

FLEET | TECHNICAL CONGRESS

Securing Fuel During Supply Disruptions

Presentation By
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Held in
conjunction
with

**THE
WORK
TRUCK
SHOW**
2 0 1 9



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Agenda

- Brief Overview of PS Energy Group, Inc.
- History of PS Energy Emergency Fueling Program
- Strategies: Transportation & Dispensing
 - Assess & Understand Your Needs
 - Develop a Plan
 - Deployment/Logistics
 - Challenges
 - Minimizing Obstacles
- Advantages of PS Energy Emergency Fueling Program
- Emergency Fueling Quick Facts
- Questions

About PS Energy Group

Founded in 1985, PS Energy Group, Inc. (www.psenergy.com) is a privately owned, Atlanta-based company that offers business, industry and government a full range of energy and transportation solutions. As one of the nation's top diversity-owned businesses, PS Energy Group provides:

- Transportation Fuels
- Emergency Fueling
- Fuel Management – Including **eTrac™**, our wireless web-based inventory management solution that monitors fixed and mobile assets to help reduce costs and lower environmental impact
- Fleet Management Services



History of PS Energy Emergency Fueling Program

In 1995, PS Energy Group developed an Emergency Fueling Service designed specifically for the utility industry. This *first-of-its-kind* program involved the development of emergency deployment strategies to help resolve power interruption due to hurricanes, tornadoes, ice storms and other natural disasters.

In 1998, PS Energy formally launched its nationwide Emergency Fueling Program, providing several relief options to industry and utilities when conventional fueling is unavailable or ineffective.

In 2005, for our efforts during Hurricane Katrina, PS Energy received a commendation from BellSouth for outstanding achievement.

In 2006, PS Energy Group received the Supplier of the Year Award from the Georgia Minority Supplier Development Council in recognition of our energy-based relief efforts during Hurricane Katrina.

In 2012, Hurricane Sandy brought new challenges.

In 2016:

- PS Energy Group provided support during Hurricane Matthew, the first Category 5 Atlantic hurricane since Hurricane Felix in 2007.
- PS Energy supported utilities during a fuel shortage in the fall, caused by a Pipeline break.

In 2017, PS Energy provided emergency fueling during back-to-back hurricanes -- Harvey, Irma, Maria and Nate.

In 2018, PS Energy provided support when Hurricane Florence caused severe damage in the Carolinas, primarily as the result of freshwater flooding, and then, again, when Hurricane Michael – the strongest storm on record in the Florida Panhandle – came ashore, causing widespread destruction.

Involved In Every Major Hurricane Relief Effort Since 1995!



