US DEPARTMENT OF TRANSPORTATION

NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION

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PUBLIC HEARING

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THURSDAY

JANUARY 14, 2016

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The Public Hearing was convened at the Patrick McNamara Federal Building, 477 Michigan Avenue, Room 1180, Detroit, Michigan 48226, 9:30 a.m.

PRESENT:

PAUL HEMMERSBAUGH, Panel Member

DAN PARENT, Panel Member

DAVID HINES, Panel Member

JENNIFER DANG, Panel Member

PETER MARTIN, Panel Member

RYAN POSTEN, Panel Member

P R O C E E D I N G S

(9:36 a.m.)

MR. POSTEN: Thanks again for your patience. It's 9:30. You are in the Patrick McNamara Federal Building.

A couple of announcements, you are at the Federal Building, Patrick McNamara Federal Building here in Detroit. This is a public hearing of the National Highway Traffic Safety Administration seeking comments on its Federal Register notice of December 16th, 2015. We have one registered oral testimony this morning. And we also have a presentation planned for you.

I'd like to cover a couple of safety announcements as well. The restrooms are out to the left in the main hall before the elevators. In the event of an evacuation or a fire alarm, there are two stairwells on this floor, but the closest one to us is out and to the right in the main hall. The stairwell is immediately to the right. It goes down 11 flights.

My name is Ryan Posten. I'm the Associate Administrator for Rulemaking at NHTSA. Today we have a lot of folks here from NHTSA. We are here to hear your comments as well as any feedback.

Starting on my far left is Paul Hemersbaugh, NHTSA's Chief Counsel. Then Dr. Peter Martin, a mechanical engineer in our Office of Crashworthiness Standards. Ms. Jenny Dang is the chief of the New Car Assessment Program at NHTSA. David Hines is the director of the Office of Crash Avoidance Standards at NHTSA. Mr. Dan Parent is a mechanical engineer in the Office of Research at NHTSA. And, as well, I'd like to introduce Dr. Mark Rosekind, the NHTSA Administrator, for some remarks, and following those remarks, we'll be providing you with a presentation by Dan Parent. Thank you.

DR. ROSEKIND: Well, good morning everybody. We very much appreciate your joining us. As you know, I always start with a number: in 2014 it was 32,675, which is the number of lives lost on our roadways. There were also millions of injuries and millions of crashes. NHTSA's mission is to prevent every one of those. The five-star ratings derived from NCAP, our New Car Assessment Program, is one of our critical tools in pursuing this mission. This program started at NHTSA. It was born in the agency in 1978, and we've watched it grow. And I think it's pretty clear assessment that it has a lot more room to grow. The concept of new car assessment started at NHTSA in 1978, and has since gone global. But what we're looking at with the advent of all kinds of new technology, is that NCAP’s 5-Star Rating Program, has a chance to become the leading edge of vehicle safety once again. Staying on the leading edge of vehicle safety is what we try to do. With the many technological developments relating to auto safety available now or on the horizon, we started asking a year ago in January what NCAP needs to do to keep up with these developments. This is not the kind of thing where somebody sends you a letter and says, "You know, you ought to think about trying to do something a little bit better with that." It’s a long, long process.

I think you see that portrayed in what's been proposed in the Federal Register notice. It's not just a little push here and there; what’s been proposed is very significant. If you haven't read everything, great, because that's what this is about. Part of doing the presentation -- is it 12 minutes now?

MR. PARENT: Probably shorter.

MR. POSTEN: Yeah, probably shorter. The whole idea was to take that long-written document and put it digitally into "What are we thinking about?"

DR. ROSEKIND: So in under 12 minutes, we're going to give you a sense of that. And we've gone from crashworthiness to add two other parts. And I think what's really great about the presentation is the chance for us to show you, not just tell you, but show you the image of what we see NCAP becoming.

Now what's really critical for us is we have the 60-day comment period, and we really want to make NCAP the best we can. Full caveat: We can't do everything for everybody. There are limitations. But we want to make NCAP as good as we can. And this is our chance not to have a short, small, quick increment. It's to truly make it as good as we can, given the context of what we're trying to do at this moment, and to really bring it to the leading edge for the world again.

NCAP is a non-regulatory program. It is our way of informing consumers about vehicle safety. It helps set a high bar for vehicle safety. You all know 96 percent of all the cars out there get 4 or 5 stars. Star ratings do not differentiate the way they did before. Having 5 full stars did it one way, we're suggesting new ways of giving people information.

And so what's really great about today is for us to get information from you. We're holding these public hearings, the official format for us to do this, and it's not just about the briefing, but there's a chance for people to speak. We expect many of you will submit written comments which will become part of the docket.

We're also going to collect the information from these hearings, and include them in the docket as well. It's really different when you or your organization provide us written comments that go in the docket; that's all written word. So what's really great about today is you not only get the presentation, but the reason this panel is here is for us to actually have some interaction, so we get to hear about things.

So there are going to be two of these: the one today, there's another one in Washington on January 29th, and, of course, the opportunity through the docket to submit written comments. So, again, I really thank you. We're extremely excited about this. Again and again you've heard all of us say that we are looking for every tool available that we can use to help save lives and prevent injuries. This is a really important one.

So we are absolutely moving forward with this. Even more importantly, if there are things that you can do to help us make it as strong as possible, that translates into saving lives. So again, we thank you all for coming today and look forward to all the comments.

Ryan -- I'm sorry, my last comment, I rarely get to do this and this is like so off sidebar from the thing, but I already mentioned, we started talking about this in the beginning of January last year. And you probably recall, the Secretary announced that we were proposing to add AEB; that was one little piece. You look at the changes that you are about to see; they're huge. And I'm out here because I can tell you, it has taken a huge amount of effort for people to brainstorm, be creative, innovate what needs to get done and then actually pull it off. And I tell everybody, once the proposal's out and we decide what we're doing, then the real heavy lifting starts, right, because then we actually have to do it.

