

Motorcyclist Advisory Council – Meeting #5

December 10, 2019
8:30 a.m. – 4:30 p.m.
Meeting Summary

The fifth meeting of the Motorcyclist Advisory Council (MAC) was held on Tuesday, December 10, 2019 in person. The following document provides a summary of the presentations, discussions, and comments received during the meeting.

Nineteen people attended the meeting including 9 MAC members, 5 US Department of Transportation staff, and 5 members of the public. Meeting attendees included:

Motorcyclist Advisory Council (MAC) Members:

- Mr. Michael Sayre, MAC Chairperson, American Motorcyclist Association (DC)
- Mr. Joel Provenzano, MAC Vice Chairperson, Florida Department of Transportation (FL)
- Mr. Michael Canchola
- Dr. Chanyoung Lee, University of South Florida, Center for Urban Transportation Research (FL)
- Mr. Eric Line, Michigan Department of Transportation (MI)
- Dr. Shane McLaughlin, Virginia Technical Transportation Institute (VA)
- Ms. Jane Lundquist, Texas Department of Transportation (TX)
- Dr. Craig Shankwitz, Western Transportation Institute at Montana State University (MT)
- Ms. Fay Taylor, Ohio Department of Transportation (retired) (OH)

Other meeting attendees including the following:

- Mr. Mike Griffith (FHWA)
- Dr. Abdul Zineddin (FHWA)
- Ms. Tiffany Cipoletti (MRF)
- Mr. Scott Kebschull (Dynamic Research)
- Mr. Scott Schloegel (Motorcycle Industry Council)
- Dillard Taylor, unaffiliated
- Mr. Andrew Kelly (Pennsylvania ABATE)
- Ms. Norah Ocel (FHWA)
- Dr. Carol Tan (FHWA)
- Ms. Guan Xu (FHWA)

1. Welcome and Agenda Overview

Welcome

Mr. Michael Griffith (FHWA), who serves as the Designated Federal Officer (DFO), provided an introduction and welcome to the meeting. He stated this was the fifth meeting of the Motorcyclist Advisory Council (MAC). Mr. Griffith welcomed the MAC members, introduced Mr. Abdul Zineddin as the new team lead for Safety Operations in the Office of Safety, and mentioned Ms. Carol Tan is on a



rotational assignment at the National Highway Institute (NHI). Mr. Griffith wanted to hear all the recommendations from the MAC. Everyone around the room introduced themselves.

Mr. Griffith summarized the major activities and discussions that have taken place over the last four meetings.

The first meeting was held two years ago, where one of the main presentations was related to safety data. The Council was reminded that recommendations should be data-driven since it will be easier for FHWA to be able to implement. It was mentioned that it is important to have research that supports the recommendations being made by the MAC.

The second meeting took place in June of 2018. The purpose of this meeting was to discuss infrastructure. Turner Fairbank Highway Research center (TFHRC) presented research on different signs. The Texas Transportation Institute presented on a roadside barrier, that has potential forgiving elements for motorcyclists. The main question discussed was how to look at barriers from a motorcyclist perspective. It was also discussed how States are addressing motorcycle safety. Three States comprise nearly 30 percent of all motorcycle fatalities in the country.

The third meeting occurred in December 2018. During this meeting, the MAC reviewed the most significant motorcycle-related statistics. Most notably, 64 percent of all multi-vehicle crashes involving a motorcyclist have a contributing factor that involves the other driver. After reviewing the statistics, there was a consensus that there is a need to look at things in a more holistic way. One of the main topics of discussion during this meeting was dynamic speed feedback signs and the challenge that the technology does not detect motorcycles.

The fourth meeting took place in summer 2019. There was a presentation related to the United States Road Assessment Program (usRAP), which provides a function that rates roads based on road characteristics and features, and traffic control devices with relation to all road users including motorcyclists. There was also a presentation on the results of a survey of State DOT motorcycle efforts, which revealed 80 percent of States do not have staff directed to motorcycle safety. It was discussed at the State level there may be more of focus on behavioral-related solutions versus infrastructure-related solutions. When thinking of recommendations there is a need to consider where we have been and where we need to go.

