



BUILDING AMERICA®

March 8, 2016

Railroad 101 & Safety

Lindsey Douglas-
Director Public Affairs-
KS & MO



Building America for more than 150 Years



2014 Fast Facts

Revenue: **\$24.0 B**

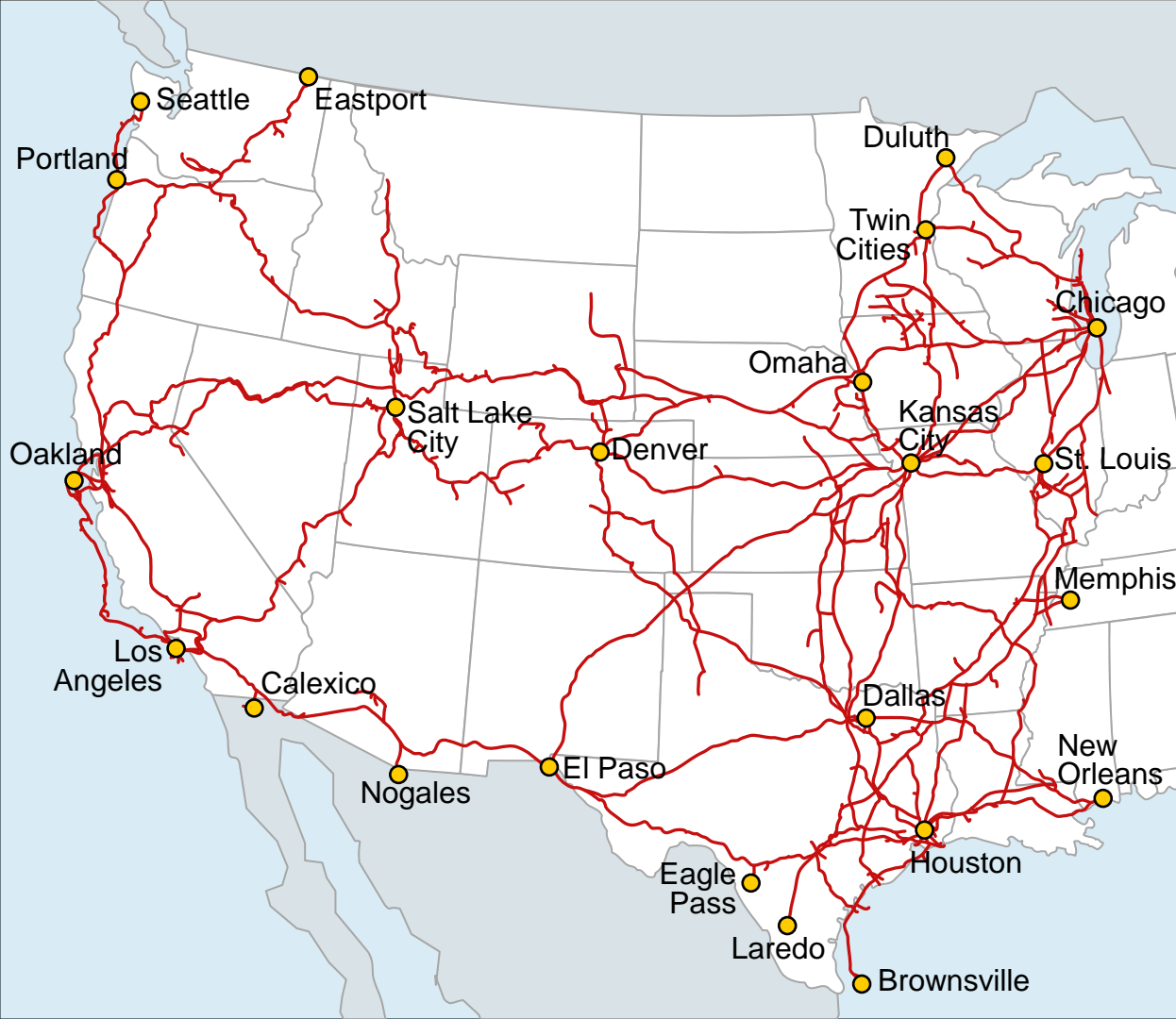
Route Miles:
32,000 in 23 States

Employees: **47,200**

Annual Payroll: **\$4.6 B**

Customers: **10,000**

Locomotives: **8,500**





2014 Union Pacific in Kansas

Miles of Track: **2,203**

Annual Payroll: **\$149.3 M**

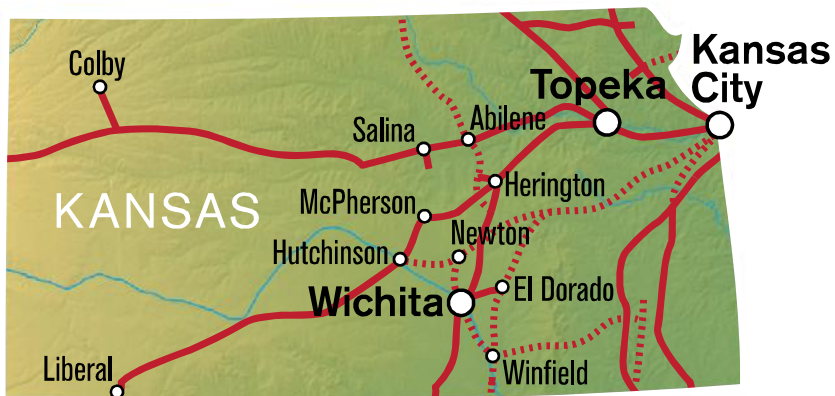