But the reason I pause is because these folks, others here as well, including some folks in the back, plenty of people back in DC, really did a tremendous job to help all of us that are concerned about vehicle safety push this to a new level. And I -- just on Monday, Tuesday was sort of the gauging, that so often these folks work in the shadows and you know one person, et cetera, but it's a huge team. And they are passionate and work tremendously hard to pull this off.

Can you join me for a moment and just sort of acknowledge all of the work they've done by giving them some applause, please?

(Applause)

That now becomes part of the docket, folks. So thank you and we look forward to your comments and participation. Thanks.

MR. POSTEN: Thank you. Just a reminder, since we have limited mic space and our mic capability here, the desk there, I think Mr. Camel might be sitting there, if you have a comment or you'd like to make a statement, I'd ask that you approach the table. Mr. Camel will follow Dan Parent's presentation. Thank you.

No falling asleep. I'm watching.

MR. PARENT: So as you all know, we're here today to talk about a new era of safety for the New Car Assessment Program. Today I'll talk about NCAP’s critical role in NHTSA's safety mission, what the program looks like today, and what our plan for an approved, modernized NCAP will look like tomorrow.

We'll start with how NCAP plays a critical role in NHTSA's safety mission. As you know, in 2013, 32,792 died on US roads. This includes over 8,000 that were killed in frontal crashes and frontal oblique crashes.

Over 4,000 that were killed in side crashes, which often happen at intersections as you see here; and over 7,000 that were killed in rollover crashes.

This also includes almost 5,000 pedestrians that were killed on US roads. This is the most shocking to me, because we don't currently have any regulations or consumer information programs that specifically address pedestrians being hit by cars. 32,719: that makes up over 95 percent of all transportation-related injuries and fatalities in the US. That's roughly equivalent to a fully -- full capacity 747 crashing every week of the year. We think that's unacceptable and we need to do something about it.

That's why at NHTSA, our mission is to prevent fatalities and save lives and the millions of injuries that also occur on our roads. And we believe that NCAP is one of the most effective tools we have to do this.

So what is NCAP? You probably already know this, but NCAP is a non-regulatory vehicle safety program. NCAP allows safety differentiation by rating vehicles on a 5-star scale, with 5-stars being the safest. This information is provided to consumers through the window sticker of new cars and on the safercar.gov website. Consumers are familiar with this 5-star system as they often see it in print media and television commercials.

This program encourages getting safety technology into cars faster and providing technology that goes above and beyond regulatory minimums. I will give you some examples: In the years before NCAP, fatality rates were high. Once NCAP started in the late 1970s, fatality rates began to decrease, in part, due to crashworthiness structural improvements designed into new cars in response to NCAP.

Later, when side impact ratings were added to NCAP, side-turned airbags became much more popular and this occurred before they were required by any regulatory requirements.

In 2001 and 2003, rollover was added to NCAP, which again drove technologies such as electronic stability control before it was required by regulation. Despite a major NCAP upgrade in 2011, we're starting to see a plateau in the impact of NCAP rollover ratings. This shows us that there's an opportunity to do more.

To show off how effective safety technologies have been, NHTSA did a study in January of last year that showed that over 600,000 lives have been saved by safety technology promoted by regulations and consumer information programs.

So before we get into the new proposal, let's talk about what NCAP looks like today. NCAP is primarily a crashworthiness program today. We look at a frontal crash test, two side crash tests, an intersection-type crash and a pole-type crash. And we also do a static and dynamic rollover assessment.. These tests result in ratings for frontal crashworthiness, side crashworthiness, and rollover resistance. These ratings are combined into an overall vehicle score.

We also look at crash avoidance technologies such as rearview video systems, forward collision warning and lane departure warning. But these are not included in the 5-star rating system. Information about these technologies only show up on safercar.gov.

In response to a major NCAP upgrade in 2011, manufacturers have responded and quickly. Ninety-six percent of vehicles achieved a 4- or 5-star rating in model year 2014. To put this in perspective, just meeting the regulatory requirement would only earn you one star. So it's great that manufacturers are going above and beyond, but that limits our ability to differentiate vehicle safety in the highest-rated cars. So with that in place, let's talk about the plan for an improved, modernized NCAP.

We'll keep the overall vehicle score. We'll break this into three components: a crash test rating, a crash avoidance rating, and a pedestrian rating. I'll go into each of these in a little more detail.

But crash test ratings will continue to be based on our front and side impact tests. An angle test will be added to the tests on which crash ratings are based to fill a gap that currently exists in the information used in generating crash ratings. The reason for this is in the actual vehicle crashes we see in the field, it's rare to find a purely frontal or purely side crash. In the field, angle crashes are common and very injurious.

To address this, we have done some research on vehicle-to-vehicle angle crash tests, and we've developed a laboratory test that represents this type of angled collision. We call this the frontal oblique crash and we'll add it to the tests used to determine crashworthiness ratings.

New dummies will also be used in crash testing. Meet THOR. THOR is the most advanced dummy in the world. He builds on the past 30 years of research in biomechanics and injury mechanisms, and he replaces a dummy that was developed more than 35 years ago. We'll include THOR in the frontal and frontal oblique crash test. We will also include smarter dummies, THOR's friends, in the other NCAP tests. We'll use the WorldSID in the side crash and in the side pole crash test.

We're also looking to use RibEye to improve the chest deflection measurement of the small female that's in the frontal test in both the right-front passenger and the rear seat position.

