



## Railroad Safety Advisory Committee

### Dark Territory Working Group Task 10-02

December 14, 2010



## Agenda

- Interpretation of the Congressional Mandate
- Formation of the Working Group
- Timelines for the Task



## RSIA of 2008

### TITLE I-Railroad Safety **Improvements**

Sec. 101  
Sec. 102  
Sec. 103  
Sec. 104  
Sec. 105  
...  
Sec. 110

**Implementation of  
positive train control**

### TITLE IV-Railroad Safety **Enhancements**

Sec. 401  
Sec. 402  
Sec. 403  
...  
Sec. 406 **Development and use of  
rail safety technology**  
Sec. 407  
...  
Sec. 412



## Sec . 406 Development and Use of Rail Safety Technology

- **Not later than 1 year** after enactment of the RSIA of 2008...  Lagging behind
- ... prescribe standards, guidance, **regulations**, or orders...  NPRM, Final Rule
- ... governing the development, use, and implementation of rail safety technology in **dark territory**...

1. Switch position monitoring devices or indicators
2. Radio, remote control or other power-assisted switches
3. Hot box, high water, or earthquake detectors
4. Remote control locomotive zone limiting devices
5. Slide fences
6. Grade crossing video monitors
7. Track integrity warning systems
8. Other technologies as defined by the Secretary



**Main task:**  
Cover the use of these technologies by regulations



## Safe Technologies for Dark Territories – Is this a New Issue?

**NO!** April 19, 2007: FRA Technical Conference, Informal Safety Inquiry

**What** technologies are being offered that are safety-relevant and pertain to railroad operations that are not already within some clearly defined regulatory program.

**How** the technology is being used. Some technology is being used in a manner other than that which the manufacturer intended.

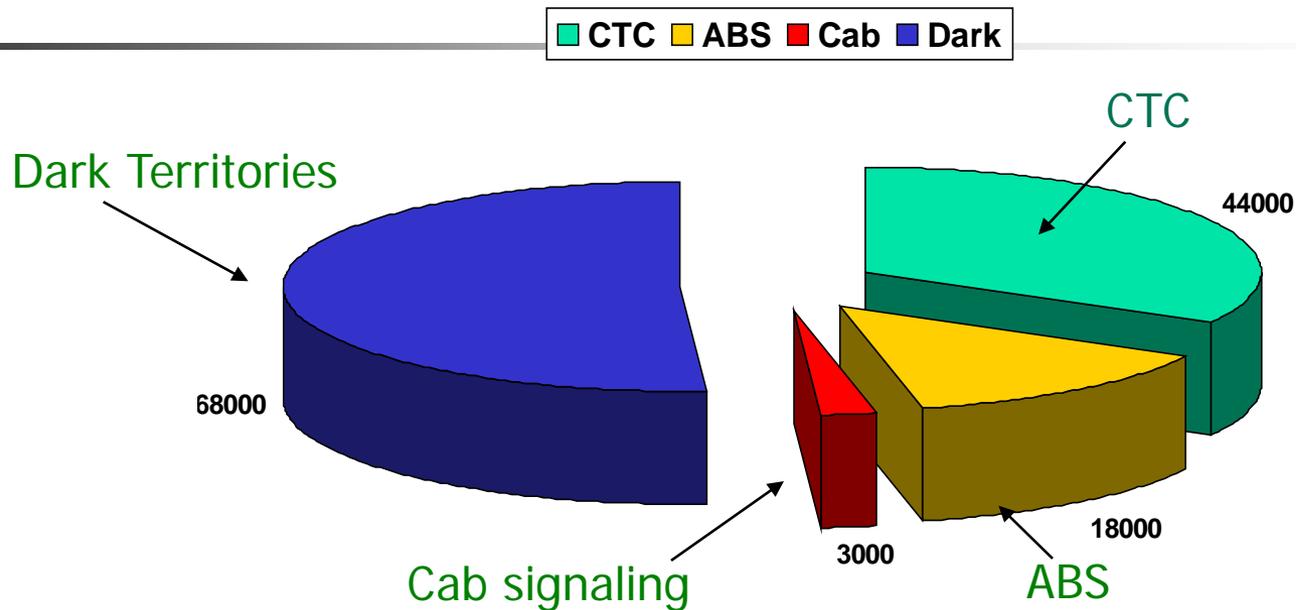
What kind of **safety analysis** is being performed before it's introduced, what kinds of **safeguards** are being utilized to implement the technology and how personnel who are going to interact with the technology are being **trained** and familiarized with that technology.



## PTC Technologies vs. New Technologies in Dark Territories: Similarities and Differences

	PTC Technology	New Technologies in Dark Territories
Is technology nature shifted (microprocessor-based, communication-based)?	Yes	Predominantly
Is voluntary participation encouraged?	Yes 49 CFR Part 236, Subpart H	Yes Not regulated.
Is implementation mandated?	Partially 49 CFR Part 236, Subpart I	No Should it be? Yet to be determined.
Performance-based regulations?	Yes	Yet to be determined.
Is safety and risk assessment set?	Yes	No Yet to be determined.