Strategies: Transport & Dispensing

1: Assess and Understand Your Needs



Hurricanes

Ice Storms



Earthquakes



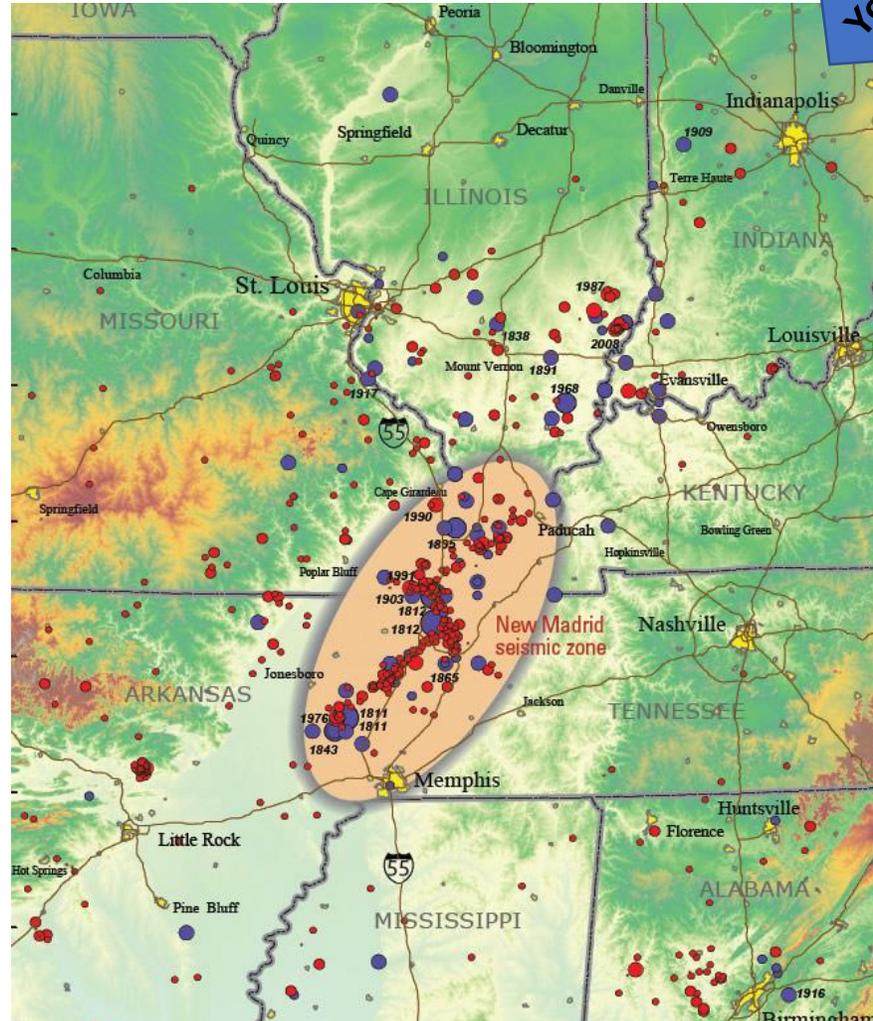
Tornadoes



Why Having a Plan is Critical

You Are Here

**NEW MADRID SEISMIC ZONE:
SCIENTISTS REMAIN
CONCERNED ABOUT A MAJOR
DESTRUCTIVE EARTHQUAKE**



Topographic map showing earthquakes greater than magnitude 2.5 (circles) of the central United States.

Red circles are earthquakes that occurred after 1972.

Blue circles are earthquakes that occurred before 1973.

Larger earthquakes are represented by larger circles.

Yellow patches show urban areas with populations greater than 10,000.

What are Your Needs?

- Type of Event
 - Hurricane
 - Tornado
 - Ice Storm
 - Earthquake
- Understand Fueling Needs
 - Equipment
 - Supply
- What Will Operations Look Like:
 - Current Site
 - Staging Areas
 - Routes
 - Field Fueling
 - Combination of All

- Develop Minimum and Maximum Scenario
- Develop Worst-Case Scenario
- Understand Each Fueling Scenario From a *Logistics* Standpoint
- Collaboration with Vendors

Strategies: Transport & Dispensing

2: Develop a Plan

Emergency Response Requirements

Determine Daily Fuel Requirements & Estimated Duration

- What does your operation look like now?

Determine Number of:

- Staging Areas
- Routes
- Field Fueling
- Combination

Determine:

- Equipment Requirements
- Types of Equipment
 - Bobtails
 - Transports
 - Mobile Fueling Stations
 - Portable Tanks

Determine Operational Hours:

- Daytime
- Nighttime
- 24 Hours

Emergency Response Requirements

- Timeline for Pre-Positioning Fueling Equipment at Designated Staging Areas
- Determine How to Manage Operations at Staging Sites:
 - Who Will Be There?
 - Parking of Utility Vehicles
 - Security
- Tanker for Storage
- Fueling Station with Dual Hose & Dual Fuel Capabilities
- Need any Emergency Misc. Equipment? (Generators, Reefers, Sleepers, Etc.)
- Plan for Resupply

EVERY EVENT IS DIFFERENT!

