



# Railroad Safety Advisory Committee

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## Engineering Task Force Update

to

## The 47<sup>th</sup> Railroad Safety Advisory Committee Meeting

September 27, 2012  
Washington, DC

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# Outline

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- Background
  - Timeline of previous tasks
  - Vision and current objectives
  - Update on current tasks (1<sup>st</sup> NPRM)
  - Task Group Updates
  - Meeting schedule
  - Long term plans (2<sup>nd</sup> NPRM)
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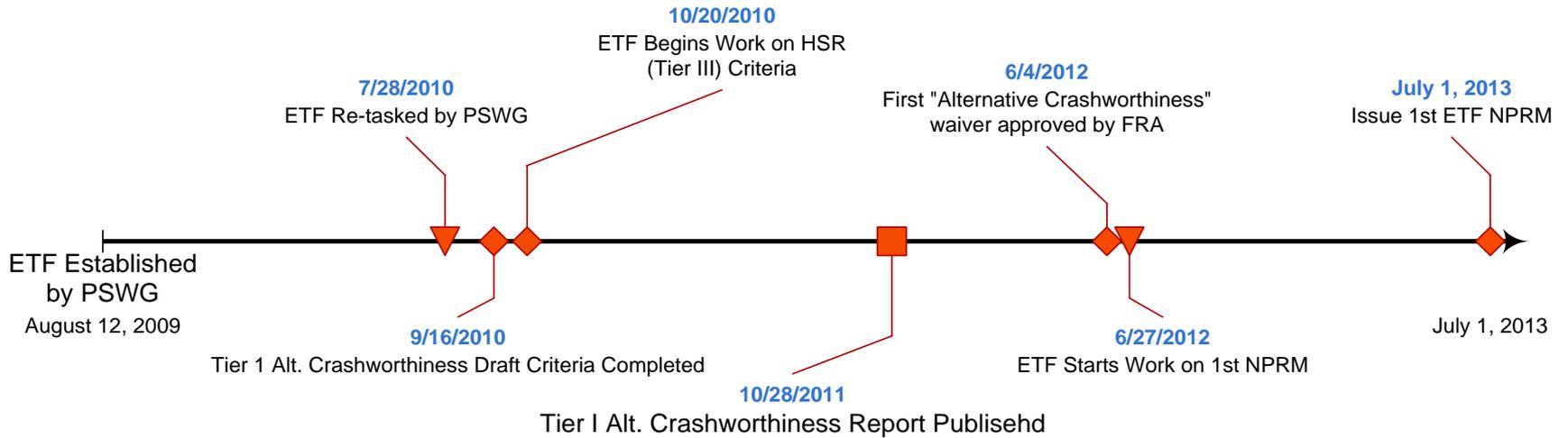


# Background

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- Engineering Task Force Established by Passenger Safety Working Group, August 12, 2009
    - Developed Technical Criteria and Procedures for the Crashworthiness of Alternatively-designed Tier I Equipment
  - ETF Re-tasked by PSWG, July 28, 2010
    - May Address Any Type of Equipment
    - May Address Any Safety Features of the Equipment
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# ETF Timeline



# Vision & Current Objectives

## Vision:

Create an interoperable, 3 tier, passenger equipment regulatory environment

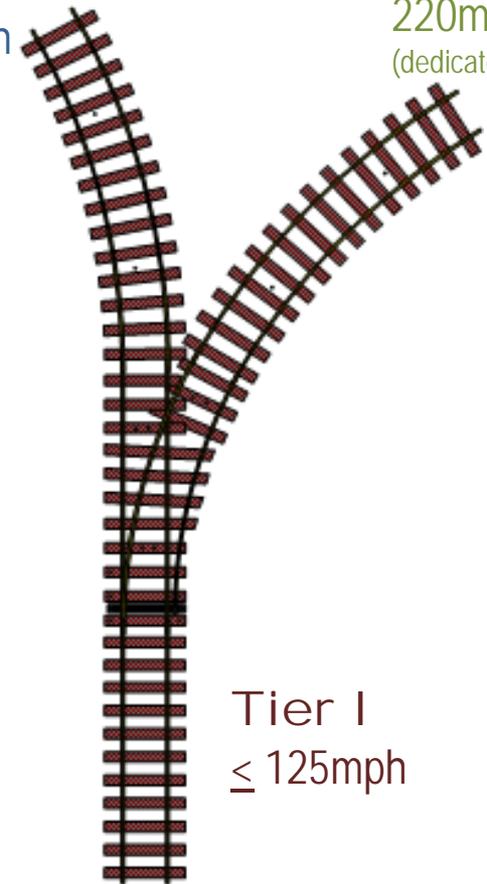
**Tier I** – conventional & alternative crashworthiness, speeds up to 125mph

