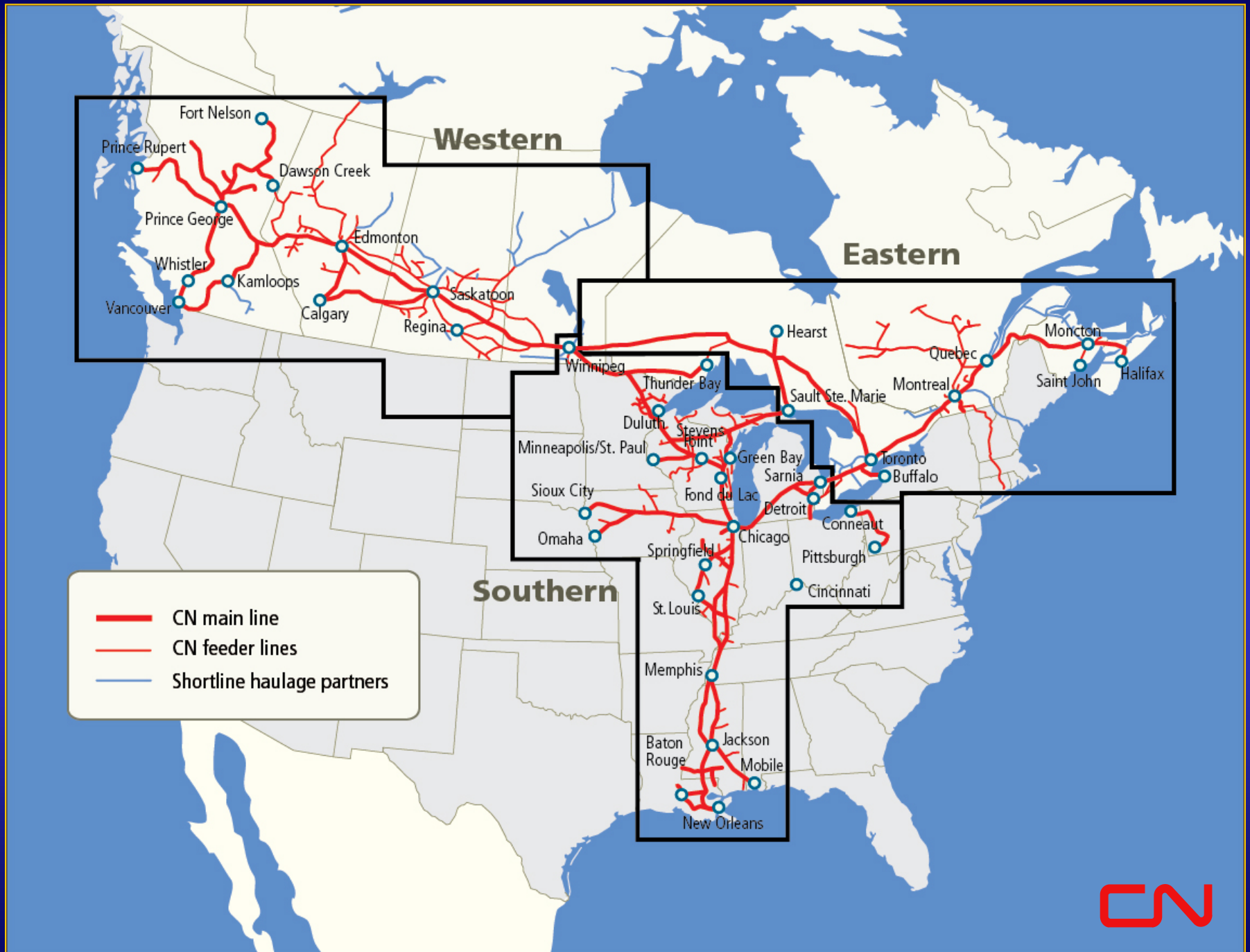# Emergency Preparedness

Topics For Discussion
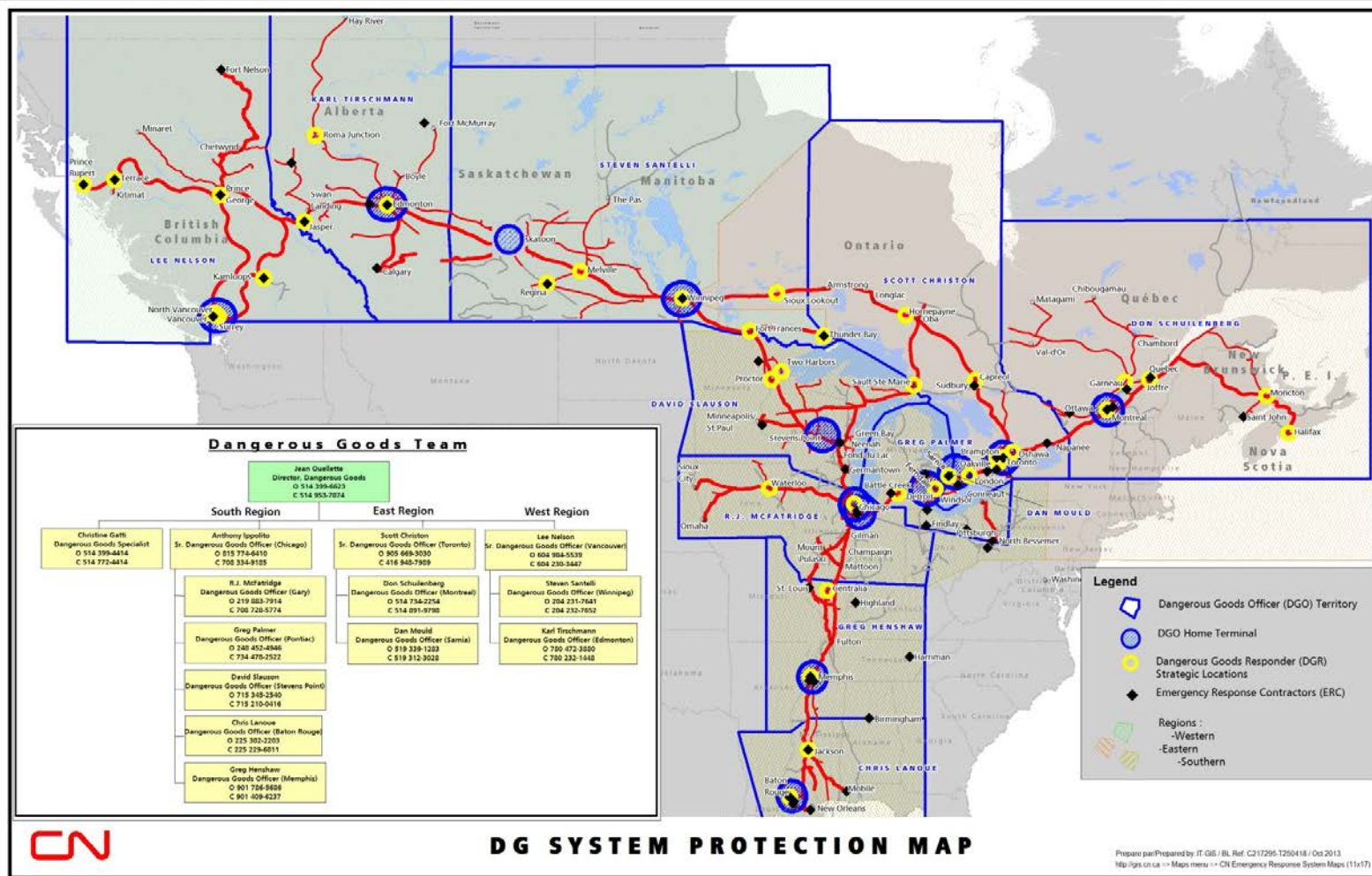
- The railroad network
- System protection
- Stake holder engagement
- Response methodology
- Incident management
- Tactical considerations

System Protection Map

System Protection

- Response resources
  - Personnel
  - Equipment
  - Technology
- Training
  - Dangerous Goods Officer
  - Dangerous Goods Responder
  - Railroad employee

System Protection Model (DG)

