Port of Vancouver

BNSF Railway – Hazardous Material Transportation Preparedness and Response

June 4th, 2013

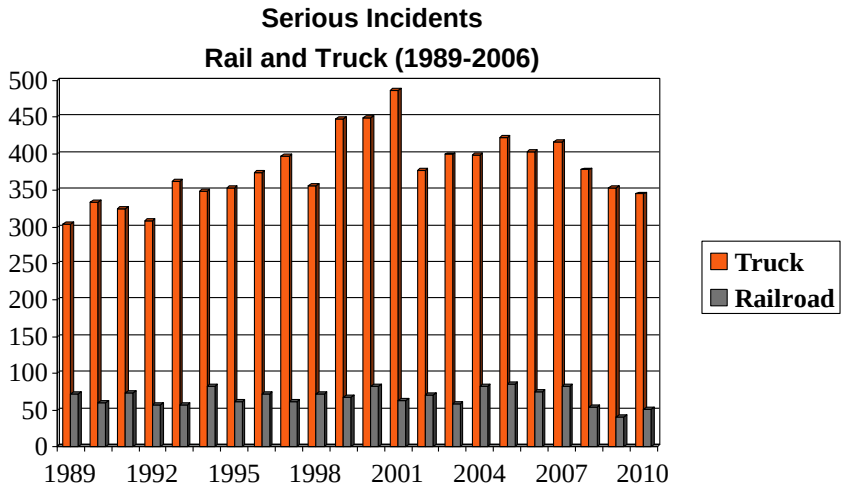
Hazardous Materials

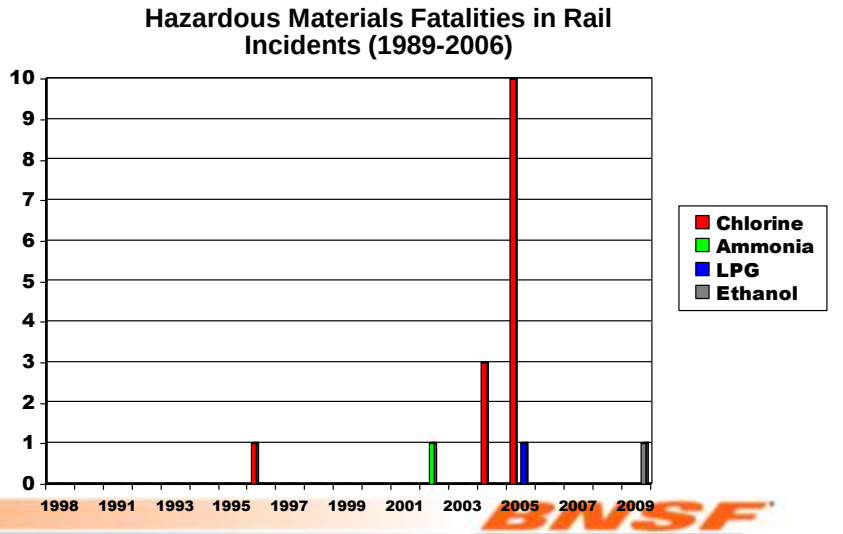
- ***For US Railroads Hazardous Materials Account for:***
  - 5% of total U.S. freight rail carloads
  - 5% of tonnage
  - 6% of ton-miles
- **68% of rail hazmat travels in tank cars**
- **28% on intermodal flat cars; the remainder in covered hoppers, gondolas, and other car types**
- **The most potentially hazardous materials, termed toxic inhalation hazards (TIH) are nearly all transported in tank cars. TIH materials constitutes only about 0.3 % of all rail carloads. In 2012 TIH shipment declined about 15% as safer alternatives are developed and transported.**

Hazardous Materials Transport

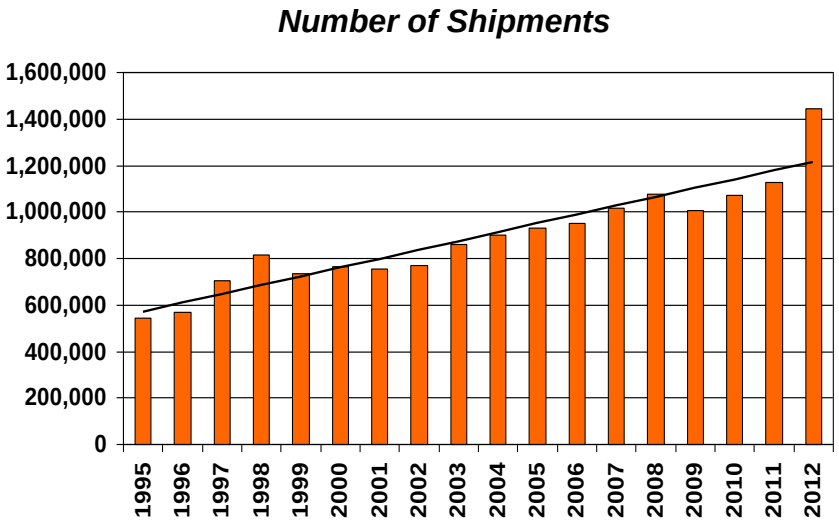
As common carriers, railroads are required under federal law to move hazardous materials

