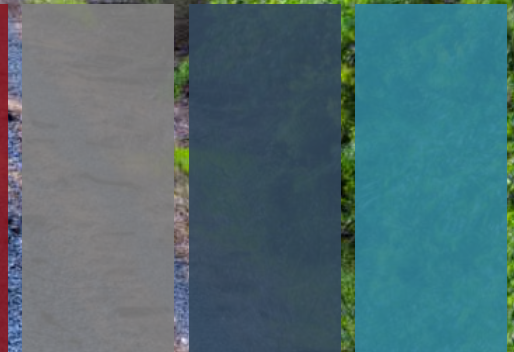


Crude By Rail Evolving Transportation Environment

MAASTO
August 10, 2016





Iowa Department of Transportation

The Office of Rail Transportation supports development of a safe and efficient rail transportation system while improving Iowa's quality of life.

- Promote rail safety
- Facilitate partnerships with railroads, industry, highway users and public agencies
- Administer financial assistance programs:
 - Crossing Safety
 - Crossing Surfaces
 - Economic Development
 - Freight Rail
 - Passenger Rail
- Track inspection program





Iowa Homeland Security & Emergency Management Department

- HSEMD supports the development or enhancement of the response capabilities needed in the event of an emergency or disaster.
 - Planning
 - Training
 - Exercise
 - Developing Public Information Programs
 - Developing Warning Systems



Exercises...

Test your planning assumptions and training levels

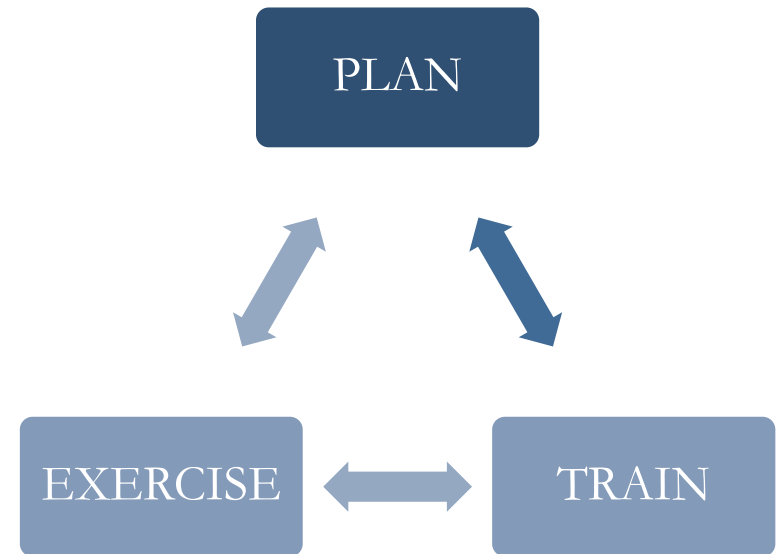
Thankfully real live incidents are rare

• Types of Exercises:

- Table Top
- Functional
- Full Scale

Take them seriously --- They can save lives in the real event!

Each part supports the other parts





Local Emergency Management

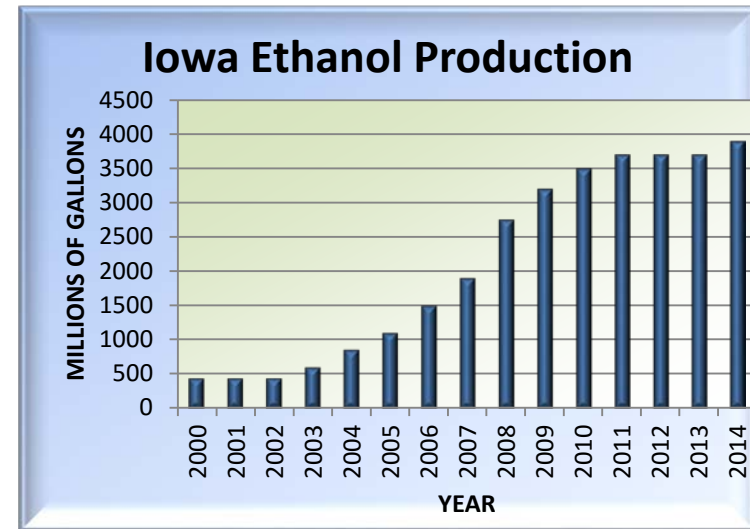
- All disasters start and end locally...
 - Disaster response starts in the impacted community
 - Each county has a local emergency management coordinator who facilitates local government and volunteer response operations
 - In large disasters that exhaust local capabilities the state can provide additional resources