Dangerous Goods Officer (DGO)	HAZMAT Specialist
Dangerous Goods Responder (DGR)	First Responder
Emergency Response Contractors	HAZMAT Technician
Industry Partners / ERAP Holders	Various areas of specialization

CN

Stake Holder Engagement

- Industry programs
  - TransCAER
  - Responsible Care
  - Pueblo, CO (SERTC)
- CN programs
  - Structured community engagement
  - R.E.A.C.T.
  - CN 911

Community Outreach

Chlorine

- To purify our water
- To make PVC, into a diverse range of products

Butadiene and Styrene

- Tires
- Shoes

Propane

- Barbecues
- Heating

Propylene

- Eyeglasses
- Water cooler bottles

Sodium Hydroxide

- In paper production
- In soaps
- In paint

DG In Our Community

Percentage of rail cars loaded with dangerous goods versus the total of rail traffic transported by CN in the municipality of ????? = 4%

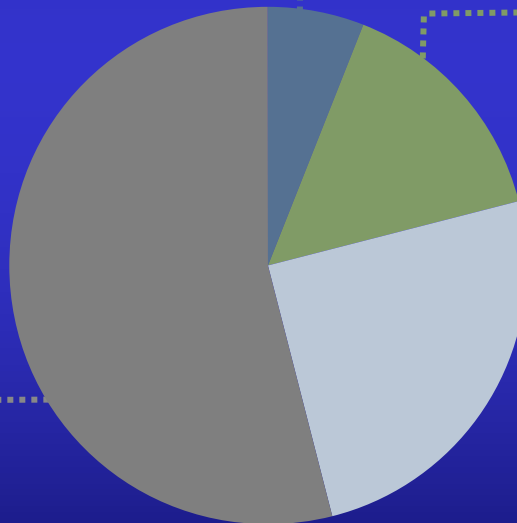- 4 cars on a typical 100 car train could be a dangerous good

Types of dangerous commodities

Poisonous Materials: 6%

- Chlorine used to purify water supply and in household products such as bleach and disinfectant
- Anhydrous Ammonia used for fertilizer, refrigerants and in household cleaning products

Flammable Materials: 54%

- Propane used for home heating and BBQ bottles
- Gasoline and Diesel Fuel as well as Crude Oil for refineries

Other Dangerous Goods: 15%

- Asphalt used for roads and construction
- Ammonium nitrate used in agriculture as a fertilizer

Corrosives: 25%

- Sodium Hydroxide used in soap manufacturing, pharmaceutical, mining and soft drink industries
- Batteries for vehicles
- Acetic acid used for vinegar, food preservative as well as industrial applications

Responder Training Programs

- TransCAER / CN 911 car
- CN R.E.R. Course
- CN RR Specialist Courses
- Project R.E.A.C.T
- Pueblo Outreach Week

Notification Visor Card

PRECAUTIONS TO TAKE AT THE SITE OF A DERAILMENT
&
CN EMERGENCY RESPONSE PROCESS

CN

DO NOT APPROACH THE TRAIN UNLESS YOU ARE SURE IT IS SAFE TO DO SO.

Tank cars, loaded or residue, present the most obvious threat during an incident. However, dangerous goods are also transported in other rail cars, trailers, and containers.

If you are first at the scene, make every effort to keep the public and any potential source of ignition away from the cars involved in the incident.

Determine the contents involved by checking the documentation held by the train conductor, member of the train crew or the on-scene-coordinator.
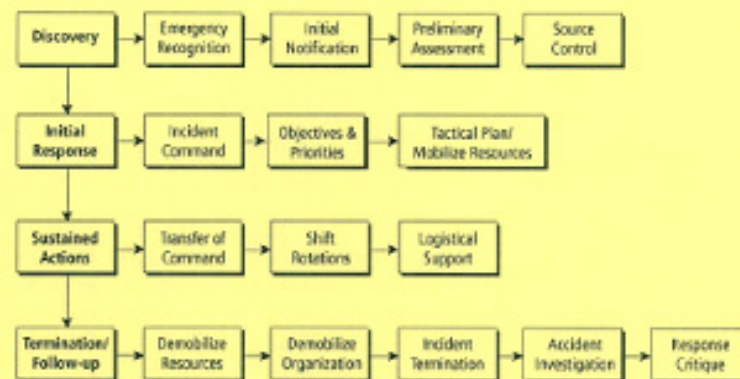
For shipments of dangerous goods, this documentation will include, at a minimum, a shipping document describing the commodity being transported and will include emergency telephone numbers. A copy of the Emergency Response Guidebook will also be available.