Now let's look at the improvements proposed in the area of crash avoidance. Instead of just a technology getting a check mark on safercar.gov, we'll now provide a crash avoidance rating based on the number of safety technologies that meet NCAP’s performance criteria that a vehicle has. The crash avoidance rating will in turn be taken into account when determining a vehicle’s overall 5-star rating. We'll further drive market penetration by only awarding full credit in the crash avoidance rating scheme for safety technologies that are included as standard equipment on a vehicle. The best a vehicle will be able to do with optional equipment will be half credit.

We've also designed the system to be dynamic so that as new safety technologies emerge, the system can include these technologies in the crash avoidance rating.

Both crash ratings and the crash avoidance rating will help to further protect vehicle occupants, but what about the 5,000 pedestrians that are killed each year? That's why we're adding a pedestrian rating system to NCAP. Here's what it looks like when a pedestrian is impacted by a car: first you see the leg makes contact with the bumper, the pelvis makes contact with the front edge of the hood, and the head hits either the windshield or the A pillar; or in the case of a child, the head would hit the hood itself.

Now we can look at laboratory tests that replicate these impacts and we can rate vehicles on how well they protect the head, the pelvis, and the lower leg. We'll also include in the pedestrian rating, new technologies that emerge that prevent crashes with pedestrians in the first place such as pedestrian AEB.

The compartmentalization of these ratings into individual components allows us to be dynamic and introduce updates as new technologies emerge. So this NCAP program will stay true to the original intent of NCAP, which is to allow differentiate between vehicles based on vehicle safety. Adding new ratings categories and also including half-star increments will allow us to better differentiate the safest vehicles from other safe cars.

This information will still be provided to consumers as a 5-star rating and the familiar overall vehicle score rating, which consumers are comfortable with now, and will drive innovation by staying dynamic to encourage continuous safety improvements. This new area for NCAP, as you know, is still nonregulatory, but allows us the ability to drive increases in vehicle safety performance and do so quickly.

NCAP has a legacy of proven effectiveness and we can build on this legacy through modernization of the program that can help us prevent more injuries and save more lives to help achieve NHTSA's mission. If I wait long enough, that will go down to zero.

(Laughter.)

So if you want some more information, go to safercar.gov/5-star website. That is a good place to start. The docket number is on the screen, although I know a bunch of you have already downloaded the RFC. We look forward to hearing your comments, considering them, both the stated comments today and the written comments that are submitted to -- in response to the RFC. And I'll note the deadline for responses is February 16, 2016, so get ready.

Thank you very much.

MR. POSTEN: Thank you, Dan. Well, without further ado, it's 9:50 a.m., and Mr. Campbell, thank you for signing up, and you have 15 minutes, if not longer, so thank you.

MR. CAMPBELL: Oh, well, it will be shorter than that.

MR. POSTEN: Thanks.

MR. CAMPBELL: But is this on?

MR. POSTEN: Yes. And I hope everybody in the back can hear you. I apologize for the lack of microphone capability.

MR. CAMPBELL: All right. Well, very good. Again, thank you so much for having the session today. It's nice to be able to, in Detroit, be able to talk to NHTSA here versus Washington.

Good morning, my name is Doug Campbell, I'm the president of the Automotive Safety Council, otherwise known as the ASC. The ASC was founded in 1961, its members include the major automotive suppliers and their suppliers that provide research, design, and manufacturing of airbags, seatbelts, steering wheels, crash sensors, interior safety components, child seats, electronic stability control, breaking systems, steering systems, and emerging active safety and advanced driver assist systems such as automatic emergency braking, lane keeping, forward and rear wheel collision warning, and autonomous driving technologies.

The ASC has over 35 member companies including companies such as Autoliv, and Bosh, and Continental, Delphi, Humanetics, Key Safety Systems, Takata, Toyoda Gosei, (indiscernible) and TRW Automotive. The ASC is the automotive supplier trade association solely focused on the active and safety technologies and improving occupant and vehicle safety. Our mission is to save lives and reduce vehicle injuries through the use of life-saving occupant protection systems and advancement of the latest crash avoidance technologies.

With vehicle manufacturers, the insurance industry, and consumer groups we would like to educate public policymakers, the general public, and others about lifesaving technologies our members are committed to bringing to the market. Our members have over $30 billion in sales through annual investments of over $2 billion in research and development resulting in employment of over 30,000 people in the US and growing as the new ADAS technologies are developed.

I'm pleased to be here today on behalf of the ASC membership to provide comments related to the request for comments in NHTSA Docket No. 2015-0119 relating to the planned upgrade to the New Car Assessment Program.

Over the years, NCAP has become an important decision-making tool for the general public. We commend NHTSA's desire to make NCAP even more meaningful by upgrading the quality and quantity of information required to be provided to US customers. We're pleased to see the new advanced technologies for accident prevention and mitigation being placed on the window sticker and in the rating system, as most of the public gets their new car information at the point of sale.

We commend NHTSA on its approach of using real world data to prioritize and identify technologies that can make a difference in saving lives and mitigating injuries. The approach of improving data gathering with new anthropomorphic test devices -- otherwise known as crash dummies or ATDs, and reviewing existing tests for modifications such as a rollover risk curve, adding new ratings for advanced technologies in order to spur implementation and improve data tracking in the field with VIN modifications, will all greatly improve not only the safety of the public now but also in the future.

While the ASC is in the process of formulating our input to the request for comments on the new NCAP, we did want to comment today about our hope that as much harmonization as possible will be done with the existing tests, which are already in place around the world such as Euro NCAP and IIHS, that address these types of technologies and crash protocols and their benefits.

We recommend that before any new ATD is put into regulation, that it be placed in the formal, normal federalization process of ATD approval and that adequate implementation time be given to new ATD availability as it is limited and expensive.

As we indicated in previous comments submitted to NHTSA, the ASC believes that CIB and DBS systems have been demonstrated to have a positive impact on fatality and accident reduction and that the technology deliver us this functionality as readily available in the market today in a variety of forums and across a range of vehicles in the fleet.

