ELECTRIFYING PERFORMANCE IN MAINTENANCE MANAGEMENT

TMC puts you in touch with the industry’s top trucking technical professionals and fleet decision makers.

tmcannual.trucking.org
Electrifying Performance in Maintenance Management
at TMC’s Annual Meeting & Transportation Technology Exhibition!

Comprised of a broad cross-section of experienced fleets, equipment suppliers and service providers, no other industry trade association can match the real-world experience and technical expertise of TMC’s membership. By providing leadership support and opportunities to collaborate, TMC helps members develop the industry’s best practices that address the critical truck technology and maintenance issues that have the greatest impact on truck fleets.

Where Industry Solutions Are Forged
More than just a trade show, TMC is home to trucking’s leading fleet professionals, vehicle manufacturers, and component suppliers. It is the industry’s leading forum for getting things done collaboratively. From brakes to bearings, from scanners to software, ATA’s Technology & Maintenance Council’s (TMC) Study Groups and Task Forces cover it all.

Best Educational Program Available
Whether your interest is staying current on equipment, maintenance or technology issues, there’s no better venue than TMC meetings to catch up on industry-specific news. This year TMC is holding sessions with a special emphasis on fuel efficiency and the U.S. Department of Energy’s SuperTruck program, as well as a special track dedicated to electric vehicle issues (see pages 8-13 for details.)

History of Cooperative Development
TMC is a place for serious work, and our dedication to the cooperative development of voluntary industry best practices is evident through the publication of the Council’s recommended engineering and maintenance practices adopted by industry. These practices represent 65 years of industry knowledge. Today, TMC’s growth and strength comes from its pioneers and visionaries who have dedicated much of their lives to the Council.

Maximize Your Membership—Attend TMC’s Annual Meeting!
If you’re a TMC member, or your company is an ATA member, you are part of an important team dedicated to improving our industry in a way that no other group can. But if you haven’t attended TMC’s Annual Meeting and Transportation Technology Exhibition before, you’re missing out on an important aspect of TMC/ATA membership. Annual Meeting veterans will attest that attending TMC meetings maximizes their membership investment. It enables both fleets and suppliers to make personal contact with an incredible cross-section of the industry’s most important and influential equipment and technology specialists, putting you in touch with North America’s top technical professionals and fleet decision makers.

If you’re not a TMC member, come see what you’re missing. Everyone is welcome at TMC’s 2022 Annual Meeting & Transportation Technology Exhibition!

“I have been coming to TMC for 10 years and every meeting has been something I’ve cherished. I have learned something from each meeting—either in the form of people, processes, or new technology. You can only be a successful supplier if you know not only your product, but the industry in full. It is very clear to me why trucking is important. It is more important now than ever before.”

Abhishek Bharadwaj,
National Fleet Sales Manager,
Alcoa Wheels
**Trailblazers in Thought Leadership**

For fleets, this means having direct access to information on equipment and technology specifications and maintenance best practices. At TMC, equipment and technology professionals can:

- Attend the industry's most innovative educational sessions covering all aspects of vehicle maintenance and design. Planned by fleets, for fleets.
- Gain and share information with hundreds of your peers at TMC’s Shop Talk, a free-form discussion on equipment issues.
- Resolve troubling equipment issues at TMC’s Town Meeting and Fleet Operators’ Forum.
- Participate in voluntary standards-setting efforts through TMC’s Study Groups and Task Forces, which are tackling important issues such as wheel end thermal events, electric vehicle standardization and emerging onboard technologies.
- Witness and participate in the most informative technical event — TMC’s Transportation Technology Exhibition. TMC’s exhibition makes available to attendees the best minds on equipment issues in the trucking industry. This year’s exhibit features a special Electric and Automated Vehicle Technology Pavilion; and a “ride and drive” showcase (see page 15 for details).
- Participate in TMC’s Future Truck Initiative. As the only industry association that is focused solely on truck technology and maintenance, TMC and its member companies work together with OEMs 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.

**What’s more — it’s the industry’s best meeting value proposition!**

Where else can you get access to all this information? We even include a host of meals during the week — a big savings for budget-conscious fleets. Here’s what you get for your full meeting registration:

- Access to more than a dozen educational sessions, including Shop Talk
- Entrance to ‘Trucking’s Complete Technology Tradeshow’
- Chance to participate in over 100 industry task forces
- Three breakfast events
- Two luncheon events
- Two evening receptions
- TMC’s Annual Banquet
- TMC’s Fleet Operators’ Forum
- Unequalled networking opportunities
- Access to the industry’s best technical experts

Fleet or supplier, TMC offers so much for you. We’re North America’s premier technical conference for trucking, and it’s an event you simply must attend to stay current on industry practices.

There’s simply no other venue that offers so much information on how to maximize fleet performance and efficiency. It’s your one-stop shop for fleet education, supported by the industry’s only user-driven best practices.

At TMC, we’re electrifying performance in maintenance management, and we look forward to seeing you in Orlando this March!
### Annual Meeting Schedule

#### Saturday, March 5
- **9 am – 4 pm**
  - Group Think Tank — Critical Problem Solving Training Class (tentative; seats are limited)

#### Sunday, March 6
- **8 am – 5 pm**
  - Registration/Welcome & Help Desk Open
  - Exhibit Setup

- **9 – 9:30 am**
  - New Directors Meeting (Closed)

- **9:30 – 10 am**
  - TMC Officers Meeting (Closed)

- **10 – 11 am**
  - Future Truck Committee Meeting

- **10 – 11 am**
  - Member Outreach Committee Meeting

- **11 am – Noon**
  - Strategic Planning Committee Meeting (Closed)

- **11 am – Noon**
  - Future Truck Task Force Leadership Meeting (Closed)

- **11 am – Noon**
  - Technician and Educator Committee Meeting

- **12:15 – 2:15 pm**
  - Study Group Business Sessions

- **2:30 – 4 pm**
  - Study Group Sessions:
    - **S.2** — How to Defend Your Fleet From Tire and Wheel Related Litigation: A Mock Trial
    - **S.4** — Effective Training Techniques for In-Cab Devices and Technologies
    - **EV Track Session** — Recommendations for Developing Charging Station Infrastructure for Commercial Fleet Operations

- **4:15 – 5:45 pm**
  - Study Group Sessions:
    - **S.16** — Proper Vehicle Lifting Procedures and Techniques
    - **S.12** — ELD Malfunctions: Maintenance or Operations Issue?
    - **EV Track Session** — How to Specify Electric Vehicles for Commercial Fleet Operations

- **6:45 am – 5 pm**
  - Fleet Talk (Fleets Only)

- **4 – 5 pm**
  - Full Associates Meeting (Associates & Service Providers Only)

- **5:15 – 6:30 pm**
  - Town Meeting & Fleet Operators’ Forum

- **6:45 – 9:15 pm (2.5 hours)**
  - Exhibition Viewing

- **7 – 8 pm**
  - TMC Leaders of Tomorrow Social & Networking Event

#### Monday, March 7
- **6:45 am – 7:30 am**
  - Breakfast Buffet

#### Tuesday, March 8
- **6:45 am – 5 pm**
  - Registration/Welcome & Help Desk Open

- **4 – 5 pm**
  - TMC Kickoff Breakfast

- **8:30 – 10 am**
  - Technical Session #1: TMC/SAE Symposium — Latest Findings from DOE’s SuperTruck 2/3 Program

- **10:15 am – 2:15 pm (4 hours)**
  - Walk-Around Luncheon, Coffee Break and Exhibition Viewing

- **2:30 – 4 pm**
  - Study Group Sessions:
    - **S.10** — New Fleet ELDs: Impact on Your Shop’s Work Order
    - **S.11** — What’s the New MPG Metric for Electric Vehicles and What Influences It? (EV Track)

- **4:15 – 5:45 pm**
  - Study Group Sessions:
    - **S.1** — The Electrified Battery — What Fleets Need to Know (EV Track)
    - **S.7** — Effective Preventive Maintenance for Your Material Handling Equipment

- **6:15 – 7:15 pm**
  - Silver Spark Plug Reception (Closed)

- **7 – 10:30 pm**
  - Annual Reception/Banquet

#### Wednesday, March 9
- **6:30 – 7 am**
  - Coffee Service

- **6:30 am – 5 pm**
  - Registration/Welcome & Help Desk Open

- **7 – 8:30 am**
  - Shop Talk and Fleet Operators’ Forum Wrap-up

- **8:30 am – 12:30 pm (4.5 hours)**
  - Final Exhibit Viewing Period Walk-Around Breakfast & Coffee Break

- **1 – 2 pm**
  - Board of Directors Meeting (Closed)

#### Thursday, March 10
- **7 – 8 am**
  - Buffet Breakfast

- **7 – 8 am**
  - Recognized Associate Meeting (Closed)

- **7 am – Noon**
  - Welcome & Help Desk Open

- **7 am – 3 pm**
  - Exhibit Teardown

- **8 – 9:30 am**
  - Technical Session #3: The Ins and Outs of Your Shop: When to Keep Maintenance In-House or Send It Out

- **9:30 – 9:45 am**
  - Coffee Break

- **9:45 – 11:15 am**
  - Management Session: Powerful Business Presentations: How Engineers & Technical Experts Can Win Their Audience Everytime

- **Noon – 1 pm**
  - Admin. Wrap-up Meeting (Closed)

- **1 – 2 pm**
  - Board of Directors Meeting (Closed)

**Note:** (subject to change)
Annual Meeting Schedule Overview

**TMC Returns to Orlando!**

Join us in Orlando for TMC’s 2022 Annual Meeting & Transportation Technology Exhibition. We’re returning for the first of a two-consecutive year engagement at the Orange County Convention Center, which concludes in 2023.

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**SUNDAY**

- TMC Leadership and Press Conference Day. This is when TMC holds its organizational meetings and press conferences held for the trade press and media.
- NOTE: Additional press conferences will be held during specified exhibit viewing times on Monday, March 7 and Tuesday, March 8 — if needed.

**MONDAY (meeting officially starts)**

- Task Force Day. TMC Task Forces are held from 8 am – 4 pm.
- First-Time Attendee and New Member orientations held at 7 am and Noon.
- Monday concludes with TMC’s Town Meeting/Fleet Operators’ Forum and TMC’s Exhibit Grand Opening.

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**TUESDAY**

- Educational Sessions begin.
- TMC Kickoff Breakfast starts at 6:45 am.
- Walk-around Luncheon and Exhibition Viewing runs from 10:15 am – 2:15 pm.

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**WEDNESDAY**

- Educational Sessions continue.
- TMC’s Shop Talk and Fleet Operators’ Forum Wrap-up runs from 7 – 8:30 am.
- TMC’s final exhibit viewing period runs from 8:30 am – 12:30 pm.
- Industry Awards Luncheon takes place from 12:45 – 2:15 pm.
- Our Annual Reception and Banquet takes place 7-10:30 pm.

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**THURSDAY**

- Management and other Technical Sessions take place Thursday morning.
- NATMI Certification Classes held.

