



Motorcyclist Advisory Council to the Federal Highway Administration

Eighth Meeting Summary Report

May 13, 2010

Prepared for:

**US Department of Transportation
Federal Highway Administration
1200 New Jersey Avenue, S.E.
Washington, D.C. 20590**

Prepared by:

**Westat
Transportation and Safety
Research Group
Rockville, Maryland 20850**

Westat®

**Motorcyclist Advisory Council to the Federal Highway Administration
Eighth Meeting: May 13, 2010**

Table of Contents

<u>Section</u>	<u>Page</u>
AGENDA	1
Meeting Summary DM200001.WMA.....	3
Summary of Proceedings.....	3
a. Welcome and Overview of Status to Date, Recommendations, Current Issues, and Appreciation for Participation	3
Mr. Griffith	
b. Welcome From the MAC-FHWA Task Manager.....	3
Mr. Williams	
c. Agenda and Review of Recommendations and Action Items.....	4
Ms. Bents	
d. Update on the Motorcyclists Survey	5
Mr. Moreland	
e. Status Report on the Motorcycle Crash Causation Study	5
Dr. Tan	
f. Update on National and International Scans.....	5
Mr. Williams	
g. Marketing Analysis for Outreach Brochure	6
Jennifer Simone, Patricia Turner	
h. 2009 VMT Data	12
Mr. Tang	
i. Update on Traveler Opinion and Perception Survey	14
Mr. Tang	
j. Motorcycle Travel Data From the NHTS.....	14
Westat	
k. Evaluation Design for Motorcycle Countermeasures	15
Mr. Williams, Ms. Bents	

**Motorcyclist Advisory Council to the Federal Highway Administration
Eighth Meeting: May 13, 2010**

Contents (continued)

<u>Section</u>	<u>Page</u>
l. Awareness Topics All	17
m. Closing Comments..... Mr. Griffith	19

AGENDA

May 13, 2010

- 9:00 Welcome and Overview of Status to Date, Recommendations, Current Issues and Appreciation for Participation –Mike Griffith, Director, Office of Safety Integration, and Designated Federal Official
- 9:10 Welcome from the MAC-FHWA Task Manager – Keith Williams (FHWA)
- 9:20 Agenda and Review of Recommendations and Action Items – Fran Bents (Westat)
- 9:25 Update on the Motorcyclists Survey – Ed Moreland (AMA)
- 9:30 Status Report on the Motorcycle Crash Causation Study – Carol Tan (FHWA)
- 9:35 Update on National and International Scans – Keith Williams
- 9:50 Marketing Analysis for Outreach Brochure
- 11:15 2009 VMT Data – Tianjia Tang, FHWA
- 11:15 Update on Traveler Opinion and Perception Survey – Tianjia Tang
- 11:40 Motorcycle Travel Data from the NHTS – Fran Bents
- 12:10 Lunch
- 1:15 Evaluation Design for Motorcycle Countermeasures
- 1:45 Break
- 2:00 Awareness Topics – All
- 2:45 Closing Comments – Mike Griffith
- 3:00 Adjourn

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

- Council Members Present:** Mr. Jeff Hennie
Mr. Ed Moreland
Mr. James “Doc” Reichenbach II
Mr. Gerald Salontai
Mr. Dean Tisdall
Ms. Kathy Van Kleeck
Mr. Donald Vaughn
- Council Members Absent:** Mr. Darrel Killion
Mr. Ken Kiphart
- Others Present:** Mr. Mike Griffith, Director, Office of Safety Integration, and
Designated Federal Official
Mr. Keith Williams, MAC Task Leader, FHWA
Ms. Carrie Beasley, SAIC
Ms. Ana Maria Eigen, FHWA
Mr. Michael Jordan, NHTSA
Mr. Robert Ritter, FHWA
Mr. Dick Schaffer, FHWA
Ms. Jennifer Simone, SAIC
Dr. Carol Tan, FHWA
Mr. Tianjia Tang, FHWA
Ms. Patricia Turner, SAIC (by phone)
Ms. Diane Wigle, NHTSA

Agenda:

- a. Welcome and Overview of Status to Date, Recommendations, Current Issues, and Appreciation for Participation
- b. Welcome From the MAC-FHWA Task Manager
- c. Agenda and Review of Recommendations and Action Items
- d. Update on the Motorcyclists Survey
- e. Status Report on the Motorcycle Crash Causation Study
- f. Update on National and International Scans
- g. Marketing Analysis for Outreach Brochure
- h. 2009 VMT Data
- i. Update on Traveler Opinion and Perception Survey
- j. Motorcycle Travel Data from the NHTS
- k. Evaluation Design for Motorcycle Countermeasures
- l. Awareness Topics
- m. Closing Comments

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

Meeting Summary DM200001.WMA

A summary of the meeting and copies of selected presentations can be found on <http://safety.fhwa.USDOT.gov/MAC-FHWA/>.

Summary of Proceedings

a. **Welcome and Overview of Status to Date, Recommendations, Current Issues, and Appreciation for Participation**

Mr. Griffith

Michael Griffith, Director of the Office of Safety Integration and the Designated Federal Official for the Motorcyclist Advisory Council to the Federal Highway Administration (FHWA) welcomed attendees. He announced that FHWA is developing two new projects—one a marketing effort and the other a research project. One purpose of this meeting was to solicit MAC-FHWA input on these projects. Mr. Griffith noted that this was the eighth meeting of the MAC-FHWA and his third. It was also the last meeting under the existing charter; however, Mr. Griffith hoped that FHWA could continue to work closely with the motorcycle groups, noting that it is important for DOT to interact with all the different organizations. He acknowledged that the MAC-FHWA has asked the Secretary for an extension of the charter, but he did not know how that would turn out. The FHWA has approached the National Highway Traffic Safety Administration (NHTSA) to form a partnership. NHTSA holds two meetings a year, and Mr. Griffith expressed hope that motorcycle safety-infrastructure issues could be addressed at those meetings. When asked, Kathy Van Kleeck, Motorcycle Safety Foundation, and Jeff Hennie, Motorcycle Riders Foundation, stated that they had attended every MAC-FHWA meeting. They, along with Mr. Ed Moreland, American Motorcyclist Association, also attend the NHTSA meetings.

b. **Welcome From the MAC-FHWA Task Manager**

Mr. Williams

Keith Williams, MAC-FHWA Task Leader for FHWA, reiterated that FHWA does not know what the Secretary's decision regarding the MAC-FHWA will be, but the agency will use the partnership with NHTSA and its motorcycle safety network efforts to keep MAC-FHWA members informed and get information from them. He reported that early assessment data for 2009 on motorcycle deaths showed a 16 percent decrease to 4,762 since 2008. In response to a question from Ms. Van Kleeck, he stated that the data come from FARS. States report the data to the Governors Highway Safety Association, but the source is the same as for FARS. The number of deaths is expected to increase as data are finalized, but is not expected to approach the 5,290 deaths reported for 2008. He also noted, however, that one year does not show a trend.

Mr. Williams then discussed the domestic scan that FHWA will conduct this summer. The National Cooperative Highway Research Program (NCHRP) has selected the team for the scan, but he did not have their names. Mr. Williams is co-chair of the scan. At this point, it is FHWA's intent to bring experts to Washington, DC, rather than to have FHWA staff travel around the states. The domestic scan may have some behavioral and rider skills aspects to it and maybe some best practices; however, the focus of the scan will be on infrastructure.

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

The planned international scan, Successful Infrastructure Countermeasures to Mitigate Motorcycle Fatalities, will also focus on infrastructure. Dave Nicol and Carol Tan, FHWA, will be attending the international scan, which is scheduled for September 10-27, 2010. Mr. Williams informed the Council members that they are welcome to attend the scan, but they would have to do so using their own funds.

Mr. Williams also announced a new FHWA marketing effort that is being conducted by SAIC. The marketing contract was awarded because FHWA believes the brochure on motorcycle safety is not getting to the appropriate consumers, and the information is not getting the attention it needs to be effective. SAIC will conduct a market analysis after which it will have the option of developing new marketing materials to be sent to DOTs on the subject of motorcycle safety.

A second new project is an evaluation design project awarded to Vanasse Hansen Brustlin, Inc. (VHB). This project was described during the afternoon session. Mr. Williams reported that Fran Bents, Westat, sent out the *Federal Register* notice as guidance to states on the definitions of motorcycles that FHWA uses. He also mentioned NHTSA's report on motorcycle safety programs that came out in February.