We're also pleased to see NHTSA looking at improving the rear backover regulation with the addition of auto braking, as the ASC has recommended this approach in our previous responses to that technology. The comprehensive approach of improving NCAP is commendable versus a piecemeal approach, and we commend the inclusion of post-crash notification for emergency responder decision-making, as we've seen great strides in this arena in the public -- in the private sector.

We agree with the list of technologies being looked at for inclusion in the new rating system and hope the agency will speed the review of lane keeping in lieu of lane departure warning as the preferred technology for that category.

As the ASC's various technical committees are still reviewing the details of the RFC, it's not possible to go into further details at this time about the aspects of the RFC for the proposed upgrades to the new NCAP.

So in closing, the Automotive Safety Council and its member companies are committed to assist NHTSA in its efforts to expand the NCAP program to upgrade the 5-Star Safety Rating Program to add new crash tests and new pedestrian protection measures.

Additionally, the ACS will continue in our critical role to provide facts and data to public policymakers, regulators, and the public to ensure the best information is available to them. We will also continue to educate the driving public about the lifesaving benefits of seatbelts, airbags, and crash avoidance technologies.

Thank you.

MR. POSTEN: Thank you, Mr. Campbell.

Comments, open mic? We're all here gathered today. We're open until 1:00 p.m.

(Laughter.)

Sir, in the back, please, if you can. We apologize for those that did not make it here in time for our introduction and presentation we had a delayed start at 9:30 a.m. We understand the security line was quite long.

We have one oral presentation for those that are just getting here, we have one oral registered presenter, Mr. Campbell. And this is our only microphone. It is being recorded and transcripts -- we put in the docket of everything stated.

Sir?

MR. VAN DAN ELZEN: So my name is Chris Van Dan Elzen from Magna. I'm sorry, I'm late, maybe I missed it, but I had a question about how the 5-star rating would be affected. It seems like there's a 5-star rating for crash capability and there's another 5-star rating for crash avoidance. Is there a way that these two come together for a total 5-star rating? Do we add them together and divide by 2 or is there a strategy to that?

MR. POSTEN: Jenny?

MS. DANG: Yeah, so as we stated in the RFC Notice that we are looking into, of course, we are requesting public comments on the various approaches of weighting and determining our rating system.

MR. POSTEN: Jenny --

MS. DANG: We did mention a few approaches in there, but we are open to many other alternative methods that can combine the crashworthiness, crash avoidance, and pedestrian ratings.

MR. POSTEN: Did everybody hear that?

I may have suggested you use the mic in our responses, Jenny.

MS. DANG: So --

MR. POSTEN: And I think people in the back can't here you, so thanks.

MS. DANG: So right now we haven't finalized the overall rating system and even how we're going to, you know, rate the individual ratings. So because we wanted to hear from the public and after that we will look into internal data and then we'll make a final decision and include that in the final notice.

MR. VAN DAN ELZEN: Okay. One follow-up question to that is -- do you have a strategy for half-stars, how you're going to do? Is it based on specifically a score or is there a strategy to a half-star?

MR. POSTEN: It's halfway between a star.

Can you repeat the question?

MS. DANG: Do we have a strategy on how we're going to give credit or give half-star ratings to vehicles.

David?

MR. HINES: So I think some of this was covered in the presentation. It sounds like you missed it there. Actually, separate ratings for crashworthiness, crash avoidance, and pedestrian. And on the crash avoidance side, what was pointed out in Dan's presentation was that half-stars would be for optional equipment. Full star would just -- to get full star, you would have to have the equipment standard on the vehicle.

MR. POSTEN: Sir, please, thank you.

MR. BILKHU: Sukhbir Bilkhu from Mahindra North America Technical Center. My question regards the pedestrian testing that you're planning. Could you elaborate on what kind of impactors and when will we know the details and the requirements.

MR. POSTEN: Peter, up here.

MR. MARTIN: Sure. His question was, if I get this correct, what are the parameters of the pedestrian testing --

MR. BILKU: Yes.

MR. MARTIN: -- and?

MR. BILKU: And which impactors are you planning to use.

MR. MARTIN: Which impactors we're going to plan to use?

MR. BILKU: Yes, and when will the details be available to us on the impactors?

MR. MARTIN: Okay, Sukhbir, the pedestrian impactors and the procedures are explained in the RFC. It's essentially the same as what is now in Euro NCAP. So, if you were to go to Euro NCAP and understand what they do, you would have a very good idea of what we're planning on doing.

And those impactors -- there's four basic impactors: there are two headforms, there's a lower leg form, which is referred to as the "Flex PLI, Pedestrian Leg Impactor," and then there's what's called an "Upper Legform," which simulates the pelvis and the femur -- just those four impactors.

MR. BILKHU: That's interesting. Are you planning to follow the Euro NCAP protocol for rating then?

MR. MARTIN: Now the rating, that's another story, we're contemplating how we're going to actually implement the scores into the stars. And we're accepting comments on that. But as a baseline, you may consider what Euro NCAP does as a starting point.

MR. BILKHU: That kind of concerns me, because I -- you mentioned the upper leg impactor. At least the European community doesn't recognize that as a reasonable device. I mean, they are not regularly thinking that. Only Euro -- only a rating agency is looking at that.

MR. MARTIN: Well, we're proposing to use the upper leg form.

MR. BILKHU: What --

MR. MARTIN: That's all I can say about that. Whether -- who considers it a good tool or not and what goes into a regulation versus a standardized test for rating vehicles, you know, those may be two separate considerations.

But as proposed, we heard harmonization, so we would be harmonizing with Euro NCAP in the pedestrian crashworthiness test. Again, they essentially do the same as Euro NCAP under our proposal.

