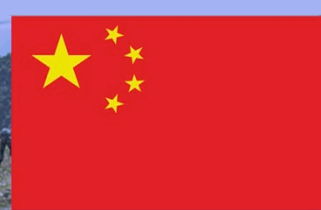
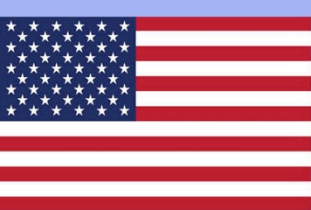


# Superstorm Sandy

## Framing the Discussion of a Supply Chain Disruption and Transportation Outlooks

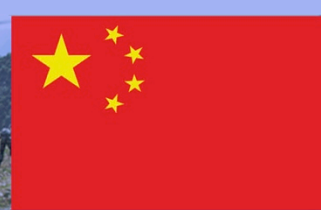
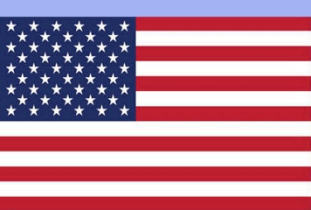




# Framing the Discussion

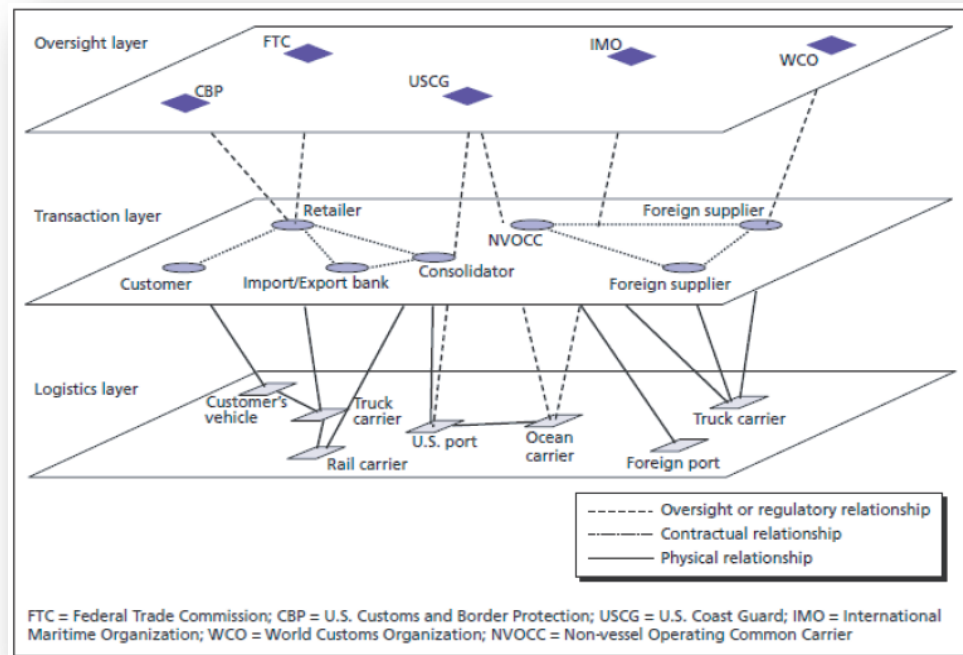
- What worked and didn't work
- How organizations worked together
- Shorter and longer-term impacts



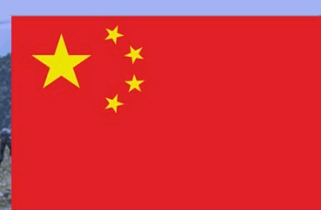
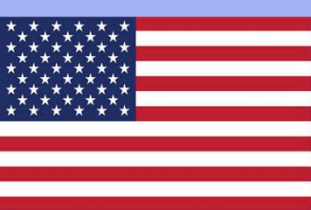


# Supply Chain Disruption

- Geographic scope
- Facilities
- Modes
- Commodities/ shipment types
- Likely length



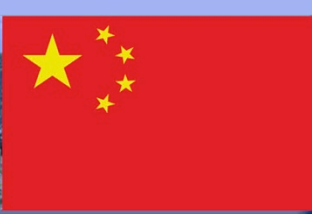




# The Port of New York and New Jersey

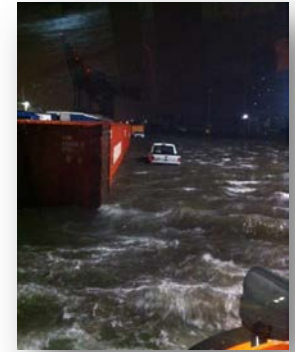


Source: Port Authority of New York and New Jersey (PANYNJ)

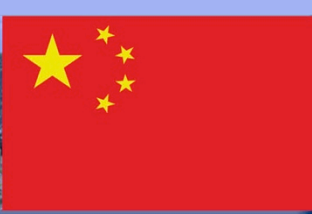


# Port Preparation

- October 25: Notification to tenants
- October 28: PA Emergency Operations Center activated
- October 29 1200 hours: All tenant personnel and PA contract security ordered off port
- October 29 2000 hours: Water levels rise to over 4 meters (13 – 14 feet), winds at 130-140 km/hour (80-90 mph)



