

Motorcyclist Advisory Council

Third Meeting Summary Report

December 5-6, 2007

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

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Motorcyclist Advisory Council to the Federal Highway Administration
Third Meeting: December 5-6, 2007
Sheraton Crystal City Hotel
Conference Room C

December 5, 2006

- 10:00 Welcome – Jeff Lindley, Associate Administrator, Federal Highway Administration
- 10:05 Overview of Status to Date, Introduction of New Member, Recommendations, and Current Issues – Mike Halladay
- 10:35 Meeting Format, Review of Ground Rules, and Agenda – Fran Bents
- 10:45 Design and Maintenance
 - 1. Motorcycle Signage in the MUTCD – Linda Brown
 - 2. Open Discussion
- 12:00 Lunch
- 1:30 ITS and Motorcycle Issues – Linda Dodge
- 2:15 Break
- 2:30 Motorcycle VMT update
 - 1. MC VMT Symposium Update – David Winter
- 3:15 Awareness – Morris Oliver
 - 1. FHWA Brochure
 - 2. Work Zone Safety/Training
 - 3. Outreach
 - 4. State/Private Websites for Reporting Road Hazards
 - 5. Open Discussion
- 4:00 Summary of Discussions and Consensus of Advisory Council - Fran
- 4:15 Public Comment – Fran
- 4:30 Closing Comments and Adjourn for Day - Mike
- 6:00 Optional Dinner for Continued Discussions

December 6, 2007

- 9:00 Welcome – Morris
- 9:10 Status Review – Fran
- 9:15 Bike Safe in North Carolina - Sgt. Brown

- 10:00 Safety Research
1. Taiwan's intent to establish a cooperative program on motorcycle safety – Mike
 2. Latest Statistics on Motorcycle Safety – Umesh Shankar
 3. Status Report on Crash Causation Study – Carol Tan, FHWA
 4. Open Discussion
- 10:50 Break
- 11:00 MAC-FHWA Review/Roundtable Discussion
- 11: 35 Public Comment
- 11: 40 Summary of Action Items, and Plans for Next Meeting - Fran
- 11:50 Closing Comments – Mike
- 12:00 Adjourn

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1. Council Members Present:

Ed Moreland
Jeff Hennie
Ken Kiphart
Darrel Killion
Steven Zimmer
Gerald Salontai
Kathy Van Kleeck
Donald Vaughn

2. Council Members Absent:

Dean Tisdall

3. Others Present:

Jeff Lindley, Associate Administrator for Safety, Federal Highway Administration (FHWA)
Michael Halladay, Director, Office of Safety Integration, FHWA
Morris Oliver, FHWA
Mark Bloschock, FHWA
Linda Brown, FHWA
Linda Dodge, RITA
Ken Dophart, Noblis
David Winter, FHWA
Umesh Shankar, NHTSA
Carol Tan, FHWA
William Cosby, NHTSA
Shirley Thompson, FHWA
Kim Thomas, FHWA
Denise Hanchulak, AAMVA

4. Agenda:

- a. Welcome
- b. Overview of Status, Introduction of New Member
- c. Meeting Format Overview
- d. Design and Maintenance
- e. ITS and Motorcycle Issues
- f. Motorcycle Vehicle Miles Traveled Symposium Update
- g. Awareness
- h. Bike Safe in North Carolina
- i. Safety Research
- j. MAC-FHWA Review and Roundtable Discussion
- k. Summary of Recommendations and Action Items
- l. Plans for Next Meeting
- m. Closing

5. Meeting Summary

A summary of the meeting and copies of selected presentations can be found on <http://safety.fhwa.dot.gov/mac/>.