MR. BILKHU: I think it would be -- it would be good for us to know the details of how you would do that because it will impact the vehicle design, as you're well-aware.

MR. MARTIN: Well, we're accepting comments on whether leg forms are feasible from you -- from the public, and how the Euro NCAP way of doing things may not work here in the US. We'd like to hear your comments on that.

MR. BILKHU: Okay. Thank you.

MR. MARTIN: Thanks.

MR. FROOSHANI: Hi, I'm John Frooshani, Subaru. A couple of questions: Number one, the relative rating crashworthiness, crash avoidance, and pedestrian, will we have an opportunity to comment once you guys have made a decision on how you plan on doing that or is now the time to provide our comments?

MS. DANG: Right now is a good time to provide comments, because what we plan to do is when we finalize the rating system, similar to what we did with the last upgrade, that would be the final decision; that will be in the final decision notice.

The question was that for the rating system, would we have -- would the public have another opportunity to provide public comments once NHTSA develops its final rating system.

MR. FROOSHANI: One more question: I -- the proposal right now that you guys -- for offering half-points for crash avoidance technologies that are offered as optional equipment, I know there's probably pros and cons to the different approaches you guys discussed before settling on this, but can you talk to maybe some of the limitations that might exist? For example, optional could mean one percent penetration across the fleet or ninety-nine percent, but you're still awarding the same half credit.

And also, under this system, right, depending on the specific VIN, right, you might be over or underestimating the actual rating of that car because you're essentially just giving the same score to the entire model line. So can you discuss what sort of went into that thought process?

MS. DANG: Well, to be honest with you, we did talk about it internally, how are we going to handle giving half credit to optional safety features, you know. Right now we are looking into various ways we can, you know, we give half credit to trim lines that only have -- that offer optional safety features instead of as standard equipment. So we are still looking into that, so definitely we would like to hear from the public how you guys want us to handle that.

MR. HINES: So I'll add from a crash avoidance perspective, we're focused on improving safety. And to improve safety, we need to have these systems on the vehicles. And to give partial credit, half credit, for some adoption rating between one and ninety-nine percent, we think that the proposal is a fair approach.

But our goal, to be clear, is to get 100 percent standard inclusion of these systems so that they can improve safety for the public.

MR. LARSEN: Good morning. I am here today as the Regulatory Task Force Chairman, Mike Larson, specifically in lighting. And we are planning on submitting comments, official comments, once we get the consensus in our SAE group as far as what those comments are.

But a few things I just wanted to comment on today since there seems to be an opportunity, specifically in the lighting area, in the semi-automatic theme switching portion and the low beam portion, one of the areas that the SAE group is concerned about is the unintended consequences of the procedure or the method to evaluate those technologies. And in our official comments, we will point those out and expand on what exactly that is, but I guess something to think about is there may be some unintended consequences.

For example, on the low beam pattern, perhaps pushing, since you're only measuring one portion of the low beam, pushing people towards enhancing that area and sacrificing other areas of the beam pattern. For the semi-automatic beam switching, there may be a technology gap there where the systems that are on the road today, you could actually put a less -- a poor performing system on the vehicle and still get the credit and the NCAP but really not get what you think you're getting in terms of performance benefit to the customer -- or the driver.

So I guess I just wanted to bring that forward. We will put that into our comments as soon as we get consensus. But I least I wanted to bring it forward just so that you can think about that before the comment actually comes in.

MR. POSTEN: Thank you. For the record, and your name?

MR. LARSEN: Michael Larsen.

MR. POSTEN: Michael Larsen, thank you.

MR. HINES: So we will be repeating the questions. This was more of a statement.

MR. POSTEN: Statement-question.

MR. LARSEN: It was a question, yeah.

MR. HINES: The focus was on lighting and about in particularly, the lower beam seeing distance and about semi-automatic beam switching and including those in the crash avoidance rating and maybe unintended consequences associated with what we've put out for draft test procedures.

And so first, thank you for your comment.

MR. LARSEN: Sure.

MR. HINES: Thank you for sharing the information that SAE is working; that's a promising sign for us that folks are looking at that and going to give us comments. We invite the comments. We will consider the comments that are provided.

Just to provide a high-level answer, we thought including lighting in the program was important because it is an important factor in vehicle safety. And our approach was to focus on lower beam seeing distance and also technologies such as automatic beam switching that ensures that drivers are using upper beams when the situation calls for that. There have been studies, one presented at TRB a couple of years ago, that showed particularly a roadway in Texas where upper beam usage was very low. And so that was something that we felt could improve safety by providing an incentive for those systems on vehicles.

Thank you.

MR. LARSEN: And just to comment back, I don't think the lighting group disagrees with anything you said. It's just a matter of the specific procedure and ways that you can meet the procedure but perhaps not get the type of benefit that you're looking for.

MR. HINES: We appreciate the insight. When you mentioned consensus from the committee --

MR. LARSEN: Yes.

MR. HINES: -- from the group, when the comment is submitted, we will review it in detail and consider the expertise that's provided by the committee and the comment.

MR. LARSEN: Okay. Thank you.

MR. ST. LAWRENCE: Good morning, my name is Schuyler St. Lawrence with Toyota. So first I want to say thank you for giving us an opportunity to come here and talk to you directly rather than waiting until the comment period is finished. I expect you'll hear a lot more from us again in a couple of weeks but quick question from -- on my part.

Currently, the crash avoidance technologies that are in there go on the safercar.gov website and in order to do that, we provide essentially self-certification data. And we've got, as proposed, nine new test procedures. Now that's a lot of tests. In order to get an overall rating, that puts it up to, I think, 13 tests that would now need to be conducted just for crashworthiness and crash avoidance.

So even though they'll now feed into a star system, would essentially self-certification data still be allowed for those crash avoidance tests or would they -- would NHSTA have to perform each of those tests for each vehicle with that technology?