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**TMC Leaders of Tomorrow**

The TMC Leaders of Tomorrow program is open to “up-and-coming” fleet maintenance professionals in their early 40s or younger and/or who have a minimum of five years’ experience working in the trucking industry. Participants must be TMC members and attend four consecutive TMC general meetings (our Annual and Fall Meetings) within a two-year period. During these meetings they must attend all Technical Sessions, several Study Group Mini-Tech sessions, all Study Group meetings to which they are assigned, attend all TMC Leaders of Tomorrow training sessions and events scheduled during the TMC general meetings, complete and pass online TMC exams, and participate as judges during the Fall TMCSuperTech Competitions.

Candidates have to be nominated by a direct supervisor or company executive who must complete a TMC Leaders of Tomorrow Nomination Form that can be found on TMC's website [http://tmc.trucking.org](http://tmc.trucking.org). A nominee's professional resume and letter of recommendation must be included with the completed Nomination Form and submitted to TMC staff. TMC’s 2022 Annual Meeting will celebrate the graduation of our fourth TMC Leaders of Tomorrow class at our Wednesday Industry Awards Luncheon. Two other classes in training will also meet during TMC’s 2022 Annual Meeting. Schedule details will be sent directly to class members prior to the event.

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TMC is working closely with the Orange County Convention Center and our partner hotels to help ensure the health and safety of all meeting participants. TMC will be implementing appropriate measures including social / physical distancing, sanitation and cleaning protocols and other actions as per OCCC guidelines.

For full details on the safety precautions being implemented for TMC’s 2022 Annual Meeting, go to the TRAVEL tab at our event microsite — [http://tmcannual.trucking.org](http://tmcannual.trucking.org).
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<tr>
<td>Future Electrical/Electronic Systems (Joint Future Truck/S.1)</td>
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<tr>
<td>Fifth Wheel Ground Strap Maintenance Guidelines</td>
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<tr>
<td>Electrical Diagnostics Incorporating Lab Scopes</td>
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<tr>
<td>Advanced Battery Technology</td>
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<tr>
<td>Integrated Starting &amp; Charging</td>
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<tr>
<td>Next Generation Tractor-Trailer Interface</td>
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<tr>
<td>RP 177 Update (Solar Power for Commercial Vehicles)</td>
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<td>RP Updates (S.1)</td>
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<td><strong>S.2 Tire &amp; Wheel</strong>—Chairman: Todd Stout</td>
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<td>RP Updates (S.2)</td>
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<tr>
<td>Use of Telematics for ATIS and TPMS</td>
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<tr>
<td>Considerations for Tires on Commercial Electric Vehicles (Joint S.2/S.18 in S.2 room) <strong>NEW</strong></td>
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<tr>
<td>Tire Maintenance Considerations for Light Commercial Vehicles (Joint S.2/S.14 in S.2 room) <strong>NEW</strong></td>
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<tr>
<td>Tire Conditions Analysis Guide for Light Commercial Vehicles (Joint S.2/S.14 in S.2 room) <strong>NEW</strong></td>
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<tr>
<td><strong>S.3 Engine</strong>—Chairman: Bryan Stewart</td>
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<td>RP Updates (S.3)</td>
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<tr>
<td>LNG/CNG Post-Collision and Thermal Events</td>
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<tr>
<td>RP 317B Update (Fuel/Water Separating Devices) <strong>NEW</strong></td>
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<tr>
<td>RP 341A Update (Diesel Fuel Additives) <strong>NEW</strong></td>
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<tr>
<td>Coolants for Electric Vehicles (Joint S.3/S.18 in S.3 room) <strong>NEW</strong></td>
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<tr>
<td>Lubrication for Electric Vehicles (Joint S.3/S.18 in S.3 room) <strong>NEW</strong></td>
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<tr>
<td>Leak Detection by Visible Vapor for Electric Vehicles (Joint S.3/S.18) <strong>NEW</strong></td>
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<tr>
<td><strong>S.4 Cab &amp; Controls</strong>—Chairman: Mark Kennedy</td>
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<td>RP Updates (S.4)</td>
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<tr>
<td>RP 417/435 Update (Tractor-to-Trailer Air/Electric Lines)</td>
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<td>RP 430 Update (Guidelines for Collision Warning)</td>
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<tr>
<td>RP 442A Update (Standardization of Speedometer and Tachometer Signaling)</td>
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<td>Odometer Synchronization</td>
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<tr>
<td>RP 443 Update (In-Cab Cleaning &amp; Deodorizing Guidelines)</td>
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<tr>
<td>RP 404B Update (Truck &amp; Truck Tractor Access Systems) <strong>NEW</strong></td>
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<tr>
<td>In-cab Gas Detectors</td>
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<tr>
<td>Conversion of Rear View Mirrors to Cameras</td>
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<tr>
<td><strong>S.5 Fleet Maintenance Management</strong>—Chairman: Amanda Schuier</td>
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<tr>
<td>RP Updates (S.5)</td>
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<tr>
<td>RP 511/RP 520 Update (Refrigerant Recovery and Flushing)</td>
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<tr>
<td>Technician Apprenticeship Standards</td>
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<tr>
<td>Technician Training for Advanced Driver Assistance Systems (ADAS)</td>
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<tr>
<td>Hiring Military Personnel</td>
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<tr>
<td>Cybersecurity Issues</td>
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<tr>
<td>RP 518A Update (Fuel Station Planning)</td>
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<td>Health Ready Components Standards</td>
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<tr>
<td>VMRS Codes</td>
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<tr>
<td><strong>S.6 Chassis &amp; Brake Systems</strong>—Chairman: Joey Young</td>
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<tr>
<td>RP Updates (Brake-Related RPs)</td>
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<tr>
<td>RP Updates (Chassis-Related RPs) <strong>NEW</strong></td>
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<tr>
<td>Towing Electric Vehicles</td>
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<tr>
<td>RP 648 Update (Troubleshooting Ride Complaints)</td>
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<tr>
<td>RP 652 (Air Disc Brake Service/Inspection)</td>
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<tr>
<td>Wheel End Thermal Events (Joint S.6/S.17 in S.6 room)</td>
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<tr>
<td><strong>S.7 Trailers, Bodies &amp; Material Handling</strong>—Chairman: Richard Brown</td>
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<tr>
<td>RP Updates (S.7)</td>
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<tr>
<td>Van Trailer Washing Procedures and Testing</td>
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<tr>
<td>Brake-Activated Pulsating Lamps</td>
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<tr>
<td>Upper Coupler and Kingpin Repair</td>
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<tr>
<td>Next Generation Trailer Electrical Architecture</td>
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<tr>
<td>Wheel End Thermal Events (Joint S.6/S.17 in S.6 room)</td>
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<tr>
<td>RP 755A Update (Alternative Liftgate/Material Handling Charging Methods) <strong>NEW</strong></td>
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### Task Force Schedule

#### S.11 Sustainability & Environmental Technology—Chairman: Ken Marko

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<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
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</thead>
<tbody>
<tr>
<td>8 – 9 am</td>
<td>A. Winfield</td>
<td>RP Updates (S.11)</td>
</tr>
<tr>
<td>9 – 10 am</td>
<td>B. Wilson</td>
<td>RP 1109B Update (Type IV Fuel Economy Test Procedures)</td>
</tr>
<tr>
<td>10 – 10:30 am</td>
<td>P. Seeberg</td>
<td>Electric Terminal Tractor Implementation Considerations</td>
</tr>
<tr>
<td>10:30 – 11:30 am</td>
<td>K. Marko</td>
<td>Understanding Electric Vehicle Efficiency Performance NEW</td>
</tr>
<tr>
<td>11:30 am – Noon</td>
<td>K. Otto</td>
<td>Energy Conservation/Industry Sustainability Update</td>
</tr>
<tr>
<td>1 – 2 pm</td>
<td>K. Marko</td>
<td>Roadmap for Electric Infrastructure (Joint S.11/S.18 in S.11 room)</td>
</tr>
<tr>
<td>2 – 3 pm</td>
<td>J. Gerrity</td>
<td>Study Group Planning Session (Closed)</td>
</tr>
<tr>
<td>3 – 4 pm</td>
<td>K. Marko</td>
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#### S.12 On-Board Vehicle Electronics—Chairman: Vince Vanszl

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<tr>
<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
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</thead>
<tbody>
<tr>
<td>9 – 10:30 am</td>
<td>K. DeGrant</td>
<td>RP Updates (S.12)</td>
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<tr>
<td>10:30 – 11 am</td>
<td>V. Vanszl</td>
<td>RP 1226 Messaging Standardization</td>
</tr>
<tr>
<td>11 am – Noon</td>
<td>B. Gardiner</td>
<td>Open Telematics API</td>
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</table>

#### S.14 Light- & Medium-Duty / Specialty Trucks—Chairman: Joe Farke

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<thead>
<tr>
<th>Time</th>
<th>Speaker</th>
<th>Topic</th>
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</thead>
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<tr>
<td>9 – 10 am</td>
<td>A. Williamson</td>
<td>ePTO and Hybrid Auxiliary Systems for Work Trucks</td>
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<tr>
<td>10 – 11 am</td>
<td>J. Walborn</td>
<td>RP Updates (S.14)</td>
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<tr>
<td>11 am – Noon</td>
<td>G. Parman</td>
<td>Lumen Ratings Definition for White LED Worklamps</td>
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<tr>
<td>1 – 2 pm</td>
<td>J. Farke</td>
<td>VMRS Code Development for Specialty Vehicles</td>
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<tr>
<td>2 – 3 pm</td>
<td>K. Calhoun</td>
<td>Vocational Duty Cycles for Aftertreatment Systems</td>
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<tr>
<td>3 – 4 pm</td>
<td>B. Raybuck</td>
<td>RP 1432 Update (Truck Body Safety Features)</td>
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#### S.16 Service Provider—Chairman: Homer Hogg

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<tr>
<th>Time</th>
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<th>Topic</th>
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<tbody>
<tr>
<td>10 – 11 am</td>
<td>J. Sulser/J. Sullivan</td>
<td>Service Provider Standards of Excellence</td>
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<tr>
<td>11 am – Noon</td>
<td>E. Erdmann</td>
<td>Uptime Through Digital Exchange and Management</td>
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<tr>
<td>1 – 2 pm</td>
<td>R. Pop</td>
<td>Proper Vehicle Lifting Procedures and Equipment</td>
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<tr>
<td>2 – 3 pm</td>
<td>J. Gingrich/D. Will</td>
<td>Implementing TMC RPs in Fleet &amp; Service Provider Operations</td>
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<tr>
<td>3 – 3:30 pm</td>
<td>M. Jablon</td>
<td>When to Trade or Keep a Vehicle (Joint S.5/S.16 in S.16 room) NEW</td>
</tr>
<tr>
<td>3:30 – 4 pm</td>
<td>P. Savage</td>
<td>Service Provider Standards of Excellence</td>
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#### S.17 Collision and Corrosion—Chairman: Chris Sterwerf

