

TRB Safety Performance and Analysis Committee (ACS20) - User Liaison Subcommittee ACS20(2)

October 5th, 2021 - Meeting (43 participants) – Attendance List at the End of Notes

MEETING NOTES

1. ACS20 Committee Update (Kim Eccles):
 - a. Annual Committee’s Meeting in January 2022
 - i. Planning has started; specific details not known this time
 - ii. There may be virtual subcommittee meetings prior to the in-person committee.
 - b. The User Liaison Subcommittee’s meeting time at TRB 2022 is unknown at this time; we have requested our usual time of Wednesday 12:15 - 2:30pm.

2. FHWA Update (Jerry Roche)
 - a. CMF Clearinghouse Rating Criteria Updated
The CMF Clearinghouse transitioned to the CMF rating criteria developed as part of the NCHRP 17-72 project for the 2nd edition of the Highway Safety Manual on February 15, 2021. Spreadsheets are found on the website showing the CMFs by past and current rating criteria (see below).

Changes to Current CMF Star Ratings

NCHRP 17-72 Rating Score	5 Star	4 Star	3 Star	2 Star	1 Star
1 Star (0-34)	3	21	116	341	215
2 Star (34-74)	1	89	639	666	59
3 Star (75-109)	67	485	1903	264	25
4 Star (110-134)	91	954	988	11	4
5 Star (135-150)	137	210	56	0	0

- b. Two completed projects:
 - i. Report # FHWA-SA-21-026, documenting: Countermeasure Service Life Guide, that was funded by the HSM Implementation Pooled Fund
 - ii. Report # FHWA-SA-20-001, documenting: Selecting Projects and Strategies to Maximize HSIP Performance
- c. Safety Data Case Studies (funded by the HSM Implementation Pooled Fund)
 - i. There are 35 completed cases studies (template for new case studies provided by User Liaison Subcommittee ACS20(2))
(https://safety.fhwa.dot.gov/rsdp/safety_casestudies.aspx#hsm)
 - ii. There are 18 currently under development
- d. EDC Safety Summit Series took place during each Wednesday in the month of September 2021 (<https://www.labroots.com/ms/virtual-event/2021-edc-virtual-safety-summit-series>)
- e. The list of Proven Safety Countermeasures is on the process of updating existing and adding new countermeasures; and adding a tool to help filter countermeasures by focus area, crash type, problem identified, and area type

Mike Dimaiuta gave a brief update on the IHSDM:



Version 17.0.0 (September 23, 2021) now available

- Major enhancement: Implementation of crash prediction models for intersections not in HSM1 (based on NCHRP 1768).
- Download for free from FHWA IHSDM website:
<https://highways.dot.gov/research/safety/interactivehighway-safety-design-model/interactive-highway-safety-design-model-ihsdm-overview>
- ***"IHSDM 2021– New Intersection Models Support DataDriven Safety Analysis (DDSA)"*** webinar on Monday October 18 (1:00- 2:30 pm ET): register at
<https://connectdot.connectsolutions.com/e2bcd9ieuw19/event/registration.html>

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3. NCHRP 17-71A (Stephen Read/Bonnie Polin)
 - a. HSM Steering Committee individuals were added to NCHRP 17-71A Panel
 - b. Requested time and funding extension for priority chapter contents
 - c. Preparing for AASHTO HSM2 comments compilation after a simplified review process was developed. Reviewers will involve some ACS20 members too. The revisions are scheduled throughout 2021/2022/2023 with final AASHTO publication review and balloting in 2024.
 - d. The HSM Steering Committee discussed research needs and requested funds to look forward and develop a HSM roadmap; will continue HSM research gap assessment and will ask input from members of ACS20.
4. Working Groups
 - a. Policy and Legal Aspects (Priscilla Tobias)
 - i. Webinar "Guidelines for Drafting Liability Neutral Transportation Engineering Documents and Communication Strategies" being coordinated with Bre Gowan (who will include the glossary of terms and style guide) and Kelly Hardy; AASHTO will host it.
 - b. International Safety Research (Jennifer Ogle)
 - i. No news to report at this time.
 - c. TRB 2022 Workshop (Kim Kolody) "Making Safe System a Reality: Planning to Implementation"
 - i. Approved and scheduled on Sunday morning of the TRB Annual Meeting
 - ii. The workshop will explore Safe System using real-world applications and breakout discussions to define Safe System for all users, discuss barriers (e.g. data, measures, equity, funding, legal implications) and opportunities for Safe System coordination (e.g. HSM, Greenbook) and implementation, share lessons learned, and identify research needs.
 - iii. Ten TRB committees are co-sponsoring our workshop