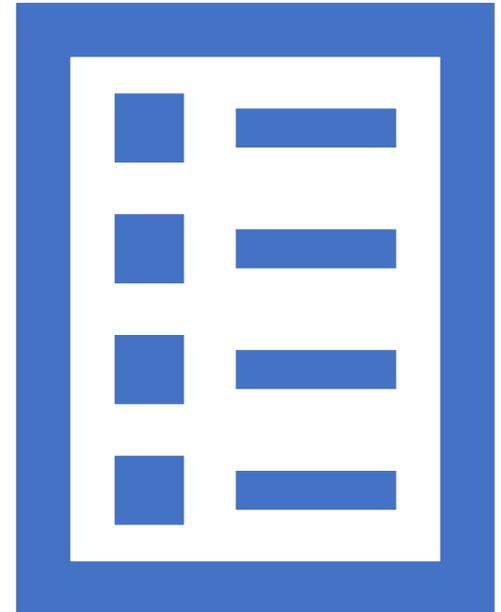
Equipment & Personnel

- Maintain wide-area resource network to ensure availability & reliability.
 - Continuously evaluate new suppliers.
 - Continuously solidify existing relationships.
 - Create redundancy.
- Utilize multiple types of fueling vehicles, equipment capable of directly fueling:
 - Storage Tanks
 - Generators
 - Vehicles
- Identify supply sources or terminals, in case of pipeline shutdown or supply disruption.
 - Logistics
- Should resources become constrained, move outside of constrained area and draw supply from other states or regions.
- Source first wave of equipment located adjacent to general areas of disaster.
 - Vendors located within affected areas often limited in the equipment and personnel they can provide, due to stress of being in “the heart of the storm.”
 - Thus, significant numbers of vehicles and personnel often required from areas unaffected by the event.

Safety & Environmental

Ensure that:

- All drivers adhere to safety & environmental regulations.
- All drivers CDL-Hazmat certified.
- Equipment meets all DOT & state requirements.
- All trucks equipped with spill kit, and drivers trained in containment procedures.



Ex: What a Base Template Might Look Like – Tier 1 Event

- Top off all inground tanks within service territory after all vehicles have pre-fueled prior to event.
- Pre-position fuel and equipment (8-10 tankers).
- 72,000 – 90,000 gallons pre-staged fuel requirement.
- 60,000 gallons of fuel delivered to designated staging areas within 24 hours after event.
- 60,000 gallons daily requirement for 15-day duration.
- Minimum equipment requirement:
 - Minimum of 5 Staging Areas, each with:
 - 1 Tanker for Storage
 - 1 Fueling Station with Dual Hose and Dual Fuel Capabilities (Manned for Daytime Fueling)
 - 1 Bobtail with Dual Hose and Dual Fuel Capabilities (Manned with 3 Personnel for Nighttime Fueling)
 - Service Center Requirements:
 - 1 Fueling Station with Dual Hose and Dual Fuel Capabilities to Supplement Inground Tank
 - Fueling Station to be positioned in south lot across from Service Center.
 - Manned for Daytime Fueling
 - Emergency Miscellaneous Equipment (Generators, Reefers, Sleepers, etc.)
 - 1 Bobtail with Diesel Fuel (Manned 1 Person)
 - Total of Minimum Equipment Required:
 - 5 Tankers for Storage (39,000 Gallons)
 - 6 Fueling Stations (46,800 Gallons)
 - 6 Bobtails (Gallons Depend on Size of Equipment)
 - Customer reserves the right to call for more equipment than listed above.
- Equipment is to be used in Gulf Coast Region of service territory.
- Equipment is based on supporting Gulf Coast staging areas only. Other divisions to provide own fueling needs.
- Other divisions reserve the right to call upon Gulf Coast fuel coordinator to take over their fueling requirements, in which case, customer's minimum equipment needs will rise drastically.