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<tr>
<th>Time</th>
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<tr>
<td>9 – 10 am</td>
<td>J. Kolea</td>
<td>Refinishing to Maximize Adhesion</td>
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<tr>
<td>10 – 11 am</td>
<td>S. Schwartz</td>
<td>Frame Correction</td>
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<tr>
<td>11 am – Noon</td>
<td>C. Sterwerf</td>
<td>Heavy-Duty Collision Repair Roadmap</td>
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<td>1 – 2 pm</td>
<td>C. Sterwerf</td>
<td>Corrosion Manual Update</td>
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<tr>
<td>2 – 3 pm</td>
<td>B. Herrington</td>
<td>Corrosion of Non-Ferrous Materials on Chassis &amp; Suspension</td>
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<td>3 – 4 pm</td>
<td>T. May</td>
<td>Cab &amp; Control Corrosion Control</td>
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#### S.18 Automated & Electric Vehicles—Chairman: Kyle Mitchell

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<th>Time</th>
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<tr>
<td>8 – 9 am</td>
<td>A. Pandy</td>
<td>Automated Vehicles</td>
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<tr>
<td>9 – 9:30 am</td>
<td>C. Shah</td>
<td>ADAS Nomenclature (Joint S.5/S.18 in S.18 room)</td>
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<tr>
<td>9:30 – 10:30 am</td>
<td>K. Otto</td>
<td>Electrified Vehicle</td>
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<tr>
<td>10:30 – 11:30 am</td>
<td>C. Shah</td>
<td>ADAS Selection and Specification</td>
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<tr>
<td>11:30 am – 12:30 pm</td>
<td>R. Bishop</td>
<td>Platooning</td>
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<td>12:30 – 1 pm</td>
<td>N. Ball</td>
<td>Electric Vehicle Pre-Trip Inspection</td>
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<tr>
<td>1 – 2 pm</td>
<td>D. Goff</td>
<td>Automated Truck Inspection and Enforcement</td>
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<tr>
<td>2 – 3 pm</td>
<td>J. Gerrity</td>
<td>Roadmap for Electric Infrastructure (Joint S.11/S.18 in S.11 room)</td>
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<tr>
<td>3 – 4 pm</td>
<td>M. Williams/C. McQuillen</td>
<td>Electrified Vehicle Technician Training</td>
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#### Technician and Educator Committee—Chairman: David Kegley

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<tr>
<td>8 – 9 am</td>
<td>G. Arrants</td>
<td>Educator Involvement</td>
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<td>9 – 10 am</td>
<td>E. Brennan</td>
<td>Future Technician Scholarships</td>
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<td>10 – 11 am</td>
<td>B. Karim</td>
<td>Fostering State Competitions</td>
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<tr>
<td>11 am – Noon</td>
<td>R. Patterson</td>
<td>Technician Skills Competitions</td>
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<tr>
<td>Noon – 1 pm</td>
<td>J. Werner</td>
<td>Progression from Technician to Instructor</td>
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<td>1 – 3 pm</td>
<td>J. Werner</td>
<td>Curriculum Development</td>
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<tr>
<td>3 – 4 pm</td>
<td>J. Werner</td>
<td>Entry-Level Technician Training for Electric Vehicles</td>
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#### Future Truck Committee—Chairman: Anthony Marshall

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<td>A. Lesesky</td>
<td>Future Electrical/Electronic Systems (Joint S.1/FT in S.1 room)</td>
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<td>9 – 10 am</td>
<td>C. Lee</td>
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<td>D. Shy</td>
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<td>M. Johnston</td>
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<td>W. Stegall</td>
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<td>E. Benge</td>
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For more information, visit TMCANNUAL.TRUCKING.ORG
Technical Sessions

Technical Session #1

TMC/SAE Symposium — Latest Findings from DOE’s SuperTruck 2/3 Program

A TMC’s Technology & Maintenance Council (TMC) and SAE International are once again teaming up to present the TMC/SAE Symposium, which this year is focusing on the latest findings from the U.S. Department of Energy’s (DOE) SuperTruck II program, as well as offering a sneak peek at what industry can expect from the soon-to-launch SuperTruck III.

The Symposium will feature presentations by advanced engineering executives from the major project teams and lead OEMs: Navistar, Volvo, Cummins/Peterbilt, and Daimler. Following this plenary session, attendees will be able to ask additional questions, “kick the tires” and examine the advanced technologies on TMC’s exhibit floor where SuperTruck II vehicles and related technologies will be on display in a special pavilion.

The 21st Century Truck Partnership (21CTP) is a focal point for the project, coordinating the efforts of four federal agencies, 15 OEMs, and various component suppliers with the common goal of making trucks safer, cleaner, and more fuel efficient. Primary funding comes from DOE which supports four OEM teams in the development of Class-8 tractor-trailer systems to demonstrate improvements in freight efficiency over production vehicles. During our session, these development teams will present their design strategies and performance results and discuss the efficient optimized powertrains, advanced aerodynamics, and many other features that are moving into production.

The goals for SuperTruck II were ambitious, which challenged Daimler, Volvo, Cummins/Peterbilt, Navistar and PACCAR to demonstrate a 55 percent engine brake thermal efficiency (BTE) at 65 mph — five percent higher than SuperTruck I.

Other targets included a greater than 100 percent improvement in vehicle freight efficiency (on a ton-mile-per-gallon basis) relative to a 2009 baseline for a long-haul freight application, and the development of cost-effective efficiency technologies. All teams proposed freight efficiency targets ranging from 120 to 140 percent improvement, and will share their results with attendees.

Panelists will also shed light on what to expect from SuperTruck III, which DOE is providing more than $160 million in funding for projects to electrify medium- and heavy-duty freight trucks, boost vehicle efficiency, and expand electric vehicle infrastructure. The funding focuses on a range of approaches to electrification—all-electric, plug-in hybrid systems using renewable biofuels, and hydrogen and fuel cell technologies, including hybridization strategies such as fuel cell range extenders.

Attend this session and learn what progress has been made for the next generation of truck technology, and what plans are in the works to aggressively cut down carbon emissions by 2050 to bring commercial vehicles to a net-zero state.

Technical Session #1
Tuesday, March 8
8:30 – 10 am

Technical Session #2

Development of a Trucking Fleet Concept of Operations (CONOPS) for Managing Automated Driving System-Equipped Trucks in Mixed Fleets

Manufacturers and suppliers have been rapidly developing and testing automated driving systems (ADS) for use in commercial vehicles in recent years. However, other stakeholders in the road freight ecosystem — such as fleets, shippers, brokers, state governments, and service and maintenance providers — do not have a clear picture of how ADS will fit into their daily operations. At present, technical progress in this promising technology is outpacing the inability of truck fleets to plan for ADS deployment. This adversely affects adoption by truck fleets and associated industries, resulting in the delayed realization of safety, productivity, and efficiency benefits of ADS-equipped trucks. If ADS is to gain traction in the U.S. trucking industry, current stakeholders and new entrants need a rigorous, data-driven Fleet Concept of Operations (or CONOPS).

A CONOPS is a comprehensive document that describes the ADS characteristics from the viewpoint of the truck fleet managers and executives that will implement ADS-equipped trucks. As fleet managers and trucking executives have asked, “How can I integrate ADS into my fleet operations?” The purpose of the CONOPS is to provide fleets, and those that work with fleets, with a “how-to” manual to support the integration of ADS technology into their existing operations.

In September 2019, the U.S. Transportation Secretary Elaine L. Chao announced grant funding award recipients for the Automated Driving Systems (ADS) Demonstration Grant Notice of Funding Opportunity. The Virginia Tech Transportation Institute (VTTI) was the recipient of one such grant award that focused on developing a CONOPS in truck fleet operations. The proposed CONOPS will have multiple “pillars.” Each pillar represents an essential component in the ADS ecosystem that will need to be addressed as part of the implementation of ADS-equipped trucks.

During this session, panelists will address key CONOPS pillars including:

- ADS Installation and Maintenance Guide for Fleets
- ADS Inspection Procedures
- Driver-Monitor Alertness Management
- Motor Carrier Guide to Insuring ADS
- ADS Safety Metrics/Variables
- ADS Road Readiness Guide
- Data Security/Transfer Protocol
- Cybersecurity Documentation

Attend this session and learn the latest about this emerging project and how it will impact your company’s operations.

Technical Session #2
Wednesday, March 9
2:30 – 4 pm
Technical Session #3
The Ins and Outs of Your Shop: When to Keep Maintenance In-House or Send It Out

Fleets are always looking for more cost-efficient and productive ways of performing maintenance. To this end, many fleets are turning to outsourcing and co-sourcing arrangements for this important function. As a result, service providers are finding a greater need to accumulate and share performance data with customers, and fleets are looking to optimize the client-vendor relationship through better communication, information exchange, consistency and accountability—in accordance with agreed upon standards.

Many things can influence a fleet’s outsourcing decision. For example:
- How does your technicians’ compensation package and productivity compare to potential outsourcing cost and productivity?
- Can your potential service provider offer the same level of detail when it comes to maintenance reporting and does it leverage industry standards such as the Vehicle Maintenance Reporting Standards (VMRS)?
- Can your operation’s technician training program generate skill levels that meet or exceed that of a potential outsource partner?
- What is your potential outsourcing supplier(s) capability of performing complete or partial process management as compared to your own operation?
- How do your fleet expectations and any relevant customer requirements match up with a third-party service provider’s ability to perform services in a timely manner?
- How does your operation’s service truck capabilities and equipment match up against a potential third-party service provider’s capabilities and equipment?

During this session, an expert panel will discuss all the factors that go into deciding whether to keep maintenance functions “in-house” or outsource to third-party service provider. With the ever-growing complexity of commercial vehicle equipment and increasing struggle attracting and retaining technicians, even historically 100-percent in-house maintenance fleets are reconsidering their approaches to maintaining their next generation of vehicles.

Technical Session #3
Thursday, March 10
8 – 9:30 am

Management Session
Powerful Business Presentations: How Engineers & Technical Experts Can Win Their Audience Every Time

Many engineers and technical professionals are experts in their chosen fields, but will candidly admit communicating their knowledge and expertise effectively can be quite challenging. Does this sound familiar? Do you find yourself wishing you could be more effective in delivering presentations?

During this management session, TMC presents proven strategies for preparing powerful business presentations. Communication consultant and coach, Deborah Boswell, designed this class to help anyone who wants to project confidence and credibility when delivering presentations. Boswell presented on this topic at TMC’s 2018 Annual Meeting and received high marks for her impactful insights on how to overcome what for many is their number one fear — public speaking.

Topics covered during this management session will include:
- grabbing your audience with the first words spoken.
- minimizing PowerPoint for maximum impact.
- overcoming fear and shyness associated with public speaking.
- presenting technical information clearly, concisely and persuasively.
- mastering voice projection, articulation, pace, body language, eye contact and gestures.
- using audience involvement techniques to identify and handle questions.

Clear and concise presentations make a positive impact on earning ability and the company bottom line. Attend this session and learn ways to improve your communication skills for personal and business growth.

Thursday, March 10
9:45 – 11:15 am
The Electrified Battery — What Fleets Need to Know

Batteries have been a major component on commercial vehicles since the dawn of trucking. Batteries have seen their fair share of technological advancements, but the revolution that’s now coming thanks to the strong interest in vehicle electrification is unprecedented.