Ms. Bents reviewed the agenda and format of the meetings and noted a reorganization of the discussion topics. She reminded the group that a full agenda of presentations was not meant to discourage discussion. She then referred attendees to the printed recommendations and action items in their packets (see list at the end of this summary).

Agenda and Review of Recommendations and Action Items

Ms. Bents

Mr. Griffith asked attendees to introduce themselves after which Ms. Bents asked if the action items from the November meeting had been addressed. For the first action item, MAC-FHWA was to send a letter to the Governor's Highway Safety Association and to the American Association of State Highway and Transportation Officials (AASHTO) in support of the efforts of the USDOT to improve and standardize state and local police accident reports. Mr. Hennie and Mr. Ken Kiphart were to draft letters. Mr. Hennie said that the letter had been sent, and he would send a copy of the letter to Council members who had not reviewed it.

The second action item was that Mr. Moreland might represent the MAC-FHWA as a panel member during the Transportation Research Board (TRB) Motorcycles and Roadway/Roadside Joint Committee Meeting. He did so and presented on Intelligent Transportation Systems (ITS). Mr. Moreland said there were interesting discussions regarding ITS, the MAC and what TRB believes the goals should be in the future.

For the third action item, Mr. Moreland and Mr. Hennie were to draft a letter to the Secretary of Transportation requesting that the MAC-FHWA charter be extended. The letter was reviewed and approved by all members, and was sent to the Secretary.

Finally, the AMA was to field the next Motorcyclist Survey from April 1 through July 31, 2010. It is currently underway.

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

c. Update on the Motorcyclists Survey

Mr. Moreland

Mr. Moreland reported that the survey is in process. He said that, so far, AMA has received about 1,500 responses to the survey, and he offered to give everyone the link again. To date, only AMA has circulated the survey.

Mr. Griffith told the group that the new chairman of the motorcycle committee from TRB, Keith McCrae, is excited and motivated to advocate for the group. He is very interested in pushing some of the TRB issues ahead through the motorcycle committee.

d. Status Report on the Motorcycle Crash Causation Study

Dr. Tan

Dr. Tan reported on the Crash Causation Study. She noted that Oklahoma State University (OSU) continues to have a problem getting the study's Organisation for Economic Co-Operation and Development protocol through OSU's Institutional Review Board (IRB), which has to approve studies involving human subjects. In the meantime, the IRB application to do the study has expired and needs to be resubmitted. Currently, the study is 2 to 3 months behind schedule.

f. Update on National and International Scans

Mr. Williams

Mr. Williams then asked the group to suggest amplifying questions that could be used for the domestic and international scans. He has already submitted some questions to the team, but wanted to get input from the MAC-FHWA. These questions will help the scan team get useful information from the target locations. He provided as a sample question "How do you use research to develop new programs for infrastructure crash countermeasures for motorcycles?" He also asked about enforcement; "How do you identify riders wearing helmets?" He asked the group to think about amplifying questions to draw information out, for example, questions on safety measures, barriers, etc. Ms. Bents asked him to discuss the purpose of the scan. He replied that it was to look at infrastructure countermeasures in an effort to reduce the number of vertical structures that are hazards to riders. The team will look at the European infrastructure countermeasures that focus on motorcycles because the Europeans and Australians are ahead of the United States in barrier construction. The goal is to ask the right questions to get the right answers. Links to the scans are shown below.

http://onlinepubs.trb.org/onlinepubs/nchrp/docs/NCHRP20-68A_Prospectus.pdf

<http://international.fhwa.dot.gov/scan/2010/>

Mr. Hennie asked where the international scan would take place to which Mr. Williams replied that the countries have not been decided yet. They would probably include several locations in Europe and Australia. Dr. Tan said that the team is meeting for the first time at the end of the month and added that infrastructure can refer to signal timing as well as barriers. Dick Schaffer, FHWA, asked

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

if the scan was going to look at work zone safety and issues such as milled pavement. Mr. Williams replied that the team would be looking at that as well as at steel plates in roadways and if there is legislation or standards regarding motorcycles that address these issues. Robert Ritter, FHWA, asked if the team is still taking input on where to go.

Mr. Reichenbach asked if the team considered the issue of motorcycles not tripping stoplights. He wondered if there was a better system in Europe. Mr. Williams said he had asked that in his amplifying questions.

Mr. Williams suggested taking a break so that the MAC-FHWA could discuss the issue and get back to him, but Mr. Moreland thought it would be more productive for the group to send him comments after they met with their staffs after the meeting. Ms. Wigle asked for a deadline to submit questions. Dr. Tan reported that the first meeting for the international scan was to take place on May 26, so Mr. Williams asked that everyone send him the questions by no later than COB on the 25th so he could give them to Mr. Nicol. In response to Ms. Van Kleeck's question regarding where to find more information on the scans, Mr. Williams said they were described on the NCHRP website and offered to send to her the link to the information.

Dean Tisdall, Bestway Traffic, Inc., asked if the scan would look at marketing and safety and education programs. Mr. Williams reminded him that the focus is on infrastructure, but those issues could be part of the amplifying questions. Mr. Griffith told the group that his experience has been that countries bring a lot of people to the discussions, which engenders more and wider discussions. He would not be surprised if marketing and safety/education programs came up during those discussions. Mr. Williams said his background was in enforcement, and he submitted questions along that line.

Gerald Salontai, Salontai Consulting Group, LLC, asked how the locations are being prioritized. Dr. Tan responded that the locations have not been finalized yet. In the initial write-up, the proposed scan listed England and Germany as having good programs. Mr. Salontai added that location selection is important because of environment and terrain, such as mountainous versus urban. He asked if the team would consider environment and would like clarifying information from the MAC-FHWA. Dr. Tan said the group would consider that.

Diane Wigle, NHTSA, stated that often FHWA does a desk audit of the scan to determine which countries to visit based on innovations and state-of-the-art infrastructures. Mr. Griffith noted that FHWA has a consultant collecting information to help make the determination of which countries to visit. He added that any amplifying questions would have more weight if they came from the MAC-FHWA rather than from individual groups. Ms. Van Kleeck asked if Ms. Bents would collect the questions for FHWA, and Ms. Bents agreed.

g. Marketing Analysis for Outreach Brochure Jennifer Simone, Patricia Turner

Jennifer Simone of SAIC presented on FHWA's new Motorcycle Outreach Marketing initiative. She was filling in for Laura Feast, who is the task leader. She was assisted via teleconference by Patty Turner from PTI, who is the project technical expert. Carrie Beasley, also from SAIC took notes of the ensuing discussion. The purpose of the task is to promote safety countermeasures and solutions

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

to a wide audience, including DOTs, metropolitan planning organizations, the motorcycle community, and the general public. The task provides support for overall marketing and outreach for the Office of Safety, including pedestrian safety, roundabouts, and motorcycle safety. Karen Weis is the principal investigator, but is not directly involved in the motorcycle task.

The task has two components: the first is to conduct motorcycle market research, and the second is to develop a marketing plan and marketing materials based on the results of the research. The goal is to address the need for more comprehensive materials and information for state and local highway personnel who are identifying, prioritizing, and implementing roadway infrastructure improvements to minimize the likelihood of motorcycle crashes and encouraging motorcycle friendly design, construction, and maintenance practices. She asked for the MAC-FHWA's input on what marketing materials are needed and how to get these materials out to the target audience.

Ms. Simone outlined the steps SAIC believes are required to conduct this task. First the project team will meet and develop a master stakeholder list. They will then contact key stakeholders. Ms. Simone said that she would like contact information for the MAC-FHWA members if they are interested in suggesting names for the stakeholder list. The project team will conduct a needs assessment by giving stakeholders a questionnaire either via email or web. Ms. Simone also asked the MAC to think about materials needed, suggestions on content and format, and distribution methods. The two foci of the presentation were to determine who key stakeholders are and what materials are needed. If additional materials are needed, besides the current brochure, SAIC needs to know who the target audiences are, what topics need to be covered, what types of materials should be used, and how they should be disseminated.

Ms. Simone asked the group to name some of the key stakeholders they believe should be involved. She proposed the following stakeholders: MAC-FHWA, TRB, FHWA, NHTSA, state DOTs, motorcycle associations and groups.

