

Multi-Jurisdiction PREP Exercise - case study

Hilton Ballpark, St. Louis August 25-27, 2015

Background



- Marathon Petroleum has been moving toward ever more complex exercises.
- With DWH and Enbridge-Marshall releases, the bar had been raised a magnitude, or more. It also opened up opportunities to practice Unified Command.
- Past RRT discussions indicated some interest on border spills. Also build on a recent spill.
- Annual drill meets PREP requirement, provides training through practice opportunity, and allows Marathon Petroleum to measure itself against the global response community.

History – Yearly Top Tier Team Tabletop



- Earthquake Drill, Robinson, IL 2006
- SONS 07, Evansville Venue sponsor 2007
- Houston, Hurricane Drill 2008
- Multi-region Nexus, Huntington, WV 2009
- Offshore Blowout, Lafayette, LA 2010
- Multi-location Drill, Tampa & New Orleans 2011
- Multi-business Unit Drill, Galveston, TX 2012
- Security/Cyber/Spill Exercise, Canton, OH 2013
- Multi location Drill, Memphis and Baton Rouge 2014

Exercise Overview



- Cross-Jurisdiction, Multi-incident
 - Multiple releases, caused by windstorm
 - Tank valve failure causes Cold Lake Crude Release
 - Barge collision results in Cold Lake Crude Release
 - Both plumes join in the Mississippi river
- EPA and USCG brought nearly full IMT's
- One planning cycle over 19 hours of drill play (slow play)
- Debrief after each meeting
- Organization and section specific goals
- One press conference

Planning the Exercise



- HSEEP lite More meetings, more overlap in agenda
- Planning meetings held at Hilton Ballpark.
- Incorporating special design elements into exercise
 - Multi agency
 - Multi region
 - Three IMT's
 - Two states
 - Salvage effort



Planning, continued



- USEPA
- USCG
- Missouri DNR
- Illinois EPA
- St Louis Co OEM
- St. Louis City EMA

- OSRO ER LLC
- Salvor T&T Salvage
- Marathon Pipeline
- MPC Marine
- MPC Corporate



















Exercise Scenario

- Hartford, IL Tank Farm
 - Wind driven debris breaks a valve bonnet on tank
 - Gopher hole, ditches, Cahokia Canal, Mississippi River
- Barge
 - Runaway Stone Barges causes collision
 - Oil Barge holed and grounded on Missouri bank of Mississippi River



The Timeline



- T-8hrs: Wind event causes Tank leak
- T-3hrs: Barge collision
- T-0hr: Simulated 201 briefing
- T+2hrs: UC Meeting
- T+4hrs: start the injects
- T+5hrs: Command and General staff Meeting
- T+10hrs: Dead body floats into containment
- T+15hrs: Press Conference
- T+17hrs: IAP delivered
- T+18hrs: Ops Briefing End Ex
- T+20hrs: Critique/Hotwash

IMT Objectives



- Annual Tier 3 IMT Exercise is practice for an all volunteer team
- Integrate 3 IMT's
- Work one complete planning cycle
- Involve Federal, State, Local, and NGO
- Initial effort on Salvage plan



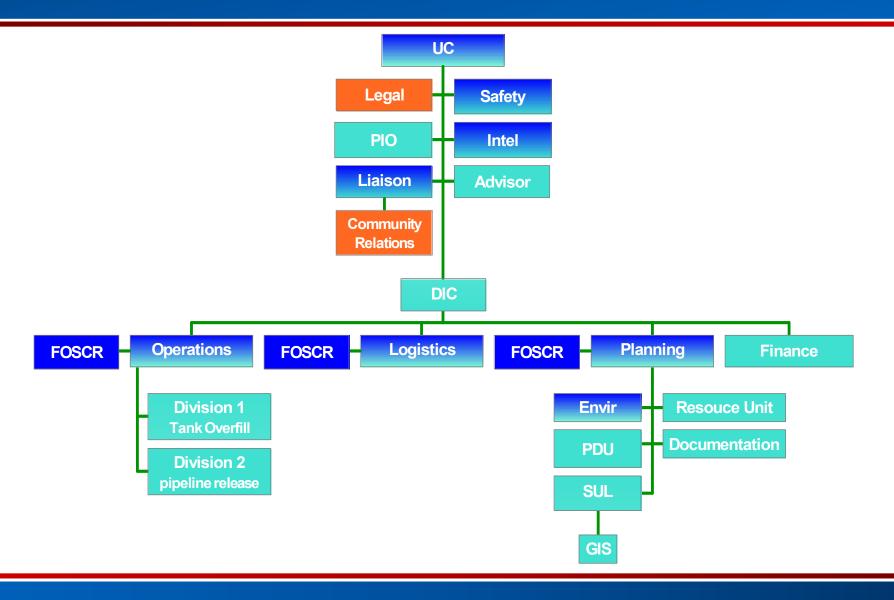
Artificialities



- 24-hour broken daylight (time separation)
- Quick start
- Early pull for information and UC drift
- Size of the IMT
 - Budget concerns allow only one exercise per year
 - Two shifts rotate leads
- No weather effects

Tier 3 Structure w/ Unity of Response





Things that Went Well



- Location/Facility
- Integration of IMT's
- Higher level Training pays dividends
- More sophisticated Simcell
- Balance of stress and simulation is close
- Handing VIP's
- Planning Committee
 Enthusiasm

- Qualification sign-offs
- Software ease of use

Opportunities for Improvement



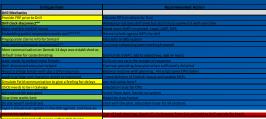
- Keep pushing the training (position specific and software)
- Utilize more SME's in SimCell
 - -Enhanced air monitoring presentation
- Recruit an NGO for volunteer management
- Information flow to Sit Stat is klunky and incomplete
- Enhanced sit stat board

Improvements, cont.



