on Positive Protection. **Gregg Frederick** suggested that it be run through TCRS.

## Certification of Test Facilities Subcommittee #7

Thanks to Kelsey Chiu for these minutes:

- □ Updates on TRAP software presented by Roger Bligh of TTI
  - Updates are available now of Version 2.3.1
    - Updates include those for newer computers, THIV calculation and tabular data changes.
- □ Review of Mission Statement and Scope of Subcommittee
- □ Review of Inter-Laboratory Comparisons (ILC's)
  - Past methods and ILC list
  - Most recent ILC's have been only data analysis
    - 6 present labs currently using TRAP software
    - 4 present labs currently not using TRAP software
      - Other methods include DIAdem and Excel spreadsheets
  - Current ILC's are only addressing data processing.
  - There are currently some concerns with this meeting the ILC requirements of ISO 17025
    - How can we improve our ILC's?
      - Possibly perform a standard test for all labs
      - Possibly create a standard fixture for instrumentation mounting
      - To meet current ILC requirements John Laturner of E-Tech will send out a new data set for the 1500 test vehicle.
      - To proceed with a comparison of instrumentation mounts, all labs are requested to send photographs and procedures for instrumentation mounting to **Lance** by 6/4/10. **Lance** will send out an email request.
- Discussion of Accreditation
  - Specifically A2LA and tape measures
    - A2LA rule have a steel rule and verify the tape measures.
    - Other Accreditors Have to have tape measures ISO 17025 calibrated.
    - Different information has been given to labs from different accreditation bodies, as well as within the same accreditation body about ILC's.
- □ **John Jewell** of Caltrans motions to perform static and dynamic testing of a standard post in each test house's soil.
  - o 3 tests in a similar location will be performed.
    - Majority of those in attendance in agreement.
      - No negatives were voiced.
- $\Box$  New action item

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- Send **Mary McDonough** of FHWA a budget and scope by June 10, 2010 for funding of research for a crushable nose for a bogey vehicle.
- Karla Lechtenberg of MwRSF volunteered to help.
- Questions on EDR data in MASH from **Mike Dunlap** of KARCO
  - Why should we do it? What is the purpose?
    - To potentially tell if airbag systems don't help when impacting highway hardware.

- Lance suggests those who want to collect the data do so, and then see if it is worthwhile.
- Labs consider the EDR requirement to be optional.
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The TF secretary also took these notes during the meeting of Subcommittee #7 and didn't feel like deleting them:

**Bullard** kicked off the Subcommittee #7 session with the mission statement that notes the subcommittee is the only forum for Interlaboratory Comparisons in the US. Have done ILCs on Film analysis, Occupant Risk, Survey on Procedures, and Misc. discussions. **Faller** put together a spreadsheet of past ILCs. This helps labs to identify who is reporting the results correctly. Goal is to make sure there is consistency across the labs. Last ILC was in spring of 2009. ISO 17025 requires ILC so SubComm7 needs to identify the ILCs. **Chiu** said his lab has participated in a data processing ILC which uses TRAP – that results in the same answer when the same data is put in. **Bullard** noted 6 labs use TRAP. MWRSF uses another program. **LaTurner** uses his own spreadsheet. Caltrans uses TRAP but have their own spreadsheet to compare. Two thirds of the labs use TRAP but many also use other methods and compare to TRAP.

Discussion ensued about checking the consistency of accelerometer mountings between labs and how these could be tested in a similar manner. Is accelerometer mounting a good topic for the next ILC?? Should a common mounting fixture be shared? All labs are to photograph their mounting hardware and send the photo with a copy of their procedures to **Bullard** by June 4.

Calibration of steel tapes was the latest thing that the auditors focused on. Tapes need to be verified against a steel rule each day.

Now that MASH has been adopted should the labs do the Soil Test round-robin again? Consensus was that this was a good idea. May not be necessary to aim for the same results, but observing the process from lab to lab would be of value. Might be a good idea to do this three times at the same location. Need to address bogie/pendulum nose under MASH. A proposal for funding will be prepared and sent to FHWA by June 10.

Test labs should look into downloading and reading the EDR data from all tested vehicles. Not sure why it is needed, but let's gather the data and see what use can be made of it. May be useful in dialoging with the auto industry.

Labs have noted that sometimes auditors contradict earlier auditors. A lab can file a formal protest and the auditing agency is required to resolve this.

**LaTurner** will send out a 1500kg dataset for processing. **Lechtenberg** will begin force-deflection characteristic soil study and send hardware from lab to lab. Photos and descriptions of accelerometer mounts to **Bullard**.

## RXR Crossing Hardware Subcomm #8

Thanks to Mike **Hare** for the following minutes:

The mission of **Subcommittee # 8 - Rail Highway Crossing Hardware** is to promote safety to reduce injuries and fatalities through communication between Dot's, railroads, designers, and industry pertaining to rail/highway grade crossing safety. To develop a centralized source for standardized designs, materials and hardware pertaining to the safety of Grade Crossings.

- 1. From publications group need template standardized rail grade crossing hardware
- 2. Facts page Mike Stenko more detail of accident data
- 3. Links page to FRA AREMA STATE Standards AAR
- 4. Photo of Rail Accident/video
- 5. Standard drawing page
  - a. Crossing surfaces (rubber, asphalt, wood, concrete and composites)
  - b. Passive protection, (Signalization, median separators, road surface treatments and signing)
  - c. Active protection (gates and arresters)
- 6. Crossing Geometry (profile, skews, and visibility)

At the request of **John Durkos**, I am adding some notes about the possible inclusion of Airport hardware devices. Some discussion was batted around about who and how airports are designed and some requests from airport developers that could cause liability issues with the manufacturer or installation company.

- 1. Need for standardization of airport practices and devices.
- 2. Does this require a separate sub-committee or should it be rolled into one of the current sub-committees.

The Task Force Secretary left the meeting at 2:30 p.m. in order to attend his son's college graduation 17 hours and 2600 miles away. The following technical presentations were scheduled:

- 2:45 p.m. Recent Research in Lincoln, Nebraska, Karla A. Lechtenberg, MWRSF
- 3:00 p.m. Recent Research in College Station, Texas, William Williams, TTI
- 3:15 p.m. FHWA Tech Transfer efforts, Will Longstreet, Office of Safety Design
- 3:30 p.m. FHWA Office of Safety Update, Mary McDonough, Roadway Departure Team Leader
- 3:45 p.m. Retroreflective coatings. Kay L Smith, Diversified Highway Products
- 4:00 p.m. Repair of Concrete bridge railings. Mark Bloschock, Vertex Engineering
- 4:15 p.m. The Restructuring of Structures of Ironwood; Dan Hubbell

Most of the presentations made during the meeting will be posted on the Task Force 13 website and available for viewing from links on the News and Bulletins page.

Respectfully submitted. Nick Artimovich Secretary, Task Force 13