- iv. A coordinating meeting is scheduled for tomorrow (October 6th)
- d. HSM Part C Tools (Bonnie Polin/Mike Dimaiuta)
 - i. This is a joint effort from the AASHTO Committee on Safety and TRB ACS20.
 - ii. The working group prepared an HSM Part C Analysis Tools Survey, to understand the needs of safety practitioners related to the HSM Part C or site-specific predictive analysis tools. Hope to learn about what is available and where the gaps are.
 - iii. Survey went out to all AASHTO COS members on 9/28/21.
 - iv. 11 responses received so far. Will send a reminder...
 - v. Hope to have the results compiled in advance of the TRB Annual Meeting.
- e. Practical Application of the HSM (Tim Barnett)
 - i. Two topics were submitted as research ideas for consideration by the AASHTO Safety Committee; several other topics may be further developed at a future time.
 - ii. Volunteers are being sought to assist Tim in the development of synthesis ideas which are due in February.
- f. Road Safety Training for Local Agencies (Cong Chen / Tim Colling)
 - i. Trying to understand the needs before starting to develop content as well as whether the issue is demand or supply of training for local agencies.
 - ii. The results of two surveys were sought: FHWA Center for Local Aid Support and AASHTO Local Roads Subcommittee.
 - iii. The AASHTO Local Roads SC survey results were shared in August 2021 and are being reviewed at this time. Training was not specifically called out as an option for a response.
 - iv. Next steps
 1. Need to digest the data, specifically written comments.
 2. Need to further understand the context of the survey and its coverage.
 3. Kelly Hardy will send additional related materials (e.g., raw data from the survey) and also invited Cong and Tim to connect directly with the AASHTO Local Roads SC to better understand the survey purpose and responses.
 4. LTAP Centers – possibly to conduct a new survey
- g. HSM User Discussion Forum (Daniel Carter/Tariq Shihadah)
 - i. A new temporary working group was created to explore options for replacement of the former HSM User Forum, which is no longer active
 - ii. There is still a need for an authoritative repository of HSM user knowledge and interactions; considering four main options:
 1. Modernized online discussion forum (e.g., Discourse.org)
 2. Periodic technical blog on prevalent topics and questions
 3. Modernized and updated searchable FAQ page
 4. Periodic short digest email on prevalent topics
 - iii. Some of the primary considerations, to find a comprehensive solution, are:
 1. What do users want right now? What will they need when HSM2 is released?

2. What are HSM users currently doing to answer their questions?
 3. How can we meet their needs with modern, user-friendly, interactive solutions?
 4. What caused the previous forum to lose interest?
 5. If there is no interest, should there be? How to engage the users in discussions for better applications of the complex methods?
 6. Volunteers are invited to contact Daniel Carter (NCDOT): dlcarter4@ncdot.gov or Tariq Shihadah (Jacobs): tariq.shihadah@jacobs.com
- h. HSM Website (Stephen Read)
 - i. The schedule of the HSM 2 could be added to the website now (e.g., update the HSM2 slide deck). It is critical to let people know the timeline and where we are heading.
 - ii. Otherwise on holding pattern as NCHRP 17-71A continues
 - i. HSM FAQs (Jake Fansworth)
 - i. Will coordinate with Stephen Read to update the FAQs as the website is updated by AASHTO; and can now update the CMF Clearinghouse rating criteria as it has been launched in the clearinghouse. Now that HSM2 items/timeline are clearer, can plan to make minor changes in early 2022.
5. Future New Initiatives
- a. HSM Glossary of Terms / Style Guide (Derek Troyer)
 - i. The ULSC Policy and Legal Aspects Working Group (led by Priscilla Tobias) will take the lead on this initiative, and Priscilla will report as this is developed in the next months. Derek will continue to help.
 - b. HSM Part C Information Guide (Khalid Jamil)
 - i. There is still limited use of the methods in Part C even after 10 years since the HSM publication.
 - ii. Would like to see a guide aiming to “translate” and make it easier to understand HSM Part C, to encourage greater implementation of the predictive methods. Various states have established their own HSM User Guides, but there is no national Guide.
 - iii. This guide would also identify limitations of current methods
 - iv. This guide would cover all facility types and steps in the project development process; and also help other non-engineers who are decision makers understand the methods, data-driven analysis, and their results
 - v. This guide would provide the fundamentals on how to apply the methods in the state and other agencies’ road safety management
 - vi. Discussion
 1. In a way similar to the guides developed under the NCHRP 17-50
 2. There is a scoping exercise for a future guide by the Pooled Fund Steering Committee
 3. Possibly similar to the HCM Applications Guide