Documentation will normally be available from the train conductor at the scene. Should the train conductor and crew be disabled, documentation can be found on the lead locomotive.

Should the train's crew be unable to provide assistance, a copy of the train consist and Dangerous Goods shipping documents can be generated by calling the 24 hour emergency telephone number.

CN 24 HOUR EMERGENCY TELEPHONE NUMBER:
800-465-9239

(CN - 2005)

Partners in Responsible Care

Discovery → **Emergency Recognition** → **Initial Notification** → **Preliminary Assessment** → **Source Control**

Initial Response → **Incident Command** → **Objectives & Priorities** → **Tactical Plan/ Mobilize Resources**

Sustained Actions → **Transfer of Command** → **Shift Rotations** → **Logistical Support**

Termination/ Follow-up → **Demobilize Resources** → **Demobilize Organization** → **Incident Termination** → **Accident Investigation** → **Response Critique**

Incident Methodology

- Activate ERP and Logbook
- Establish a perimeter
- Establish Incident Command System
- Begin site assessment
- Establish control zones
- Apply tactics
- Terminate the incident

CN Emergency Response

- Network Operations
  - Mechanical Dept.
  - Engineering Dept.
  - Transportation Dept.

- E.R. Support Team
  - Safety & Regulatory Affairs
  - Police
  - Dangerous Goods Group
  - Environmental Group
  - Risk Mitigation Group
  - Public Affairs Group

- External Support
  - Industry Response Teams
  - ER Contractors
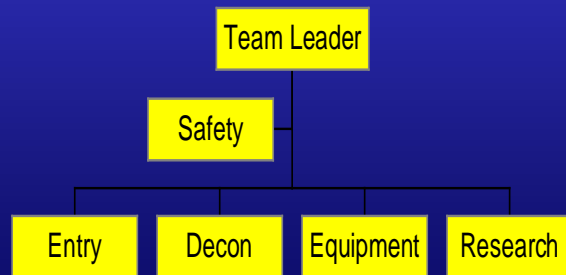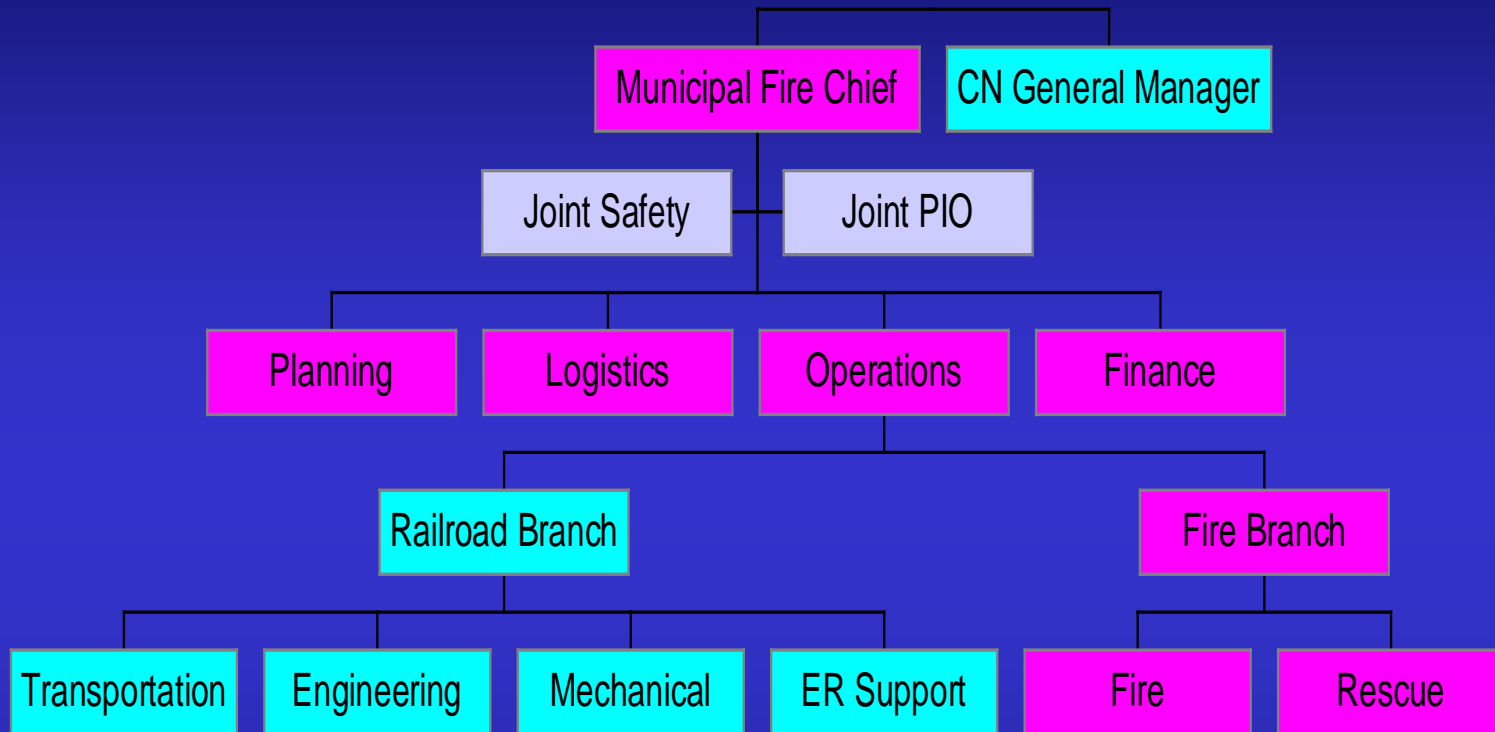 - Municipal Response Teams