In-State Purchases: **\$344.5 M**

Capital Investment: **\$136.7 M**

Employees: **1,532**

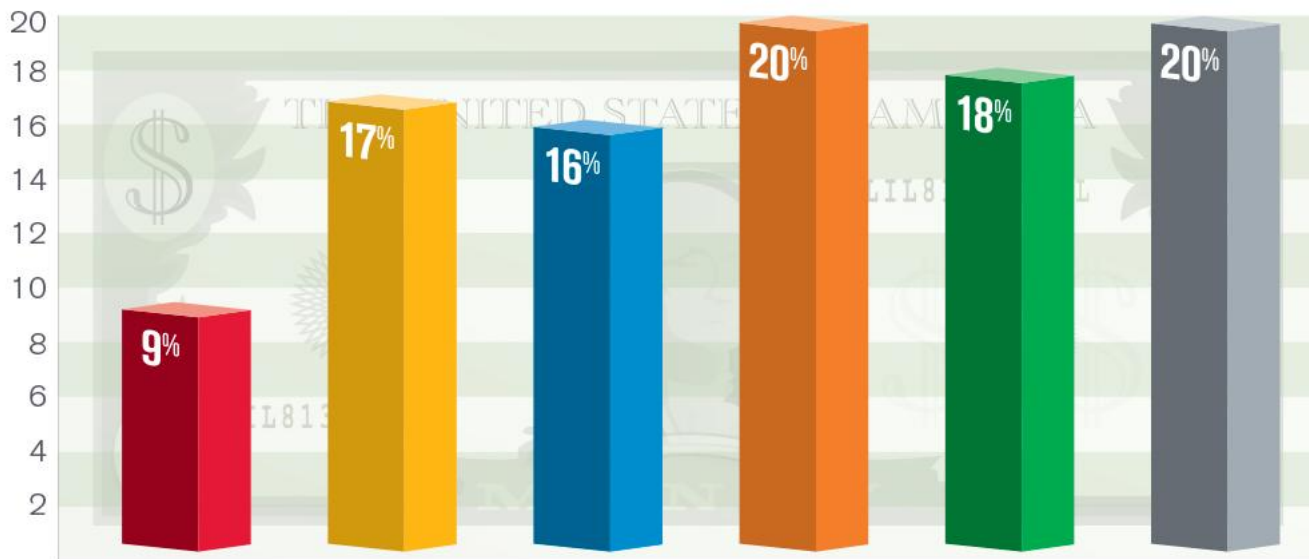
U.S. Jobs Supported: **6,894**

Charitable Organizations: **83**



2014 Business Mix

by Freight Revenue \$22.6 Billion



Percentage of \$22.6 Billion Freight Revenue



Auto



Agriculture



Chemical



Industrial



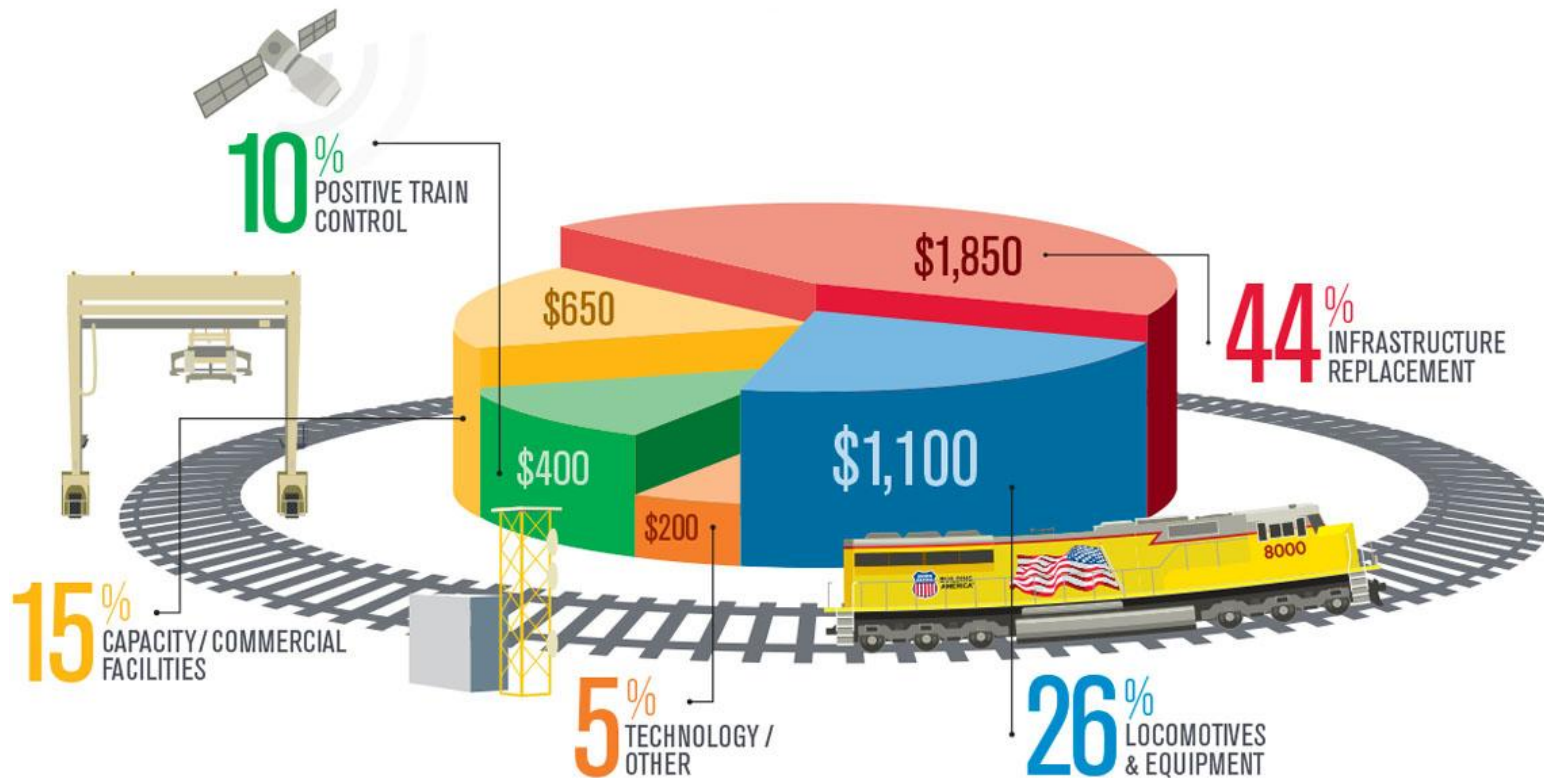
Coal



Intermodal

Strengthening the Franchise

~\$4.2 Billion 2015 Capital Plan*

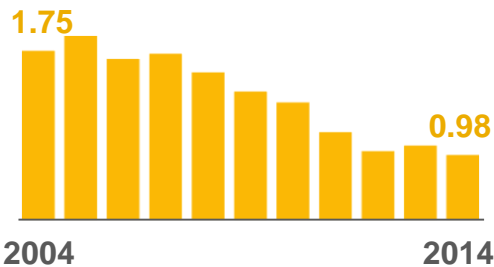