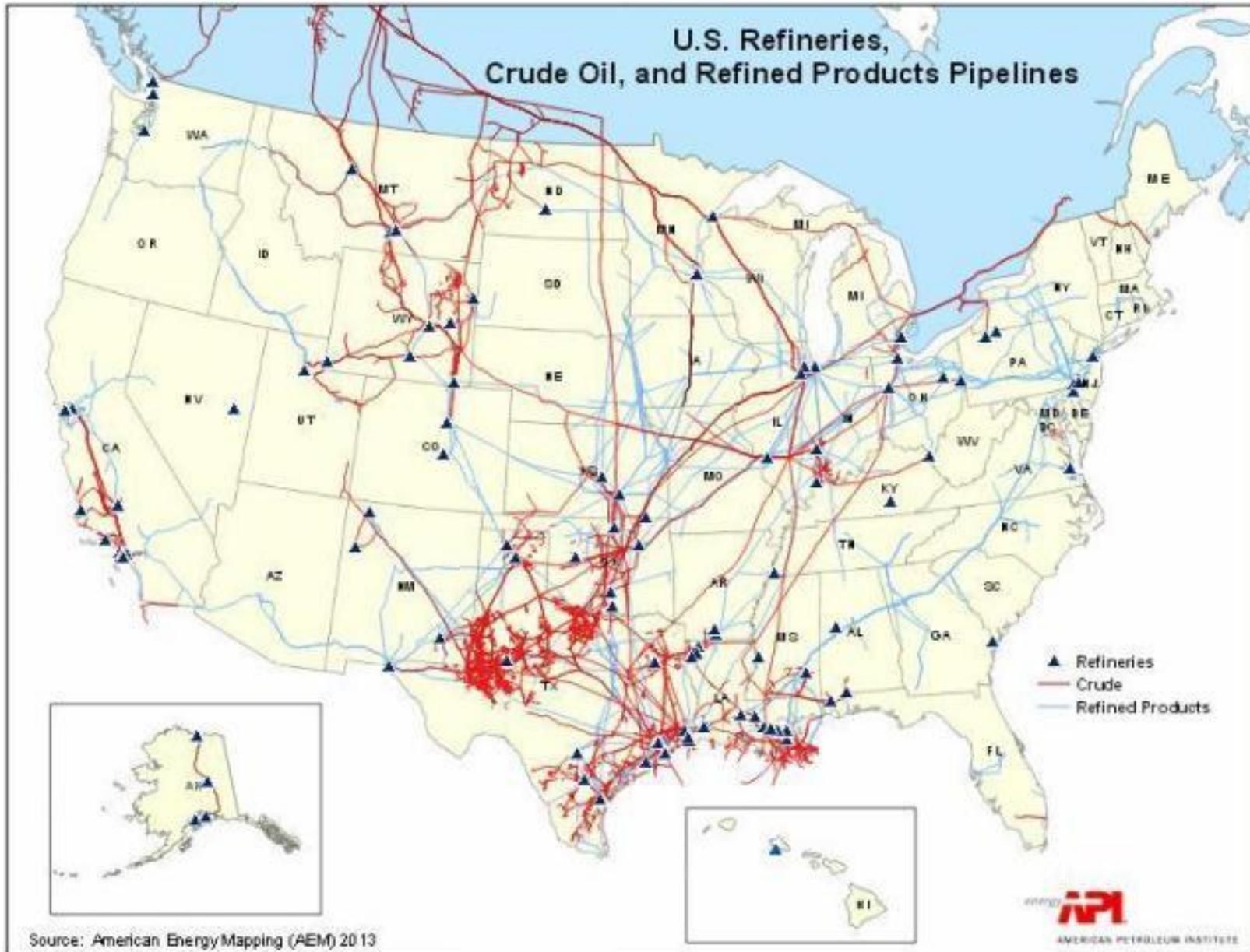
Ex: What a Base Template Might Look Like – Tier 2 Event

- Top off all inground tanks within service territory after all vehicles have pre-fueled prior to event.
- Pre-position fuel and equipment (8-10 tankers).
- 72,000 – 90,000 gallons pre-staged fuel requirement.
- 80,000 gallons of fuel delivered to designated staging areas within 24 hours after event.
- 80,000 gallons daily requirement for 15-day duration.
- Frac Tanks (Tank Farm)
 - Minimum of 4 frac tanks or suitable storage devices to store a minimum of one-day supply of fuel reserve.
 - Frac tank/storage devices requirement could increase, depending on reserve requirement needed.
- Minimum equipment requirement:
 - Minimum of 10 Staging Areas, each with:
 - 1 Tanker for Storage
 - 1 Fueling Station with Dual Hose and Dual Fuel Capabilities (Manned for Daytime Fueling)
 - 1 Bobtail with Dual Hose and Dual Fuel Capabilities (Manned with 3 Personnel for Nighttime Fueling)
 - Service Center Requirements:
 - 1 Fueling Station with Dual Hose and Dual Fuel Capabilities to Supplement Inground Tank
 - Fueling Station to be positioned in south lot across from Service Center.
 - Manned for Daytime Fueling
 - Emergency Miscellaneous Equipment (Generators, Reefers, Sleepers, etc.)
 - 4 Bobtails with Diesel Fuel (Manned)
 - Total of Minimum Equipment Required:
 - 10 Tankers for Storage (78,000 Gallons)
 - 11 Fueling Stations (85,800 Gallons)
 - 14 Bobtails (Gallons Depend on Size of Equipment)
 - Customer reserves the right to call for more equipment than listed above.
- Equipment is to be used in Gulf Coast Region of service territory.
- Equipment is based on supporting Gulf Coast staging areas only. Other divisions to provide own fueling needs.
- Other divisions reserve the right to call upon Gulf Coast fuel coordinator to take over their fueling requirements, in which case, customer's minimum equipment needs will rise drastically.