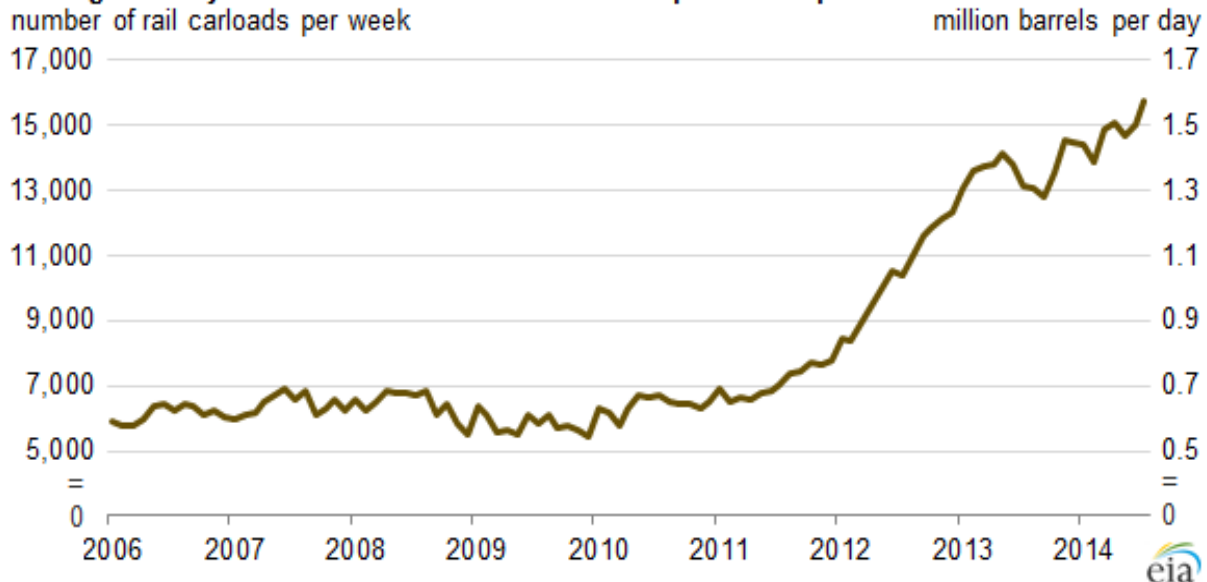


Crude Oil and Biofuels Challenges

- Unprecedented increases in crude oil and biofuel production
- Recent incidents involving crude oil on trains
- How prepared are we?
- What more can we be doing?



Average weekly U.S. rail carloads of crude oil and petroleum products





Iowa's approach to the challenge:

- Collaboration and partnership
- Bring stakeholders together for safety and efficiency; not to create new regulations or constrain economic development
- Better understand the issues from producer to the end of the line
- Build communication and understanding



Our goal is identifying **“ACTIONABLE”** steps to improve Iowa's safety.



Iowa Crude Oil and Biofuels Rail Transportation Study

- **Partnering Agencies**
 - Iowa DOT
 - Iowa HSEMD
- **Consultant Team**
 - HDR, Inc.
 - Witt O'Brien's, LLC





Crude and Biofuels Study Approach

- Define the characteristics, risks, prevention, and emergency response system status and capabilities for Class 3 flammable liquids rail transportation in the state.
- Measure Iowa's **prevention, preparedness, response, and recovery** capabilities in the event that a crude oil or biofuel rail transportation incident were to occur.
- Consider both the physical characteristics (people, facilities, and environment) in the vicinity of rail routes transporting Class 3 flammable liquids, as well as the insight of industry representatives.
- Establish an Action Plan and Improvement Implementation Strategy



Stakeholder Consultation

Focusing on *prevention, preparedness, response*, and *recovery*; in-depth interviews were conducted with representatives of:

- Producers/shippers (i.e. biorefineries) of ethanol in Iowa
2 in total
- Railroads that move large volumes of Class 3 flammable liquids
4 Class I railroads and 4 Class II/III railroads (regional and short line)
- Emergency Managers
- Emergency Personnel
- Federal Agencies
- State Agencies
- Held two Stakeholder Committee meetings, bringing together RR's, Emergency Responders, shippers and agencies.