Mr. Reichenbach stated that in Florida, two primary groups handle motorcycles: the state DOT and the Department of Highway Safety and Motor Vehicles. The same is true in Alabama. Mr. Tisdall named the American Traffic Safety Services Association, which does pavement marking and guardrail safety. Mr. Solantai added trade associations concerned with design, construction, and maintenance, such as the American Road Transportation Builders Association. Mr. Tisdall added road builders and pavers. Mr. Moreland proposed AASHTO.

Mr. Williams brought up the issue of how to contact groups. He asked the group to name the gateways to associations. Mr. Solantai responded that associations have executive directors and may have a board of directors and standing committees to address these kinds of issues. Mr. Tisdall added that most of these groups have annual conventions and are always looking for workshop topics.

Ms. Simone asked if the stakeholders are also the target audiences that should receive information.

Mr. Reichenbach proposed that the stakeholder group include the military because every branch has its own safety section. Mr. Tisdall added that most branches require personnel to take a course in motorcycle safety before they are allowed to ride on bases.

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

Mr. Williams reported that he and Mr. Griffith attend the Defense Safety Oversight Council, and Mr. Reichenbach said they should be consulted as well. Mr. Williams asked how FHWA could get the attention of the target audiences. Mr. Tisdall responded that if fatalities go up instead of down, they pay attention. His organization has adopted a zero fatalities goal. Groups need to hear about what can be done to lower fatalities.

Ms. Simone asked if additional outreach materials other than a brochure were needed or if the problem is that the brochure is not getting out to the right people. Ms. Turner asked if everyone was familiar with the FHWA brochure. In response, Ms. Van Kleeck stated that a considerable amount of work went into developing the brochure, and it is a good starting point. It succinctly says what the MAC-FHWA feels are major safety points, so the emphasis should be on getting information out rather than developing new materials.

Mr. Moreland agreed and asked how the brochure was distributed. Ms. Turner responded that 8,000 copies were printed; 3,000 were in a warehouse. Primarily the people who have requested the brochure have been from USDOT, some FHWA, some private citizens, and some state DOTs. The intent was to distribute the brochure at conferences; however, to date, there has not been a press release about it. She suggested that the MAC-FHWA tell its constituents about the brochure. The question was asked if there was any problem with MAC-FHWA groups posting the brochure on their websites.

Mr. Reichenbach asked if the existing brochure should be sent automatically to state DOTs. He said he works closely with Florida DOT and DHS and has never seen the brochure. Ms. Turner stated that the group's feedback could be put in the brochure distribution plan. Ms. Simone added that a good distribution plan needs to be put into place. She asked if a press release was not a good idea. Ms. Van Kleeck replied that a press release was a good idea, and it would be timely because May is motorcycle safety month and because riding season is starting. Another suggested target audience is people who work on the roads.

Mr. Vaughn said that he had seen the brochure but discounted it because it recommends things that Alabama is already doing, such as cleaning up oil spills, watching pavement markings, and patching potholes quickly. The emphasis should be on awareness of what affects motorcycles that does not affect other vehicles. Because he is a rider, he emphasizes motorcycle awareness to the DOT. He also noted that getting approval to implement steps in the brochure takes a long time and added that maybe the brochure isn't doing what it was intended to do.

Mr. Tisdall asked if States had to have safety planning conferences. The brochures should go to them and road builders and county-level workers. Mr. Reichenbach added that if the brochure doesn't go to state DOTs, it won't get to safety conferences. Mr. Tisdall noted that FHWA is a part of those State conferences and sends a representative to them.

Mr. Solantai said that the brochure was developed to (1) help MAC-FHWA collect issues affecting motorcyclists and (2) serve as a stopgap to raise awareness. Now, he continued, FHWA needs to hone in on changes needed in design or planning of new construction or reconstruction. Originally, the MAC-FHWA was going to push initiatives through, but, Mr. Solantai added, nothing will change until design standards change nationally. The brochure was a collection of ideas for the MAC-FHWA to start to get motorcycle awareness out. Mr. Vaughn summarized that it was an awareness

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

brochure, to which Mr. Solantai added that the information in the brochure will not have full impact until design standards change. Ms. Van Kleeck added that people are concerned with motorcycle awareness. Mr. Vaughn said that the brochure was brought to the attention of AASHTO, which is talking about the ideas in it. He wondered what approval process other countries went through to implement ideas and suggested that as a question for the international scan. What steps do they go through to implement new technology?

Ms. Simone asked if the brochure was like a road safety audit for motorcycles. Mr. Vaughn stated that Alabama does road safety audits. The information in the brochure has to go down through the organization to the people doing the work. It has to be directed to the top but filtered down to the workers. It takes time for this to happen at the state DOT level. He added that the Alabama website has a section where the public can comment on road conditions for things that need to be improved. Mr. Solantai added that just distributing the brochure to State DOTs is not enough. He believes that Mr. Vaughn is getting feedback on the website from the public because he is driving motorcycle awareness from the top. In response to a question from Mr. Griffith, Mr. Vaughn said the best way to get State DOTs' attention is to send a guidance document from FHWA.

Ms. Simone asked if several documents might be needed, such as one overall then smaller ones on specific issues. Mr. Vaughn warned that FHWA needs to be careful of what is distributed. If State DOTs or FHWA give guidance on motorcycle safety, it needs to be backed up by research. A guidance letter from FHWA is necessary because it will bring out the significance of motorcycle issues. It cannot be left up to 50 DOTs to implement motorcycle safety programs; FHWA needs to tell states what is important to reduce motorcycle fatalities. Motorcycle safety issues need to be raised to the level of pedestrian safety issues, but as yet, they have not.

Ms. Simone summarized the discussion by saying that the brochure seems to be good at a high level to bring awareness, but resources are needed to change the culture within State DOTs to make motorcycle issues more prevalent, and this information needs to come from FHWA. She asked the MAC to discuss what topics need to be covered.

Ms. Bents pointed out an article in the meeting handouts that shows that States are moving beyond paper information and are beginning to use dissemination methods such as MySpace, Twitter, and Facebook. Mr. Griffith added that the NCHRP 500 series guide on motorcycle safety lists safety countermeasures to address different issues, but there is no information on how effective the countermeasures are. There is anecdotal evidence that they have benefit, but we do not know how much. FHWA likes to tell DOTs how effective safety measures are when it issues guidance. Before FHWA can issue guidance, it wants research that backs up how effective the measures are. Mr. Solantai added that, without research, putting out safety countermeasures could create a secondary hazard. Currently, the measures in the NCHRP 500 series cannot be promoted even as best practices. Mr. Williams responded that that this issue is something that will be looked at in the domestic scan.

Ms. Simone suggested that a factsheet that lists resources might be helpful. Mr. Griffith stated that he didn't think the brochure mentioned Vol. 22 of the NCHRP 500 series; each topic in the series was meant to give information to the Strategic Highway Safety Program planners and implementers about motorcycles.

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

Ms. Turner asked what is useful now to help State agencies. Would a resource guide be useful that would list resources and who to contact for information in each State? Mr. Vaughn asked for whom the resources would be targeted, to which Ms. Turner replied it would be a resource guide for motorcycle safety and would be targeted to State DOTs, local engineers, and riders. The guide would tell them what is available and where they can get answers to questions. Mr. Reichenbach thought a guide would be helpful because States do not know what information is available. Ms. Turner acknowledged that the MAC-FHWA must have sought a lot of resources just to develop the brochure. MAC-FHWA is charged with advising on certain areas, such as barrier design. Those topics should be incorporated into outreach materials.

Mr. Moreland asked Mr. Vaughn how much of this type of information he typically receives—new initiatives, directives, resource directories? What would set the FHWA information apart? Mr. Vaughn responded that it would be set apart in the DOTs if it were guidance from FHWA. If it is significant enough to be sent as guidance, that's what States pay attention to. He receives information from many different groups, but that information is not necessarily proven. DOTs look to FHWA for uniformity in addressing the issues, so issues need national emphasis from FHWA.