*In millions. Includes cash capital, leases and other non-cash capital.

Safety is Top Priority

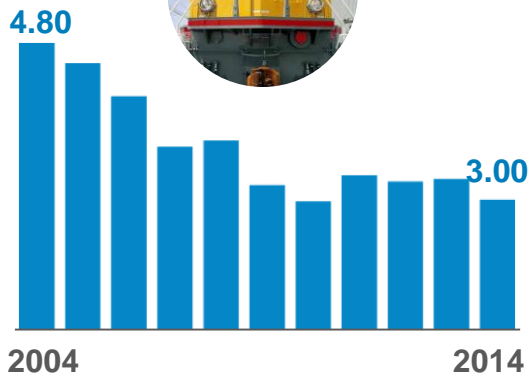


↓ **44%**
EMPLOYEE



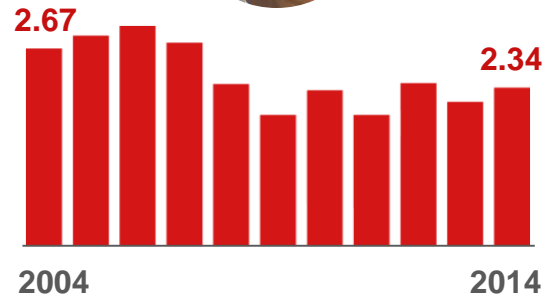
Reportable Injuries
Per 200,000 Employee Hours

↓ **38%**
DERAILMENT



Reportable Derailments
Per Million Train Miles

↓ **12%**
PUBLIC



Grade Crossing Accidents
Per Million Train Miles



VEHICLE-TRAIN COLLISIONS CUT IN

1/2 OVER THE
PAST 20 YEARS

How is Union Pacific using technology to enhance safety?