# Route Mileage by Signal Control Type\*



\*Data from Volpe Rail Network, 1996. The network contains **133,000** route miles, of which **65,000** are equipped with some type of signal control.

2005: **40%** (62,000 track miles) – Dark Territories. **60%** (92,000 mi – Signaled. 82% of total train traffic is operated on signaled trackage.

One of the primary WG tasks is to determine exact data

# Portion of Dark Territories on U.S. Railroads

	Number	Track-mi	%Dark
Class I Freight Railroads	7	140,000?	?
Intercity Passenger [Amtrak, Alaska Railroad]	2	?	?
Commuter Railroads/Agencies	22	?	?
Regional Railroads	33	?	?
Short-Line Railroads	519	?	?
Tourist, excursion, historical, etc.	?	?	?
Total Track Miles	600	200,000	40



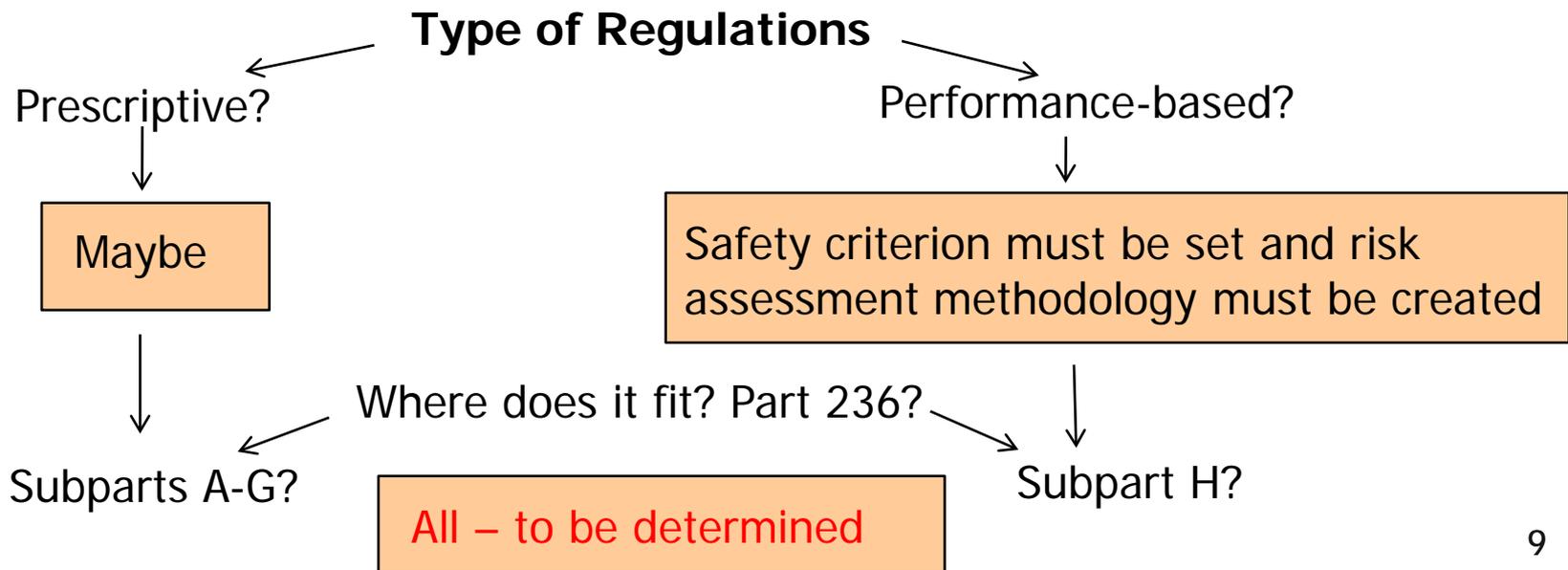
# Federal Railroad Administration



1. Switch position monitoring devices or indicators
2. Radio, remote control or other power-assisted switches
3. Hot box, high water, or earthquake detectors
4. Remote control locomotive zone limiting devices
5. Slide fences
6. Grade crossing video monitors
7. Track integrity warning systems
8. Other technologies as defined by the Secretary



**Main task:**  
Cover the use of these technologies by regulations





## Working Group Formation

Committee Expressions of Interest were due by 1 December

The Working Group webpage is complete and to date we have received member nominations from the following Committee member organizations;

AAR

APTA

ASLRRA

ATDA

BLET

BMWE

BRS

NCRMA

RSI

NTSB

*If you have not yet submitted nominations for participation please do so.*



## Timeline for the Working Group Task

**Goal:** **September 30, 2011** – To report recommendations to the FRA Administrator for a proposed or interim final rule.

**Meetings:** Every 5-6 weeks starting February 2011, 5-6 meetings total.

**Proposed date for the first meeting:** **Wednesday, February 16, 2011.**

**Scope of work and schedule** is to be discussed in January 2011 and finalized during the first meeting of the Working Group.



# Questions?