4. “Applications Guide for the Highway Safety Manual” – a statement topic statement (research needs statement) was submitted by the ULSC (Tim Barnett) in Aug. 2021 to AASHTO for potential funding (2022)
 - vii. Next steps:
 1. Khalid to review the research needs statement (submitted by Tim Barnett) and the links to the NCHRP 17-50 guides (Kim Kolody); https://onlinepubs.trb.org/onlinepubs/nchrp/docs/nchrp17-50_userguide.pdf ; <http://www.highwaysafetymanual.org/Pages/Implementation.aspx>)
 2. A call among those involved in similar efforts (i.e., related to guidance on using/applying HSM methods) and those interested in a possible effort – Mike and Geni to arrange for the call in the next few weeks
6. Research and Synthesis Topics Update (Tim Barnett, Stephen Read, Bonnie Polin, Priscilla Tobias, Jennifer Ogle)
- a. Mike D. provided a brief overview of the process we followed regarding research topics development and submission to the AASHTO Committee on Safety. Doug Harwood is the point of contact for ACS20.
 - b. AASHTO Committee on Safety (COS) Research Subcommittee will meet on October 7th to discuss and agree on which ones will be submitted by the COS to NCHRP for funding
 - c. Kelly Hardy suggested that we may ask states to submit any research statement not forwarded by the Committee on Safety - Research Subcommittee if there is support by states representatives.
 - d. The following topic research needs statements were submitted to the AASHTO Committee on Safety – Research Subcommittee:
 - i. Practical Applications of Safe System (Bonnie Polin)
 - ii. SPFs for Horizontal Curves (Priscilla Tobias)
 - iii. Pavement Friction and Safety Performance Integration (Priscilla Tobias)
 - iv. Applications Guide to the HSM (Tim Barnett)
 - v. Safety Performance Functions and CMFs for Weather Related Crashes (Tim Barnett)
 - e. Other submissions
 - i. Submitted before Feb. 17 deadline (not selected)
 1. Transferability of Safety Performance Measures (CMFs, SPFs, and CFs) (Jennifer Ogle)
 - ii. Submitted after Feb. 17 deadline (for future consideration)
 1. Assessment of Participatory Budgeting to Achieve Equitable Traffic Safety Outcomes (Tariq Shihadah)
 2. A Synthesis on Artificial Intelligence (AI) Applications in Quantitative Roadway Safety Analysis (Mohamad Banihashemi/Mouyid Islam) - submitted via ACS20 Analytical Methods SC

7. Other Topics

a. Next ULSC Meeting

A call among the leaders of the working groups will take place prior to January. It is anticipated that the subcommittee meeting will take place during the TRB Annual Meeting, unless TRB decides to have them virtually.

b. Collaboration with other Committees and Subcommittees

- i. Mike D. will present on “Safety Performance on Urban Streets” at a TRB 2022 Sunday afternoon workshop on “Livability versus Safety Tradeoffs in the Urban Road Design Context.” The workshop is being coordinated by all of the TRB Design Section Committees (including AKD10 - Standing Committee on Performance Effects of Geometric Design) and co-sponsored by ACS20 and others.
- ii. The ULSC should continue to explore ways to collaborate with other TRB committees and subcommittees.

Notes taken by Geni Bahar; any errors or omissions please contact Geni at genibahar@naviqats.com

Attendance:

1. Mike Dimaiuta (Co-Chair)
2. Geni Bahar (Co-Chair)
3. Andy Kwasniak
4. Bonnie Polin
5. Brian Frazer
6. Chris Rider
7. Cong Chen
8. Daniel Carter
9. David Petrucci
10. David Stanek
11. Derek Troyer
12. Ehsan Dadvar
13. Eric Green
14. Gina Lopes
15. In-Kyu Lim
16. Ivana Vladisavljevic
17. Jake Farnsworth
18. Jason Hershock
19. Jeff Lewis
20. Jennifer Ogle
21. Jerry Roche
22. John Freeman
23. Karla C. Rodrigues-Silva
24. Keith Knapp
25. Kelly Hardy
26. Khalid Jamil
27. Kim Eccles
28. Kim Kolody
29. Maryam Hasanpour
30. Maryam Mousavi
31. Mohammad Shaheed
32. Nelda Buckley
33. Nick Foster
34. Nick Fortey
35. Paige Martz
36. Priscilla Tobias
37. Ranjeet Bagha
38. Sai Polavarapu
39. Sai Sravya
40. Stephen Read
41. Tariq Shihadah
42. Tim Barnett
43. Tim Colling