In fact, batteries used in EVs have more in common with their smaller cousins used in smartphones and consumer electronics than trucks. Lithium-ion and nickel-metal hydride batteries are the norm in these applications, because of their high power-to-weight ratio, longer life cycles, temperature performance, efficiency and low self-discharge. Ultracapacitors, while not batteries themselves, may also be used as secondary energy-storage devices because they help the primary batteries level load power.

Not all batteries are alike however, and fleet managers need to know important facts about spec’ing energy storage systems for their new EVs. There’s also the new realities associated with recycling these types of batteries.

Attend this session and learn the important facts you need to know before spec’ing your first fleet of EVs. Panelists will cover battery construction, maintenance, operation, recycling and disposal in this comprehensive session.

How to Defend Your Fleet From Tire and Wheel Related Litigation: A Mock Trial

Maintenance liability litigation is one of those risks that no one wants to think about. But a fleet executive must, because even a squeaky-clean operation can be sued. Knowing the proper steps to take to defend your company can make the difference between staying in business or going under.

At a time when litigation has become America’s favorite pastime, it’s no surprise that both fleet exposure to maintenance liability cases and manufacturer’s exposure to product liability cases have risen dramatically in recent years.

The damage that can result from legal battles can be crippling. How can fleet maintenance managers protect themselves from being the target of a costly lawsuit? What policies should a carrier adopt for protection? In the event of an accident, where does the liability of the fleet end, and that of the manufacturer begin? What questions should a fleet maintenance manager be prepared to answer during an investigation or deposition? What is personal liability?

Hear the answers to these questions and more as a panel of attorneys engage in a mock trial, which will explore some of these issues through a fictional case involving a combination vehicle wheel separation. You’ll be sure to learn some protective measures that can save you and your company a great deal of future anguish when dealing with tire and wheel related litigation.

Effective Training Techniques for In-Cab Devices and Technologies

There seems to be no end to the parade of new in-cab devices and technologies that are being offered to fleet managers today. These various in-cab solutions offer great potential to increase safety and improve productivity, but fleets have to balance their application against their costs of acquisition, maintenance and training.

Training technicians and drivers on how to maintain and use these options most effectively can be a real challenge. How has your fleet fared integrating new technological marvels into your operation?

During this session, our panel of experts will present what they believe to be effective training techniques for a variety of in-cab devices and technologies. Attendees will hear ideas on how fleets and manufacturers are preparing fleet personnel in the face of industry challenges such as:

- workforce turnover (e.g., new drivers and technicians).
- equipment turnover (e.g., new units and components).
- training drivers on differing tractor models.

Panelists will address the following technologies:

- driver and road-facing event recorder cameras.
- speed or idle reduction tech and policy updates.
- converting from mirrors to cameras.

If your fleet is adding new technologies such as advanced driver assistance systems (ADAS), this is a session you must attend.
**S.7 Effective Preventive Maintenance for Your Material Handling Equipment**

Preventive maintenance is the systematic and periodic inspection and servicing of vehicles and their components. The chief purpose of preventive maintenance is to ensure the operation of safe, roadworthy vehicles.

Through timely, quality preventive maintenance inspections (PMI), fleet operators should be able to detect, correct and prevent the development of costly vehicle breakdowns. A quality PMI program should provide fleets with the maximum return on assets by attaining optimum component life of major vehicle systems before failure or replacement.

That logic applies not only to over-the-road vehicles, but also material handling equipment. Downtime on the loading dock is just as important to fleet operations as is roadside breakdowns.

ATA’s Technology & Maintenance Council (TMC) has several recommended practices designed to help users of material handling equipment set up an effective PMI program for these important equipment assets. For example, RP 752A, “Forklift Preventive Maintenance Inspection Guidelines,” is an excellent primer on more than 40 areas involving conventionally powered and electric forklifts. RP 735, “Battery Recommendations For Engine Powered Material Handling Vehicles,” provides recommendations for specifying batteries in engine-powered material handling vehicles. TMC also has a number of RPs that deal with various aspects of liftgate maintenance, inspection, and specification, such as RP 733, “Liftgate Preventive Maintenance Inspection.”

The total preventive maintenance program begins with a properly engineered and specified vehicle for the application at hand. Vehicle condition reports, prognostics, and accurate record keeping practices are also an integral part in managing and scheduling appropriate PMIs and service intervals. Attend this session and learn from experienced fleet managers what you need to know to maximize the uptime and service life of your operation’s material handling equipment.

**S.7 Trailers, Bodies & Material Handling Study Group**  
Wednesday, March 9  
4:15 – 5:45 pm

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**S.11 What’s the New MPG Metric for Electric Vehicles and What Influences It?**

Electric vehicles (EVs) are gaining a great deal of attention in the commercial vehicle sector because of the potential advantages they offer for improved energy efficiency, reduced emissions, and national energy security. EV adoption, however, does present fleet managers a number of challenges, not the least of which is “how do you measure and compare EV energy consumption to conventionally powered trucks and tractors?”

The spectrum of electric vehicle solutions for commercial applications covers a wide range, depending on the vocation and vehicle class. Class 3-6 applications may use hybrid electric or plug-in hybrid electric or all-electric (battery-electric) systems. Larger applications may be all-electric or hydrogen-hybrid electric. We’re all familiar with miles per gallon (MPG) as a common yardstick for comparing fuel economy, but how does it work with EVs?

Energy efficiency for hybrids, plug-in or otherwise, is often measured in terms of miles per gallon of gasoline equivalent (MPGe) but kilowatt-hours (kWh) per 100 miles is also used. Other metrics include miles per kWh or kilometers per kWh.

Actual energy consumption performance depends highly on the load being carried and the duty cycle experienced, much as is the case with conventionally powered vehicles. However, the power curve to “empty” is not as linear with battery-electrics — that is, the drop off in available energy may be greater the closer the battery loses charge.

Attend this session and learn all about the various metrics you’ll be using to measure your EV fleet energy consumption performance. It’s not as straightforward as you think.

**S.11 Sustainability and Environmental Technologies**  
Wednesday, March 9  
2:30 – 4 pm

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“What makes TMC great is the people. We are a people business moving stuff. We compete outside but when we get together at TMC meetings, we roll up our sleeves work side by side to solve the industry’s problems.”

Peter Savage,  
Director of Quality & Implementations,  
Clarke Power Services, Inc.
**Proper Vehicle Lifting Procedures and Techniques**

In today’s increasingly complex work environment, the importance of ergonomics and human factors productivity cannot be overstated. Vehicle lifts improve the working environment by helping fit the job or routine to the technician. Commercial vehicle maintenance operations are having to deal with a maturing workforce in which ergonomics can play a key role in technician retention, and in recruiting experienced technicians where demand far exceeds availability of skilled labor.

Today’s sophisticated shop environment requires fleet managers to pay special attention to employee recruitment and retention, shop efficiency and shop-related injuries. Vehicle lift technologies can assist fleet operations in these critical areas, but equipment users should have a proper understanding of lift procedures and techniques as well as the variety of lift specification options that exist, such as in-ground hydraulic, above-ground fixed, portable or moveable, electric, etc.

During this session, panelists will present the various types of lifting equipment now available to fleets. We’ll cover existing TMC recommended practices that address vehicle lift procedures, as well as new RPs under development. We’ll also demonstrate for attendees proper lifting techniques and simulate vehicle preparation and repair as it pertains to lifting using remote camera feeds live from our exhibit floor.

If you manage a fleet and rely on lifts for your shop, this is a session you won’t want to miss.

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**ELD Malfunctions: Maintenance or Operations Issue?**

Electronic logging devices (ELDs) are an important tool to help commercial vehicle operators comply with federally mandated hours-of-service regulations that improve safety and ensure drivers are well-rested. They help foster a safer work environment for drivers and make it easier and faster to accurately track, manage, and share data on driving and off-duty time.

As with any vehicle system, ELDs can experience malfunctions and data diagnostic events during the normal course of operation. These can include loss of power to the ELD, lack of engine synchronization, timing errors, positioning malfunctions, and more.

Should an ELD malfunction occur, drivers must — among other things — note the occurrence and provide written notice of the malfunction to the motor carrier within 24 hours. Similarly, motor carriers must correct, repair, replace, or service the malfunctioning ELD within eight days of discovering the condition or a driver’s notification to the motor carrier, whichever occurs first; and require the driver to maintain paper record of duty status (RODS) until the ELD is back in service.

When these errors occur, who is ultimately responsible within the fleet — maintenance or operations? The short answer is “it depends.”

Attend this session and learn from our panel of experts when ELD malfunctions should fall within the responsibility of the maintenance department, operations or both.

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**STUDY GROUP BUSINESS SESSIONS**

Several TMC Study Groups will not hold separate educational sessions at TMC’s 2022 Annual Meeting, but they still need your input. Study Groups S.3 Engine, S.5 Fleet Maintenance Management, S.6 Chassis & Brake Systems, S.14 Light- & Medium-Duty and Specialty Trucks, S.17 Collision & Corrosion Control, and S.18 Automated & Electric Vehicles will hold business sessions in Orlando at which they will update attendees on their task force activity, as well as solicit input and approval for new task forces to study pressing issues facing today’s fleets. Your attendance and participation is important. These sessions will be 30 minutes in length.

Tuesday, March 9
6 – 6:30 pm

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“When I come to TMC meetings, I am able to see everyone I need to see in one place, get ideas and best practices, and really learn from everyone.”

Amanda Schuier,
Chief Operating Officer,
Quality Transport Company
Electric Vehicles Take Center Stage in Special Three-day Track at TMC’s 2022 Annual Meeting

TMC’s 2022 Annual Meeting will feature a comprehensive track of sessions and activities centering on the specification, maintenance and operation of electric vehicles (EVs) in commercial operations. The track, which spans three-days — Monday through Wednesday — will include an array of task forces, study group sessions and other educational offerings designed to keep fleet personnel up-to-date on the latest trends in this emerging vehicle segment.

**Monday, March 7**

On Monday, TMC will feature more than a dozen task forces, which are developing recommended practices and other materials on various aspects of electric vehicle specification, maintenance and operation, including:

- **9 – 10 am**  
  ePTO & Hybrid Auxiliary Systems for Work Trucks
- **9:30 – 10:30 am**  
  Electrified Vehicle
- **10 – 11 am**  
  Electric Terminal Tractor Implementation Considerations
- **11:30 am – Noon**  
  Understanding Electric Vehicle Efficiency Performance
- **Noon – 12:30 pm**  
  Towing Electric Vehicles
- **12:30 – 1 pm**  
  Electric Vehicle Pre-Trip Inspection
- **1 – 2 pm**  
  Considerations for Tires on Commercial Electric Vehicles
- **1 – 2 pm**  
  Coolants for Electric Vehicles
- **2 – 3 pm**  
  Lubrication for Electric Vehicles
- **2 – 3 pm**  
  Roadmap for Electric Infrastructure
- **3 – 4 pm**  
  Leak Detection by Visible Vapor for Electric Vehicles
- **3 – 4 pm**  
  Electrified Vehicle Technician Training

**Tuesday, March 8**

On Tuesday, TMC will offer a pair of educational sessions covering charging station infrastructure and EV specifications.