Mr. Moreland asked if we were getting ahead of ourselves to create a new resource before this current brochure has been played out. Maybe FHWA should send this to DOTs as a directive, maybe just to get feedback. Ms. Simone asked if the issue is that we need to know if the brochure is effective. Mr. Reichenbach asked if States then could use their own initiative—does information have to come from the USDOT? Can States do their own safety brochures? Mr. Vaughn replied that the information does not have to be a directive, but one of the MAC-FHWA's main purposes was to increase awareness of motorcycle issues in DOTs. As a rider, he promotes motorcycle safety in his DOT, but other states are emphasizing other issues. FHWA needs to put out guidance that addresses or asks states to consider motorcycle issues in their environmental documents. In response to a question from Ms. Simone about what form should the information take, Mr. Vaughn responded he would like to see a listing of countermeasures that create a safer infrastructure for motorcycles and a relative evaluation of their effectiveness.

Mr. Griffith added that if FHWA were to go to States on issues of motorcycle safety, it needs research to back up guidance. Mr. Schaffer noted that he helped develop FHWA's *Highway Design Handbook for Older Users*. Based on research, it was sent as a guidance document to State DOTs regarding things to look for in roadway design and planning for older road users. He noted that there is a Federal Highway Research Center to train local DOTs in these issues. This might be in the future for motorcycle safety issue.

Mr. Vaughn told the group that a tremendous research effort has just been completed that is manifest in the first edition of a *Highway Safety Manual* that contains 15 years of the study of safety issues; motorcycles are not in it. Mr. Griffith noted that motorcycles are probably not in the manual because it is very research oriented. He continued by saying that if FHWA can benefit from using information from research-based motorcycle safety programs from international partners, it should do so. Mr. Vaughn responded that if DOT can get evaluations of the effectiveness of these countermeasures, State DOTs can determine how to spend their highway dollars to do what is most effective. Mr. Tisdall suggested as a resource the low cost improvements for low volume highways catalog. Mr. Williams reported that countermeasures in Vol. 22 are proven, tried, or experimental. So far, the only proven one is helmet use. FHWA needs proven measures for motorcycles.

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

Mr. Solantai noted that effort needs to be directed, rather than a shotgun approach such as the brochure. What is needed is a shopping list of things to be done that is directed at the top of agencies. He pointed out that Maryland is doing a good job in motorcycle signage—particularly regarding milled pavement. This signage has not been proven effective, but it is a good idea. Mr. Tisdall followed up the discussion of milled pavement. Mr. Reichenbach pointed out that FHWA recommends signage for milled roads, but Florida still does not have it. Mr. Tisdall replied that now that the recommendation is in the NCHRP, it will be easier to get the signage. Mr. Williams reiterated that the ideas in the brochure may be good, but they are not scientifically proven. He asked how FHWA could get its message out. The brochure is not doing what it was envisioned when created.

Mr. Tisdall offered that the target audience is road builders or maintenance crews. Some of these are DOT, but some are private. The message needs to get to FHWA regional people so they can get it out locally. Mr. Vaughn stated that the DOT in Alabama is not responsible for rural roads. Counties are responsible for them, but they are not the target group. Mr. Griffith suggested that FHWA needs to change the culture of the state DOTs to adopt good ideas that may not be proven. Mr. Solantai said the marketing effort needs to start with States.

Mr. Hennie asked if we could send out a punch list of common sense practices and ask for feedback. Mr. Griffith again stated that it comes back to suggestions not supported by research. Mr. Hennie responded that some of it is common sense, e.g., the milling signage.

Mr. Griffith pointed out when states ask for information he refers them to the NCHRP report. Typically FHWA does not go out with a guidance document, rather it promotes different resources available to States regarding motorcycle safety issues.

Mr. Hennie stated that the NCHRP report is flimsy—and reiterated that all the suggestions in it are unproven or experimental; therefore, it is not that useful for States needing to determine their budgets; States do not want to waste their resources. Mr. Griffith asked Mr. Vaughn's opinion of the NCHRP guide. He replied that a lot of what gets done is based on personal initiative; States get a lot of NCHRP reports, and unless the DOT director is personally involved, they get shelved. Ms. Turner asked if the information from the NCHRP, particularly roadway design, would be useful to be put out as a series of fact sheets. Mr. Vaughn agreed that it might be possible to pull out salient points for fact sheets. Mr. Solantai offered that FHWA could pull out the top 10 best practices; it needs to be something hard hitting.

Ms. Simone acknowledged that FHWA needs to get agencies to change their culture to focus on motorcycle safety. She suggested developing a video followed up by other resources. Mr. Tisdall responded that the *Handbook for Older People* booklet is a good recommendations document. Mr. Schaffer added that FHWA also provides training to State DOTs regarding older drivers and roadways. Ms. Simone suggested that maybe we need a building roads for motorcycle safety toolkit.

Mr. Moreland asked if a road is safer for motorcycles, can it be assumed it is safer for all drivers. Mr. Vaughn stated that he would probably make that statement. Mr. Moreland then asked what followup at the Federal level occurs when a brochure like the one on motorcycle safety comes out. Does anyone poll the states to see if the information is useful? For example, when FHWA states that

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

helmets are the most effective countermeasure for injury, what is the followup? He noted that FHWA can create more brochures, but States need FHWA emphasis before they make any changes. If no one sees any of the videos, brochures, or documents, none of it will do any good. Then, we are left with helmets as the only safety measure.

Ms. Turner asked if the MAC-FHWA requires a needs assessment of the target audiences. Is the message that this is important or that the States have to do it? Would something on the FHWA website be useful? People could ask questions and get answers from FHWA. Ms. Simone added that a list serve might be useful. Do States like to know what other States are doing?

Mr. Griffith stated that a list serve already exists for State traffic and design engineers to talk to each other about safety issues. Ms. Van Kleeck then noted that somebody needs to plant the motorcycle issue on that list serve. The States rely on it quite a bit. Mr. Vaughn said we need to broaden our audience. We need to get information to county governments.

Mr. Griffith told the group that AASHTO is going to continue the list serve, but he didn't know if people other than AASHTO and FHWA could access it.

Ms. Simone summarized the discussion as follows: (1) the brochure needs better dissemination, (2) we need to present proven countermeasures, (3) we need quick information to States and counties, and (4) we need to change the culture of State agencies so that motorcycle issues become more prevalent. Ms. Turner asked if we should ask stakeholders to provide feedback on what tools would be useful since we have already determined that there are needs. She said MAC-FHWA members can email her with their suggestions.

h. 2009 VMT Data

Mr. Tang

Before beginning his discussion of the most recent VMT data, Mr. Tang addressed some issues raised in the last discussion. He noted that he began his career as a design engineer, developing roadway plans. He believes that construction companies are not a good target audience for the motorcycle brochure because they just follow the plans drawn up in the city planner's office. The target audience should be the design engineers. These designers follow AASHTO's Green Book on geometric highway design. Every facility has a plans operations manual. To be effective, information from the NCHRP report needs to be incorporated into the design plans. Another separate document is not needed; rather, the information needs to be incorporated into the Green Book, DOT guidelines, and state guidelines. Design engineers develop the plans so FHWA does not need to go to builders. In the end, the builders follow the design plan. FHWA needs to get its information into the design document because that is what the builders look at.

Mr. Vaughn countered that not all road work is done with plans. Maintenance work does not use plans; there are local roads worked on that do not use state or federal money. Mr. Tang responded that only licensed engineers can develop design documents. Even local roads need to follow design guidelines, and local municipalities are supposed to follow those guidelines. Mr. Tang agreed that not all roads are built following a guidance document, but it is still important that the MAC-FHWA's message get to the planning and design engineers. He gave the example of road resurfacing—milled pavement; road workers will follow the marking guidelines they are given; unless

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

there are specific instructions to use motorcycle signage, they will not think to do it. Mr. Tang noted that these were his personal opinions.

Moving to the VMT data, Mr. Tang reported that FHWA will get all the State DOT traffic data in June and July for 2009. These data should be better than in the past because FHWA implemented a new motorcycle counting procedure. In addition, reassessment has been ongoing for the past 5 years, and finally everything has come to fruition. Within the past 3 years, Mr. Tang has seen States upgrade their vehicle monitoring devices. Moreover, the new data coming in will be geocoded using the Geographical Information System, so it will be easier to do data quality checks than it was working with a flat file. Third, this will be the fourth collection of existing VMT for different vehicles. It is now possible to determine VMT by different roadways by different vehicle types. This will make analysis easier. This also allows development of a projection tool. Up to now, FHWA has only been able to look at what has happened in the past. Now it is developing a modeling effort that will project to 2040. The impetus behind this modeling effort, especially for motorcycles, is fuel efficiency. In addition, vehicles themselves are changing; there are fewer Hummers on the roads and more small, even three-wheeled, cars. FHWA is having difficulty classifying those vehicles because as cars get smaller, motorcycles are getting bigger. This makes it difficult to determine what vehicle type is being tracked by road sensors. The projection model will build on 3 years of recent data. Currently, the model does very well nationally, and FHWA is trying to break it down to work at the State level. Mr. Tang acknowledged that the motorcycle data are lagging a little behind other vehicle data, but the model is moving forward. The research will focus on how to use current technology regarding sensors on highways to capture fleet composition. FHWA uses 13 vehicle categories, mainly classified for pavement design. It will be reexamining those classifications in the future. In contrast, EPA uses 28 categories, primarily classified for fuel use.