MR. HINES: Thank you, Schuyler, for the question. So if I understood it correctly, you are asking about the crash avoidance test in particular and whether NHTSA will continue as it does for recommended technologies, to allow manufacturers to run those tests and to determine, I'll say "compliance" or whatever term you want to use, with the test procedures, or would we do something different where NHTSA would be running all the tests.

And the answer is "yes," to your question. We will continue as proposed, to include vehicle testing by manufacturers with the idea that NHTSA can spot check. And so we do that today with recommended technologies. And so we would continue to do that going forward as envisioned in the proposal.

MR. ST. LAWRENCE: Thank you.

MR. COMBEST: John Combest with Nissan. Can you expand upon the method for THOR? What process you're going to use to actually get that in the Federal Register? Are you going to federalize that?

MR. PARENT: The question from John Combest was what's our process for including THOR in these -- these tests, will we include it in the Federal Register.

I'll give you the standard answer, is if you have opinions, you're welcome to submit them to the docket. We're interested in hearing what you think is the most effective way to accomplish those goals. Our current plan is to include all the information that we would include in the federalization program in the docket itself so that includes drawing packages, qualification procedures, seating procedures, anything you would need to use the dummy in the test that we're proposing, the frontal oblique test and the frontal test.

All that information will be in the docket, so the same level and quality of information that would be included in the federalization process will be included in the docket. But our intent right now is to not federalize right away, to consider that in the future, but not necessarily before we include the dummy in NCAP testing.

MR. COMBEST: And further question: I thought I heard during the presentation that you said the RibEye would be for the fifth in the front and rear only?

MR. PARENT: Right. We're looking into the -- the question was will we use the RibEye.

We're looking at the RibEye system for the Hybrid 5th percentile female that we're proposing to use in the right front passenger and the rear seat in the full frontal test. We're running research tests right now actually. We hope to come to conclusion and include that information in the docket once we have a test report.

MR. COMBEST: Okay. And my final question regarding BrIC: basically kind of the same thing as my question on THOR.

MR. PARENT: So the question was on BrIC, how will we document it, will we federalize it. And the answer is the same: we'll include all the information we would include in any sort of federalization in the docket.

We do plan a more detailed injury criteria report that will be, again, published to the docket that will have all the detail you'll need to figure out how BrIC will be used, what the processing will be required to use BrIC, and the injury risk functions that go along with it; that will all be placed in the docket. So when those are placed in the docket, you'll have the opportunity to respond.

Thank you.

MR. TANGIRALA: Ravi Tangirala from Hyundai. The question is on the thought processes behind using THOR for full frontal. It seems it's more the complexity for having two different ATDs between 208 and NCAP would be more than the benefit itself that may actual provide or we get as a community from using THOR as a driver dummy in front NCAP.

MR. PARENT: So the question was the rationale behind using THOR in the frontal test. I can understand that there's some -- there might be some differences in what you'd measure from THOR in frontal test than from Hybrid III that we currently use in 208.

Again, this is something that we're currently researching. We've run several frontal tests with THOR. What we find is that because of the fidelity and the instrumentation of THOR, we learn a whole lot more about response in that test condition. Even though there's not much oblique response, we do see -- we learn a lot more from how the rib cage responds to belt loading, steering wheel loading, and airbag loading.

We think we're getting better information that can better predict injury from THOR than we would from Hybrid III. In terms of how that might interact with a Hybrid III test result, that's something that we're looking into currently. We believe that the same countermeasures will produce an effective THOR response in an NCAP condition. We believe those will also be effective in a 208 condition of Hybrid III.

So we don't see there being a trade-off, but if you see -- if you see something like that from your own testing, that's something we would definitely like to hear in the comments and we'll consider that appropriately.

MR. TANGIRALA: One more, I mean, a follow-up comment on this is, is NHTSA looking into adding RibEye to Hybrid 50th and also angular sensor for head to get additional data that we aren't getting today in THOR, but still use the Hybrid III only by changing those two? Is that one of the studies?

MR. PARENT: The question was will we consider using the instrumentation such as RibEye and angular sensors on the head in the rest of NHTSA's dummies. At this point, all we're discussing is inclusion of those instrumentation and dummies in NCAP. The notice doesn't cover any additional applications of that instrumentation, so I can't comment on that right now, but we hope to learn a lot through this process that can educate our further -- our future decisions.

MR. HUTA: Hi, good morning, I'm AP Huta from Toyota, but other than being allowed to make a comment as an individual who (indiscernible). I think people in the room have a very high-level confidence with this collision avoidance systems and technologies. And the same time, I would like to request some opportunities to promote these technologies appropriately to our customers and consumers because this collision avoidance system will not prevent everything.

For example, at night 100 miles per hour, a pedestrian, I don't think car can stop. But I almost also at the same time, I'm afraid of the situation that regular customers maybe over trust this system, so we want to -- my personal request is that proper or accurate information very, very of technically limitation. So people -- so that our customers don't believe, like, "Okay, now I have 5-star rating on collision avoidance. I can avoid every -- my car will avoid everything so I don't -- as a driver, I don't need to do anything." I'm afraid of that situation.

MR. HINES: So the question and the statement was about overreliance or the potential for overreliance that consumers may have when they get a vehicle that's rated 5 stars for crash avoidance technologies. For example, they may drive too fast, I think the comment was 100 miles an hour you're not going to be able to avoid hitting a pedestrian. So we invite comments such as those officially into the docket. We would encourage folks to share whatever information they have in those areas.

From our perspectives, of course, there are limits to what the systems can do and one of the things we consider in including the technologies is having viable test procedures and having objective criteria for them to meet. So today for recommended technologies, AEB, CIB, DBS, we don't -- we have criteria there. It's not absolute. There are criteria of what the vehicle can do to get credit.