6. Summary of Proceedings:

a. Welcome:

Mr. Lindley expressed his appreciation for the group's contribution. He stated that much has changed since group's inception. Mark Bloschock has joined FHWA. In 2006 there was again an increase in motorcycle-related fatalities. Motorcyclist' crash related fatalities are now higher than pedestrian fatalities. Problems continue to be quite challenging. There were questions from Congress during the budget process about increasing motorcyclist fatalities. USDOT Secretary Peters has helped to highlight the motorcycle fatality problem and asked for development of action plans with new or renewed initiatives which DOT can undertake. The Department of Transportation's *Action Plan to Reduce Motorcyclist Fatalities* has just been released. The Motorcyclist Advisory Council to the Federal Highway Administration (MAC-FHWA) is included as an important resource in the plan. Looking forward to results from MAC-FHWA.

b. Overview of Status/Introduction of New Member:

Mr. Halladay informed the Council that Mr. Dean Tisdall has joined the group to replace semi-retired Robert McClune. He then asked all present to briefly introduce themselves. Because discussion of the topics at this 3rd meeting will essentially conclude coverage of all elements of the MAC's charge, he suggested that the Council take a step back to look at what has been accomplished to date as part of the meeting wrap-up discussion. He reminded the Council that his role is to serve as the Federal link to MAC-FHWA. There is an issue of whether or not to extend the council beyond the current expiration date next summer.

Later in the meeting there will be a review of recommendations and action items, to date. MAC-FHWA will have had 3 meetings and now has the opportunity to put key issues on the table and take time to step back and look at what's been accomplished, and plan how to move forward. Many recommendations are works in progress. Things are coming up that we can plan as next steps.

Another key topic is the Secretary's action plan. As Jeff Lindley highlighted, it includes behavioral research, trends, equipment strategies, etc., and the MAC should consider offering any thoughts/questions on the Action Plan as part of the meeting.

c. Meeting Format Overview:

Ms. Bents reviewed the ground rules. A decision has been made that there is not a continuing need for transcripts, but audio recordings of the meeting will be made for possible future reference.

She said the Council should be proud of accomplishments, as reflected in your hand-outs. Today will include more presentations than before, but use these presentations as a basis for further consideration and new recommendations.

d. Design and Maintenance:

Ms. Linda Brown reviewed motorcycle signage issues and planned amendments to the Manual on Uniform Traffic Control Devices (MUTCD). A handout is shown as attachment 1. She described how changes are incorporated into the MUTCD. In 1987 the first request was received from the American Motorcyclist Association (AMA) to include motorcycle symbols. In 1989 a small study was done to determine the effectiveness of various types of motorcycle signage.

Seven symbols were evaluated. In 1995 it was determined that more research needed to be done. A new, larger study was conducted in 2007. Recognition/comprehension was also considered. Not just motorcycle respondents were included in the research. Some symbols were originally misunderstood by drivers. The 2007 study shows better recognition of symbols. Final results of the current research are not complete. A combination of a motorcycle symbol with a text sign seems to be the most effective method.

Motorcycles are a larger part of the traffic mix now, and some States are using their own signs in order to meet current needs. Uniformity is needed, and with more public education, there is increased recognition and comprehension of warning signs.

Mr. Moreland asked if both riders and drivers respond to the signs.

Ms. Brown responded that the research suggests that both do respond to the signs.

Mr. Salontai asked why a larger population of motorcyclists was not included in the research. The study included many topics, not just motorcyclist-related signage, and cost was a consideration.

Mr. Vaughn shared the concern that having too many signs can become a problem, and asked if the trend is toward having separate signs for every driver group?

Ms. Brown responded that the intention is to provide specific text information such as that there is grooved pavement ahead, not just construction ahead. Then symbols may be used for special groups. The States have the option to use the uniform symbols in any way they choose.

Mr. Salontai noted that the MAC-FHWA has suggested that a symbol can carry a powerful message. Did the study address this?

Ms. Brown said the Notice of Proposed Rulemaking (NPR) has not yet been published since it is still under review. Research showed that a symbol mounted under a text sign has the best recognition.

Mr. Vaughn asked how the Council can affect the process.

Ms. Brown replied that Dean Tisdall is a member of the MUTCD National Committee and could share the MAC-FHWA's perspectives.

Mr. Vaughn asked if any research has been done that shows the use of symbols as harmful. Can States use such symbols now?

Ms. Brown said a State can use a non-uniform sign on an experimental basis with approval from the Federal Highway Administration (FHWA). States have done this on many topics, but not for motorcycles.