- **2:30 – 4 pm**  
  EV Track Session — Recommendations for Developing Charging Station Infrastructure for Commercial Fleet Operations. This session will cover current and emerging recommendations for installing charging stations and supporting infrastructure for EVs.
- **4:15 – 5:45 pm**  
  EV Track Session — How to Specify Electric Vehicles for Commercial Fleet Operations. This session will cover the latest guidelines on spec’ing EVs for various applications and duty cycles.

**Wednesday, March 9**

On Wednesday, TMC launches its “EV Educational Theatre,” in a special area of the Council’s Transportation Technology Exhibition hall. The EV Educational Theatre will present “EV 101 — The Basics” on a rotating basis. The session will cover a wide variety of important topics including:

- Energy units and what they mean (e.g., kWh, kW, kWh/mi)
- Duty cycles and selecting the right application for EVs
- How to obtain incentive funding support
- Charging terms (e.g., EVSE, EVCS, CCS1, MCS, Level 2, DCFC, Mega-charging, Resiliency, BESS, and more)
- Charge cycle optimization and energy management
- Electrified vehicle technician training
- How to deploy EVs

The EV 101 — The Basics presentation schedule will be as follows:

- **9 – 10 am**
- **10 – 11 am (session repeats)**
- **11 am – Noon (session repeats)**

**NOTE:** Seating in the EV Educational Theatre will be limited to 200 attendees per session.

TMC will also present two Study Group mini-technical sessions on EV issues later Wednesday afternoon:

- **2:30 – 4 pm**  
  S.11 Sustainability & Environmental Technologies  
  What’s the New MPG Metric for Electric Vehicles and What Influences It? (See description on page 11.)
- **4:15 – 5:45 pm**  
  S.1 Electrical  
  The Electrified Battery — What Fleets Need to Know (See description on page 10.)

If your operation is pondering a switch to EVs, this is a comprehensive track of sessions presented by the industry’s leading experts that you must attend.
TMC Kickoff Breakfast  
Featuring: John O’Leary, president and chief executive officer, Daimler Trucks North America

Tuesday’s Kickoff Breakfast Speaker is John O’Leary, president and chief executive officer, Daimler Trucks North America. Appointed to his current position in 2021, O’Leary is responsible for all aspects of the company and its affiliated entities, including Freightliner, Western Star, Thomas Built Buses, Freightliner Custom Chassis Corporation (FCCC), and Detroit Diesel Corporation.

Previously, O’Leary served as the Chief Transformation Officer and Head of Mercedes-Benz Trucks in Germany, laying the foundation for its transformation and profitability improvement. Prior to that role, he served as the Chief Financial Officer of DTNA, directing operational and strategic controlling, treasury, accounting, tax, and IT functions for the company. O’Leary also previously served as the Senior Vice President of Aftermarket at DTNA, and as the president & CEO of Thomas Built Buses.

While leading the company’s Aftermarket team, O’Leary was responsible for customer experience, dealer service, distribution network development, parts sales and marketing, parts distribution, Alliance Parts, and Detroit Reman. That role also included oversight and development of DTNA’s Aftermarket Service products, including extended chassis and engine warranties, telematics, and contract maintenance.

O’Leary has more than 30 years of experience in a wide variety of leadership and financial roles for truck and electronics manufacturers. He earned a Bachelor’s degree in Accounting at Seattle University, and he completed the Executive Program at Northwestern University’s Kellogg Graduate School of Management.

O’Leary will share his insights into the great transformation that the trucking industry is embarking upon currently in the quest for greater efficiency, safety, sustainability and environmental responsibility.

TMC’s Town Meeting & Fleet Operators’ Forum

TMC’s best-attended event is always its Town Meeting and Fleet Operators’ Forum. TMC’s Town Meeting provides an opportunity for the Council to present members and attendees with information about what’s happening within TMC. Reports are provided regarding Council membership, meetings, and exhibits, as well as TMC Recommended Practices, information reports, technical policy advisories and products. Additionally, a federal regulatory report is provided by a senior representative of ATA’s regulatory and policy affairs department.

TMC’s Silver Spark Plug Awards will be presented during the Town Meeting as well. The Silver Spark Plug is TMC’s highest honor.

TMC’s Fleet Operators’ Forum immediately follows the Town Meeting. At the Fleet Operators’ Forum, fleet attendees bring up equipment problems that they have been unable to resolve successfully with their product manufacturer or supplier. An update is given later during the week at TMC’s Fleet Operators’ Forum Wrap-up. If you have an issue you wish raised, please contact TMC at (703) 838-1763 or use the following link to report your issue: https://www.surveymonkey.com/r/TMC22A_FOF.

Fleet Talk / Shop Talk

Fleet Talk and Shop Talk rank consistently as the most popular features at TMC general meetings. TMC’s Fleet Talk is a lively dialogue based on TMC’s successful Shop Talk format, but open only to fleet attendees. Topics of interest that emerge from this session will be raised at Shop Talk later in the week for open discussion before the entire Council. Shop Talk, open to all registered attendees, offers a unique chance to learn and share the tricks of the trade from the industry’s best experts.

At both sessions, two veteran fleet managers will lead what will be a spirited discussion on what works or doesn’t work in vehicle maintenance.

TMC Industry Awards Luncheon

TMC’s Industry Awards Luncheon features the presentation of various Council and industry awards including the Recognized Associates Award, Study Group Secretary Award, Excellence in Maintenance Supervision Award, and others. A plated luncheon begins at 12:45 pm with award presentations commencing at approximately 1:30 pm. The third TMC Leaders of Tomorrow graduating class — Class of 2022 — will also be recognized.
Other Features of Interest

General Associates Meeting
Open to all fully registered associate (supplier/vendor) and service provider attendees, this meeting will feature the latest in a continuing series of interactive interviews with industry leaders designed to help associate and service provider attendees better understand their role within the industry in these dynamic times.

Monday, March 7
4 – 5 pm

Press Conferences
Press conferences will be held on Sunday, March 6 at various times by TMC exhibitor companies. Schedules will be distributed to TMC press contacts as the event draws closer. Additionally, TMC’s meeting will feature a Media Room for press attendees that will offer working space. The Media Room will be open throughout the event beginning Sunday, March 6. [NOTE: Additional press conferences will be held during specified exhibit viewing times on Monday, March 7 and Tuesday, March 8—if needed.]

Sunday, March 6
8:30 am – 7 pm

TMC’s Annual Reception and Banquet
TMC’s Annual Reception and Banquet will feature the traditional changing of the guard at which our new leadership will be installed for 2022-2023. Specifics on the featured entertainment will be provided at a later date.

Wednesday, March 9
7 – 10:30 pm

Exhibit to Feature Technology Showcase for 2022

ATA’s Technology & Maintenance Council (TMC) is enhancing its 2022 Annual Meeting & Transportation Technology Exhibition by once again offering a “TMC Technology Ride & Drive” that will showcase cutting-edge/emerging technologies via a live demonstration (e.g., ride & drive) format. Specific technology categories will be identified by staff and vetted by TMC’s volunteer Meeting Planning Committee, and TMC exhibitors with offerings in those areas of interest will be approached to demonstrate as part of this meeting segment.

Ride & Drive Sponsorship and exhibit booth space is required to participate—$25,000 for ride/drive presentation. Ride & Drive is not a traditional TMC educational offering, which has strict rules regarding commercialism, but rather a supplemental activity of our Transportation Technology Exhibition.

The Ride & Drive will be open to all registered TMC attendees, and a special invitation will be made to members of both trade and lay media. For more information, contact ATA Director, Allied Partnerships and Exhibits Dan Duggan at (703) 836-1756; ATAexhibits@trucking.org.

NOTE: All participants in TMC’s Technology Showcase program must be current year exhibitors holding the same or greater space commitment as the previous year’s TMC transportation technology exhibition.

‘Electric & Automated Vehicles’ Pavilion Featured at 2022 Exhibition

For 2022, TMC’s Transportation Technology Exhibition will feature a special pavilion for electric and automated vehicles. Appropriate technologies for this area of the exhibition include: cybersecurity, automated driving and platooning, drone/quadcopter applications for transportation and related specification/maintenance, advanced driver assistance systems (ADAS) and electric-powered vehicles.

TMC’s 2022 exhibit will provide one-stop shopping for the busy fleet executive who wants to quickly get up to speed on all segments of emerging and advanced technology in these areas.

Maintenance and purchasing executives will ultimately be charged with developing the proper spec’s and making the right decisions appropriate to their fleet. Make sure your company gets the information it needs at TMC’s 2022 Electric and Automated Vehicles Pavilion.

“TMC events are integral to my professional career development.”
Arica Jackson, Learning & Development Supervisor, United Parcel Service, Inc.
Meeting Safely, Together

TMC is working closely with the Orange County Convention Center and our partner hotels to help ensure the health and safety of all meeting participants. TMC will be implementing appropriate measures including social / physical distancing, sanitation and cleaning protocols and other actions as per OCCC guidelines.

Meeting Registration Fees & Policies

To attend all business sessions, exhibition viewing periods, breakfasts, luncheons, cocktail receptions, etc., you must be fully registered. The Member rate is applicable to all TMC and ATA members.

Three Ways to Register

ONLINE

Registering online at http://tmcanual.trucking.org is the fastest and easiest way to register for the meeting and secure your hotel room. Once you have successfully registered online, by fax, or mail you will receive an email confirmation which will contain your personal hotel reservation link.

If you need assistance with username and/or password to register online, email registrations@trucking.org or tmc@trucking.org.

BY FAX/MAIL

If registering by fax (with completed credit card information) or mail (with a completed check), address and fax information is provided below. Faxed registrations take up to 72 hours to process. Fax: (703) 838-1701.

If you need to cancel your meeting registration, please send written notification of cancellation to be received at: ATA Events Services, P.O. Box 101360, Arlington, VA 22210; or Email: registrations@trucking.org on or before February 7, 2022, and you will receive a refund less a $200 per person administrative fee.

IMPORTANT: No refunds for registration fees will be processed for cancellations postmarked after February 7.

Registration Fees

Full Meeting Registration Fees include all business sessions, food functions and social events. Please register your spouse/guest using the Spouse/Guest Registration section on the Full Meeting Registration form (online or PDF). This will ensure admittance at evening functions, viewing periods, etc. For membership information, call 703-838-1763, email tmc@trucking.org, or visit http://tmctrucking.org.

Fully Registered Meeting Attendees

Early Bird Registration Fees

(on or before February 7, 2022)

| Full Meeting Registration (TMC or ATA member) | $675 |
| Full Meeting Registration (TMC or ATA non-member) | $975 |
| Full Meeting Registration, First-Time Fleet or Service Provider Attendee (member/non-member; subject to verification) | $475/$775 |
| Spouse/Guest Badge (TMC or ATA non-member) | $250/$500 |

Regular Registration Fees

(after February 7, 2022)

| Full Meeting Registration (TMC or ATA member) | $775 |
| Full Meeting Registration (TMC or ATA non-member) | $975 |
| Full Meeting Registration, First-Time Fleet or Service Provider Attendee (member/non-member; subject to verification) | $575/$775 |
| Spouse/Guest Badge (TMC or ATA non-member) | $250/$500 |

Membership Renewal Discount!