And so we've adopted a similar-type approach with the crash avoidance technologies that are proposed in the NCAP notice. But we understand the limitations that not all crashes may be able to be avoided today. But we want to encourage technologies that will help consumers get closer to that zero target. And there is a lot of potential in these systems to get closer to zero.

So we invite the comment, and we will take that into consideration and include it in our consumer outreach going forward.

Thank you.

MR. BILKHU: Sukhbir Bilkhu from Mahindra. Just some additional clarification on the pedestrian, I think you vaguely had answered earlier that you will be accepting the OEM's data as an example for pedestrian tests or similar to what you did for other ratings. I expect you will be doing that?

MR. PARENT: Can you repeat the question?

MR. MARTIN: Okay. The way Euro NCAP works is that --

MR. PARENT: Can you repeat the question?

MR. MARTIN: Okay. I'm sorry, Sukhbir was asking whether we would accept OEM data to incorporate into the pedestrian score.

And according to our proposal, yes, because that's what, again, Euro NCAP does. What they do is that there are actually several tests that go into the rating. And so the way it works is that the manufacturer's submit data and that as a -- our labs, we do verification tests on a number of those data points. And so it would work the same way as what is done in Euro NCAP. So, yes, we would accept that.

MR. BILKHU: So since you're going to do verification testing yourself at some labs, I imagine not more than one I expect, what's your plan for demonstrating reproducibility and repeatability of testing with these devices which we know are somewhat difficult?

MR. MARTIN: Well, now you're getting into a research question, and we plan on demonstrating that, yes.

MR. BILKHU: Thanks.

MR. MARTIN: Yeah.

MR. HINES: Just to follow up, the pedestrian rating will have crashworthiness and crash avoidance, and so on the crash avoidance side, there are two technologies: pedestrian and automatic emergency braking, and rear auto braking that are in the system that was announced in the Federal Register. The vision today is to include those and the pedestrian rating would have crash avoidance with crash avoid -- crash worthiness.

So those two technologies would be similar to what we do today with recommended technologies where manufacturers would have the ability to run those tests, get the results, NHTSA could spot-check or ask manufacturers for the data showing their testing and results for rear auto braking and pedestrian AEB.

MR. POSTEN: It's been about an hour since we've started, and I think we've had a number of folks come in. I think for the benefit of those that want to stay, I'm going to take a 10-minute break and maybe more may arrive and those that may want to reconvene. But we'll be here until no more questions are asked. We'll give it some time for that awkward silence. So we'll say at -- we'll break for 10 minutes and reconvene at, say, 10:40 sharp.

Thank you.

(Recess taken from 10:33 a.m. to 10:51 a.m.)

MR. POSTEN: Please.

MR. ST. LAWRENCE: This is Schuyler St. Lawrence with Toyota again. This is a follow-up to a couple of questions previously.

So we've talked a lot about self-certification data submitted by the OEMs. My question now is about, I guess I would call it the legal implications.

So we're required by law to have these ratings on the Monroney sticker. So if those are based on self-certification data and NHTSA does a spot check that disagrees with the OEM data that would lead to a different rating; but yet the current process is we get a new letter from you that has the current rating and we put that on our vehicles within 30 days. But what about all the ones that are already out there on the lot? How will that -- on the dealer's lots -- how will that be handled with -- when there's conflicts been OEM data and NHTSA's spot-check data?

MS. DANG: So the question is how are we going to handle ratings on the Monroney label on vehicles that we have self-certification data that perhaps maybe NHTSA's results would, you know, be different from what the OEM's provided to NHTSA.

So right now we are still discussing how are we going to handle those situations. One thing that we could consider is that for the self-certification data, as you know, we don't have the budget to test all vehicles in the fleet. So every year we select the number of vehicles that we test. One possibility could be that we, for the vehicles that we select for testing in NCAP for that given model year, we could hold off on posting the ratings until we have, you know, all of the test results, and then we, you know, provide an overall and individual ratings and post them on our website.

Because the last thing we want to do is post a rating and then retract it based on the test results that we receive which could be different from what the OEM provided.

MR. HINES: So I would add, for crash avoidance today, if a manufacturer thinks that it meets criteria and doesn't, a checkmark can be removed. That's obviously different than removing something from a label, Monroney label.

But what I would suggest is that we be proactive and maybe not so reactive. So if a manufacturer has questions about a test or how it has run a test or data, talk to NHTSA in advance. There's nothing that prevents you from reaching out to us and asking questions on something on how to interpret part of a procedure or result.

So personally, I would prefer to be proactive on that issue and avoid the situation that you described where there are vehicles in the field that maybe have a false rating because of data issues.

Thank you.

MR. ST. LAWRENCE: And one more follow-up: With self-certification data for crash avoidance and pedestrian, natural question is what about crashworthiness? Will self-certification data ever be accepted for crashworthiness tests?

MS. DANG: The question is, you know, we are talking about self-certification, accepting data for crash avoidance and pedestrian, what about accepting data, self-certification data for crash worthiness. That is something that could be a possibility, but right now we really haven't taken that into consideration. So if you think that you have a proven process, we definitely would want to hear from you.

MR. ST. LAWRENCE: Thank you.

MR. BILKHU: Sukhbir Bilkhu again. Just following on from this discussion, since the frontal impact dummy pole is not in 572, and if there's a dispute in the numbers, how would that result? I mean, if we do an -- and OEM does it, does an assessment, and comes up with one number and you guys done a check or spot check and you come up with different numbers, how would that be resolved?

MR. MARTIN: There are manners and issues that are -- go through this today --

MR. POSTEN: Can you repeat the question?

MR. MARTIN: The question, pardon, how would you resolve discrepancies in a manufacturer's testing results and the agency's.