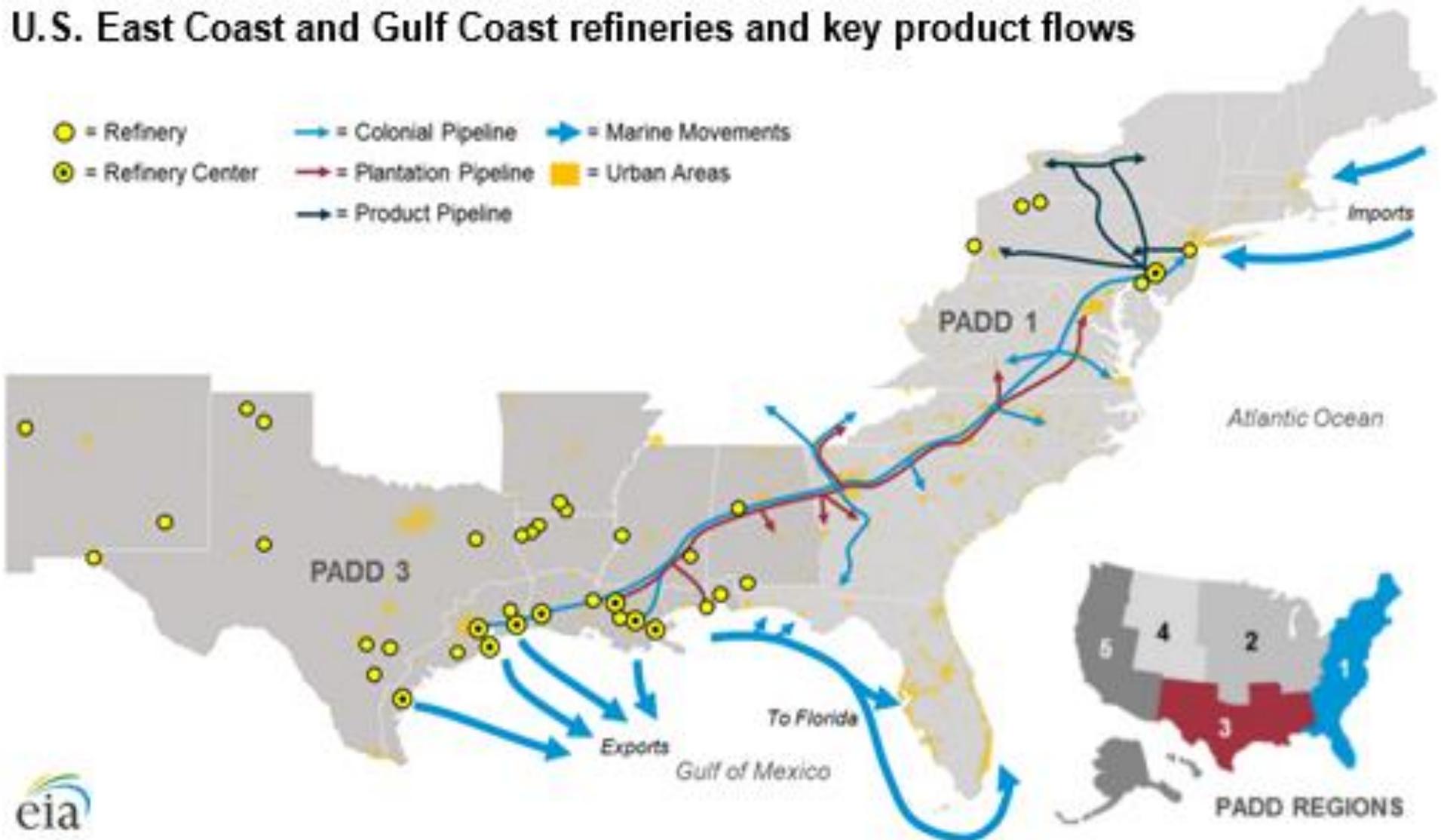
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U.S. East Coast and Gulf Coast refineries and key product flows