- We are constantly improving our systems

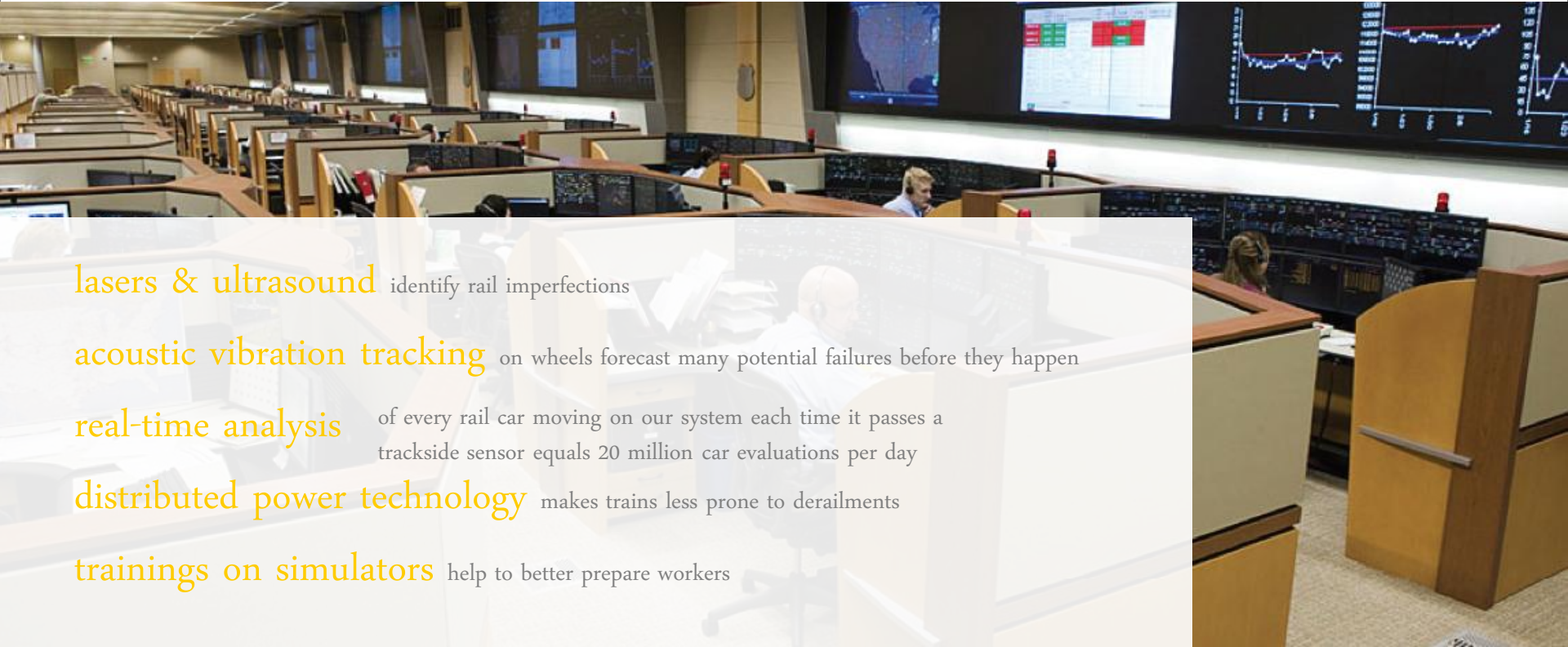
lasers & ultrasound identify rail imperfections

acoustic vibration tracking on wheels forecast many potential failures before they happen

real-time analysis of every rail car moving on our system each time it passes a trackside sensor equals 20 million car evaluations per day

distributed power technology makes trains less prone to derailments

trainings on simulators help to better prepare workers



UPRR Bridge Inspection Program



- Rail bridges span canyons, rivers, roads and other geographic features to help us efficiently deliver freight
- Nearly **600** bridge maintenance and inspection professionals perform **38,000** inspections per year to ensure the safety and structural integrity of bridges
- More than 95 percent of UP's bridges are inspected a minimum of twice annually