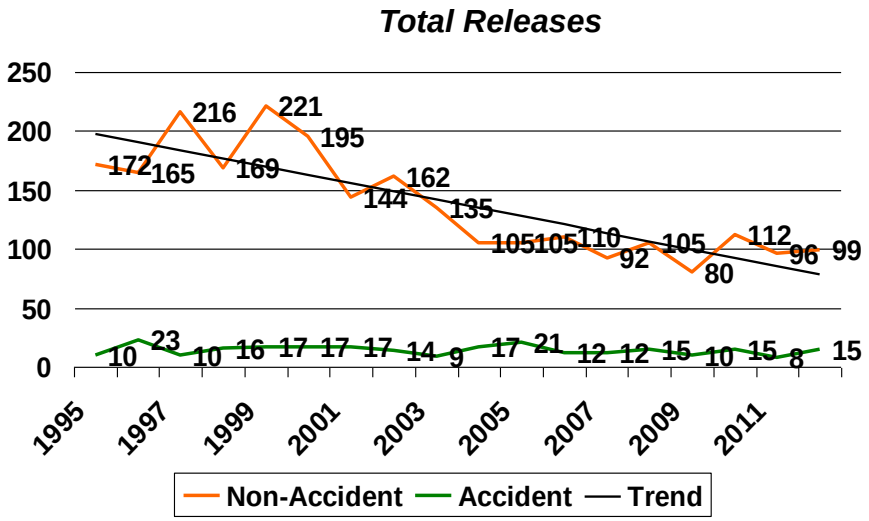
- **Virtually all are shipped without incident (99.998%)**
- **Hazmat accident rates have declined by 90% since 1980 and nearly 50% since 1990**
- **Moving hazardous materials by rail is 16 times safer than moving them on the roads**
- **Railroads incurred 17 fatalities since 1989 while trucks average nearly 11 annually. BNSF had none.**