Mr. Halladay asked if the States can use the proposed symbols based upon the research results and obtain interim approval pending the 5-year approval cycle.

Ms. Brown replied that it is possible using the experimental approach cited previously. The Notice of Proposed Amendment (NPA) will be available at <http://mutcd.fhwa.dot.gov>. There will be a 6 to 7 month open docket comment period. Comments can be submitted to <http://dmses.dot.gov>. The NPA should be published in December (*subsequent update: it was*

actually published in the January 2, 2008, Federal Register). The National Committee meets in January. Comments can be made as a group or as individuals. About 1,000 changes to the MUTCD are proposed.

Mr. Vaughn suggested that the MAC-FHWA can spread the word to interested parties that the NPA is coming.

Ms. Brown said the rulemaking process treats all comments equally. There can be modifications to the text and figures proposed in the NPA, but something entirely different will not be considered in this cycle. The MUTCD is modified every 5 years. The new version will be published in 2009. There are three important dates:

- 1) Issuance date – when the Administrator signs the rule.
- 2) Publish date-in the Federal Register
- 3) Effective date-for the final rule; there is a 30 day opportunity to contest it.

Regulations under 23 CFR, part 655 provides States two years to adopt the MUTCD. FHWA can establish longer compliance deadlines.

Mr. Vaughn thanked Ms. Brown on behalf of the MAC-FHWA for her work on this important topic, MUTCD Section 2C36.

Mr. Bloschok made a presentation on topics discussed in prior meetings. He specifically addressed surface friction, ride quality, and motorcycle-specific warning signs in use in many States.

Ms. Bents asked the MAC-FHWA whether they wanted to respond as a group to the NPA. Following discussion, the Council decided that they would review the proposed amendments, and respond as a group. Members would also notify their own constituencies and suggest responses. Specific action items and recommendations are shown in Sections 7 and 8 of this report.

e. ITS and Motorcycle Issues:

Linda Dodge, Public Safety Coordinator for the Intelligent Transportation Systems (ITS) Joint Programs Office (JPO), provided an overview of current ITS activities within the Department. JPO partners with all modal agencies. ITS focuses on improvements in transportation efficiency and mobility through advanced technology. There are currently 16 applications. Motorcycles have typically not been separately addressed as a distinct vehicle class within the activities of many elements of the ITS program. A handout is shown as attachment 2.

Monash University published a summary of ITS applications for motorcycles in July, 2006 (ed. note: this was previously made available to the MAC-FHWA). Ms. Dodge then provided a presentation on, “Potential ITS Technology Transfer for Motorcycle Safety”.

The Vehicle Infrastructure Integration (VII) program element is a significant undertaking among partners including USDOT, the States (represented by AASHTO), and automobile manufacturers. It was recognized that motorcycle manufacturers have not been active participants in these efforts, and it is not clear that the automobile manufacturers involved in the VII initiative are actively considering the needs of or potential impact on motorcycles. Most typically, VII elements including communications hardware, video displays, and so forth, are being designed for operational testing within automobiles, and transition to other vehicle classes such as heavy trucks and motorcycles is envisioned, but yet to be fully initiated.

Dr. Oliver asked how long it might take to initiate a motorcycle-specific ITS project, if it is determined to be needed. Ms. Dodge replied that ITS budget issues have been quite challenging, and noted that it would probably be very difficult to fund a motorcycle-specific project until at least late 2009. A Management Council comprised of the Administrators of each of the surface transportation agencies establishes ITS priorities.

Mr. Moreland stated that TEA21 says that all ITS initiatives should include motorcycles. He noted that it would be very good to know how much money has been spent on motorcycle/ITS programs and how this compares to the percentage of highway crash-related fatalities represented by motorcyclists. Ms. Dodge did not have this information available, but indicated she would provide a response at a later time. Kevin Dophart said the funding percentage for motorcycle-only efforts is most likely well below the percentage of motorcyclist fatalities.

Mr. Moreland asked what is being done to encourage motorcycle-related applications of ITS technologies, and how could this be advanced? Some discussion ensued, and Mr. Halladay noted that often manufacturers begin the process of developing new technologies and applications.