The summary of what was accomplished during the first four meetings set the stage of what would be discussed during the fifth meeting.

2. Presentations

New Highway Signs for Motorcycle Crash Countermeasures

Ms. Tan presented on behalf of Mr. Yusuf Mohamedshah about new highway signs for motorcycle crash countermeasures. The Motorcycle Crash Causation Study (MCCS) was awarded \$3.5 million in project funding and was completed in 2017. Data was collected and analyzed and there are three reports published (reports are available for download). If there is a need for other documents, contact Mr. Mohamedshah. A follow up project of Identifying Infrastructure-Based Motorcycle Crash Countermeasures was then conducted. Phase I of the project was completed in 2018 and five infrastructure-based countermeasures were identified for evaluation. Based on the findings from the project, TFHRC started a new research effort. The project was awarded to VHB and is scoped for 18 months, expected to end in November 2020. The research team has identified a final list of signs for

the Human Factors study. The next step is to identify State partners to conduct field tests and evaluate the highway signs.

While some signs are already in the Manual on Uniform Traffic Control Devices (MUTCD), there is going to be a need to look for States willing to obtain permission from the MUTCD team and experiment with the new signs that have been identified. The best approach is to identify sites where motorcycle crashes have happened. While some States have expressed interest, States with relatively high motorcycle crashes—like Florida and California—have not expressed interest. There was discussion among the group surrounding the possibility to create a section or chapter for motorcycle traffic control devices in the MUTCD. Mr. Griffith mentioned that the MUTCD is in the process of a rulemaking effort for an updated edition.

Discussion

Mr. Michael Sayre asked how easy it will be to experiment and Ms. Tan mentioned the project team could help States to get through the MUTCD experimentation approval process (experimentation phase).

The National Park Service (NPS) has expressed interest in helping experiment with some of the signs. FHWA will possibly work closely with the Blue Ridge Parkway.

There was discussion about sign placement. While signs may be placed in the right location for vehicle drivers, many times they are not located appropriately for motorcyclist riders. Florida is an example of how larger chevron signs at curves are being installed based on their own crash data analysis. Alcohol has been a contributing factor in many of these crashes.

Review of MAC Topics

Ms. Fay Taylor thanked FHWA and the MAC. She has 48 years of riding experience and is going into her 14th season as instructor. She mentioned that at some point you received some level of instruction. The most common word for motorcycle is “look”. Motorcyclists are not looking carefully enough in many cases. The concept is that the motorcycle goes where the rider looks. For example, by the time a chevron sign flashes it is too late. An idea was offered of using LED lights on the last sign instead of the first, which will direct the riders to the end of the curve.

Council members mentioned the following infrastructure areas need to be part of the broader discussion: skid testing, milling, friction, loose grindings, curves, work zones, uneven lanes, visibility, sequencing of flashing chevrons, and new signs to depict challenging situations. The question was raised: a current MUTCD sign reads uneven lanes, why is there not a sign with a symbol instead?

Highway designers lack the experience and knowledge of the motorcycle perspective. The MAC is interested in understanding how a design manual could be developed that is more motorcycle friendly and/or if the topic can be added as a supplement to the MUTCD. For example, Florida has a supplement that is more stringent than the MUTCD.

There was discussion about how motorcyclists have smaller contact with the pavement; therefore, a motorcycle needs to be considered a minimum controlling vehicle criterion for uneven pavement. Construction zones were noted as being unsafe, as riders are focusing on the pavement condition versus the traffic around them to avoid being thrown off. In general, open milled surfaces are not adequate for any kind of vehicle, there is loose milling and leads to unsafe conditions.

While motorcyclists can be detected with a loop detector, they are often missed since riders happen to avoid loop detectors and motorcycles have smaller footage.