**Tier II** – 160mph maximum authorized speed on existing ROW (i.e. NEC)

**Tier III** – interoperable w/ all tiers up to 125mph, dedicated ROW up to 220mph

Tier II  
Up to 160mph  
(e.g. NEC)

Tier III  
220mph  
(dedicated ROW)



## Current Objectives:

- Publish 1<sup>st</sup> NPRM (July 2013)
  - Tier I alternative crashworthiness
  - Tier III consensus items, to date
- Develop companion document describing the “process” for demonstrating compliance
- Continue to address outstanding high speed (Tier III) issues
- Define scope and develop consensus on issues for 2<sup>nd</sup> planned NPRM



# ETF Implementation Plan

## *NPRM 1:*

- Incorporate alternative crashworthiness standards for Tier I
- Define Tier III crashworthiness standards
- Align Tier II maximum allowable speed with new VTI rule (160mph)
- Codify remaining previous Tier III consensus items

## *NPRM 2:*

- Tier III Braking Systems
- Tier III VTI
- Adopt crashworthiness & occupant protection alternatives for Tier II
- Address EPREP requirements for Tier III operations (49CFR 239)
- Adopt Inspection, Testing, Maintenance and Monitoring requirements for all equipment Tiers and operations



# Status of Current Tasks

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- 1<sup>st</sup> NPRM is under development
  - Draft regulatory language is being finalized
  - Regulatory Impact Analysis (RIA) in development
- 3 Task Groups have been formed to evaluate issues in more detail (details on next slide)
- Consensus discussions for a 2<sup>nd</sup> NPRM have begun



# Task Group Updates

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## Brake Systems Tier III:

- Consensus reached on 8 of 9 recommendations
- Working with labor to address outstanding issues

## Vehicle-track Interaction (VTI):

- Developing an analysis to compare track standards, worldwide, to determine the need for regulatory boundaries

## Engineering, Structures & Integrity (ESI):

- Removed “procedure” language from ETF draft rule text
  - Developing a complementary document to clarify & standardize how compliance is ***demonstrated***
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# ETF Schedule



- Meeting #1—October 20 and 21, 2010 in Cambridge, MA
  - Discussions of scenarios, structural crashworthiness, occupant protection, and glazing
- Meeting #2—January 11 and 12, 2011 in Orlando, FL
  - Consensus on scope of scenarios, structural crashworthiness, occupant protection, and glazing
- Meeting #3—February 14 and 15, 2011 in Washington
  - Consensus on some structural crashworthiness requirements
- Meeting #4—March 30 and 31, 2011 in Washington
  - Consensus on most structural crashworthiness requirements
- Meeting #5— June 16 and 17, 2011 in Cambridge
  - Consensus on most crashworthiness, occupant protection, and glazing requirements
- Meeting #6 – October 6 and 7, 2011 in New Orleans
  - Consensus on Crashworthiness, Occupant Protection, Glazing, Fire Safety and E-Prep Requirements – Task Groups formed (VTI and Brake Systems)
- Meeting #7 – June 27 and 28, 2012, in Manhattan Beach, CA
  - Consensus on (most) Tier III Brake System requirements, outlined regulatory “plan”



# ETF Schedule (cont.)

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- Meeting #8 – September 25 and 26, 2012 in Washington, DC
  - Reviewed changes to draft regulatory language, presented draft regulatory impact analysis
- Meeting #9 – TBD



# Next Phase (long term)

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- Refine alternative crashworthiness requirements for “single car” application
  - Investigate the need to address Emergency Preparedness (EPREP) issues specific to Tier III
  - Adopt crashworthiness & occupant protection alternatives for Tier II
  - Investigate the possibility of expanding the Inspection, Testing & Maintenance (ITM) approach to all tiers
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