Mr. Moreland asked if USDOT instructs manufacturers to include motorcycles in their plans. They do not want to be left behind when motorcycles are such an important part of the vehicle mix. Ms. Dodge did not have specific information on this issue available; but would look into language in the Memoranda of Understanding (MOU) between USDOT and manufacturers, or other sources regarding this issue. Mr. Dophart reported that for crash avoidance-focused MOUs, motorcycles were not specifically called-out for special attention.

Mr. Zimmer remarked that the language regarding motorcycles was included in TEA-21 ten years ago, but it seems that very little to no action has taken place to date.

Mr. Halladay reflected that many of the new technologies are designed for automobiles because of the size of the devices and other factors, and that it is quite common for automobiles to be the only vehicle type used in operational tests of ITS systems. As the devices become proven in terms of benefits and user value, it can be expected that they will be migrated to other vehicle types such as trucks and motorcycles. For motorcyclists, it was noted that audio or video information could be delivered either via the bike or the helmet. There is also the question of how much technology is too much – when does it become distracting? This is an issue for all vehicle types, but may be exacerbated for motorcyclists due to the riding environment.

Ms. Dodge said that Dedicated Short Range Communications (DSRC) is relatively new. In the area of helmets there are three advancements. These include the ability to use Bluetooth technology for information such as crash avoidance warnings; the availability of embedded GPS for use in navigation systems and emergency response, and head-up displays that can be used for crash avoidance-related information. Other topics covered included:

Public Safety Advisory Group (part of ITS America) members represent Law Enforcement, fire, EMS, towing. Navigation systems are being designed for better use on motorcycles.

First airbag jacket successful deployment was in Maryland. Ms. Dodge will make a news article available to MAC-FHWA.

Automatic Crash Notification: how to find person vs. bike. At first, there was no response to the suggestion; then interest grew.

Would road condition or weather alerts be useful? This technology is in its early stages and includes aviation sensors with additional sensors on roadways. For crash avoidance systems, we must make motorcycles more “visible” to the drivers of other vehicles. There are also low cost training and education tools that could be applicable. ITS-JPO does not fund simulator research.

Mr. Halladay asked the group if there are any other particular areas of concern to the MAC-FHWA.

Mr. Moreland is concerned about the privatization of tolling. EZ Pass, for example, is difficult to use with motorcycles. Also, vehicle recognition systems may reduce driver responsibility and cause even more crashes. These systems are supposed to be redundant, but may replace driver vigilance.

Mr. Dophart concurred and said that is one reason why many of these systems are not yet in place. Unintended consequences are a big issue. There are a variety of roadway user characteristics including driver age and condition as well as a large mix of vehicle types.

Mr. Zimmer remarked that GIS maps are not always accurate and could create additional problems. Safe riding requires all of the senses.

f. Motorcycle Vehicle Miles Traveled Symposium Update:

David Winter reported on the October Motorcycle Travel Symposium sponsored by the Federal Highway Administration (FHWA) and the National Highway Traffic Safety Administration (NHTSA). The Office of Policy Information, FHWA is in charge of the Highway Performance Monitoring System (HPMS). HPMS is in reassessment; looking at how to improve data and reporting. Motorcycles are addressed in the safety concerns because of increasing fatalities. FHWA made motorcycle VMT reporting by the States mandatory. States were concerned about data quality; hence, the symposium was planned. Advocacy groups, other agencies, and vendors were invited, but no vendors attended. The meeting was held on October 10-12th. Motorcycle advocacy groups are concerned about some of the potential applications of the data. A handout summarizing the meeting is shown as attachment 3.

One hundred people in total attended. Presentations and break-out group reports have been posted on web site. The transportation community generally agrees with a concern with quality of data. Some states have good data; some do not. Some haven't collected motorcycle VMT data in the past at all. Five points were covered.