When you renew your 2022 TMC membership, you will receive a six-percent savings off the rates listed above. To take advantage of this special, limited-time offer, you MUST renew your membership ONLINE by no later than December 31, 2021 before registering for TMC’s 2022 Annual Meeting! The discount code will be included in your 2022 renewal confirmation.

Special Discount Offered for First-Time Fleet, Educator and Service Provider Attendees

First-time fleet, educator and service provider attendees may take advantage of a special $200 discount! To take advantage of this offer, call (703) 838-1763 or email tmc@trucking.org for verification of your first-time status and you’ll receive a discount code to use when registering online.

Substituting for a TMC Member

Membership has its privileges—only TMC/ATA members receive the TMC Member registration rate. TMC does not allow non-member individuals to substitute for a TMC member; however, exceptions may be made for certain extenuating circumstances. Call TMC staff at (703) 838-1763 for details.

Refund Policy

If your plans to attend TMC’s meeting changes, you may receive a refund—less a $200 administrative fee—up until February 7, 2022. There will be no refunds or credits after February 7, 2022. Cancellations notices accepted at tmc@trucking.org or by fax.

NOTE: There will be a $200 administrative fee for those Associate Attendees who downgrade their badge status from “Blue” (fully registered) to “Orange” (exhibit-only) after having so registered.

Housing

ConferenceDirect is the official housing bureau for TMC’s Annual Meeting. Only those registered for the meeting will receive a hotel booking link in their registration confirmation email. The deadline to complete your hotel reservation at the TMC/ATA discounted rate is February 7.

| Headquarters Hotel: Hyatt Regency Orlando (Full Meeting Registrants Only) | $269 per night (single/double) |
| Overflow Hotels: | |
| DoubleTree by Hilton Orlando at SeaWorld | $209 per night (single/double) |
| Embassy Suites by Hilton Orlando International Drive/I-Drive 360 | $259 per night (single/double) |
| Hampton Inn by Hilton Orlando International Drive/Convention Center | $194 per night (single/double) |
| Hilton Orlando | $284 per night (single/double) |
| Homewood Suites by Hilton Orlando International Drive/Convention Center | $229 per night (single/double) |
| Hyatt Place Orlando Convention Center | $195 per night (single/double) |
| Residence Inn Orlando Convention Center | $205 per night (single/double) |
| Rosen Centre Hotel | $255 per night (single/double) |
| Rosen Plaza Hotel | $242 per night (single/double) |
| SpringHill Suites by Marriott Orlando Convention Center/International Drive Area | $200 per night (single/double) |

Nightly rates do not include taxes and fees, which are subject to change without notice. Rates may increase with additional occupancy. A deposit equal to one night’s room and tax is required and will be charged by the hotel on or around February 11.

If you need to make changes to your hotel reservation (arrival/departure/cancellation), please contact ConferenceDirect at (833) 638-6496 or tmccnferenceDirect.com, Monday – Friday, 9 am – 7 pm ET. ConferenceDirect will charge a $30.00 cancellation fee for any reservation cancellation made at any time.

Attire

Attire for TMC’s 2022 Annual Meeting is business casual.
Certification Courses Offered This March for Maintenance Directors and Supervisors by NATMI, TMC

Want to become a certified maintenance professional? Now you can do it for less money and in less time!

TMC and the North American Transportation Management Institute (NATMI) have teamed up to strengthen and increase the visibility of the Certified Director of Maintenance certification (CDM/E) and Certified Supervisor of Maintenance certification (CSM/E).

TMC’s Education Subcommittee and NATMI’s Oversight Committee have collaborated on examining, updating and enriching all aspects of the program, including certification requirements, scope, class schedules and locations, and educational content.

The courses will be held onsite March 10-12 in Orlando, Fla., at the Orange County Convention Center in conjunction with TMC’s 2022 Annual Meeting.

COURSES

Essentials of Fleet Maintenance Management

Courses will be held on Thursday, March 10, 2022 and Friday, March 11, 2022.

Certification Exams will take place on Saturday morning, March 12, 2022.

The two-day Essentials of Fleet Maintenance Management course is applicable toward NATMI’s nationally recognized, university accredited certification programs. Taking the course is the first step toward earning a credential that will help you become a more competent professional, earn industry recognition and credibility in court testimony. For more information on membership or how to become certified, call (303) 952-4013.

If you have the job experience, you can pay one lump sum that covers all fees for certification, and complete the process within 60 days of taking the training and exam.

How to Become a Certified Maintenance Professional...

Job Experience Required:

Certified Director of Maintenance/Equipment (CDM/E):
5 Years (or 4 years if you have a college degree) experience in fleet maintenance management

Certified Supervisor of Maintenance/Equipment (CSM/E):
2 years in fleet maintenance profession

There are education and experience certification requirements as well. CDM/E and CSM/E candidates are full-time administrators who have ably demonstrated their expertise and leadership in establishing programs, policies, setting standards, and mastering new technologies and systems.

To Register:

For more information, or to register, visit NATMI’s website at www.natmi.org.

TMC members may register at the NATMI member rate! TMC members may register for the course at the NATMI member rate!

Additional information on the CDM/E and CSM/E programs may be obtained from Kelly Long Crow at (720) 259-2185.

TMC Spouses’ Program Change for 2022

TMC has made the decision, in concert with our Spouses’ Program Planning Committee, to no longer offer organized Council-led and managed spouse tours as part of our TMC Annual and Fall Meeting Programs. That being said, however, TMC will still offer spouse registration for its Annual Meeting that includes access to meal functions, exhibit viewing periods receptions and social events. See page 16 for registration information. TMC will also provide spouses a meeting room to serve as a gathering point and offer spouses discounts and information on local attractions.
NOTE: Not all Task Forces listed below will meet at TMC’s 2022 Annual Meeting. For a list of all Task Forces that will meet in Orlando, see pages 6 and 7.

S.1—Electrical

RP Updates (S.1)
Chairman: Albert Mihic, Delco Remy, (765) 778-6541
This Task Force will review existing S.1 Recommended Practices and update them as needed.

Fifth Wheel Ground Strap Maintenance Guidelines
Chairmen: Aaron Puckett, Fontaine Fifth Wheel, (205) 915-4854; Larry Rambeaux, Purkeys, Inc., (479) 531-7769
This Task Force will develop a Recommended Practice to provide a systems approach to properly maintain ground straps on heavy-duty truck fifth wheels and truck frames.

Next Generation Tractor/Trailer Electrical Interface
Chairman: Dan Forthoffer, Phillips Industries, (313) 949-9178
This Task Force will work to create backward-compatible, future-looking definition of tractor-to-trailer interface connections for improved safety, autonomous operation, enhanced diagnostics, and increased durability. It will consider both wired and wireless connectivity.

RP 177 Update (Solar Panels for Commercial Vehicles)
Chairman: Matt Srnec, Thermo King Corp., (952) 426-0104
This Task Force will develop a Recommended Practice offering guidelines on the application of solar power technology to commercial vehicles. It will define uses of solar power, identify variables affecting generation of power using solar cells, and offer recommendations on safety, maintenance, installation, specification and sizing of solar panels.

Electrical Diagnostics Incorporating Lab Scopes
Chairman: George Arrants, ASE Education Foundation, (281) 850-1676
The Task Force will develop a Recommended Practice regarding dynamic diagnostics and communications systems utilizing lab scopes, and to provide an understanding of the wide range of testing and information retrieval of live data. Its purpose is to reduce “guesswork” on information and electrical circuits of 21st century vehicles.

Integrated Starting and Charging
Chairman: Curtis Cummings, BorgWarner, (317) 607-1147
This Task Force will develop a Recommended Practice to increase understanding of integrated starting and charging systems and provide a guideline for maintenance requirements.

Cable Identification for Multi-Volt Electrical Systems
Chairman: Fred Kelley, Prysmian Group, (586) 764-5422
This Task Force will develop an engineering recommended practice for heavy-duty truck multi-voltage electrical systems, including cable color, identification by power voltage level, and ground for 12Vdc, 24Vdc, 48Vdc and high voltage (>80 V).

Advanced Battery Technology
Chairman: Jeffrey Coleman, East Penn Logistics, (610) 682-6361
This Task Force will develop a Recommended Practice providing guidelines for advanced battery technologies.

S.2—Tire & Wheel

RP Updates (S.2)
Chairman: Patricia Meisenholder, Michelin NA, Inc. (864) 458-6413
This Task Force will review existing S.2 Recommended Practices and update them as needed.

Harmonizing Government Vehicle Inspection Requirements for Tires & Wheels with Industry/TMC Recommended Practices
Chairman: Norman Ball, Ball Tire Industry Consultants, (913) 558-8101
This Task Force will examine vehicle inspection practice regarding tires for alignment with existing TMC Recommended Practices for the purpose of developing an information report or position paper.

Use of Telematics for ATIS and TPMS
Chairman: Lee Demis, Doran Manufacturing, (513) 699-6230
This Task Force will develop a Recommended Practice covering the application of telematics in Automatic Tire Inflation Systems and Tire Pressure Monitoring Systems.

Considerations for Tires on Commercial Electric Vehicles (S.2/S.18)
Chairman: Dan Shy, The Goodyear Tire & Rubber Co., (330) 283-3817
This Task Force will evaluate the use of tires on Commercial Electric Vehicles (EVs) and develop information reports and/or Recommended Practices based upon those considerations.

Tire Conditions Analysis Guide for Light Commercial Vehicles (S.2/S.14)
Chairman: Troy Tipton, Michelin NA, Inc., (260) 446-6880
This Task Force will develop a Tire Conditions Analysis Guide for Light Commercial Vehicles.

Tire Maintenance Considerations for Light Commercial Vehicles (S.2/S.14)
Chairman: Randy Patterson, Bridgestone Comm. Solutions, (601) 209-1946
This Task Force will develop considerations for tire maintenance on light-duty commercial vehicles and develop an information report and/or Recommended Practice based upon those considerations.

S.3—Engine

RP Updates (S.3)
Chairman: Paul Cigala, ExxonMobil Corp., (856) 404-1342
This Task Force will review existing S.3 Recommended Practices and update them as needed.

LNG/CNG Post-Collision and Post-Thermal Events
Chairman: Chris Culberson, Momentum Technologies, (817) 767-6039
This Task Force will develop a Recommended Practice on recovery/repair practices following thermal events associated with LNG/CNG fueled commercial vehicles.
Task Force Descriptions

RP 365 Update (Coolant Maintenance Guidelines)  
Chairman: Joe Long, Old World Industries, (203) 648-2849  
This Task Force will update RP 365, which provides guidelines for developing a program to identify various types of heavy-duty aqueous coolants and ensure proper coolant quality.