BNSF Hazardous Materials Transportation





Examples of Types of Releases

Any identifiable release is reportable under DOT regulations

Non-Accident Release

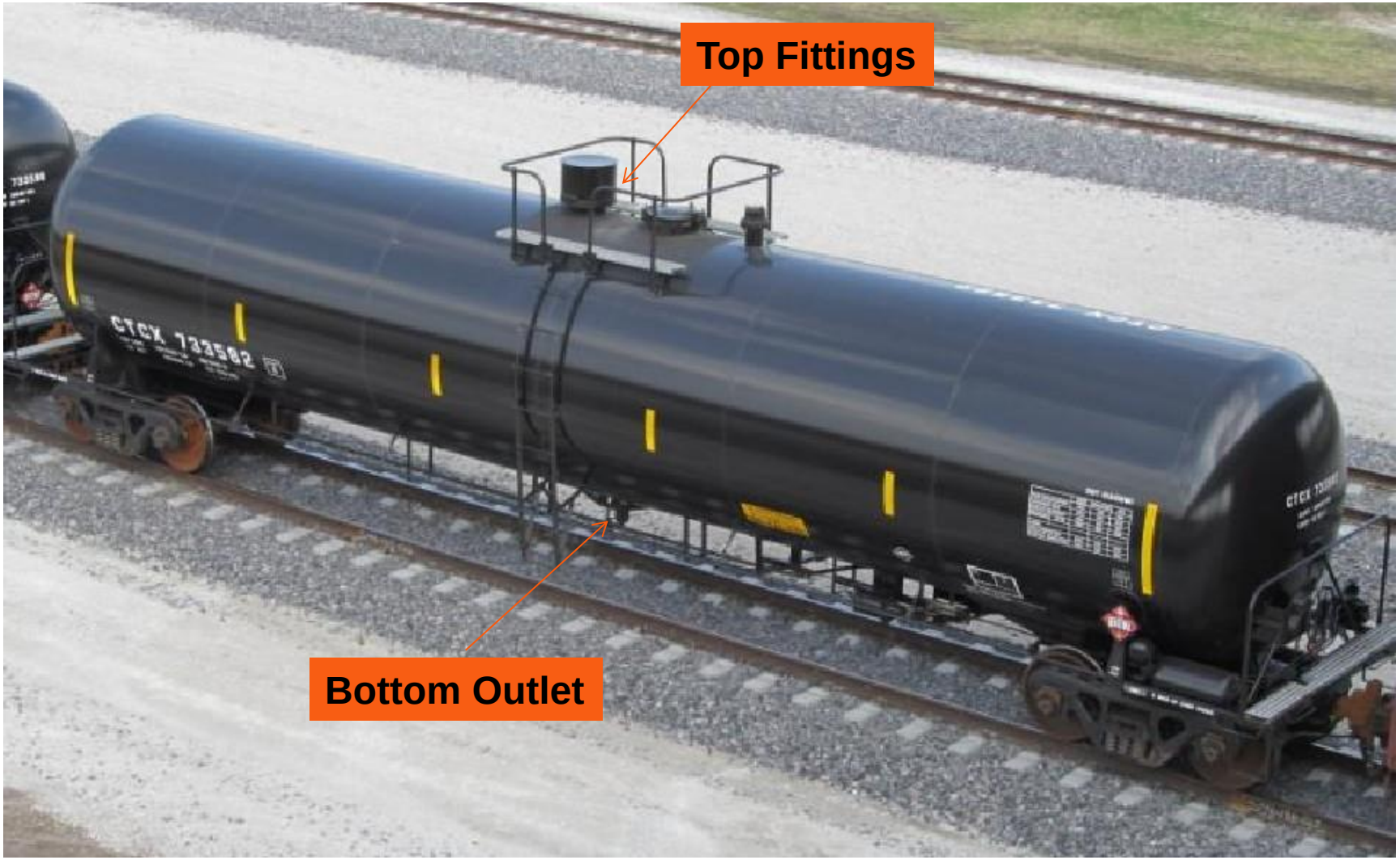
Accident Release

BNSF Washington State Crude Oil Transportation

- Currently for BNSF, US "Crude by Rail" consists of mainly transportation from various Shale oil sources (i.e Bakken, Eagle Ford, Permian Basin etc).
- In 2012 - 3,632 shipments of petroleum crude oil (PCO) came to WA State
- In Q1 2013 – over 3,700 of PCO came into WA State

	BNSF Crude Oil Transport		
Year	LDD SHPMTS	RESIDUE SHPMTS	TOTAL SHPMTS
2011	38,312	39,514	77,826
2012	152,926	162,678	315,604
% Change	299.16%	311.70%	305.53%

Low Pressure Tank Car – DOT 111A100W1



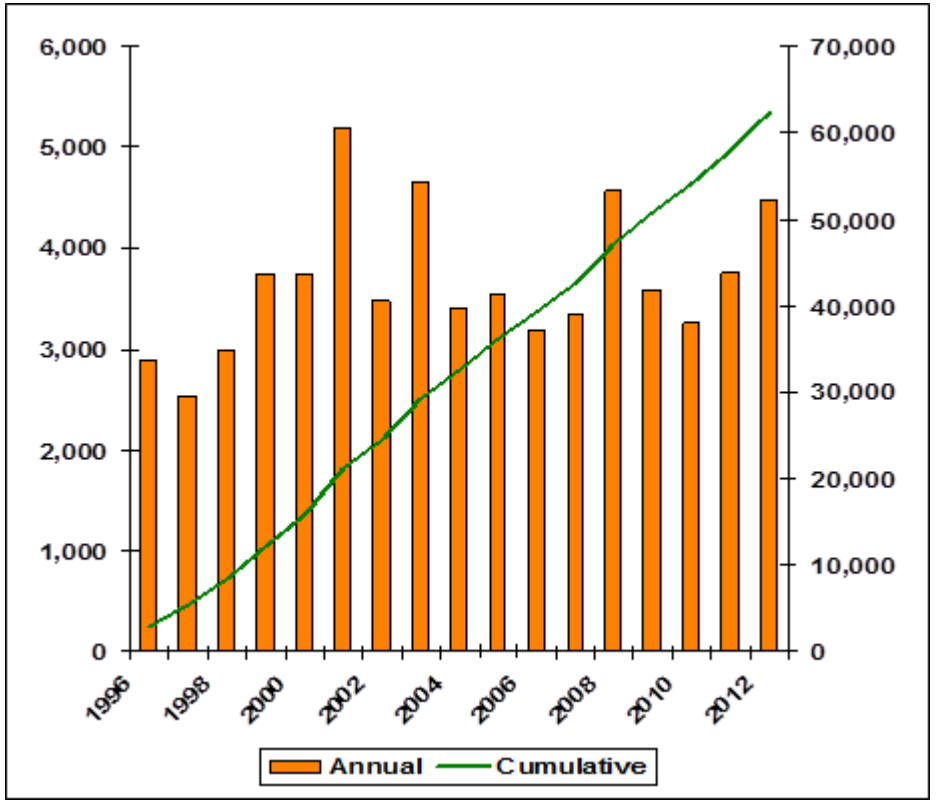
Preparedness: Community Training

Community focus is on training responders and providing interpretative information. Training is available via instructor lead or computer based training.

Training topics include:

- Train list / shipping papers
- Placards
- Equipment
- Incident Assessment
- *Hands-on equipment in field – Instructor lead*
- ***Commodity Flow Study***

Number of Responders Trained



Emergency Preparedness and Planning

System Emergency Response Plan

- **Identifies how BNSF responds to incidents throughout our system**
- **Includes:**
  - LRP's (Local Reaction Plans)
  - LERP's (Local Emergency Response Plans)
  - Notification Procedures
  - Outlines Roles and Responsibilities