1. Concern that by focusing on motorcycles, improvements not degrade other modes
2. Staffing/funding is concern expressed by states
3. Quality of roadways/byways
4. Various types of equipment
5. Capturing data weekdays vs. weekends

FHWA gathered comments & devised a plan of action focusing on 4 main areas:

1. Could do a better job of providing guidance on counting motorcycles. e.g., states may count weekday, not considering weekend significance. Will share-best-practices, via web.
2. Could do interim VMT measures, until States get set up.
3. Set up demonstration project for States. Show new equipment with specifications. Sent draft proposal to Turner Fairbanks, in area of CIA HQ. Hopefully the demo will occur in the spring of 2008. Not a full research project, very limited conditions, but good to showcase new equipment.

4. Research Roadmap. Not much done to date; however, the contractor has been working on the project. Need to see what the status is.

Vendors will be invited to demonstrate how their devices can be used to detect motorcycle travel during a spring presentation. It may be possible to schedule this in conjunction with the next MAC-FHWA meeting.

Mr. Winter provided an update on HPMS; noting that all 2006 data is in to FHWA. All but 6 states have reported motorcycle VMT. South Dakota reported on motorcycle travel for the first time. Motorcycle travel is up. Double digit percentage increase from last year; but, FHWA is in process of verifying data and asking for supporting data, etc. Have had requests for assistance from States, which is positive because it shows new level of interest. Next year is the first year VMT reporting for motorcycles will be mandatory.

Other items discussed included VMT recommendations acting to enhance TMG (Traffic Monitoring Guide), having a motorcycle component to state training for collecting VMT, and improving data verification techniques & tools.

Mr. Hennie attended the October 10-12 meeting and said it was productive and valuable. Mr. Zimmer expressed concern with what is being collected. Some of it is point in time vs. ongoing counts, and that is a problem.

Mr. Winter said all data are important, even if complete counts are not provided. Data still can be used for comparisons, increases/decreases, etc. There are 3 types of counts: manual, tubes, permanent. FHWA can help the States figure out how to factor their counts. It would be a matter of determining how sampling of travel, which is a necessary part of VMT data collection and processing, represent the reality.

g. Awareness:

Dr. Oliver distributed the newly printed Roadway Safety for Motorcycles brochure produced by the FHWA at the recommendation of the MAC-FHWA. Additional copies can be obtained through the Website and by phone.

Dr. Oliver also reported on the new \$24 million Work Zone Safety program. There are three new initiatives. Motorcycle safety is included in these considerations:

1. Training on Work Zone initiatives
2. Guideline development for Work Zone initiatives
3. Training on guidelines developed for Work Zone initiatives.

Dr. Oliver acknowledged the work of Mr. Vaughn in spearheading the efforts to obtain the SASHTO and AASHTO resolutions.

Mr. Vaughn has asked the Director of the American Association of State Highway and Transportation Officials (AASHTO) to refer recommendations from the MAC-FHWA to committees for research and action. It is important to keep these issues visible at AASHTO and elsewhere.

Dr. Oliver reported that there are more State/private Websites for reporting road hazards. Some of these include St. Louis, Durham and Seattle. Oregon's Governor's Safety Advisory Committee has cards, that are distributed to motorcyclists, and that have contact information for reporting

road hazards VDOT has formed a Motorcycle Safety Action Team to look at improving conditions on Virginia highways for motorcyclists.

AASHTO has 22 guides on various topics. There is a new draft on motorcycles that includes proven, tried, and experimental strategies for improving safety. Publication should be in the summer 2008, and copies should be available on the Web.

Ms. Van Kleeck said that the Motorcyclist Safety Foundation has produced an 18 minute DVD, "Intersection," intended to be used in driver education classes to train the public to watch out for motorcyclists. A Leader's Guide is also available. Cardrivers.com has a 4 minute clip.

Mr. Halladay reflected that with the new brochure, we have a potentially wide audience. How should we distribute the brochure and continue to raise awareness of motorcycle safety issues? Action items below include responses to this issue.

Mr. Vaughn said that Alabama is developing public service announcements (PSAs) for both radio and TV as rallies are scheduled.

Mr. Killion reported that South Dakota has distributed 60,000 copies of a skill-rated map for riding in the most challenging part of the State, the Black Hills. Experienced motorcyclists provided the level of difficulty ratings.