RP 341A Update (Diesel Additive Functionality Groups & Winter Operability Guidelines)  
Chairman: Brian Limatta, Cummins, Inc. (812) 447-0551  
This Task Force will update RP 341A, which provides information on the basic types and functions of diesel fuel additives, as well as information on diesel fuel winter operability.

RP 317B Update (Fuel Water Separating Devices)  
Chairman: Brian Limatta, Cummins, Inc. (812) 447-0551  
This Task Force will update RP 317B, which provides guidelines on how to best specify a fuel/water separating device.

Coolants for Electric Vehicles (S.3/S.18)  
Chairman: Sarkis Aroyan, Dober Chemicals, (773) 294-1870  
This Task Force will evaluate the use coolants on Commercial Electric Vehicles (EVs) and develop information reports and/or Recommended Practices based upon those considerations.

Lubrication for Electric Vehicles (S.3/S.18)  
Chairman: Bryan Stewart, Jones Logistics, (601) 466-6798  
This Task Force will evaluate the use lubricants on Commercial Electric Vehicles (EVs) and develop information reports and/or Recommended Practices based upon those considerations.

Leak Detection by Visible Vapors for Electric Vehicles (S.3/S.18)  
Chairman: Mark Hawkins, Redline Detection, (714) 919-7704  
This Task Force will evaluate methods for detection of visible vapor leaks in Commercial Electric Vehicles (EVs) and develop information reports and/or RPs based upon those considerations.

S.4—Cab & Controls

RP Updates (S.4)  
Chairman: Andrew Krum, Va. Tech Transportation Institute, (540) 231-0353  
This Task Force will review existing S.4 Recommended Practices and update them as needed.

RP 404B Update (Truck and Truck Tractor Access Systems)  
Chairman: Andrew Krum, Va. Tech Transportation Institute, (540) 231-0353  
This Task Force will review and update RP 404B, “Truck and Truck Tractor Access Systems.”

RP 430 Update (Guidelines for Collision Warning)  
Chairman: Mark Kennedy, Swift Transportation, (802) 477-7177  
This Task Force will update RP 430, which covers collision warning systems used on heavy-duty trucks.

RP 442A Update (Standardization of Speedometer and Tachometer Signaling)  
Chairman: Geoff Selby, D&D Instruments, (612) 378-1224 Ext. 31  
This Task Force will review and revise RP 442 covering standard signal frequencies for speedometers and tachometers.

RP 443 Update (In Cab Cleaning and Deodorizing Guidelines)  
Chairman: Mark Winchell, Whiting Systems, Inc., (501) 951-0682  
This Task Force will review and revise RP 443 as needed, with a focus on sanitizing and bedbug control.

Conversion of Rear View Mirrors to Cameras  
Chairman: Brian Kujala, Hadley Products, (616) 249-8496  
This Task Force will develop a Recommended Practice regarding installation of cameras to replace rear view mirrors in truck-tractors.

In Cab Gas Detectors  
Chairman: Kirk Altrichter, The Kenan Advantage Group, (330) 409-2122  
This Task Force will develop a new Recommended Practice regarding synchronization of the mileage readings of new/replacement odometers with various in-cab devices that record vehicle mileage.

Odometer Synchronization  
Chairman: Geoff Selby, D&D Instruments, (612) 378-1224, Ext. 31  
This Task Force will develop a new Recommended Practice regarding synchronization of the mileage readings of new/replacement odometers with various in-cab devices that record vehicle mileage.

RP 417/435 (Tractor-to-Trailer/Trailer-To-Dolly Air Lines) Update  
Chairman: Bruce McKie, Tectran, (716) 780-1996  
This Task Force will update RP 417 regarding pneumatic tractor-trailer and trailer-to-dolly hookup lines and RP 435, offers installation and inspection guidelines for coiled and straight pneumatic tractor-to-trailer hookup lines.

RP 404B Update (Truck and Truck Tractor Access Systems)  
Chairman: Andrew Krum, Va. Tech Transportation Institute, (540) 231-0353  
This Task Force will review RP 404B covering Truck and Truck Trailer Access and update as needed.

S.5—Fleet Maintenance Management

VMRS Codes  
Chairman: Paul Moszak, MOTOR Information Systems, (585) 789-1691  
The VMRS Codes Task Force’s purpose is to explain the benefits and to foster the use of the Vehicle Maintenance Reporting Standard (VMRS) system. The Task Force also encourages the exchange of information and user problems between VMRS system users and establishes new parts codes as requested.

RP Updates (S.5)  
Chairman: Paul Birkenstock, New Market Sales, (516) 241-2213  
This Task Force will review existing S.5 Recommended Practices and update them as needed.

Cybersecurity Issues  
Chairman: Mark Zachos, DG Technologies, (248) 488-2080  
This Task Force will explore preventive cybersecurity methods; develop guidelines for fleets to create their own cybersecurity program; standardize over-the-air ECM programming through specific protocols that allow fail safe options and secure messaging; work with other associations to strengthen related standards by fleet user influence; examine the development of a reporting and responding alert program for industry users; and examine the possibility of developing a cyber-intrusion challenge track as part of the TMCSuperTech competition.

FOR MORE INFORMATION, VISIT TMCANNUAL.TRUCKING.ORG
**Task Force Descriptions**

**RP 518A Update (Fuel Station Planning)**  
Chairman: Dan Martin, Dual Green Consulting, (512) 705-3113  
This Task Force will review and revise RP 518A providing guidelines for designing and working with fueling stations.

**Technician Apprenticeship Standards**  
Chairman: Arica Jackson, UPS, (804) 743-8448  
The purpose of this Task Force is to start assembling information on the potential for standardizing technician apprenticeship programs. The group is a collaborative effort involving representatives from several TMC Study Groups and Committees including: Technician and Educator Committee, S.5 Fleet Maintenance Management and S.16 Service Provider.

**Hiring Military Personnel**  
Chairman: Kirt Weaver, Hadley Products, (616) 608-1244  
This Task Force is investigating pathways of hiring former military personnel to ease the current industry technician shortage.

**Technician Training for Advanced Driver Assistance Systems (ADAS)**  
Chairman: Amanda Schuier, Quality Transport Company, (616) 916-5855  
This Task Force will develop guidelines for the training of technicians to support the maintenance and repair of Advanced Driver Assistance Systems (ADAS).

**ADAS Nomenclature (S.5/S.18)**  
Chairman: Chirag Shah, ZF, (586) 884-1018  
This Task Force will develop guidelines for common nomenclature for Advanced Driver Assistance Systems (ADAS), as utilized in medium- and heavy-duty commercial vehicles.

**Health Ready Components Standards**  
Chairman: Wally Stegall, The Morey Corp., (630) 842-0489  
This Task Force will develop a Recommended Practice regarding the use of VMRS codes in developing data sheets for health ready componentry in conjunction with SAE International Health Ready Component Signaling practice.

**RP 511/520 Updates (Refrigerant Recovery/AC Refrigerant Flushing)**  
Chairman: Tim Stevens, Dorman Products, (317) 945-3555; Travis Wynes, Mobile Transportation Service, (770) 568-4284  
This Task Force will jointly review RPs 511 and 520 to reflect current technologies and requirements.

**S.6—Chassis & Brake Systems**

**RP Updates (S.6)**  
Chairman: Jack Vander Giessen, Meritor, Inc., (248) 761-3881  
This Task Force will review existing S.6 Recommended Practices and update them as needed.

**RP 648 Update (Troubleshooting Ride Complaints)**  
Chairman: Steve Williams, Dayton Parts, Inc., (813) 847-5590  
This Task Force is updating RP 648, which offers guidelines on troubleshooting ride complaints.

**Wheel End Thermal Events (S.6/S.7)**  
Chairmen: Lee Long, Southeastern Freight Lines, (803) 939-3602; Hank Schneider, Sealco, (815) 338-8991  
This Task Force is conducting research to establish guidelines for investigation and correction of wheel end thermal events.

**RP 652 Update (Service and Inspection of Air Disc Brakes)**  
Chairman: Jack Vander Giessen, Meritor, Inc., (248) 761-3881  
This Task Force will update recommendations for the inspection and maintenance of air disc brakes.

**Towing Electric Vehicles**  
Chairman: Jack Vander Giessen, Meritor, Inc., (248) 761-3881  
This Task Force will develop a Recommended Practice covering guidelines for the towing of electric commercial motor vehicles.

**S.7—Trailers, Bodies & Material Handling**

**RP Updates (S.7)**  
Chairman: Jeff Updike, Stoughton Trailers, (608) 873-2500  
This Task Force will review existing S.7 Recommended Practices and update them as needed.

**Van Trailer Washing Procedures and Testing**  
Chairman: Mark Winchell, Whiting Systems, Inc., (501) 951-0682  
This Task Force will develop a Recommended Practice for washing van trailers and testing the efficacy of wash practices.

**Wheel End Thermal Events (S.6/S.7)**  
Chairmen: Lee Long, Southeastern Freight Lines, (803) 939-3602; Hank Schneider, Sealco, (815) 338-8991  
This Task Force is conducting research to establish guidelines for investigation and correction of wheel end thermal events.

**Next Generation Trailer Electrical Architecture**  
Chairman: Paul Menig, Business Accelerants, (971) 222-5683  
This Task Force will work to create backwards-compatible, future-looking trailer electrical architecture for improved safety, autonomous operation, enhanced diagnostics, and increased durability. It will consider both wired and wireless connectivity to provide a futureproof, reliable, and easily maintained electrical and information network on trailers, in parallel with development of connection recommendations being developed under the S.1 Task Force.

**Brake-Activated Pulsating Lamps**  
Chairman: Jeff Geoffroy, Peterson Manufacturing Co., (617) 852-7182  
This Task Force will develop recommendations regarding specifications, installation, and maintenance of supplemental, pulsating brake lamps on trailers.

**Upper Coupler and Kingpin Repairs**  
Chairman: David Pacacha, LSR, LLC, (407) 769-6953  
This Task Force will develop guidelines for the inspection and maintenance of upper couplers and kingpins on trailers.
Task Force Descriptions

**RP 755A Alternative Liftgate & Material Handling Charging Methods**  
*Chairman: Larry Rambeaux, Purkeys Fleet Electric, Inc., (479) 419-4800*

This Task Force is updating RP 755A which covers alternative liftgate and material handling charging methods. The scope of this Task Force will also include the evaluation of all trailer power alternatives.

**S.11—Sustainability & Environmental Technologies**

**RP Updates (S.11)**  
*Chairman: Amy Winfield, Suburban Seating and Safety, (973) 778-9227*

This Task Force will review existing S.11 Recommended Practices and update them as needed.

**Alternative Energy Implementation Elements**  
*Chairman: Justin Gerrity, Gerrity Heavy Duty Truck Sales, (732) 606-7480*

This Task Force is developing information for fleets to use in their business justification documentation when considering adding alternative energy assets.

**Smartway Activities**  
*Chairman: Kenneth Marko, Frito-Lay N.A., (972) 334-5120*

This Task Force will present an ongoing series of informational presentations regarding EPA SmartWay's Greenhouse Gas Emissions Model (GEM) for medium- and heavy-duty vehicle compliance.