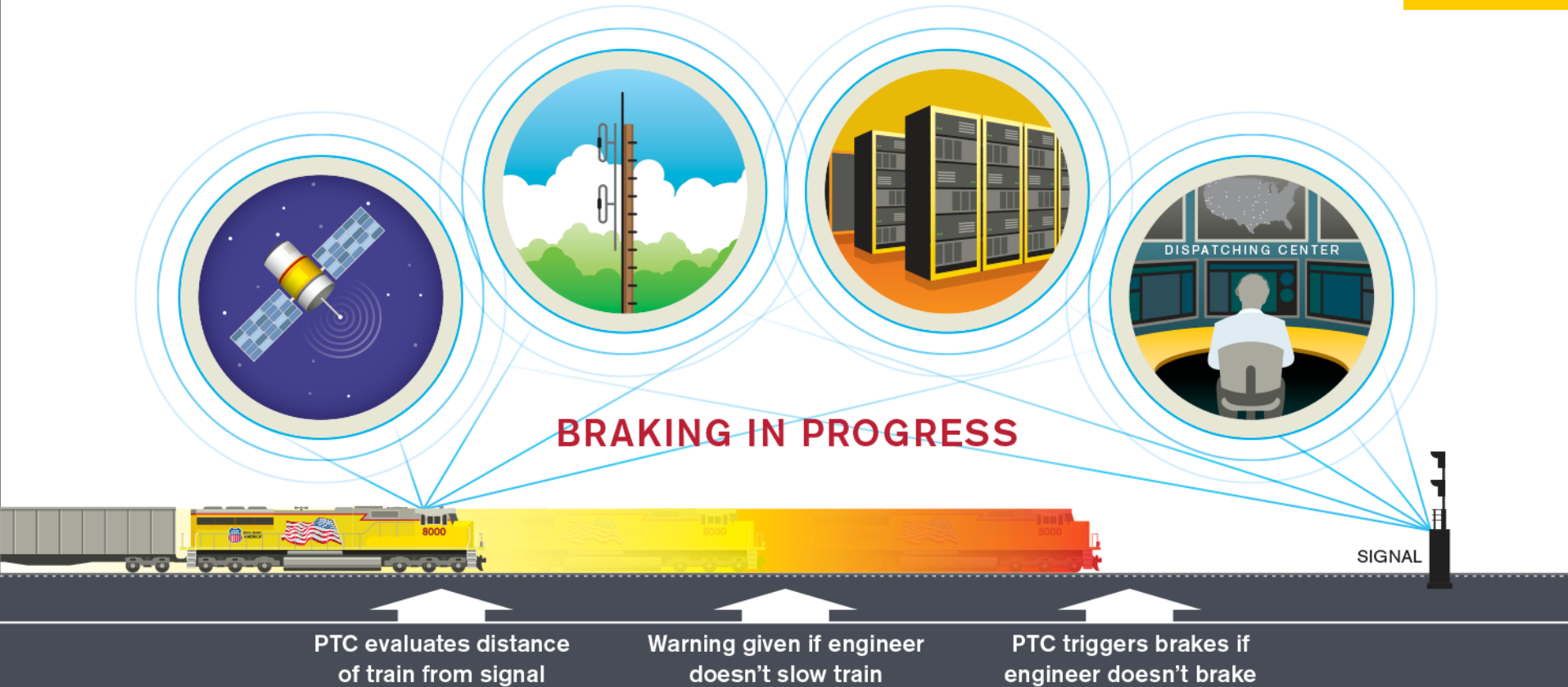
UPRR Bridge Inspection Program Structures Assessment Team



- Full time teams work on bridge program
- Snooper trucks (hyrail access truck) used for inspections



PTC: How it Works



PTC Installation

An unprecedented undertaking

- 6,500 locomotives
- 20,000 route miles
- 10,000 wayside antennas
- 6,500 locomotive radios