Mr. Zimmer said Ohio released Ride Smart this year which covers equipment, training, etc. It was the product of a State/private partnership.

Mr. Kiphart said that when awareness campaigns (billboards, radio ads, targeted messages for special events) are conducted in Nevada, complaints are received saying funds should be spent elsewhere. South Dakota and Ohio have success with similar campaigns, although if used too frequently, they seem to lose their impact.

Mr. Vaughn has witnessed an evolution in the use of portable signs. Previously, they could only be used when a crash had occurred, but their use has been expanding to other topics more recently.

Mr. Moreland offered PSAs available from the American Motorcyclist Association. Although most of these are targeted to the motorist, infrastructure issues are being considered for future topics. Also the AAA Foundation has a road assessment program that rates road width, roadside hardware, etc. for safety performance. As the riding season begins, it would be useful to promote awareness of these resources.

Dr. Oliver will work with the public relations staff at FHWA to develop a press release about the brochure. The brochure will also be distributed via the FHWA booth at conferences with state and local traffic and engineering groups.

h. Bike Safe in North Carolina:

Sgt. Mark Brown of the North Carolina State Highway Patrol was not able to attend, but sent a CD with information about the Bike Safe program. He was the first U.S. officer (and potentially the only one so far) to travel to the United Kingdom to be trained in their successful safety program. He has developed a team in North Carolina who train motorcyclists through classroom lecture and on-the-road instruction.

i. Safety Research:

Mr. Halladay told the group that Taiwan is interested in working with USDOT on motorcycle safety topics. This is a new project, and updates may be provided in the future if we learn more.

Mr. Shankar provided an update on the latest motorcycle safety statistics. Because of issues regarding comprehensive VMT data, there may be some shifts in rates. Motorcycle registration data is still used as a measure of exposure, although the limitations of that data are also recognized. Declines in passenger vehicle occupant, pedestrian and bicyclist fatalities are being offset by increases in motorcyclist fatalities. There are 6.23 million registered motorcycles in the U.S., and this is the highest number to date. The demographic data is useful, but there is no information about rider experience. Alcohol use and speeding are common issues for all drivers and riders. It is not known if education and training affect crash causation. Maryland is currently trying to evaluate the effects of rider training. The good news is that alcohol involvement in crashes has been decreasing for over 10 years.

Mr. Halladay noted that the new USDOT Action Plan has additional statistics and related information.

There was general discussion about which age groups are experiencing the highest rates of fatal crashes. The 20-29 and the 40-49 age groups have the highest number of fatalities. Fully reliable information on the ridership profile for motorcyclists is unknown, so there is no way of evaluating whether these represent higher rates, or how rider experience and training may be factors. Licensing information is insufficient because many licensed riders do not routinely operate motorcycles, and many operators (involved in crashes) are unlicensed.

Mr. Zimmer noted that it is unfair to compare the relative number of fatalities on motorcycles versus those of passengers in other vehicles. Cars and trucks have gotten safer and are providing protection in crashes that is unavailable to motorcyclists. Also, older motorcycle riders grew up in a culture of hot rods and racing. These may be the same riders who experienced (non-fatal) crashes when they were younger. Many motorcyclist organizations include large numbers of older riders.

Mr. Halladay reflected that young riders may not be joining organizations, so other means will be needed in order to reach them.

Ms. Van Kleeck observed that alcohol and speed issues seem to be more age-specific.

Mr. Shankar agreed and also pointed out that for young riders, 25% of those involved in crashes are not licensed.

Mr. Halladay reported that AAAF (www.aaafoundation.org) is working on a project relating to Safety Culture. The U.S. no longer leads the world in highway safety performance; we have been surpassed by several European countries and Australia, for example.

Mr. Moreland also noted that the disparity in data collection standards/techniques between the U.S. and other countries makes comparisons difficult. There is no standard crash reporting among States. Europe seems to be doing better in this area. There are also different perspectives on personal freedom among nations.