Where Supply Comes From

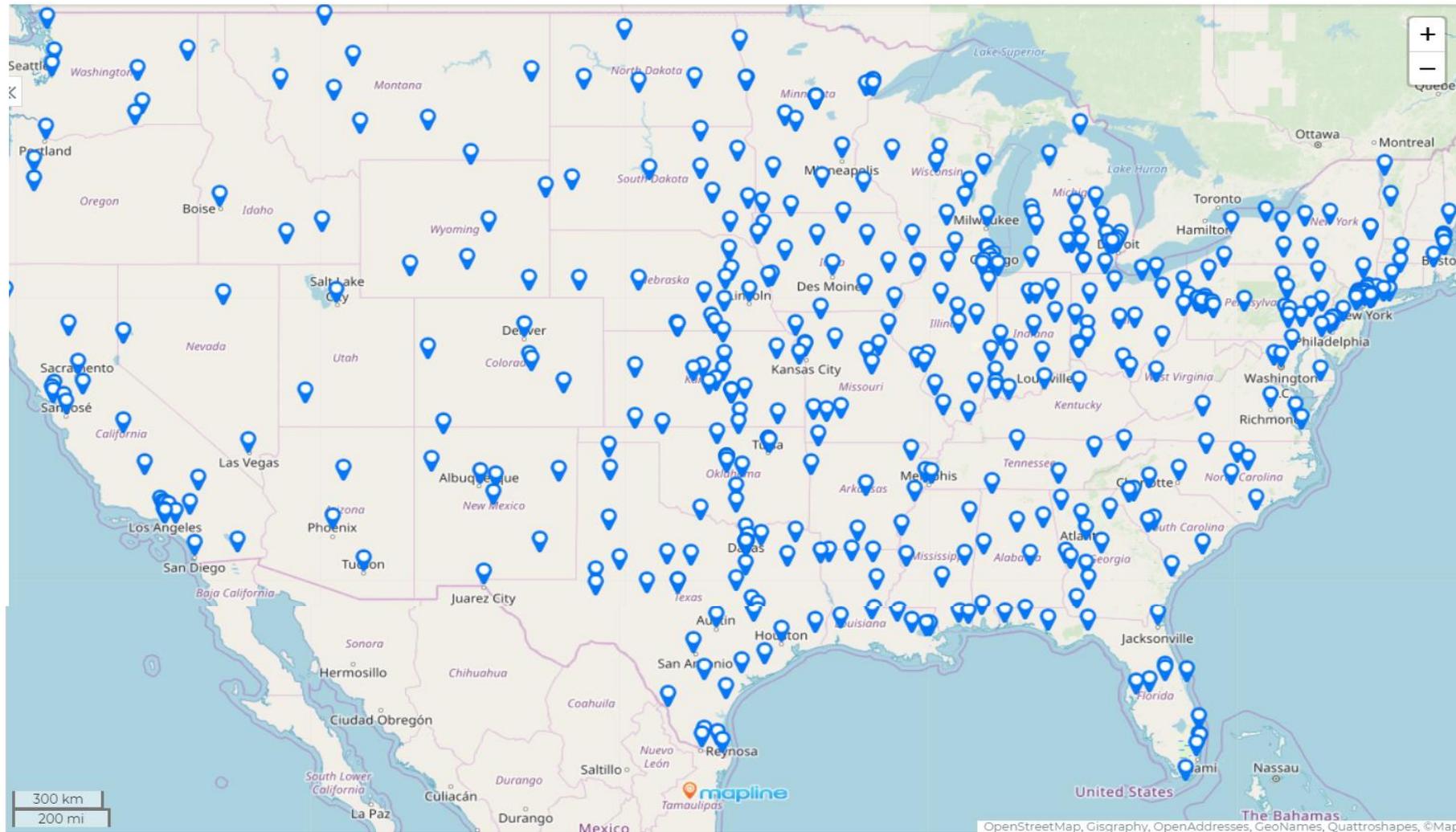
Petroleum Administration for Defense Districts



Source: www.eia.gov

The vast majority of the inter-PADD crude oil pipeline movements occur among PADDs 2, 3 and 4, with very little crude oil pipeline activity into or out of PADDs 1 and 5.