FHWA is carrying out the research through two programs: one is operated by Turner Fairbanks and the other one is through small business research. Both programs currently have been contracted.

Mr. Vaughn asked if FHWA could use vehicle types to project revenue. Mr. Tang responded that was exactly what the VMT was for; using the fleet model to get information on fuel efficiency. FHWA can project the gallons of gas and diesel that would be used by motor vehicles. Mr. Hennie asked how the data could be broken out by type of road; it was his understanding that data were collected only on major roads, not secondary and tertiary roads. Mr. Tang responded that FHWA divides roadways into three groups: arterial, collector, and local and then urban and rural. The purpose of collector roads is to get you to the arterial so you can go faster. The mobility of arterials is the main concern. And, he noted, more roadway sensors are being placed all the time.

Mr. Hennie asked what prompted the change in monitoring VMT, Mr. Tang replied that it was prompted by air quality and transportation conformity. Designers need to know where concentrations of CO₂ are coming from to develop ways to lessen the buildup. Mr. Tisdall asked how accurate the VMT numbers are, particularly concerning motorcycles, which may not be on major roads. Mr. Tang replied that there are two issues: how accurate the data are now and how accurate they will be in the future. He noted that Ms. Van Kleek believes the FHWA-reported motorcycle data are too low; however, he believes that although some states have trouble capturing motorcycle data, FHWA asks those states to do a statistical study of roadways where they can do a better job see if they can expand data from the one roadway to other roadways before they report their data. Mr. Tisdall then noted that if the current VMT data are off, the projected data can be 10

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

times further off. Mr. Tang agreed but noted that VMT data are just one part of the model, and he does not think the VMT data are going to be that wrong. The historical data are just a starting point.

i. Update on Traveler Opinion and Perception Survey

Mr. Tang

Mr. Tang reported that planning for the TOPS is moving ahead. He indicated that at least one of the questions previously recommended by the MAC-FHWA will be included.

j. Motorcycle Travel Data from the NHTS

Westat

Ms. Bents discussed the National Highway Transportation Survey. The data were collected from the 48 contiguous states and include 12 full months of data. Twenty states purchased additional samples including Florida, Texas, and California, where motorcycle riding is more prevalent throughout the year.

Data are collected on a daily trip in an assigned 24-hour period. The data include purpose of trip, mode of transportation, vehicle type, travel time, time of day, day of week, vehicle occupancy, driver characteristics, trip purpose, and attributes of vehicles. NHTS data are used to quantify travel behavior, analyze changes in travel characteristics over time, relate travel behavior to the demographics of the traveler, and study the relationship of demographics and travel over time.

The study surveyed 150,000 households; about 5 percent had motorcycles. The most popular motorcycle manufacturer was Harley Davidson. Households that owned motorcycles owned an average of four vehicles; other households owned an average of two vehicles. Households that owned motorcycles tended to have higher average income; a majority was white, and all ethnic groups and races were represented in the study. Almost 88 percent lived in a single family house and were more likely to live in a rural area. The households also were more likely to be composed of two adults, no children.

Of the total number of trips, 0.3% listed the motorcycle as their mode of transportation. An artifact of the study caused by the assigning of a day to report is that reported usage during the week tended to be evenly distributed across all seven days, which may not have happened if the question had been when do you ride? Most riders ride alone. The average distance traveled was 14.3 miles and tended to be primarily in daylight. About half of the motorcycle households said they had ridden in the past 30 days. Of those, they were more likely to own more than one motorcycle, a newer motorcycle, and were 41-60 years old. Ages for the survey ranged from 16 to 92; over 90 percent were male; and almost 70 percent had some postsecondary education.

According to the survey, motorcyclists are concerned about price of travel, aggressive drivers, and highway congestion and are less concerned about safety than are non-motorcyclists. Data are available on <https://nhts.ornl.gov>. The TRB is going to sponsor a workshop on the data sometime after October. The presentation from the MAC-FHWA meeting is available on the FHWA/MAC website.

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

Mr. Hennie asked if the survey was fielded to one section of the country at a time. Ms. Bents responded that the survey began with a nationally representative sample draw; random digit dialing, including cell-phone-only households; a provision of a small incentive to respondents, and multiple contacts. Data were collected throughout the U.S. at any given time. There were a minimum of 250 responses per state.

k. Evaluation Design for Motorcycle Safety Countermeasures

Mr. Williams, Ms. Bents

Ms. Bents and Mr. Williams discussed the Evaluation Design for Motorcycle Safety Countermeasures. Each year, FHWA does a motorcycle roadmap of what it will do in that year and into the future. After the roadmap meeting, it was determined that there is not enough scientific research on roadway safety countermeasures, identifying what they are and determining how to evaluate them. This new project has two parts: part 1 involves the design to evaluate the countermeasures from the motorcycle perspective, and part 2 will be the actual research as an optional task. This optional task will look at two to three countermeasures in a retrospective evaluation using extant data. The project staff sought the assistance of the MAC-FHWA in identifying potential target countermeasures to add to those from the NCHRP report, and VHB.

The purpose of the study is to identify the effectiveness of the countermeasures and their effect on motorcycle safety. The project will give other researchers throughout the nation information on how to conduct this type of evaluation based on the FHWA-approved design. For example, the study may use the proposed approach to data analysis from an existing study, TRB project 2226, which is identifying the factors that contribute to serious injury and fatal motorcycle collisions with traffic barriers.

Tasks for the design study include a kickoff meeting; development of a work plan; establishment of a 5- to 10-person advisory committee (people with experience in motorcycle research and roadway infrastructure research); a brief literature review of domestic and international evaluations and designs, particularly of motorcycle safety countermeasures; and development of the design. The optional task will take place in about 18 months and will include selection of countermeasures and retrospective evaluation of their effectiveness. This will provide proven countermeasures to put in the NCHRP report. The first phase of the project is anticipated to take 48 weeks; the second phase will take approximately 46 weeks.

For the design part of the evaluation, project staff will look at the countermeasures in the NCHRP report 500, Vol. 22, including full-paved shoulders, good clear zones, motorcycle considerations in the selection of barriers, pavement markings and surface materials, maintenance of roadway surface, maintaining work zones, reducing roadway debris, providing advance warning signs, incorporating motorcycle safety considerations in routine roadway inspections and providing a mechanisms to notify highway agencies. These countermeasures plus any recommended by the MAC-FHWA and the ones found through the literature review will be the basis for the design development.

Mr. Williams asked the MAC-FHWA what else should be looked at. Mr. Hennie asked if he meant in addition to the NCHRP list. Mr. Tisdall asked if the use of rumble strips, particularly if they are in a center position, would be of interest as a problem for motorcycles. Mr. Williams said FHWA is looking at devices that reduce crashes, rather than things that might cause them. A study in

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

Minnesota found that the center rumble strips were a nuisance, but not necessarily a hazard. Mr. Griffith pointed out that the rumble strips could be safety measures if they prevent riders from going off road. Mr. Tisdall pointed out that most motorcycle crashes involve running off the road and/or hitting something along the road. He wondered if rumble strips were helpful or hindering to riders.

Mr. Reichenbach reported that tread coming off of truck tires is a big problem in Florida because of the heat. Mr. Williams asked if the question would be if debris were cleared from roadways in a timely manner, would the accident rate go down. If debris is picked up immediately after an accident, there is less chance of another rider hitting it and being charged with rider error. Mr. Williams didn't think that information is readily available.

Mr. Tisdall said FHWA should look at pavement markings, paint, and crack sealing material. Mr. Williams replied FHWA would have to look at sites with high levels of traction sealing material.