Carol Tan provided a status report on the crash causation pilot and main studies. Approval has been received from the Office of Management and Budget (OMB) to conduct both studies. Work

is still being done on the data collection instruments. Concerns have been raised in a recent letter which compared the proposed data forms with those developed by OECD. Discussion of this issue ensued, and it was observed that this very rigid approach could negate the opportunity to make improvements in data collection efficiency and effectiveness, such as the inconsistent way the OECD methodology codes “unknowns”. This has been improved as a standard code in the revised forms. There is concern that absolute, 100% adherence to the detailed technical data definitions and collection specifications used in the OECD method will make it almost impossible to proceed with the project. For example, “immigrant status” is a required OECD data element, but has no relation to crash causation and would likely cause a high level of backlash in the US. Carol noted that proposed forms have streamlined the OECD content into topical areas, and can be mapped back to the OECD file by a programmer, and that they are easier for data collectors to use and will make data collection more efficient. In reporting on other status, Carol noted that pilot study locations are being reviewed. Data collection for the pilot could be completed by the end of 2008 given approval to proceed, and the main study will not begin until the pilot is well underway. The funding is available for 2 more years under the terms of SAFETEA LU.

j. MAC-FHWA Review and Roundtable Discussion:

Ms. Bents invited open discussion on any topic. She then provided a review of the status of all of the recommendations and action items from meetings 1 and 2 (shown below).

Council members reviewed the list of outreach targets they had developed during the course of the meeting. Some were intended to receive copies of the new brochure, while others would be informed of the opportunity to respond to the NPA for the MUTCD. These targets are shown as attachment 4.

Mr. Zimmer wanted to add a point about safety research. At the TRB meeting, one of the presentations is a research paper on development of parking infrastructure—how motorcycle parking is determined, space allocation, etc. He also asked if there had been feedback on the new brochure. The FHWA has agreed to keep track of the distribution (in terms of groups).

A review of 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 websites that allow motorcyclists to report roadway hazards. A model for this is the Roadhazard.org site created by ABATE in the Midwest. The websites 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 Blosschok 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 Bloschok provided a presentation on two commercially available products, May, 2007.
- 9) Extend future meetings to at least 1 ½ days.
Status: Adopted.
- 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) Jeff Hennie volunteered to provide examples of highway signs targeted for motorcyclists.
Status: Kathy Van Kleeck provided an exemplar photo from Maryland.
- 2) Mark Bloschok 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 Bloschok 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. Bloschok 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..
- 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 document be created. The package will include the FHWA motorcycle safety pamphlet.
Status: Submitted and adopted by AASHTO and SAASHTO, summer, 2007.

- 6) 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.

Following this review there was general discussion as to whether the charter for the MAC-FHWA should be extended, and whether current Council members felt their participation was useful. Mr. Halladay indicated that action must be taken by USDOT to extend the charter, but he thought that was likely to happen.

Members expressed their continued support of the MAC-FHWA, and their enthusiastic approval of the response to their recommendations to date. Some members related their initial skepticism, and their subsequent surprise and satisfaction at the productivity of the group. All felt a commitment to continue.

k. Summary of New Recommendations and Action Items from the third meeting:

Recommendations

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

Action Items

1. Kathy Van Kleeck will monitor the Federal Register and notify Fran when the NPA is published.
2. Jeff, Don and Gerry will review the NPA and make recommendations to the MAC-FHWA.
3. Jeff, Don and Gerry will draft a response on behalf of the MAC-FHWA.
4. Each MAC-FHWA member will notify his/her constituency about the NPA and suggest a response.
5. FHWA will keep track of brochure distribution.
6. Ed, Darrell and Gerry will attempt to bring survey results to the next meeting.
7. Another ITS discussion is requested for May, 2008.
8. If possible, the next meeting should be held in conjunction with a demonstration of VMT-measurement technology.

9. Morris will prepare an appropriate announcement on the availability of the brochure.

l. Plans for Next Meeting:

The next meeting is planned for May 6 and 7. It may be held in conjunction with a demonstration of technology that could be used to collect motorcycle VMT data, tentatively scheduled for May 5 at the Turner-Fairbanks facility.

m. Closing:

The meeting was adjourned at 11:45 AM.