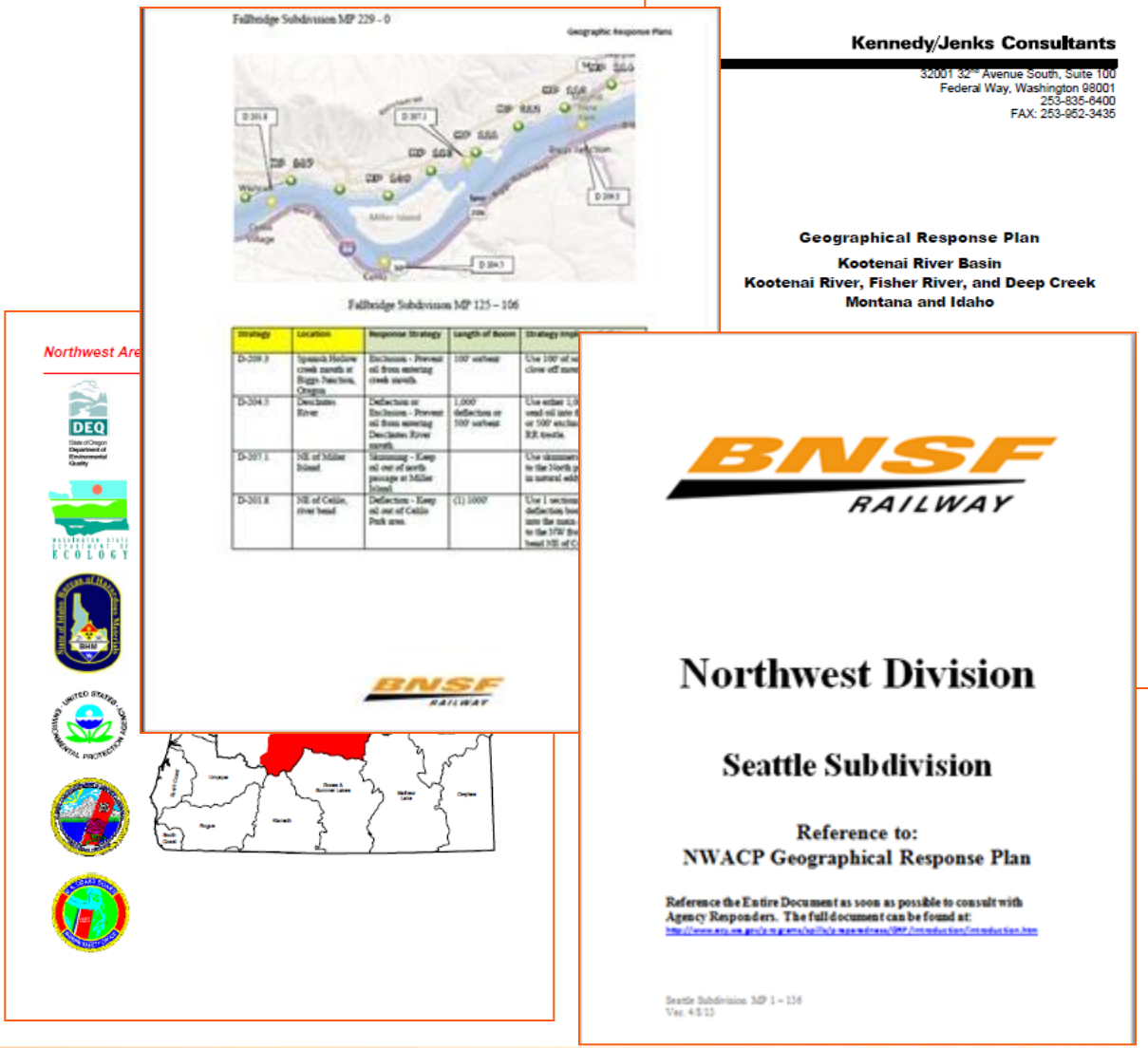
Geographical Response Plan Support/Development – Water Response

Public Plans

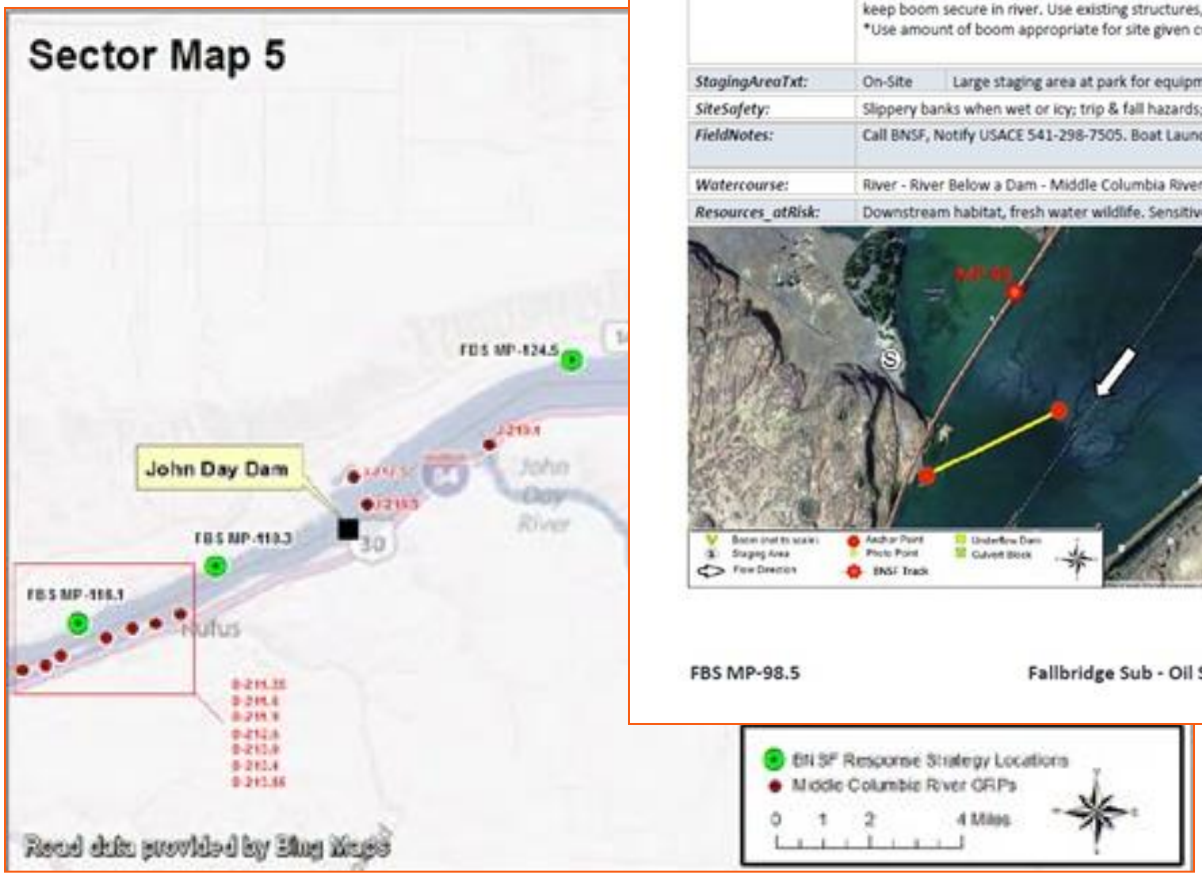
- Northwest *(w/ additional quick access reference documents)*
- Coastal
- Mississippi River
- Working w/ EPA + others on Plans in ND, MT, WY