Mr. Vaughn asked if FHWA was looking at pavement surfaces and how they relate to traction—particularly stop bar issues. Mr. Tisdall agreed that stop bars in crosswalks are an issue. Mr. Vaughn noted that Alabama cannot provide a full-paved shoulder. It paves 28 feet wide lanes and stripes it at 24; he would like to see that evaluated. He also noted that full-paved shoulders cost States more money than do roads built with unpaved shoulders..

Mr. Moreland asked about the proximity of shoulder furniture—guardrails and telephone poles. Is there any correlation between injuries and fatalities relative to how close things are to the side of the road? Mr. Vaughn reported that Alabama has a clear zone safety requirement of a minimum of 30 feet, and FHWA could look at motorcycle crashes in that clear zone; however, Mr. Tisdall pointed out that a lot of signage is within 30 feet. Mr. Moreland asked if breakaway structures were tested with motorcycles, to which Mr. Tisdall replied they were tested for cars. Mr. Moreland also asked if there was a standard size for poles, for example, a 4 x 4 will break away (when struck by a 4-wheeled vehicle) but a 6 x 6 is too expensive or would cause too much damage. Mr. Vaughn responded that Alabama uses metal posts with breakaway bases. Mr. Tisdall added that a 4 x 4 post will break away; anything over that requires a hole or breakaway bottom, according to the *Manual on University Traffic Control Devices*. If you have a 4 x 6 post with the 4-inch side facing the road, it does not need a hole; however, if the 6-inch side faces the road, it does. For steel post or I beams, once a certain size of sign the post can hold is reached, a breakaway slip base or a telescoping tube into the base is needed. This is in response to a wind load issue. Mr. Vaughn reported that Alabama also cuts down 4-inch diameter trees. Mr. Tisdall added that mailboxes are becoming a problem. Mr. Williams stated that the study could extend consideration of roadside barriers to include all appurtenances. They would have to select a specific barrier or sign. Mr. Tisdall said that if the factor study is breaking out barriers, this study should choose a different countermeasure.

Mr. Griffith added that the design study might look at injury severity in a barrier study. Mr. Vaughn asked if there had been an evaluation done on motorcycle safety and design speed to which Dr. Tan responded that there had not. Mr. Moreland added that most motorcyclists believe they are able to navigate over the posted speed limit. According to Dr. Tan, roadway design speeds are based on 1930s data. The design speeds are based on comfort, and with improvements in vehicles, drivers can go faster than in the 1930s while maintaining the same level of comfort. Vehicles are built to be more comfortable at higher speeds than the design speeds. While someone in a sports car may be

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

comfortable driving at 60, someone in an 18-wheeler will probably be comfortable at 45. Part of the problem is having a wide range of vehicles using the same road.

In further discussion, Mr. Griffith said the study would probably look at countermeasures or design features at specific locations. FHWA has access to high quality data annually from several states. It needs to work with those states to look at design features and when they went into place and do a before and after evaluation to see their impact on motorcycle safety. One worrisome aspect is sample size. There will have to be a lot of locations to look at for motorcycle crashes which are uncommon at any given location. Mr. Williams said that one way to get the numbers up is to look at locations that have the same geometry. Mr. Vaughn asked if the locations would include railroad crossings. Mr. Solantai asked if they would include cattle guards. Ms. Van Kleeck suggested bridge gratings and trolley tracks. Mr. Williams said determining specific sites like those will be problematic because data have to exist from crashes that have occurred at those types of sites. Mr. Solantai suggested aggregating all of these to augment the opportunities to get data because they are all metal surfaces that reduce friction.

Mr. Vaughn asked if the study would look at surface materials, including rigid pavement patches. Mr. Moreland asked if there was a higher incidence of vehicle collisions where lanes are changing because of construction and the changes in lines marking the lanes. Mr. Vaughn stated that Alabama uses black and white stripes on concrete pavements so it becomes more visible. Mr. Williams reminded the group that the study would need to get good data. He referenced a study done by Grady Carrick that checked crash reports in work zones. There was a huge margin of error based on reporting officers' determination of whether crashes occurred in a work zone. Mr. Reichenbach said that a report out of Florida showed error in law enforcement reporting data. The report was initiated by a rider who received a ticket for speeding through an occupied work zone when, in fact, it was not occupied. The report showed that there were more accidents when the work zones were not occupied.

1. Awareness Topics

All

Mr. Reichenbach brought up motorcycle awareness in Florida. He reported that for the second year, the governor and legislature gave ABATE Florida funding, this year in the amount of \$250,000. ABATE Florida now is in partnership with the Highway Safety and Motor Vehicle Administration and the Department of Transportation, and together they developed 13 billboards about motorcycle safety. The signs are on interstates and major roads. ABATE Florida and Florida DOT also have a video on safety awareness that is presented in schools and offices, including the state capitol. Mr. Reichenbach noted that motorcycle deaths dropped 24 percent last year in Florida. In addition, Florida now includes a full page of motorcycle-related questions in its drivers' handbook, whereas before this year, it had only two questions.

Ms. Van Kleeck stated that the MSF is undertaking a naturalistic motorcycle riding study with Virginia Tech Transportation Institute to equip motorcycles with cameras to monitor everything a rider does for about a 6- to 18-month period. It will get data on near crashes. Research questions will be developed in 2010, and the study will be done in 2011.

Mr. Griffith asked Ms. Van Kleeck how many motorcycles would be equipped to take part in the study. She replied that there would be about 100. In response to a question, Ms. Van Kleeck said the

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

study will probably not evaluate different design features on the highway, but will provide information about rider behavior or vehicle design issues. The study is currently in the design stage, so it may be possible to get some design feature questions in. Ms. Van Kleeck asked if Mr. Griffith would be a good contact person for MSF's researchers. He agreed to do so.

Mr. Griffith thought that FHWA might be able to connect the MSF and FHWA studies. Ms. Van Kleeck stated that the study has not recruited riders yet. MSF is hoping to recruit some from California and some from Virginia. Ms. Van Kleeck thought the riders would probably all be equipped at the same time.

Mr. Moreland asked if FHWA is watching DC's hash marks at intersections, using the British system of diagonal striping. He wondered if the new striping has any specific effect on motorcycles as a new roadway striping technique. Does it mean slow down or do not drive there? Dr. Tan said diagonal striping is used in England to mean no parking. Mr. Griffith said here the striping means all turns prohibited; you can only drive straight. It is also called a Barnes dance. Ms. Bents said a Barnes dance is when all traffic stops and is used to allow pedestrians to move in all directions. Mr. Ritter said the diagonals are on the sides but not the middle of the intersection. Mr. Moreland wondered if vehicle drivers know what the stripes are for. How will they know what to do? Mr. Tisdall said Colorado plans to eliminate its scramble (or Barnes dance) intersections. Mr. Ritter reported New York City uses this method.

Mr. Moreland asked about the future of the MAC-FHWA. Mr. Griffith responded that FHWA wants to continue partnership, but will probably do so working through NHTSA. Mr. Hennie pointed out that NHTSA meets three or four times a year. The last meeting was 4 hours long, but NHTSA doesn't discuss infrastructure. It usually talks about behavioral aspects. Although FHWA staff sometimes comes to the NHTSA meetings, he believes it is beneficial to have the standalone MAC-FHWA. He asked if Mr. Griffith's administrator could make the case to keep the MAC-FHWA going. Mr. Griffith said he could ask, but that this is an opportunity for USDOT to work jointly on these efforts. He stated that NHTSA is open to change the nature of the meetings so there is more emphasis on FHWA programs. The joint meeting provides good cross-pollination for ideas.

Mr. Moreland pointed out that the MAC-FHWA is the only opportunity for some groups to hear from state people like Mr. Tisdall, Mr. Reichenbach, and Mr. Solantai. Mr. Williams said NHTSA could have them come in as speakers. Currently the MAC-FHWA charter is over, and even if it were to be renewed, there is no way of knowing when. In the meantime, FHWA does not want issues surrounding infrastructure to stop. Ms. Van Kleeck asked if the Secretary would ask for FHWA input, to which Mr. Griffith replied that he might. Mr. Hennie asked if FHWA would take the initiative to continue the MAC-FHWA without its being mandated by the Secretary. Mr. Griffith responded that that was why FHWA went to NHTSA. This partnering has already been done with speed management issues. DOT brought together FHWA, NHTSA, and FMCSA and developed a USDOT speed management team. FHWA approached NHTSA before the MAC-FHWA meeting to see how FHWA and NHTSA could develop a USDOT way of interacting with the motorcycle community. He reiterated that NHTSA is willing to change its structure to include infrastructure interests. Michael Jordan, NHTSA, added that the agenda can be extended to accommodate FHWA discussions. Mr. Griffith stated that FHWA does not want to lose the opportunity to partner with MAC-FHWA members.