Attachment 1. Linda Brown's MUTCD Presentation

Attachment 2. Linda Dodge's ITS Presentation

Attachment 3. David Winter's Vehicle Miles Traveled Symposium Presentation

October 10 – 12, 2007

NTSB Conference Facility

~ 100 people attended

Presentations and breakout group summaries available on FHWA FTP site at:

<ftp://fhwaftp.fhwa.dot.gov/HPPI/FROM/Symposium%20Files/>

Logon id: hppiguest

Password: hppiguest

- General agreement that the quality of the data needs to be improved
- Some concern, especially by advocacy groups, on the misuse of data
- Efforts to improve motorcycle travel estimates can not have a detrimental impact on the classification of other vehicles
- Staffing and funding will be a concern for many States
- Developing estimates for local non-State owned roads most problematic

Current Efforts

Motorcycle committee

- Developing Options Paper
 - Rough draft distributed for comment
 - Focuses on four main areas:
 - Develop guidance (possibly interim) as a supplement to the TMG
 - Establish a website for best practices
 - Establish an interim approach that USDOT will use to develop a national motorcycle travel estimate with a process for sub-allocating that national VMT to the each State
 - Initiate a demonstration & research program to give visibility to emerging classification technologies and to research new technologies.
- Setting-up demonstration of vehicle classification equipment
 - Draft proposal sent to Turner Fairbanks for review and comments
 - Using the facility is not an issue
 - May have some security issues with CIA, especially with some of the advanced equipment (video, sonar, LASER, and LiDAR)
 - Will likely take place in the Spring, date not yet determined
 - Local rider(s) groups will be invited to participate
 - Will include a vehicle mix from motorcycle through pickup, possibly even one or two small trucks
- Research Roadmap
 - Little progress has been made
 - Contractor has reviewed the audio and video from last day of Symposium and has develop a rough outline of the document

HPMS Update

- 2006 Data
 - All but six States reported VMT for motorcycles, up one from 2005 (South Dakota reported this year)
 - Motorcycle travel up
 - Only cursory data quality check at this time

- 2007 data, reported in 2008, will be the first year for mandatory motorcycle VMT reporting
- A number of States have requested assistance from HPMS and Traffic Monitoring Divisions
- Reassessment report and documents due end of year

NTSB Recommendation

The NTSB Safety Recommendation states: "Following the 2007 Motorcycle Travel Symposium, develop guidelines for the states to use to gather accurate motorcycle registrations and motorcycle vehicle miles traveled data. The guidelines should include information on the various methods to collect registrations and vehicle miles traveled data and how these methods can be put into practice. (H-07-34)"

In addition to making the reporting of motorcycle VMT mandatory in HPMS, OHPI plans to take the following actions:

Travel Monitoring Team

- Develop and disseminate a supplement to the TMG on methods to collect statewide motorcycle travel data
- Include guidance on the methods and practice of collecting motorcycle travel data in the NHI course "Applications of the TMG"
- Specify validation criteria for the summary motorcycle travel data in HPMS
- Sponsor NATMEC 2008 with session on motorcycle VMT

Travel Surveys Team

- Explore the use of travel survey data for motorcycle VMT, e.g., data from the Motorcycle Industry Council (MIC) and an NHTS Add-on

Motorcycle Registration Data

- Will put together an interagency team to:
 - Review State laws to determine the state of practice for motorcycle registrations
 - Develop guidelines for the States to use to gather accurate motorcycle registrations
 - Guidelines should include information on the various methods to collect registrations
 - Describe how the best methods can be put into wider practice

Attachment 4 Outreach Targets

Outreach Targets for NPA Notification and Solicitation of Comments

American Motorcyclist Association (Ed)
Motorcycle Safety Foundation (Kathy)
Motorcycle Riders Foundation (Jeff)
State Motorcycle Safety Administrators (Ken)
ABATE (Darrell, Steve)
AASHTO (Don)
AAMVA (Denise)
GHSA (Ken)

Outreach Targets for Distribution of Roadway Safety for Motorcyclists Brochure

State Motorcycle Safety Administrators (Ken)
AASHTO (Don)
AAMVA (Denise)
GHSA (Ken)
ITE (Mike)
TRB (Mike)