

# RAIL

*MOVING AMERICA FORWARD*



## Train Braking Modernization Working Group

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RRS Office of Safety

# Train Braking Modernization Working Group



# Working Group History

- Created from Train Braking Modernization Working Group Task Proposal – No. 2022-03
- Kick off meeting occurred on September 14, 2023
  - Meeting held in person and virtual in Washington D.C
- Reviewed Task Statement and several presentations
  - Current state of Electronically Controlled Pneumatic (ECP) Brake technology
  - Distributed Power (DP) Locomotives
  - Modeling/Simulations of train braking performance

## Train Braking Modernization Working Group – Discussions at Previous Meeting

- **Changes in ECP since 2018**
  - A joint presentation by New York Airbrake and Wabtec, to highlight the changes in ECP since 2018. There were no major innovations advanced in the past 10 years.
- **Changes in DP that Benefit Brake Modernization**
  - DP advancements of Locotrol systems have impacted braking performance.
- **Effective Use of Current Technologies and Methods to Enhance Operational Safety**
  - FRA performed two parametric studies of recent derailments to determine the effectiveness of braking performance. FRA simulated multiple scenarios to determine if better outcomes could be achieved using alternate braking and train handling techniques

- **Creating three Task Forces**
  - “Benefits and Challenges of Implementing ECP Brakes”
  - “What can DP Achieve until ECP can be Implemented”
  - “Can Improved Operating Practices Provide Immediate Braking Benefits”
- **Name Task Force Leaders at RSAC Meeting**
- **Solicit SME volunteers for each Task Force and provide a work statement**

# Train Braking Modernization Working Group – Next Meeting Topics for Discussion

- **ECP Brakes**
  - ECP Brake improvements since 2018
  - Logistic and financial challenges to implementation
  - Applicability to HHFT trains
- **Distributed Power (DP) Experience since 2018**
  - Correct utilization and placement
  - Is DP 90% of ECP performance?
- **Operating Practices**
  - Are we using current tools to their best abilities?
  - Car and block placement
  - Over reliance on dynamic braking?
  - Use of pneumatic braking when making an emergency stop

- **Report from each of the three Task Force Groups**
- **Determine a path forward with each of the groups**

## Next Working Group Meeting

- Will be conducted via MS Teams
- Date is yet to be determined but will be sometime in early November



A dark blue background featuring silhouettes of approximately ten people sitting around a long table in a meeting room. The room has large windows in the background, and the overall atmosphere is professional and collaborative.

# QUESTIONS?



U.S. Department of Transportation  
**Federal Railroad Administration**

# Contact Us

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