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

Mr. Vaughn voiced concern that there was no champion in FHWA to carry the MAC mission forward. If the MAC-FHWA ceases to exist, someone within the organization has to put pressure on looking at motorcycle issues. Mr. Griffith stated that studies are ongoing in FHWA to broaden the motorcycle safety program, such as the domestic and international scans, the motorcycle crash causation study, the new research studies, White Papers, marketing. The issue is how does FHWA keep MAC members engaged. There are two options: (1) the group can continue if the Secretary wants it, or (2) FHWA can partner with NHTSA.

Mr. Solantai said that if the MAC ceases to exist, FHWA needs to look at the structure of the NHTSA meetings so that the meetings do not become disjointed, jumping from topic to topic. MAC-FHWA is devoted to infrastructure, not safety items. Ms. Van Kleeck said there is a lot of difference between the MAC-FHWA and NHTSA meetings. NHTSA meetings are an exchange of information with attendees' groups. MAC-FHWA makes recommendations and tries to create change.

Mr. Williams said FHWA will continue to move forward, and if there is a need, FHWA will fill it. The motorcycle program may even expand. He added that the MAC-FHWA is limited to 10 people. He stated that the MAC might want to engage the Federal Motor Carrier Safety Administration in the joint meetings.

m. Closing Comments

Mr. Griffith

Mr. Griffith noted that an international scan usually takes about 17 days, and that FHWA is very excited about it. He added that it was important to find a way to continue the MAC in the future. Mr. Williams stated that he looked forward to working with the group. Mr. Griffith reported that the *NCHRP 500* guide for motorcycles was available, and he could give a copy of the plan to the group. FHWA will develop a statement of work for a contractor for the NCHRP plan.

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

The status of previous recommendations and action items is summarized below.

Meeting 1 – October 24, 2006

Recommendations

- 1) Prepare a brochure that can be distributed to government agencies urging them to consider motorcyclists' concerns during road design, construction, and maintenance activities.
Status: Presented at the May meeting; distributed in December, 2007.
- 2) Encourage State departments of transportation to create web sites that allow motorcyclists to report roadway hazards. A model for this is the Roadhazard.org site created by ABATE in the Midwest. The web sites would be monitored by State and local highway officials who could schedule repairs, improve signage, etc.
Status: Texas has begun implementation. South Dakota is providing a quick response to items identified on the Abate site. Other States and localities are creating reporting mechanisms.
- 3) Examine the skid resistance of intersection markings. The use of thermoplastics, especially for broad, horizontal intersection lines, creates slippery surfaces for motorcyclists who are stopped on top of them.
Status: Mark Bloschock presented information on skid resistant materials, May, 2007.
- 4) Continue FHWA initiatives to improve retro-reflectivity of signs and roadway markings. Also consider the use of wider lane markings in order to increase their visibility.
Status: Council proposed a formal recommendation on line visibility. The FHWA has a new rulemaking proposal coming that includes minimum levels of retroreflectivity.
- 5) Reduce hazards associated with milled surfaces, parallel paving lane joints, drop offs at shoulders and bridge surfaces, parallel grids on bridges, steel plates, potholes and other uneven roadway surfaces.
Status: The proposed brochure addresses this issue.
- 6) Conduct a review of barrier designs used internationally, and identify those that are most forgiving when impacted by motorcyclists.
Status: Presentation made by Nick Artimovich, May, 2007.
- 7) Consider signage targeted to motorcyclists to warn of especially hazardous conditions for them. These could include subjects such as uneven pavement surfaces and crosswinds.
Status: Don Vaughn drafted and submitted a resolution approved by the Council to AASHTO and SASHTO where they were approved, summer, 2007.
- 8) Examine the use of various sealants on road surfaces. Tar snakes (excess tar left on the surface) and other materials present slippery surfaces for motorcyclists.
Status: Mark Bloschock provided a presentation on two commercially available products, May, 2007.
- 9) Extend future meetings to at least 1 ½ days.
Status: Adopted.

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

- 10) The Council was also interested in exploring ways in which they could better interact with groups such as AASHTO to ensure that motorcyclists' perspectives are considered during the development of recommendations and standard practices.

Status: A formal recommendations was submitted to AASHTO highlighting the need for formal guidelines on enhancing motorcyclist safety.

Action Items

Council members assumed responsibility for support activities as described below:

- 1) Mr. Hennie volunteered to provide examples of highway signs targeted for motorcyclists.
Status: Kathy Van Kleeck provided an exemplar photo from Maryland.
- 2) Mark Bloschock will consult with highway designers and engineers to review whether new entrance ramps are getting shorter than in older designs.
Status: (Nov 2007 update): Recent changes to geometric design standards relate mainly to sight distance, which have little to no impact on designs of ramp length.
- 3) Mark Bloschock will bring a sample of a Tyregrip product that is used on surfaces such as steel plates to provide some traction for tires.
Status: Mr. Bloschock provided a detailed PowerPoint presentation on two products.
- 4) The next Council meeting is tentatively planned for the spring of 2007.
Status: Held on May 9 and 10, 2007.

Meeting 2– May 9 -10, 2007

Recommendations

- 1) There should be a Web based survey to identify rider safety issues; enthusiasts groups could assist in this effort to increase participation.
Status: Ed Moreland reported that planning is underway, and results should be available for the May 2008 meeting.
- 2) Pavement surfaces and markings should include skid resistance at junctions, school zones, and crosswalks.
Status: This is covered by the new brochure.
- 3) The Council supports improved pavement markings w/regard to line width, retroreflectivity, and skid resistance, and urges that research in these areas be conducted.
Status: There is no current research, but future rulemaking on lane marking is expected to cover this topic.
- 4) Motorcycles should be included with recommendations for pedestrian and bicycle safety as vulnerable roadway user groups.
Status: Under consideration, and being advanced with AASHTO and others as various guidance materials and other documents are advanced.

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

- 5) All safety research should consider motorcyclists.
Status: Brochure, AASHTO Resolution, SASHTO Resolution and new recommendations to ITS cover this topic.
- 6) The conspicuity of raised medians should be increased with reflective paint.
Status: Change the wording to remove "with reflective paint." This is related to issue #3 above, and may be considered as part of future updates of the MUTCD.

Action Items

- 1) Bob McClune will draft a resolution from the Council to AASHTO on Pavement Markings.
Status: Superseded by AASHTO recommendation.
- 2) FHWA will develop a presentation on what is being done about ITS development with regard to motorcycle safety. They and the Council will also explore opportunities to present motorcycle safety issues at ITS conferences.
Status: Presentation, December, 2007.
- 3) Don Vaughn will submit a revised letter of endorsement from the MAC-FHWA to have motorcycle- focused placards included in the MUTCD.
Status: Included in resolution, approved in summer, 2007.
- 4) Ed Moreland will edit Don's original letter recommending that motorcycle-related global issues and standard signs become a permanent part of the MUTCD.
Status: Complete.
- 5) Don Vaughn will draft a resolution from MAC-FHWA to the chair of AASHTO standing committee on highways recommending that a formal motorcycle guidelines documents be created. The package will include the FHWA motorcycle safety pamphlet.
Status: Submitted and adopted by AASHTO and SAASHTO, summer, 2007.
- 6) Mr. Jeff Hennie, Darrel Killion, Steve Zimmer, and Ed Moreland will explore developing a web-based survey.
Status: Underway.
- 7) FHWA will invite an MUTCD expert to attend the next meeting.
Status: Presentation, December, 2007.
- 8) Kathy Van Kleeck will send a photograph of a motorcycle caution sign.
Status: Complete – a Maryland sign was provided.
- 9) FHWA will email a final draft of the motorcycle awareness pamphlet to the Council for review and comment.
Status: Brochure complete.