**UNION PACIFIC'S
PTC INVESTMENT**

**\$2.5
BILLION**



BUILDING AMERICA®

March 8, 2016

Union Pacific Railroad

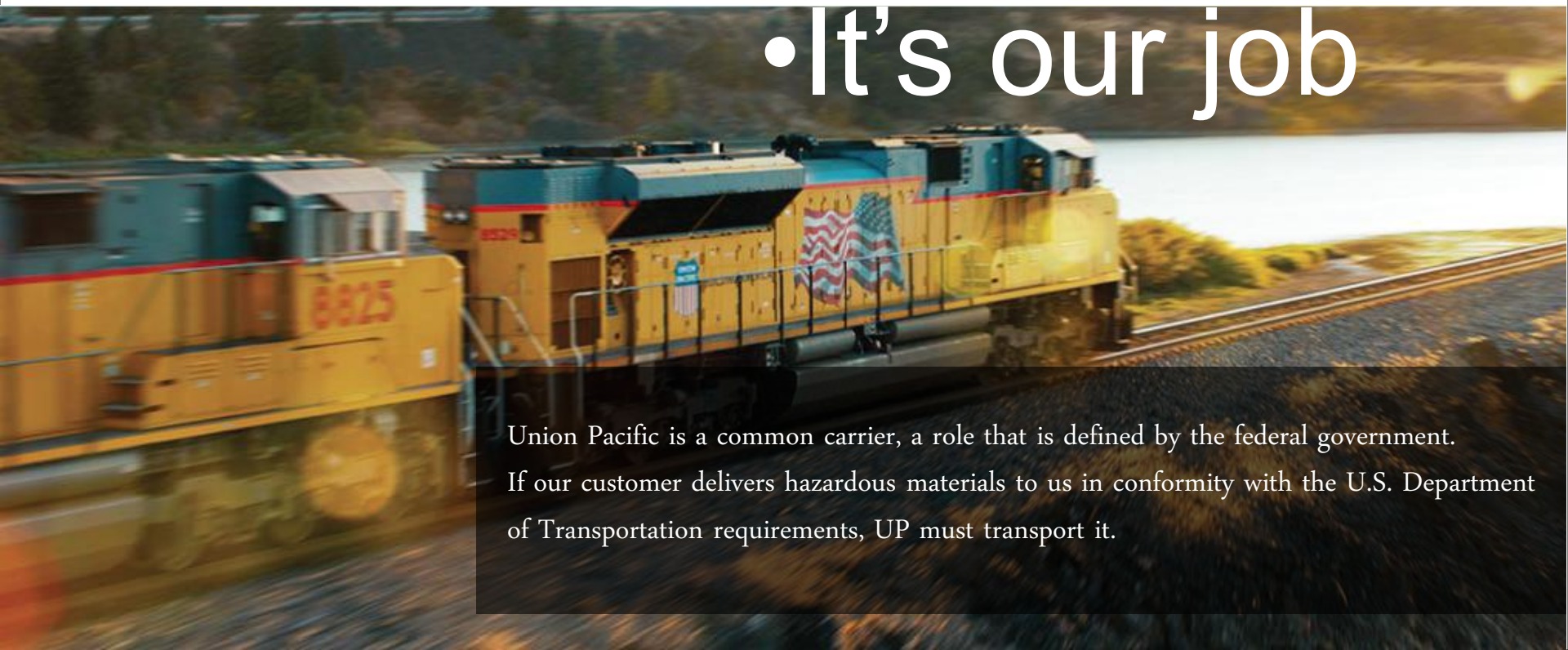
Hazardous Materials Management

Benjamin Salo &
Lane Sekavec

Why do we haul hazardous materials? (crude, chlorine, etc.)



• It's our job

A photograph of two Union Pacific locomotives, numbered 8825 and 8829, traveling on a track. The locomotives are yellow with blue and red accents. The locomotive in the foreground has an American flag graphic on its side. The background shows a body of water and a sunset or sunrise sky.

Union Pacific is a common carrier, a role that is defined by the federal government. If our customer delivers hazardous materials to us in conformity with the U.S. Department of Transportation requirements, UP must transport it.



RAILROADS HAVE

20X FEWER HAZMAT
INCIDENTS
THAN TRUCKS



Our Message is for Everyone

“The best time to
make friends is
before you need
them”

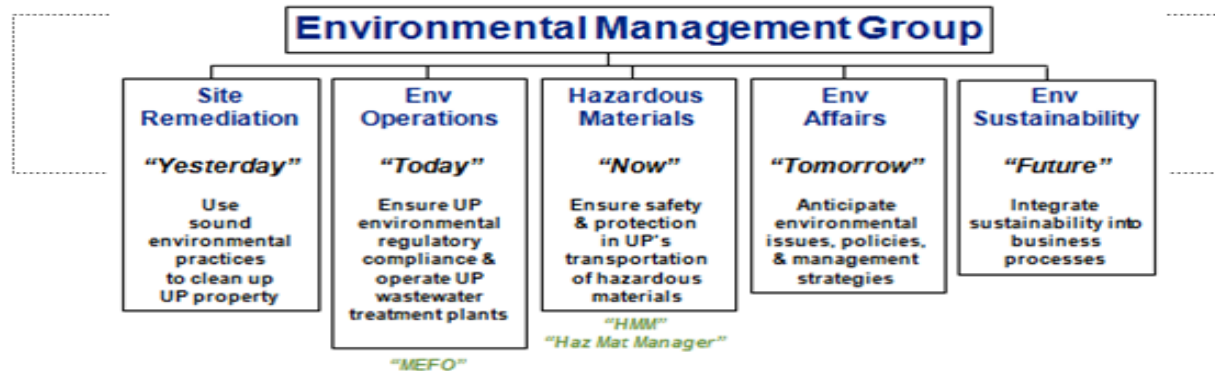


Union Pacific - Environmental Management System



At Union Pacific Railroad, we are committed to protection of human health, regulatory compliance, pollution prevention and continuous improvement of environmental performance.

Organizational Approach



UPRR Hazardous Materials Management

Our Mission



The Hazardous Materials Management Group (HMM)

- **HMM** is responsible for compliance with the DOT's Hazardous Materials regulations by continuously monitoring the ever changing regulatory climate.
- **HMM** aggressively works to **prevent** hazardous materials releases, actively **prepares** for **response** activities, responds as necessary, and works across all departments to **recover**.