Rail Specific

- Kootenai River (MT)
- Columbia River CCP's
- Colorado River (CO)
- Wind River (WY)
- Middlefork Flathead/Glacier Park – In development (MT)



BNSF Company Control Points



RM 194.2 - Horsethief Lake State Park			FBS MP-98.5
Position - Location:	45.63991	-121.103485	Lyle, WA (Klickitat County)
StrategyObjectiveTxt:	Collection		Collect oil moving downstream from upstream source
Implementation:	Anchor boom end to river bank near 45.639909,-121.103485. With FRV, tow remaining boom end upstream towards NE or ENE and anchor in place, as appropriate, based on environmental conditions and river speed. Use additional anchor systems as needed to keep boom secure in river. Use existing structures, anchor posts, or trees to secure boom to river bank. *Use amount of boom appropriate for site given current conditions, angle as appropriate and needed.		
StagingAreaTxt:	On-Site	Large staging area at park for equipment. Good recovery access but only 80-70bbl able to fit at recovery location.	
SiteSafety:	Slippery banks when wet or icy; trip & fall hazards; water hazards; active railway hazards.		
FieldNotes:	Call BNSF, Notify USACE 541-298-7505. Boat Launch is available at recovery location for smaller skiffs/FRVs.		
Watercourse:	River - River Below a Dam - Middle Columbia River - The Dalles Pool Area - Lake Celilo		
Resources_atRisk:	Downstream habitat, fresh water wildlife. Sensitive resouces nearby.		

Recommended Equipment		
1000	Feet	River Boom (or other appropriate type)
1	Each	Workboat (FRV)
1	Each	Anchor Post Driver(s)
2	Each	Anchor Post(s)
4	Each	Anchor systems (anchor, lines and floats)
1	Each	Towing bridal (sized for boom)
1	Each	Vac Truck(s) (with Truck Operator) - 70bbl or 80bbl only
1	Each	Nearshore skimming system (with storage)

Recommended Personnel	
1	Supervisor(s)
3	Laborer(s)
1	Boat Operator(s)