**RP 1118 Update (Cost Modeling for Aerodynamic Devices)**  
*Chairman: Amy Winfield, Suburban Seating and Safety, (973) 778-9227*

This Task Force will develop a calculative tool to evaluate the cost and value of aerodynamic device investments for use by fleet managers and other industry professionals.

*Chairman: Kenneth Marko, Frito-Lay North America, (972) 334-5120*

This Task Force will develop position papers that will challenge industry to implement change in practices and performance as it relates to energy conservation.

**Electric Terminal Tractor Implementation Considerations**  
*Chairman: Patrick Seeberg, Meritor, Inc., (248) 435-1382*

This Task Force will develop a Recommended Practice on implementation options for terminal tractors equipped with electric powertrains.

**RP 1109B Update (Type IV Fuel Economy Test Procedures)**  
*Chairman: Brian Wilson, Southwest Research Institute, (210) 522-3873*

This Task Force will update RP 1109B, Type IV Fuel Economy Test Procedures.

**Understanding Electric Vehicle Efficiency Performance**  
*Chairman: Kevin Otto, Retired Silver Spark Plug, (812) 447-9311*

This Task Force will develop guidelines for methodologies to assess the efficiency of Commercial Electric Vehicles (EVs).

**S.12—On-Board Vehicle Electronics**

**RP Updates (S.12)**  
*Chairman: Ken DeGrant, Garrett Motion, (859) 358-1485*

This Task Force will review existing S.12 Recommended Practices and update them as needed.

**RP 1226 Messaging Standardization**  
*Chairman: John Maag, Volvo Trucks, (336) 662-1656*

This Task Force is developing a Recommended Practice that defines messages and standards for RP 1226, which covers telematics and on-board diagnostic accessory connectors.

**Open Telematics API**  
*Chairman: Scott Sutarik, Geotab, (630) 709-7892*

This Task Force will develop a Recommended Practice for standardized Open Telematics API for retrieving telematics logs and data, utilizing a schema developed by the National Motor Freight Traffic Association (NMFTA) Inc.

**S.14—Light- and Medium-Duty & Specialty Trucks**

**RP Updates**  
*Chairman: John Walborn, Dossier Systems, (717) 731-2665*

This Task Force will review existing S.14 Recommended Practices and update them as needed.

**ePTO and Hybrid Auxiliary Power Systems in Vocational Vehicles**  
*Chairman: Rick Formisani, The Timken Company, (317) 877-3810*

This Task Force will explore application of electric PTOs and hybrid auxiliary powertrains to work-performing platforms/systems in Class 2-6 and vocational vehicles.

**RP 1411 Update (Light-& Med.-Duty Auto Transmission Fluid Guidelines)**  
*Chairman: Joe Farke, Altec Industries, (719) 313-7520*

This Task Force will update RP 1411 covering automatic transmission fluid guidelines for Class 2-6 and vocational vehicles.

**Lumen Ratings for White LED Work Lights**  
*Chairman: Greg Parman, Maxxima, (631) 434-1200*

This Task Force will develop a Recommended Practice to define lumen ratings for white LED work lamps.

**Vocational Duty Cycles for Aftermarket Systems**  
*Chairman: Kenneth Calhoun, Altec Industries, kenneth.calhoun@altec.com*

This Task Force will develop guidelines regarding duty cycles for various aftermarket systems used in vocational vehicles.

**VMRS Code Development for Specialty Vehicles**  
*Chairman: Joe Farke, Altec Industries, (816) 901-4856*

This Task Force will work with the VMRS Codes Committee (S.5) to identify and develop new categories pertaining to Specialty Vehicle equipment and systems.
**RP 1432 Update (Truck Body Safety Features)**
Chairman: Bob Raybuck, National Truck Equipment Assn., (248) 489-7090
This Task Force will update RP 1432, Truck Body Safety Features.

**S.16 — Service Provider**

**RP Updates**
Chairman: Peter Savage, Clarke Power Services, Inc., (513) 719-2313
This Task Force will review existing S.16 Recommended Practices and update them as needed.

**Implementing TMC RPs in Fleet and Service Provider Operations**
Chairmen: Jill Gingrich, Wheeltime Network, (313) 475-3135; Doug Will, STEMCO, (267) 718-5127
This Task Force will develop guidelines for implementing/utilizing TMC recommended practice in fleet and service provider operations.

**Proper Vehicle Lifting Procedures and Equipment**
Chairman: Radu Pop, Stertil-Koni, (470) 717-3127
This Task Force will develop recommended practices to help shop managers choose the correct types of lifting equipment for their type of maintenance operations, and general safety, productivity, and ergonomic considerations.

**Uptime Through Digital Exchange and Management**
Chairman: Evan Erdmann, Clarke Power Systems, (513) 260-0347
This Task Force will develop a Recommended Practice to help Service Providers effectively use digital information to plan and complete service or maintenance events in the most efficient manner possible.

**Establishing Standards of Excellence for Service Providers**
This Task Force will develop a Recommended Practice for standardized quality performance measurements for service providers.

**When to Trade or Keep a Vehicle (S.5/S.16)**
Chairman: Matt Jablon, DTNA, (713) 213-2999
This Task Force will work to develop a resource to guide managers and leaders through the process of determining if a vehicle should be traded, sold or continue in operation.

**S.17 — Collision & Corrosion Control**

**Cab and Controls Corrosion Control**
Chairman: Tim May, Minimizer, (507) 774-9292
This Task Force will develop guidelines for dealing with corrosion as it relates to cab and control systems.

**Corrosion of Non-Ferrous Materials on Chassis and Suspension**
Chairman: Brian Herrington, ATRO Engineered Systems, Inc., (216) 970-4066
This Task Force will investigate the impact of corrosion on rubber on chassis and suspension components.

**Corrosion Manual Update**
Chairman: Dennis Winr, Accuride Corp, (660) 651-7468
This Task Force will update the TMC Corrosion Manual.

**Refinishing to Maximize Adhesion**
Chairman: Jim Kolea, Penn Fleet Corp., (610) 940-1507 EXT. 201
This Task Force will develop recommendations for Heavy-Duty Collision Repairs (HDCR) to improved paint and coatings adhesion during the refinishing operation.

**Heavy-Duty Collision Repair Roadmap**
Chairman: Chris Sterwerf, Fairfield Auto & Truck Svc., (513) 874-5857
This Task Force will develop a roadmap/flowchart for the steps needed to take a truck or trailer involved in a collision and make it road ready and safe for service. The flowchart will consider safety, cost and equipment utilization, and identify areas for future Task Force development.

**Frame Correction**
Chairman: Stephanie Schwartz, Truckstar Collision Center, Inc., (608) 764-8374
This Task Force will develop guidelines and practices for fleets and collision repair operations to return damage frames to proper specifications in order for the vehicle to function safely.

**S.18 — Automated & Electric Vehicles**

**Electrified Vehicles**
Chairman: Kevin Otto, Retired Silver Spark Plug, (812) 447-9311
This Task Force is exploring the need for recommended practices, information reports and/or position papers on medium- and heavy-duty electric trucks.

**Platooning**
Chairman: Richard Bishop, Richard Bishop Consulting, (443) 695-3717
This Task Force is exploring the need for recommended practices and developing a position paper on platooning truck technologies.

**Automated Vehicles**
Chairman: Ananda Pandy, ZF TRW, (765) 429-1770
This Task Force is exploring the need for recommended practices and developing a position paper on automated medium- and heavy-duty trucks.

**Automated Truck Inspection and Enforcement**
Chairman: Daniel Goff, Kodiak Robotics, Inc., (646) 515-3833
This Task Force will develop guidelines for maintenance and safety inspections for automated medium- and heavy-duty commercial trucks including compliance with North American Standard Out-Of-Service criteria.

**Roadmap for Electric Infrastructure**
Chairman: Justin Gerrity, Gerrity Heavy Duty Truck Sales, (732) 606-7480
This Task Force will develop guidelines for design and maintenance of infrastructure to support electric commercial vehicle fleet maintenance operations.

**Electric Vehicle Pre-trip Inspection**
Chairman: Norman Ball, Retired Silver Spark Plug, (913) 558-8101
This Task Force will develop guidelines for design pre-trip inspection procedures on electric commercial vehicles.
Electrified Vehicle Technician Training
Chairman: Michael Williams, Daimler Trucks, North America, (336) 467-3568; Chris McQuillen, Hirschbach Motor Lines, Inc., (402) 404-2613
This Task Force will develop guidelines for the training of technicians to support electric commercial vehicle fleet maintenance operations.

ADAS Nomenclature (Joint with S.5)
Chairman: Chirag Shah, ZF, (586) 884-1018
This Task Force will develop guidelines for common nomenclature for Advanced Driver Assistance Systems (ADAS), as utilized in medium- and heavy-duty commercial vehicles.

Entry Level Technician Training for Electric Vehicles
Chairman: Jack Werner, Western Technical College, (915) 539-1590
This Task Force will develop recommendations for training requirements for electric vehicles in technician school curriculum programs.

Future Truck Committee

Future Electrical/Electronic Systems
Chairman: Al Lesesky, Vehicle Enhancement Systems, (440) 241-3598
This Task Force keeps abreast of the latest in heavy-duty electrical systems and explores new and emerging electrical/electronic system technologies. The Task Force then makes these new technologies known to TMC members and provides information on benefits and possible problems and solutions.

Future Tire Durability & Reliability
Chairman: Dan Shy, The Goodyear Tire and Rubber Co., (330) 283-3817
This Task Force will attempt to discover causes and solutions to problems that limit tire durability and reliability in order to reduce tire operating costs. All causes of tire failures, including operation hazards, maintenance problems, manufacturing defects, retread & repair errors, will be addressed.

Future Cab and Driver Interface
Chairman: John Adami, NW Heavy Duty Inc., (425) 644-2250
The Future Cab and Driver Interface Task Force keeps abreast of the latest issues and information affecting the tractor and the driver. At present it is dealing with driver interface issues.

Future Trailer Productivity
Chairman: Chris Lee, Great Dane, (912) 644-2250
The Future Trailer Task Force keeps TMC members abreast of the latest in trailer technology, including aerodynamics, and addresses feasibility of new trailer technologies.

Future Energy Conservation (S.11/FT)
Chairman: Kenneth Marko, Frito-Lay N.A., (972) 334-5120
This Task Force will develop position papers challenging industry to implement change in practices/performance relating to energy conservation.

Future Chassis and Brake Systems
Chairman: Eric Benge, Walmart Transportation, (479) 277-9855
The purpose of this Task Force is to develop position papers and information reports that will challenge industry to implement changes in practices and performance as it relates to chassis and brake systems.

Future Virtual/Augmented Training
Chairman: Matt Johnston, Design Interactive, (703) 578-1544
This Task Force will explore the application of virtual/augmented training simulation software to commercial vehicle maintenance.

Future Integrated Vehicle Health Management (Exploratory)
Chairman: Wally Stegall, The Morey Corp., (630) 842-0489
This Task Force will address the long-term ramifications (five years out and beyond) of SAE JA6268 and Health Ready Component Signaling associated with SAE International’s Health Ready Component Signaling practice.

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