UPRR Hazardous Materials Management

Our Mission



- **Prevention** – Prevent releases of hazardous materials in transportation.
- **Preparedness** - Develop internal and external assets for response and recovery.
- **Response** – Emergency response to releases to protect health minimize impact and stabilize the incident.
- **Recovery** – Progress incident to normal operations and to the point where closure work can begin.



Prevention



Inspections

- Tank car
- Train
- Crew audits

Training

- Employees
- Customers

Continuous Improvement

- Industry committees
- Equipment design improvements

Preparedness



© MJGrant

Mobile Training Trailers. On Site availability

Training Tank Cars. Schedule for large events, has a classroom box car accompanying.



Response Plans

- HMERP
- Community-Right-to-Know (Tier II)
- OPA-90

Training

- Public Responders
- Employees
- Private/Industry

Drills/Exercises

Commodity Flow Data



Since 2004
50,000
First Responders
Trained

2014 Crude-by-rail
Training Program
\$5 MILLION
Investment

TRANSCAER



CHEMTREC
1971-2011: First in Response for 40 Years

The World's Leading Resource for information on
HAZARDOUS MATERIALS AND DANGEROUS GOODS.

[LEARN MORE TODAY](#)

CHEMTREC



ASSOCIATION OF
AMERICAN RAILROADS

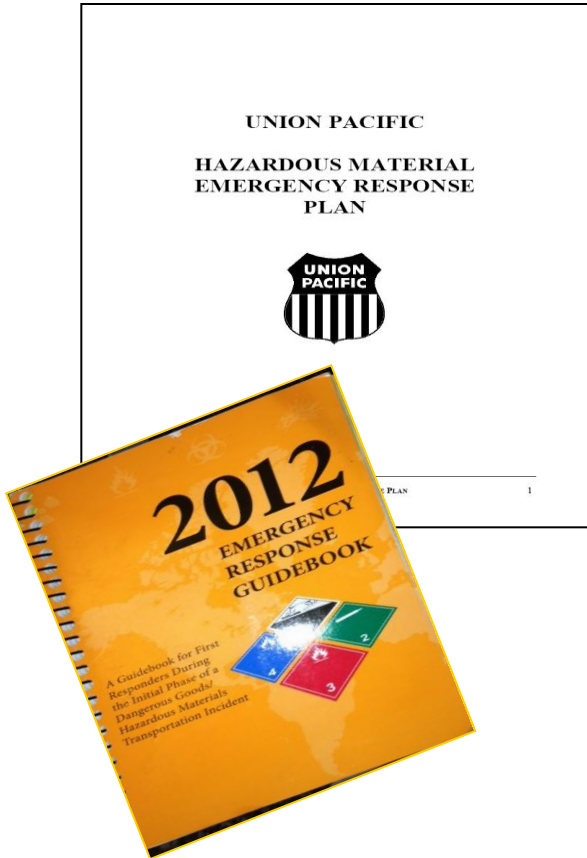


RENEWABLE
FUELS
ASSOCIATION



The Fertilizer Institute
Nourish. Regenerate. Grow.