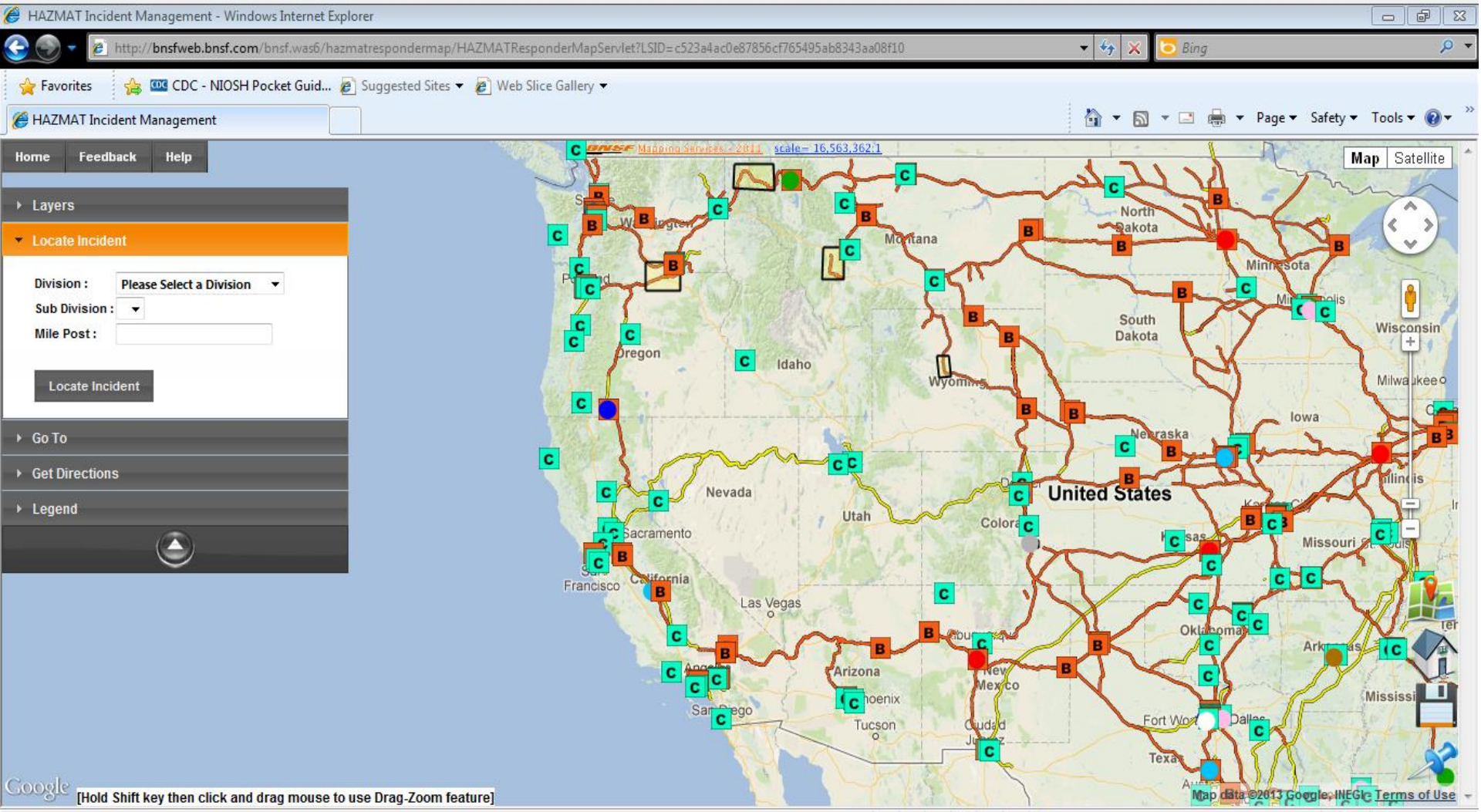
FBS MP-98.5 Fallbridge Sub - Oil Spill Control Points (CCPs) 4-57