OPIS U.S. Gas & Diesel Terminal Cities



Strategies: Transport & Dispensing

3: Deployment/Logistics

Implement Plan: How PS Energy Does It



Client Notifies PS Energy of Emergency Fueling Needs

Affected Areas Identified

Deployment Strategies & Staging Areas Set

24-Hour Contacts Established

Assets Deployed

PS Energy Coordinates Logistical Response



Storm Tracker Asset Management

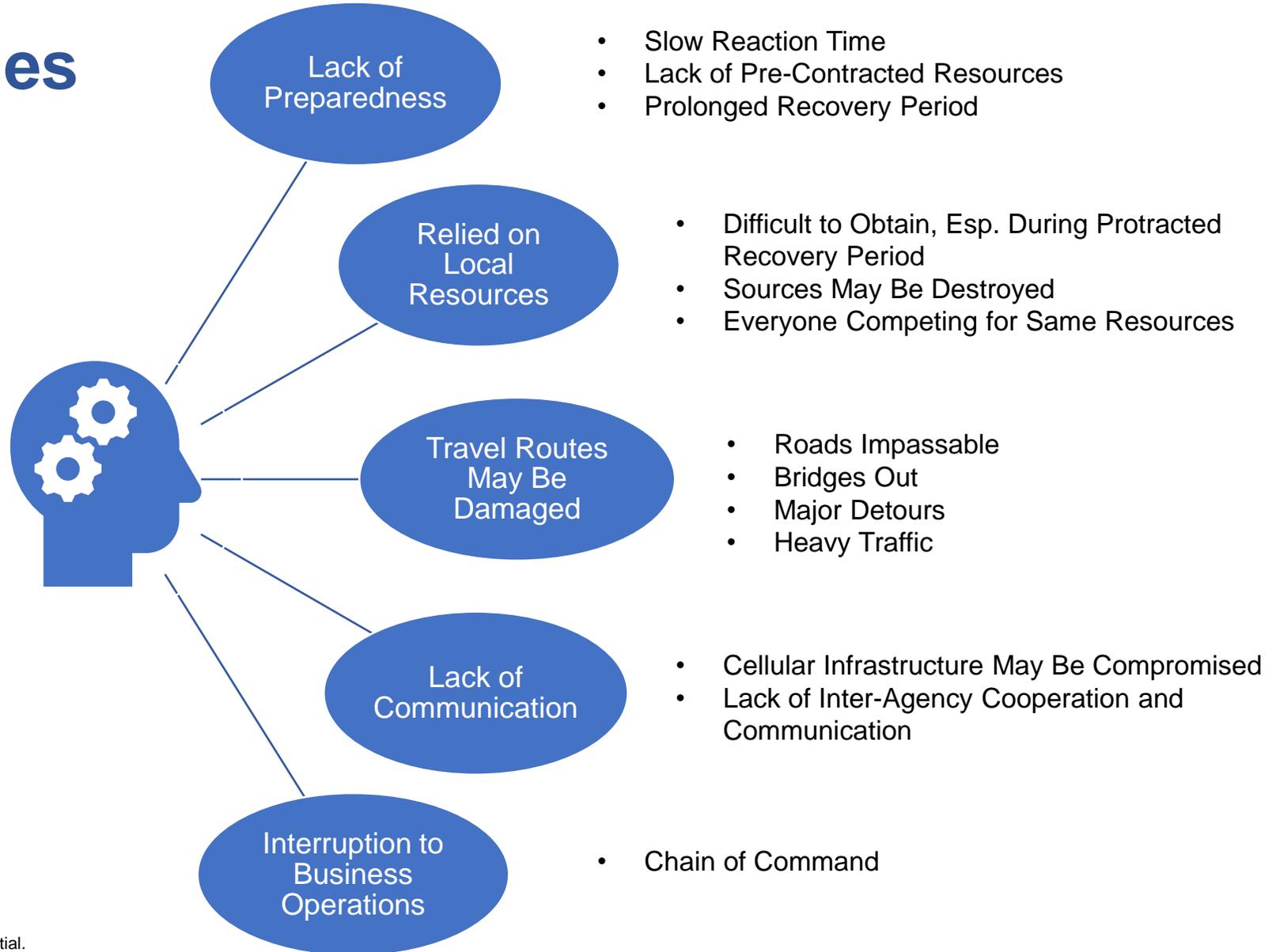
Daily Updates to Ensure Successful Mission