Preparedness - HMERP

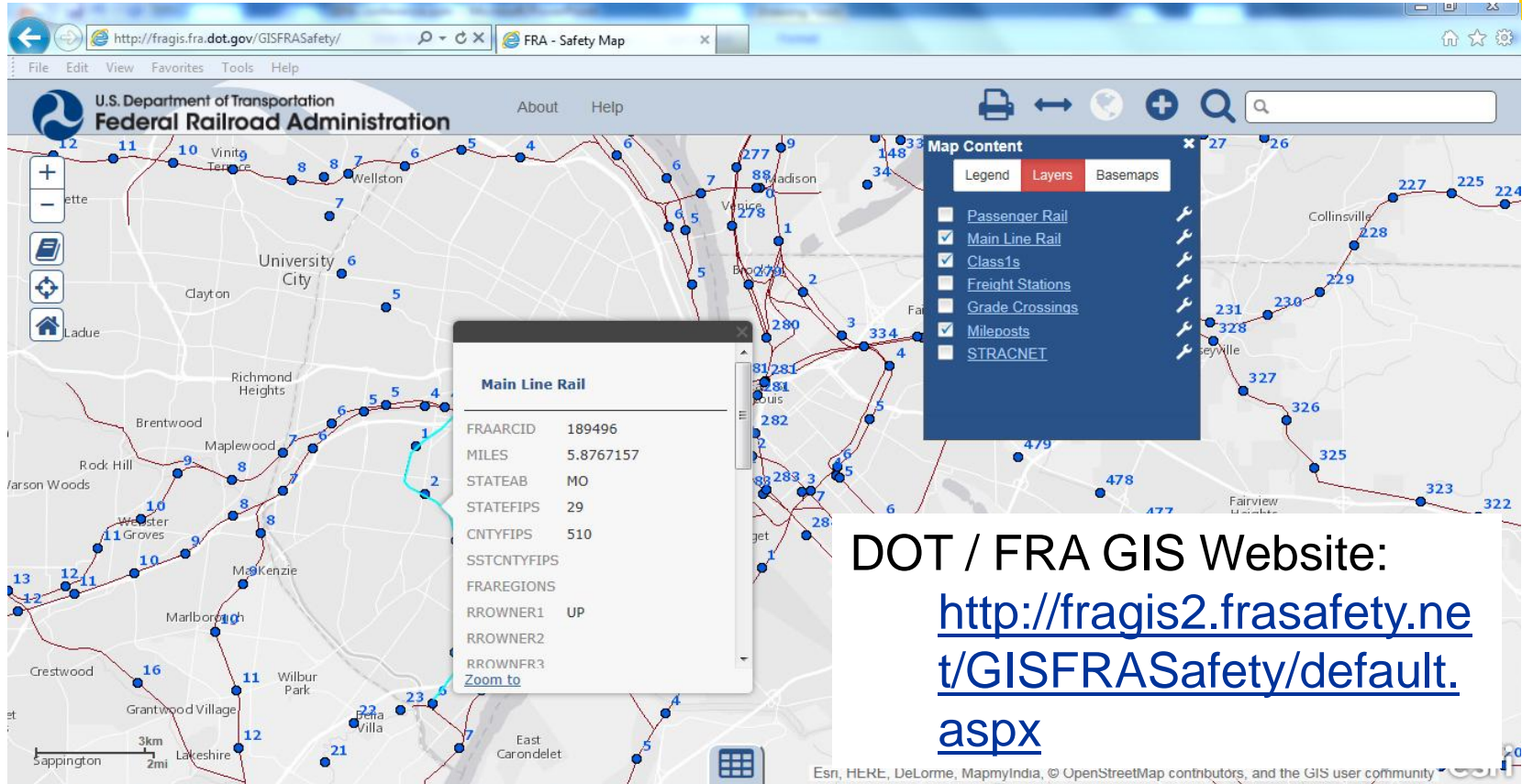


To guide our actions:

Hazardous Materials Emergency Response Plan (HMERP)

- Company level plan
- Employee responsibilities
- Incident command system (NIMS) and responsibilities
- Emergency response personnel – roles, responsibilities & training
- Other actions

DOT / FRA GIS Website



Response



- Safety
 - Employees
 - Community
- Coordination of Responders
 - Public Responders (IC)
 - Regulatory Agencies
 - Specialized Contractors
- Response Duties
 - Analyze the problem
 - Plan the response
 - Implement plan
 - Evaluate & adjust



Union Pacific Hazardous Material Response Network

- ★ Hazardous Materials Managers
- ★ Manager Site Remediation
- ★ Special Agent HazMat



Response – “It all starts here!”



UPRR's Response Management Communications Center 1-888-UPRR-COP (1-888-877-7267)



For Emergencies Dealing with:

- Criminal Activities
- Crossing Accidents/Accidents, Not at Crossings
- Derailments
- Fires
- Hazardous Material Spills/Environmental Incidents
- Injured Parties/Fatalities
- Track Obstructions

Response Management Communication Center (RMCC) 888-877-7267



- They are staffed 24 hrs/day.
- They make reports/calls to CHEMTREC®, National Response Center and shippers.
- They make mandatory notifications to state and federal agencies.



Response Assets

UPRR Hazmat Response Assets



Foam Trailers

Omaha, NE
Chicago, IL
Colton, CA
El Paso, TX
Fort Worth, TX
Little Rock, AR
North Platte, NE
Portland, OR
Roseville, CA
Salt Lake City, UT
St. Louis, MO
Tulsa, OK



Response

Assets : Emergency Response Contractors



- Tactical response
- Wrecking operations
- Environmental remediation
- Advanced air monitoring - CTEH





Response Assets

Contractor Air Monitoring Program



Recovery



Product/Container Fate

- Product Removal/Transfer
- Container
- decontamination/cleaning

Incident Termination

- Debriefing
- Post Incident Analysis (PIA)
- Critique
- Required Reporting

Site Remediation

Restoration



UPRR Recovery Assets

Transfer Trucks/Trailers



- Colton, CA – Trailer
- North Little Rock, AR–
Truck
- North Platte, NE – Trailer
- Portland, OR - Trailer
- Roseville, CA - Trailer
- Salt Lake City – Truck

UPRR's Hazardous Materials Management Review



- **Prevention** – Prevent releases of hazardous materials in transportation.
- **Preparedness** - Develop internal and external assets for response and recovery.
- **Response** – Emergency response to releases to protect health minimize impact and stabilize the incident.
- **Recovery** – Progress incident to normal operations and to the point where closure work can begin



Questions?



Thank You !