Oil Train Safety Symposium

IOWA ETHANOL AND CRUDE OIL RAIL ROUTES





Railroad Findings

- Ethanol routes nearly account for all of Iowa's rail mileage
- Ethanol and Crude Oil rail volumes are unlikely to change substantially
- Railroad Derailment Prevention Practices in Iowa are similar to other states
- Iowa DOT track inspectors improve compliance with FRA regulations





Emergency Management Findings

- Prevention, preparedness, and response programs vary according to each entity's needs, roles, and responsibilities
- Communication protocols between the sectors are complex and not interoperable.
- Relationships and coordination between sectors varies across the state
- Local emergency management coordinators in Iowa are often part-time, utilize volunteers, and may have limited or no staff
- 85 to 90 percent of local first responders are volunteers, which limits their availability for training, planning, and preparedness





Crude and Biofuels Study Recommendations and Improvement Actions

- 23 – Challenges for prevention, preparedness, response and recovery
- 35 – Recommendations
- 57 – Actions
- We are developing an implementation plan for the recommendations:
 - Who is responsible
 - Actions needed
 - Resources needed
 - Timeline



Recommendations

Prevention

Safety Improvements

- At-grade crossings – assess and prioritize
- Looking at cost-effectiveness for prioritization of state funds
- Education and enforcement

Public-Private Collaboration

- Standards and inspection activities for loading facilities
- Understanding railroad infrastructure needs





Recommendations

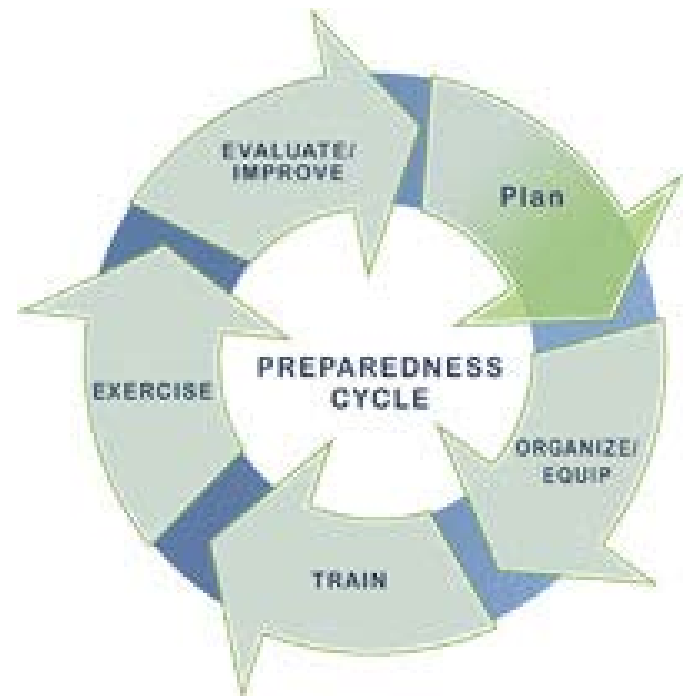
Preparedness

Local Capabilities and Preparedness

- Capabilities of county emergency management
- Use of Local Emergency Planning Committees
- Risk assessment and preparedness skills
- Processes to identify gaps in capabilities and communication

Information and Coordination

- Notification protocols and reporting criteria for hazmat movement
- Communication and relationships between railroads and local emergency management





Recommendations

Response

Coordination

- Response guidelines and training across sectors
- Interaction and communication during incidents
- Identification and tracking of public and private sector response resources and capabilities

Situational Awareness

- Accuracy and use of electronic data
- Timely sharing of incident-related information

Recovery

- Work with railroads to better understand their financial and organization capabilities for recovery after an incident.





Next Steps

- Define roles, responsibilities and timelines for each action
- Set goals and cycle for measurement and review



Questions?