Mr. Joel Provenzano mentioned crash attenuators in Florida have not contributed to a single fatality, even without seat belts. They work well. But the fatality risk is significant for motorcyclists, especially falling from significant height.

Mr. Griffith reminded the MAC to recommend what they think is best for FHWA to consider. Their recommendations will become a public document. He emphasized the need for the recommendations to be supported by research and data.

Mr. Griffith added that the Office of Operations writes the MUTCD and the public can weigh in on recommending changes during the notice of proposed amendment period. Regarding experimentation of new traffic control devices, the MAC can reach out to State to recommend partnering with universities to make request for the experimentation of new traffic control devices.

Break

3. Discussion of Current Draft Recommendations

Following the break, Mr. Mike Sayre handed out copies of brief recommendations that were drafted using the outline discussed during the fourth MAC meeting. Members discussed the content section by section.

The MAC went over the opening statement of the draft MAC recommendations outline dated June 2019. There was a note that a change should be made to the statistic that motorcyclists make up 0.6 to 1 percent of vehicle miles traveled. It was recommended to use the most recent volume information from FHWA's Highway Statistics publication.

There was a question among the group regarding investments in bicycle facilities versus motorcycle facilities. The MAC expressed the desire for the infrastructure to be maintained and redesigned to accommodate motorcyclists.

It was also suggested to make a case to show deficiencies of the system such as the lack of focus on motorcycles in the MUTCD. Eighty percent of State DOTs do not have designated staff to address motorcycle safety. There was consensus to add this to the opening statement.

It was suggested to the Council to make their recommendations as clear and concise as possible; and to include background information as possible since the letter report will be a public document. For each recommendation, the problem being addressed should be clearly stated, data and research to support the recommendation should be provided, and a potential implementation strategy should be stated. FHWA has requested a final set of recommendations be provided by the MAC by the end of January.

4. Presentation

Factors on Crashes Between Motorcycles and Barriers

Mr. Griffith introduced Mr. Dick Albin, an FHWA resource center SME on roadside design.

Mr. Albin gave an update on NCHRP 22-26, *Factors on Crashes Between Motorcycles and Barriers*, which will be concluding early 2020. Virginia Tech (the contractor) contacted trauma centers to explore motorcycle crashes as soon as they occurred to trace back their injuries. They have a robust data set and are looking at other datasets as well as they are conducting the research. In general, anything of a vertical shape will be a concern for riders. For example, there is an issue with guardrail posts if you are upright and sliding across the top. Cable barriers and concrete barriers have less snag points. In Australia, they are using a sheet down below the w-beam. They have different test vehicles. There are some things that have been tried in Australia, that California has installed, which have not been MASH tested. Some States are concerned with the device not being tested to MASH yet. The effort will explore different types of barriers, provide information on conditions and diagrams, and identify causes of damage in crashes between motorcyclists and barriers.

5. Public Comments

No requests for comment were received prior to or during the meeting.

6. Next Steps

The MAC discussed whether there should be a separate chapter in various manuals for motorcycle safety that address various elements such as: work zone safety, requiring Safety Edge for certain roads, use of friction on roadway plates, specific recommendations for low volume and high-volume roads as they have different needs, and a process checklist for evaluating different motorcyclist needs.

It was stated that signage is good for situational awareness. Motorcyclists would like to know what is coming up. It may be better to have one long section of milling versus patch milling. Drainage grades or manhole covers will occur in milled areas and identifying the location in advance would be helpful. The MAC is interested in potentially encouraging FHWA to include a report of practices that should be discouraged.

The MAC also discussed High Friction Surface Treatment (HFST). It has not been tested for motorcycles, and recommendations on where to apply the treatment are needed.

There is an interest to specifically cover motorcycles on ITS policy related matters. The testing of technology that responds to the presence of motorcyclists is critical.

Griffith thanked the members for their work and mentioned he is looking forward to the Council's recommendations.

The group thanked the guidance from FHWA for organizing all the meetings.

Mr. Sayre thanked the members for being a very diverse group with different perspectives.

Adjourn

4:30 p.m.