Source: PANYNJ Presentation at 11/30 NAIOP/CSCMPNJ seminar

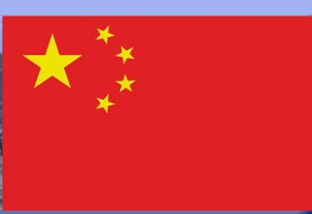


# Immediate Return to Operation Time Line

- Oct. 30 – Assessment, response, recovery and restoration begins
- Nov. 2:
  - USCG re-opens Port to deep draft commercial traffic
  - First vessel arrival at PA facilities
- Nov. 3 – Power restored at Elizabeth
- Nov. 4 – Maher / APM work 5 vessels
- Nov. 5 – Truck gates at all container terminals opened Mon./Tues.
- Nov. 5 & 6 – All remaining container terminals work their first vessels



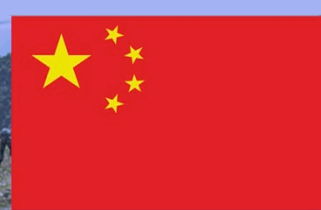
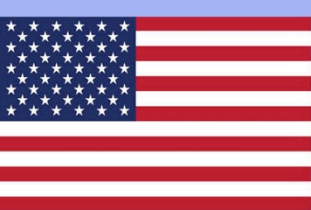




# Port Damage and Vessels Diverted to Alternative Ports

- Extensive infrastructure damage
  - Flooding
  - Utilities
  - Sewage/fire pump motors and controllers
  - Loss of rail relays and switches
  - Security fencing and guard booths
  - Cranes and cargo handling equipment
  - Debris
  - Road and rail track damage
  - Total loss of rail car float and rail transfer bridge at Greenville
- Cargo impacts
- Cruise Passenger Auto Damages
- 57 vessels diverted to alternative East Coast ports

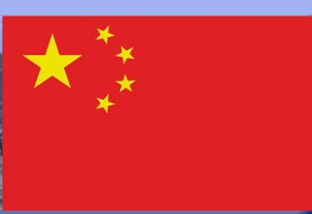




# Greenville Yard – Before

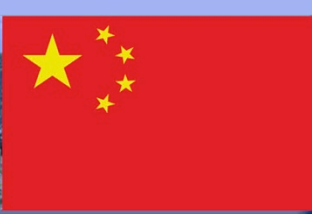






# Greenville – After Superstorm Sandy

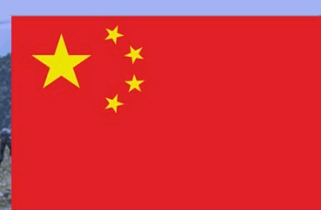
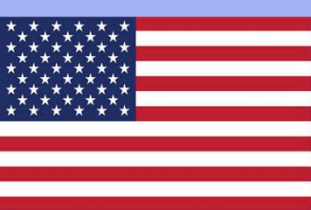




# Security Fencing and Gate Houses



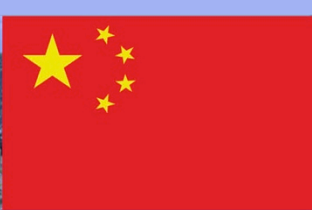
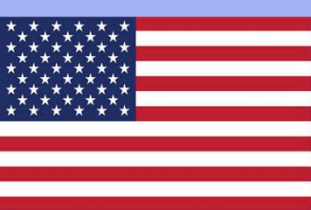




# Red Hook Barge at/on Berth 6



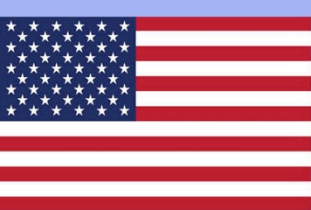




# Chassis, Drayage Truck and Access Road Damage



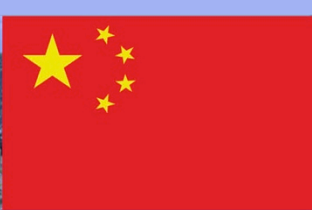
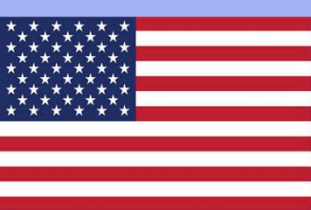
11/01/2012



# Building Damage and Flooding



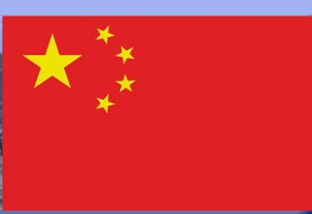




# Cargo Impacts



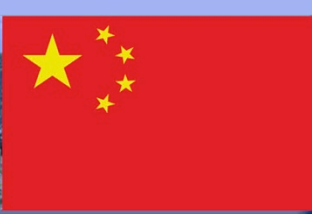




# Ongoing Steps

- Continue recovery and reconstruction efforts while maintaining supply chain
- Assess:
  - Lessons learned
  - Immediate changes in operations and capital investments
- Identify and make longer term capital investments and operational changes





# Thank you!

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