Future Truck Committee
Information Report: 2013-3

Regulatory and Technological
Challenges and Future Trucks: A Call to Action

Developed by the Technology & Maintenance Council’s (TMC)
Far Horizon’s Subcommittee of TMC’s Future Truck Committee

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ABSTRACT
ATA’s Technology & Maintenance Council (TMC) strives to be the industry thought leader on
issues of truck technology and maintenance. As the only industry association that is focused
solely on truck technology and maintenance, TMC and its member companies work together
with manufacturers and other industry stakeholders to create the industry’s standards for future
truck technology and equipment that help ensure that the truck of the future is one that is the
most efficient to operate and maintain. The Council’s Future Truck Committee is responsible
for this initiative within TMC.

Under TMC’s Future Truck Committee, the Far Horizon Subcommittee is charged with examining
and determining equipment user needs more than 10 years in the future. This report presents
two items of importance for TMC leadership, study groups and task forces to consider:
• A time line of confirmed and anticipated regulatory changes through 2025.
• A list of technology advancements, challenges and opportunities that will likely influence
  future truck designs through 2025 and beyond.

BACKGROUND
Deregulation of the trucking industry occurred just over 30 years ago. Our industry has un-
dergone significant change in that time as regulations, technology and the movement
of freight have changed. Even if we consider the regulations for emissions of diesel en-
gines starting in 1991 — just over 20 years ago — the changes are immense. The last 10
years have seen four rounds of emissions and fuel economy regulations — 2004, 2007, 2010
and now, 2014. Safety systems have become mandatory. And, the pace of change for the
future shows no signs of abatement as we
see additional regulations for safety and fuel economy, recorders for hours of service and event data, remote diagnostics, driver shortages and decaying road infrastructure.

Now is an opportune time to re-establish the industry’s expectations for future vehicles and processes. From November 2012 through August 2013, TMC surveyed fleets for their expectations/desires for vehicles, vehicle maintenance, vehicle design, and transport processes for the year 2025. This survey marks the first step in our efforts in preparing needs assessment statements to manufacturers based on user input.

At the Society of Automotive Engineers’ (SAE) 2013 Commercial Vehicle Engineering Congress this past October, TMC was invited to participate in an executive panel on “Designing Tomorrow’s On/Off-Road Tractors.” This session featured engine specialists, vehicle manufacturers and fleet representatives who shared their perspectives on the next generation of equipment. Looking forward, at the ATA Technology Summit in December 2013, the industry will hear from Google, telematics suppliers, futurists, fleets and vehicle OEMs.

During 2014 and early 2015, TMC must set new goals for the future of trucking. The participation of the Study Groups is crucial to creating a vision that is all encompassing for the trucking industry. Each TMC Study Group should support this initiative by leading and supporting a Task Force within TMC’s Future Truck Committee to develop a position paper on items of importance to its members. These papers are to be finalized and published/released by TMC’s 2015 Fall Meeting.

To help TMC’s Study Group leadership in this process, we provide several materials for consideration:

- A timeline of confirmed and anticipated regulatory changes through 2025. (See Appendix.) If you know of other changes, please let us know.
- A list of technology advancements, challenges and opportunities that will likely influence future truck designs through 2025 and beyond. The basis for this spreadsheet began by reviewing all of the public information being discussed for future regulations for greenhouse gas (GHG) regulations including improvements in fuel efficiency. Please consider this a starting point. (See Appendix.)
- A chart from the recently published American Transportation Research Institute (ATRI) survey conducted each year on issues of top concern to fleet management. (See Figure 1.)

![Figure 1: Distribution of Industry Issue Prioritization Scores](image)

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2 In December 2007 FMCSA issued an interim final rule that retained the 11th hour and 34-hour restart. The interim final rule can be viewed online: [http://www.fmcsa.dot.gov/rules-regulations/administration/rulemakings/Interim/ET-24238-HOS-IFR-12-17-07.htm](http://www.fmcsa.dot.gov/rules-regulations/administration/rulemakings/Interim/ET-24238-HOS-IFR-12-17-07.htm)
ACTION ITEMS

1. We suggest each Study Group meet by phone/web between now and TMC’s 2014 Annual Meeting to create a list of 10 critical items for the future in their study group.
2. We also suggest a phone/web meeting of all Study Group chairmen with the Future Truck Committee prior to TMC’s 2014 Annual Meeting to review the 10 items from each group. This will allow each Study Group to provide input to the others.
3. Then, at TMC’s 2014 Annual Meeting, the Future Truck Committee will create task forces as needed, supported by Study Group volunteers and liaisons, to develop draft position papers based on each Study Group’s list by TMC’s 2014 Fall Meeting.

APPENDIX

• A time line of confirmed and anticipated regulatory changes through 2025 can be accessed at the following link:
  http://www.trucking.org/ATA%20Docs/About/Organization/TMC/Documents/regulations.xls

• A list of technology advancements, challenges and opportunities that will likely influence future truck designs through 2025 and beyond can be accessed at the following link:
  http://www.trucking.org/ATA%20Docs/About/Organization/TMC/Documents/technologies.xls