Emergency Response Resources

- Municipal
- State/Provincial
- Federal
- Railroad
- Shipper
- Contractor
- ERAP?

CN

Unified Command

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                    ┌──────────────────────┬──────────────────┐
              ┌─────┴─────────┐      ┌──────┴────────────┐
              │ Municipal Fire│      │ CN General Manager│
              │     Chief     │      │                   │
              └───────────────┘      └───────────────────┘
              ┌──────────────┬──────────────┐
        ┌─────┴──────┐  ┌────┴──────┐
        │Joint Safety│──│ Joint PIO │
        └────────────┘  └───────────┘
        ┌────────┬──────────┬────────────┬──────────┐
   ┌────┴───┐ ┌──┴─────┐ ┌──┴──────┐ ┌───┴────┐
   │Planning│ │Logistics│ │Operations│ │Finance │
   └────────┘ └─────────┘ └─────────┘ └────────┘
                  ┌──────────────────────────────┐
          ┌───────┴────────┐              ┌───────┴──────┐
          │ Railroad Branch│              │  Fire Branch │
          └────────────────┘              └──────────────┘
   ┌──────────┬──────────┬──────────┐        ┌──────┬───────┐
┌──┴────────┐┌┴─────────┐┌┴────────┐┌┴────────┐┌┴───┐┌──┴────┐
│Transportation││Engineering││Mechanical││ER Support││Fire ││Rescue │
└──────────────┘└──────────┘└──────────┘└─────────┘└─────┘└───────┘
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          ┌────────────┐
          │Team Leader │
          └─────┬──────┘
          ┌─────┴──────┐
          │  Safety    │
          └─────┬──────┘
   ┌──────┬─────┼────────┐
┌──┴──┐┌──┴──┐┌─┴──────┐┌┴───────┐
│Entry││Decon││Equipment││Research│
└─────┘└─────┘└────────┘└────────┘
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NTSB

BOE

?

FRA

FBI

CN

Tactical Considerations

- Physical characteristics
  - material
  - container
- Responder capability

- Time
- Weather
- Location
- Resources

Emergency Preparedness

Thank You!