Coordinate Event Wind Down

Strategies: Transport & Dispensing

4: Challenges

Challenges



Strategies: Transport & Dispensing

5: Minimizing Obstacles

Minimizing Obstacles

01

Have plan in place.

02

Work with experienced contractors.

03

Dedicate equipment to specific customers/ functions.

04

Have ample resources outside of the affected area to lessen the risk of non-availability.

05

Have broad network of suppliers & equipment to cover even the largest and longest lasting emergency event.

06

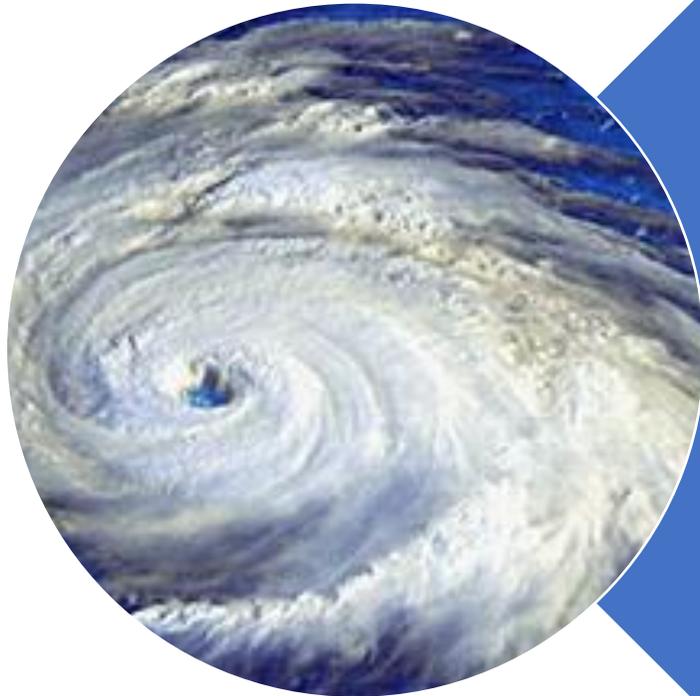
Maintain effective communication infrastructure:

- Equip drivers with cell phones and/or satellite phones.
- Ensure drivers have onsite contact.
- Equip vehicles with mobile asset tracking devices.

07

Mutual aid agreements with other agencies.

Advantages of PSE Emergency Fueling Program



- Extensive Experience
- Asset & Fuel Supply Ensured When Shortages Occur
- Reliability
- Quick Response & Time Savings
- Continuous Around-the-Clock Service
- Multiple Fueling Locations – Staging Areas
- Uninterrupted Business Operations
- One Call for All Emergency Fueling Requirements

Emergency Fueling Quick Facts

2005-2018

- **999** Assets Deployed
- **295,621** Estimated Vehicles Fueled
- **5,912,423** Gallons Delivered
- **1,652,355** Miles Traveled
- **Zero** Customer Downtime

2018

Florence, Michael

- **102** Assets Deployed
- **26,748** Vehicles Fueled
- **534,962** Gallons Delivered
- **106,614** Miles Traveled
- **Zero** Customer Downtime

2017

Harvey, Irma, Maria, Nate

- **220** Assets Deployed
- **30,358** Vehicles Fueled
- **607,168** Gallons Delivered
- **327,522** Miles Traveled
- **Zero** Customer Downtime

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Questions

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