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

Meeting 3 – December 5-6, 2007

Recommendations

- 1) The Council should respond with written comments to the Notice of Proposed Amendment (NPA) to the MUTCD, regarding motorcycle-related signage.
Status: Complete, May 2008.
- 2) The Council should notify and encourage interested parties to comment on the NPA.
Status: Complete, May, 2008.
- 3) USUSDOT should report to the MAC-FHWA on topics raised regarding the amount of funding and specific ITS projects related to motorcycle safety.
Status: Presentation, May, 2008.
- 4) USUSDOT should include motorcycle issues in agreements with ITS developers, consistent with TEA21 and SAFETEA-LU provisions.
Status: Ongoing.
- 5) Conspicuity of raised medians should be revisited.
Status: Research program pending.

Action Items

- 1) Kathy Van Kleeck will monitor the Federal Register and notify Fran when the NPA is published.
Status: Complete.
- 2) Mr. Hennie, Don and Gerry will review the NPA and make recommendations to the MAC-FHWA.
Status: Complete.
- 3) Mr. Hennie, Don and Gerry will draft a response on behalf of the MAC-FHWA.
Status: Complete.
- 4) Each MAC-FHWA member will notify his/her constituency about the NPA and suggest a response.
Status: Complete.
- 5) FHWA will keep track of brochure distribution.
Status: Presentation in May, 2008.
- 6) Ed, Darrell and Gerry will attempt to bring survey results to the next meeting.
Status: Update provided, May, 2008. Survey planned for summer, 2008.
- 7) Another ITS discussion is requested for May, 2008.
Status: Presentation, May 2008.

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

- 8) If possible, the next meeting should be held in conjunction with a demonstration of VMT-measurement technology.
Status: Complete.
- 9) Dr. Oliver will prepare an appropriate announcement on the availability of the brochure.
Status: Public Relations office consulted. Effort is ongoing.

Meeting 4 – May 6-7, 2008

Recommendations:

- 1) The Motorcyclist Advisory Council to the Federal Highway Administration affirms its support and recommends to the Secretary the continued use of High Occupancy Vehicle (HOV) lanes by motorcyclists as prescribed in TEA 21.
Status: Complete
- 2) The MAC-FHWA recognizes the current interest in Public Private Partnerships (PPPs) for highway operations. Where these partnerships go forward, the Council expresses its endorsement of guaranteed full access for motorcycles to all PPP roadways in conformance with applicable Federal and State laws.
Status: Complete
- 3) The MAC-FHWA encourages the Secretary of Transportation to include the broader use of motorcycles as a means of reaching Departmental goals to reduce congestion and fuel consumption.
Status: Acknowledged
- 4) Suggest that the Bike Safe program recommend to participants that road condition feedback be provided to State highway agencies.
Status: BikeSafe has adopted this policy and includes reported information on road conditions on its web site.

Action Items:

- 1) Circulate the letter from the MAC-FHWA regarding the motorcycle NPA to the MUTCD for signature and submit it to the docket by July 31, 2008.
Status: Complete
- 2) Launch the survey of motorcyclists' views of roadway infrastructure condition and performance and provide a status report at the 5th MAC-FHWA meeting.
Status: Complete
- 3) Provide a presentation on Private Public Partnership (PPP) plans and perceptions at the next meeting.
Status: Presentation provided at November 13, 2008 meeting

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

- 4) Send a letter of commendation to the North Carolina State Highway Patrol for their initiative and leadership in being the first State to adopt the Bike Safe program in the U.S.
Status: Complete

Meeting Five - November 13, 2008

Recommendations:

- 1) States should develop a way for motorcyclists to notify respective DOT agencies of hazardous road conditions.
Status: Covered at May 7 meeting – TXDOT website
- 2) States should educate DOT and law enforcement personnel on the importance of immediately addressing road debris hazards.
Status: Included in Roadway Safety for Motorcycles brochure.
- 3) FHWA and road marking providers should conduct research on increasing friction of pavement markings.
Status: FHWA's staff at the Turner-Fairbank Highway Research center have made contact with Slipnot and another manufacturer who will be working together to address this issue.

Action Items:

- 1) FHWA will request MAC-FHWA to develop motorcyclist specific questions for the next Traveler Opinion and Perception Survey (TOPS). *FHWA*
Status: Followup at the May 7, 2009 meeting.
- 2) Repeat the Motorcyclist Survey in May for comparison data. *Ed*
Status: The Survey will be repeated during June and July, 2009.
- 3) Prepare a report on national level results of Motorcyclists Survey. *Ed*
Status: Complete.
- 4) Distribute the MC Survey results to State and local highway agencies and professional organizations. *FHWA*
Status: Materials were provided to the FHWA.
- 5) Make survey format available to State level users. *Ed, Jeff, & Doc*
Status: Materials were provided to the FHWA.
- 6) NHTSA should add footnotes to motorcycle crash presentation of November 13, 2008 indicating limitations of VMT data.
Status: Language adopted as follows:
"Please note that FHWA did not require States to separate out motorcycle travel information until 2007, which affected data quality. Improved data quality is being seen as FHWA works with States and others to strengthen the quality and completeness of motorcycle travel data. Caution should be exercised in use of the fatality rate data."

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

Meeting Six – May 7, 2009

New Recommendations and Action Items

Recommendations:

- 1) The Council reiterates its encouragement to State departments of transportation to create Web sites that allow motorcyclists to report roadway hazards (see recommendation #2, October, 2006). A model for this is the Roadhazard.org site created by ABATE in the Midwest. The Web sites would be monitored by State and local highway officials, who could schedule repairs, improve signage, etc. *Michael Jordan will provide additional examples of such Web sites to Mark Bloschock to present to the Texas Department of Transportation. Morris Oliver will collaborate with Mark Bloschock on the best way to engage TX DOT on a web reporting system.*

Action Items:

- 1) The American Motorcyclists Association will conduct the Motorcyclists Survey again during the period 6/1/09– 7/31/09. *Ed*
- 2) Ed Moreland will provide the link to the MC Survey to Fran to distribute to MAC -FHWA. *Ed*
- 3) One page description of Traveler's Opinion and Perception Survey (TOPS) and copies of previous questions will be provided to Fran to distribute to MAC -FHWA. *Tianjia*
- 4) Fran will solicit and assemble TOPS question from members and provide results to FHWA by 7/31/09. *Fran*
- 5) A one page description of the National Household Travel Survey (NHTS), which has just been completed, will be provided to the members as a reference document. *Tianjia.*
- 6) Interested parties will seek statistical opinion on whether a 4-point opinion survey would be an improvement over a 5 point survey and whether the 2 would be comparable. Response required by 5/21/09. *MAC*
- 7) At the next meeting of the AASHTO Highway and Traffic Safety Subcommittee, the Chair will promote the utilization of State DOT websites for the reporting of potential roadway-related safety hazards by motorcyclists.

Meeting Seven – November 5, 2009

Recommendations:

The MAC-FHWA supports the efforts of the Department of Transportation to promote the Model Uniform Crash Criteria (MUCC) to improve and standardize police reporting of traffic crashes. It further supports training to improve the quality and consistency of reported data.

Motorcyclist Advisory Council to the Federal Highway Administration Eighth Meeting: May 13, 2010

Action Items:

1. The MAC-FHWA will send a letter to the Governor's Highway Safety Association and to AASHTO in support of the efforts of the Department of Transportation to improve and standardize state and local police accident reports.
Status: Jeff Hennie and Ken Kiphardt sent a letter on behalf of the MAC-FHWA endorsing a standard police accident report form.
2. Ed Moreland may represent the MAC-FHWA as a panel member during the TRB Motorcycles and Roadway/Roadside joint committee meeting.
Status: Ed Moreland attended the meeting and made a presentation on ITS issues.
3. Ed and Jeff will draft a letter to the Secretary of Transportation requesting that the MAC-FHWA charter be extended.
Status: Letter was drafted and approved by MAC-FHWA membership, and delivered to the Office of the Secretary.
4. AMA will host the next Motorcyclist Survey from April 1 through July 31, 2010.
Status: Survey is currently available.

Meeting Eight - May 13, 2010

Summary of New Recommendations and Action Items

Recommendations:

Action Items:

1. The MAC-FHWA will send amplifying questions and location suggestions for the National and International Motorcycle Safety Scans to Fran by 5/24.
2. Fran will compile Scan questions and suggestion on behalf of the MAC and submit to Keith by 5/25.
3. Fran will notify Ken and Darrell of requests for scan questions and suggestions.
4. Jeff will distribute to the members the letter sent on behalf of the MAC to AASHTO endorsing a common police accident report form.