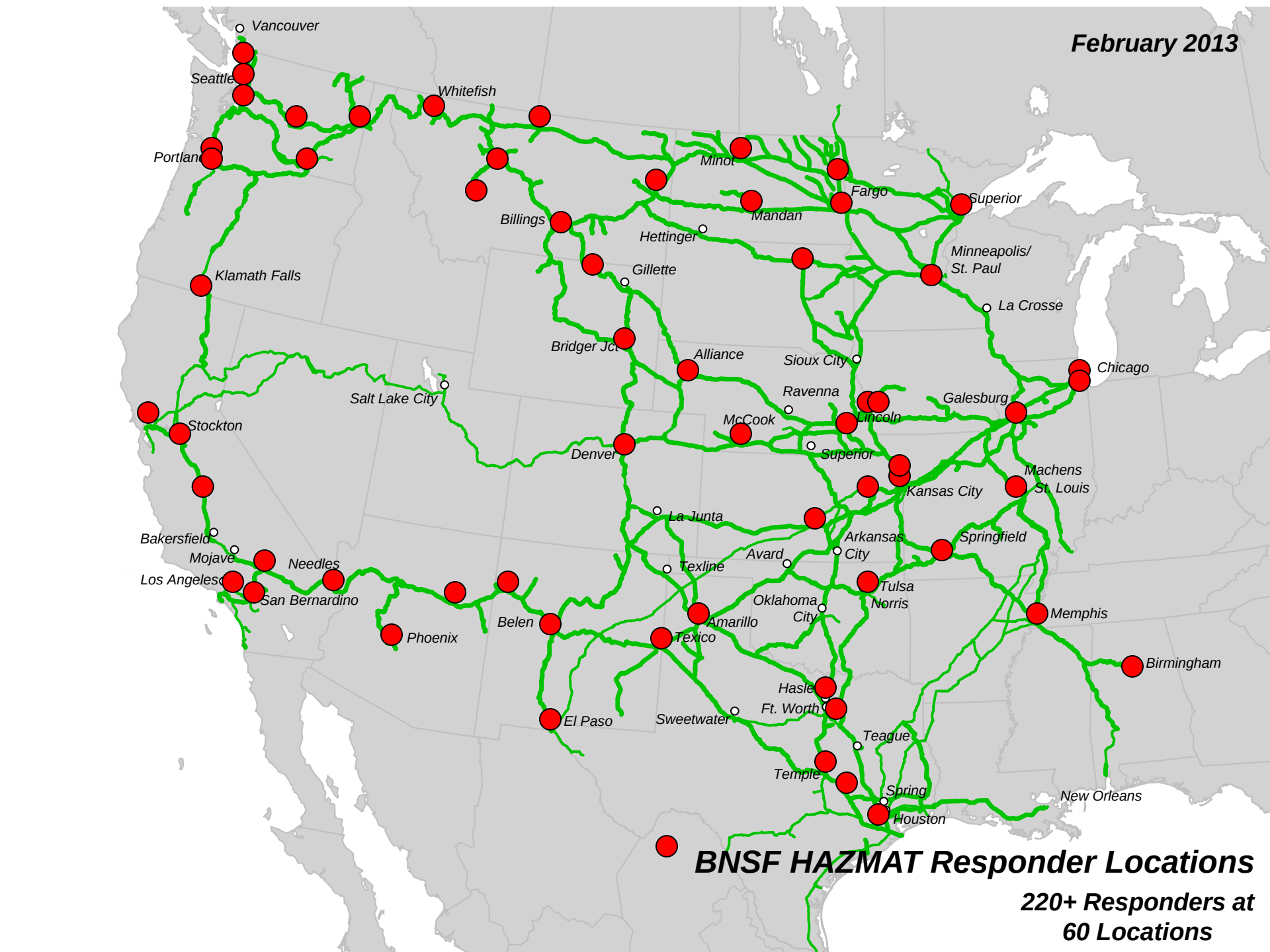
NIMS Incident Command System

- **BNSF Railway will initiate, manage and maintain a rapid, aggressive, well coordinated, and effective response**

- **BNSF hazardous material responders, contractors, operations supervisors and train crews will work within the Unified Incident Command Structure**