We go through that today and we work it out. There are interpretations we sometimes re-test or authorize a re-test. We'll work it out. But we appreciate your comment, and your comments to further give us more information to consider.

MR. PARENT: Can I?

MR. MARTIN: Sure, Dan.

MR. PARENT: One thing I'd like to add is that one of the considerations in developing test procedures is how repeatable they are. We're currently going through a repeatability and reproducibility assessment: the oblique test procedure. So we'll be able to have confidence that we will get the same answers when we run the test internally or the test run at a different test lab.

There are new dummies so there's a learning curve to this, but so far our results look promising that we do have a repeatable test procedure.

MR. POSTEN: The awkward silence continues. I think we're going to adjourn this. No one has anything else.

On January 29th at 9:00 a.m. in Washington, DC, at the US Department of Transportation headquarters is the next one. So last call?

MR. HINES: Don't be shy if you have a question.

MR. POSTEN: So we got two questions left.

Thank you.

UNIDENTIFIED SPEAKER: I have one question regarding ratings calculation. Currently, you use nine new technologies for calculations for your rating. I then see you have two more additional crash avoidance technologies: pedestrian automatic emergency braking and rear auto braking; two different technologies. I didn't see your calculation already includes these two technologies.

MR. POSTEN: Your name? For the record, your name?

UNIDENTIFIED SPEAKER: (Indiscernible) from Continental.

MR. POSTEN: Continental. Thank you.

MR. HINES: So the question was there are nine advanced technologies, crash avoidance technologies, that are mentioned and there were two others: rear auto braking and pedestrian AEB. And so the difference there, the two, the last two, pedestrian AEB and rear auto braking, are part of the pedestrian rating. So that's the difference.

The others go into a crash avoidance rating, there's a crash avoidance rating, a crash worthiness rating, and a pedestrian rating that all come together into a total rating.

The nine crash avoidance technologies, just -- this is in the notice but if folks want to hear those: forward collision warning, crash imminent braking, dynamic brake support, lower beam headlighting performance, semi-automatic headlamp beam switching, amber rear turn signal lamps, lane departure warning, rollover resistance, and blind spot detection.

Thank you.

MR. TANGIRALA: Ravi Tangirala from Hyundai. Reading the crashworthiness rating system, is there a procedure that came into place? How are we going to -- the weighting between the dummy positions, weighting between test mode to test mode, and also weighting between head/chest within that individual body injury agents?

MR. PARENT: The question was how will the, within the crashworthiness rating system, how will the individual occupation locations or the different test modes be weighted and combined within the crashworthiness rating? We've laid out several options in the RFC that discuss what our thinking is. There could be weighting for each occupant location based on exposure. It could be based on field data that tells us how common certain injuries are. It could be based on the frequency of the crash itself.

We're looking into different options right now. And if you have good ideas, we're, again, we'd really like to hear them in the response to the RFC. We're hoping to finalize that once we have some -- we're doing some pilot testing right now to figure out what our data set that we're working with looks like so we can help finalize how we think it's best to combine the individual test occupants into a single rating.

But we will seriously consider proposals from the industry because we care a lot about what -- how it would affect your end, how -- it effects how you design vehicles, how you prioritize internally; that's important for us to hear.

But from a research side, we do plan on looking at some data from pilot testing to help us decide what type of weighting on the weighting system makes the most sense.

MR. TANGIRALA: Another question on the same thing: One thing that concerns us most is BrIC and oblique. I mean, we share technical data with agency in the past. In the last two years, we weren't able to be in a position to say what is the best system out there that really gives us a good solution for oblique and at the same time -- but still we can do the regulations, LRD's test, and everything else. Is there a plan that, as a community, we all come to a solution first before we move forward and come up with NCAP rating for the oblique --

MR. PARENT: Yeah, the question was effectively in the oblique crash test mode, the industry has been looking at solutions. They don't have a consensus solution right now and they're wondering if there's a process in place to come up with a countermeasure that will best protect documents in the oblique test mode.

I think because so many vehicles perform differently in the oblique mode because it is a constant energy test, that it's hard to come up with a consensus, countermeasures that would work in all cases.

So this is something that we need to look at, the bigger picture. We're currently doing research into what a countermeasure might look like. We probably won't be able to share those results in the same time frame as the RFC. But it's something that we're looking at. It's also possible that the solution might not exist right now, but the problem exists. There are serious injuries and fatalities in the oblique test mode and the oblique real world collision that we need to address.

So whether or not the countermeasure exists on the shelf right now or not, we need to move in that direction to protect occupants in that test condition.

MR. TANGIRALA: One last question on this one: from the CIREN data that was reviewed earlier, the head injuries are not a big concern for oblique as seen in the field cases, when we go to the rating system, will that be taken into consideration when rating individual body regions for oblique and THOR?

MR. PARENT: The question was looking at the CIREN data that was presented in the RFC, head injuries were a low percentage compared to some of the other injuries such as chest and lower leg, will that be accounted for in the rating system.

As I mentioned, we are looking at different ways to weigh, maybe different body regions, maybe different injury modes, incorporating field data. Now that might not just include incidents, it might include severity as well. So if you have a low percentage of head injuries but those head injuries are very severe, we need to make sure our rating system accounts for that.

So again, we're looking into weighting based on field data. Incident of injury is one of the important aspects of severity, but we plan on looking more into that and using that to develop a final rating system. And we welcome your comments on -- your recommendations on ways to address that.

Thank you.

MR. POSTEN: Thank you, everybody. It's 11 o'clock. If you haven't registered with Melanie, I would ask that you do before you leave as well. Thanks for coming. If we see you in Washington, we appreciate your comments as we consider them in moving forward in this very important safety initiative.

Thank you.

(Thereupon, the proceedings concluded at 11:07 a.m.)