Response: Hazmat GIS




February 2013
Vancouver
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Fargo
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Mandan
Billings
Hettinger
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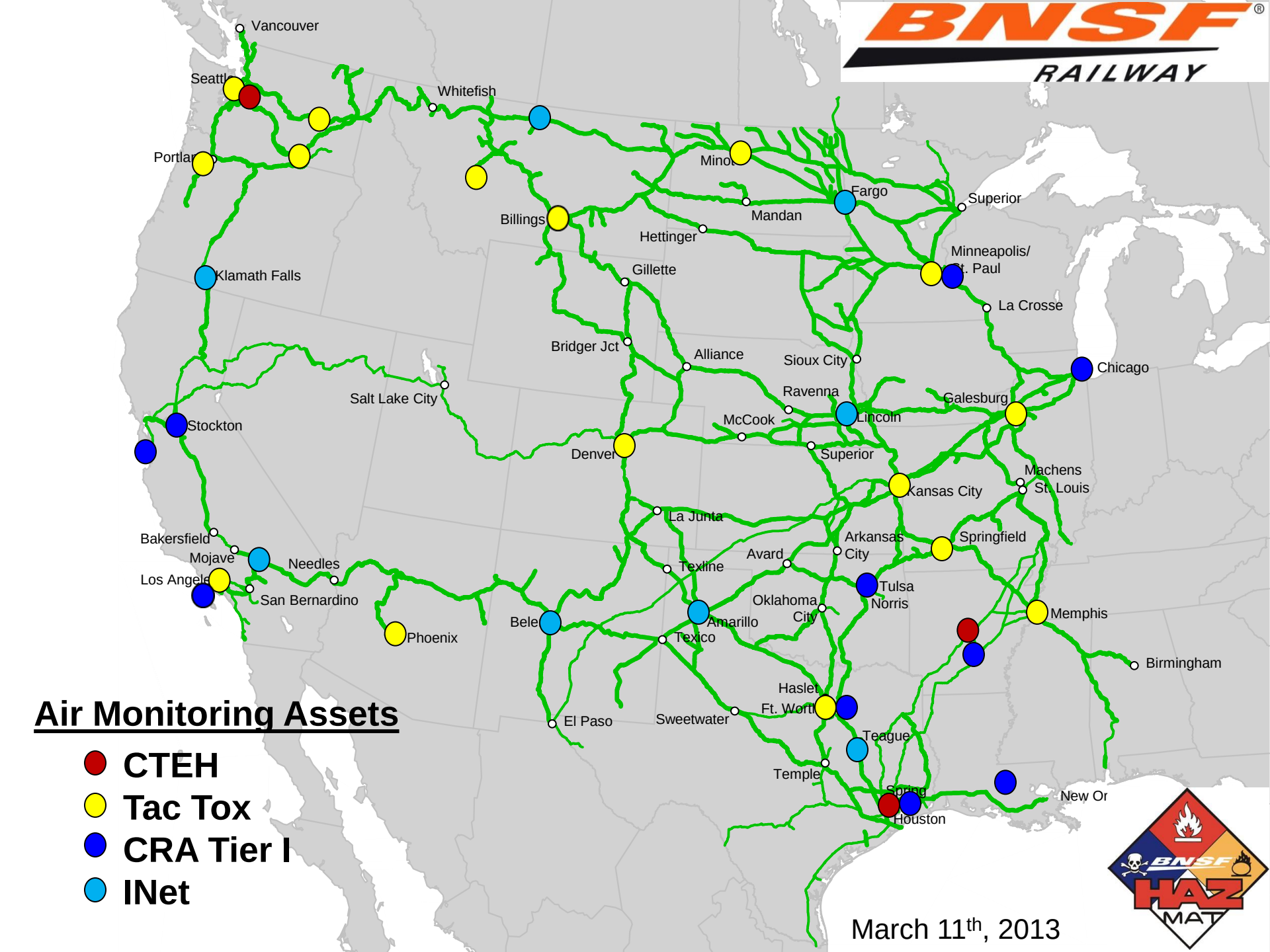
St. Paul
Gillette
Klamath Falls
La Crosse
Bridger Jct
Alliance
Sioux City
Chicago
Salt Lake City
Ravenna
Galesburg
Stockton
McCook
Lincoln
Denver
Superior
Machens
St. Louis
Kansas City
La Junta
Bakersfield
Arkansas
City
Springfield
Mojave
Needles
Avard
Texline
Los Angeles
San Bernardino
Tulsa
Oklahoma
City
Norris
Memphis
Belen
Amarillo
Phoenix
Texico
Birmingham
Hasle
Ft. Worth
El Paso
Sweetwater
Teague
Temple
Spring
New Orleans
Houston
BNSF HAZMAT Responder Locations
220+ Responders at
60 Locations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CRA Tier I
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March 11th, 2013
BNSF
HAZ
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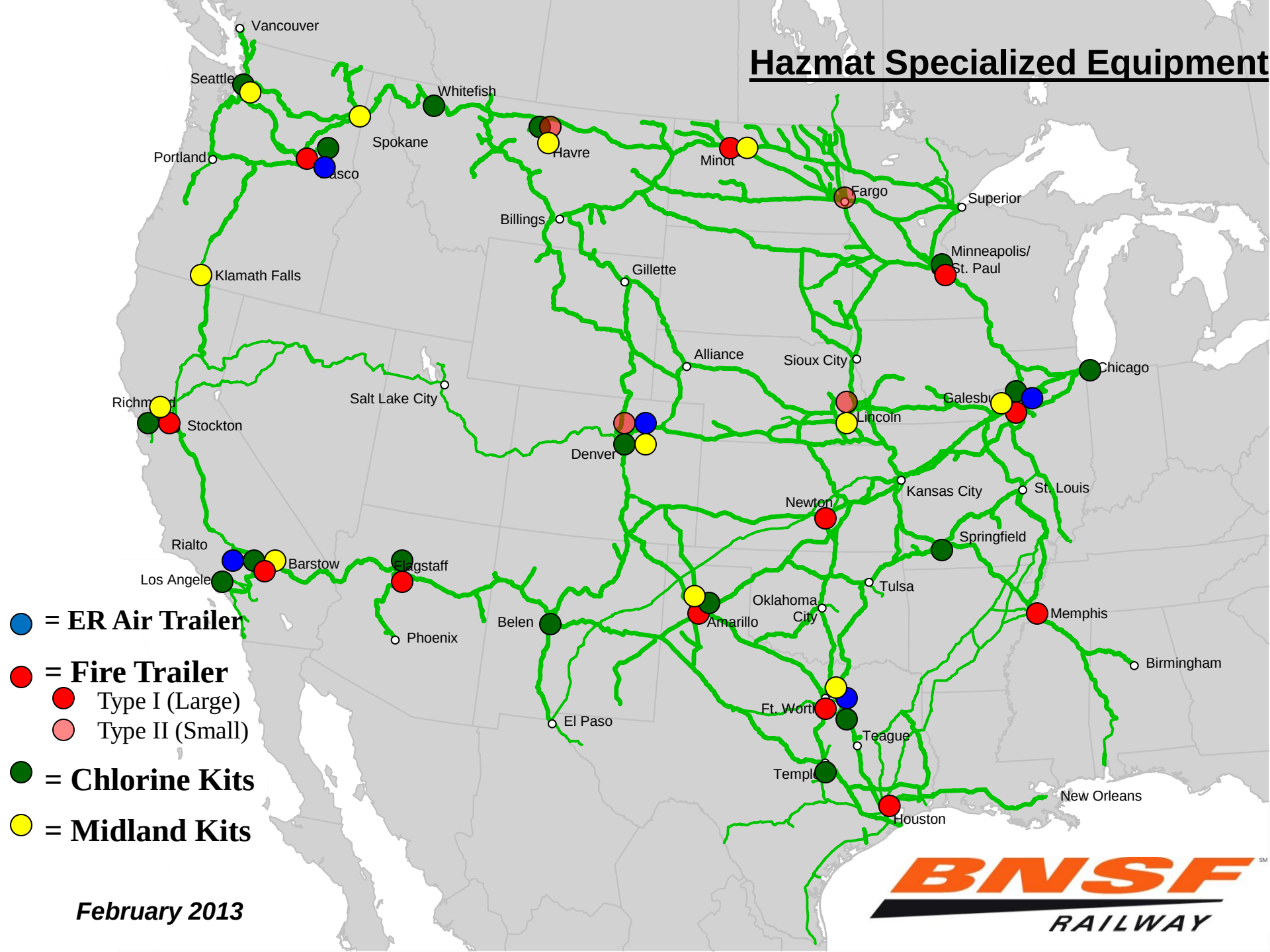
Hazmat Specialized Equipment

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