- Data Management System
- PRFA's ;-)

The Long List





Simulate field communication to give a feeling for delays	any real value here?
USCG needs to be in Salvage Jeti instruction was good	education issue for OPS Invite them back: Decide on system
Slow time works best	Keep the slow format
Input a Situational Update in the drill agenda, and have an	Stack with the plant, education issue for an security
executive update. Incorporate External influences within drill design	Part of Each Meeting, Coach IC's To Request from SUL and Add to Drill agenda for Exec's
SimCell inputs should be done face to face Include volunteer issues into drill design***	Incorporate into SimCell instruction continue working this
Need proper easels for major tables	Add to checklist
Complete a notification sheet for the initial response. Inform the UC of who has been notified of the event	Be more diligent in simulating 201, add to MSEL inject
immediately Simcell Staging area simulation worked well*	continue dedicating a TRG person to SimCell
Training	continue dedicating a two person to sinicen
Need additional IAP training for OPS, safety, Envir, Security*	Emphasize inputs on 207, 215, 234, emphasize working on 215's once.
Need formal Jetty training Response Management/Tools	Schedule before drill
Cultural silos still remain in CERT	keep working issue, keep objectives
Work with OSRO and OPS on what reources are available quickly, within own organization and extended network*	Review with OPS and work with OSRO to understand.
Develop the quick huddle for all the groups** Put CR/Liaison at same table	review each section, Add to IMH Adjust Drill checklist
Is 214 process useful or necessary*	Discuss in Section, add to Imh
Need a data management plan Follow meeting agnda Strictly	Get a template from Kevin Awareness issue For IC's
Need an agenda for the UC meeting Still having issues of trusted info on Sit Stat	Develop a poster size one
WebIAP Ver 5 worked Well***	
with Planning Weblap wasn't available to Public responders	Investigate with Planning PDU post with SIt stat, Emphasize in Drill planning
Need leading edge on COP Map	EducATION ISSUE WITH OPS and SUL
Air Monitoring and Leading edge disconnect Flow of air monitoring data	Discuss with section, and enhance and add Checklist, add initial monitoring to 201 Discuss the approval process fo AMT data
ICS Sections - Critique Items/Recommended Actions are not entered into AURTS as these Items are reviewed and	
addressed by each ICS Section.	
Incident Command/Unified Command UC did not have timely sit stat for drill	Awareness to UC to get info
Operations Embed Safety, Security, RUL and Environmental Sooner	Have section chief assign someone to gather persons up
Public Responder support was awesome	se e above
Unified command Information flow OSRO support was awesome	Flesh out to see what the issue was Keep inviting OSRO's to drill
OSRO support was awesome Ensure Safety, Environmental, RUL, Security are consulted on 215	Aware ness Issuw
Confudion between Group, Division, Branch	Consult BIR for Proper group alignment
FRP and ACP need to be reviewed early Communicate resources to agency and SUL better	Review for strategies and share respone with agency folks Assign a person to act as a runner
OPS needs a printer	NO Flesh out to see what the issue was
Manage agency Requests Planning/Situation Unit/Resource Unit?DUL/PDU	The state of the s
GIS/SUL needs an additional color printer Inestigate Live GIS updates	Buy one Pat to query EPA on GIS system
Develop a hard information flow into SUL	Develop then communicate
Training with EMSI has paid off *** Great ineraction with public responders	Nuff Sald See above
Great ineraction with public responders Meeting agenda didn't Follow planning P	See above Flesh out to see what the issue was
Great ineraction with public responders Meeting agenda didn't Follow planning P Early resource tracking was difficult*	Con throw
Great ineraction with public responders Meeting agenda didn't Follow planning P Early resource tracking was difficult* Great Collaboration on 209 forms** Need better information flow on 215's	see above [Fish out to see what the Issue was mestigate a knowner transition for resource management, is this a responder conference Issue to The second of the second
Great ineraction with public responders Meeting agenda didn't Follow planning P Early resource tracking was difficult* Great Collaboration on 209 forms**	See above Figh but to see what the Issue was Investigate a smoother transition for resource management. Is this a responder conference issue too?
Great Incration with public responders Meeting agends didn't Follow planning P Early resource tracking was difficult* Great Collaboration on 209 forms** Need better information flow on 215's Expectation of 235's complete in 30 minutes is unrealistic. Better rangement with Logs Great Collaboration on 200 forms**	set above figure out to see what the issue was firms officing a smoother transition for resource management, is this a responder conference issue out figure out to see the time issue was figure and whose the respectation. Residuent to see what the issue was figure and whose the respectation. Residuent country with NLI. see the RESIDUENCE of the RESIDUENCE figure out files and extra files
Grat Interaction with public responders Meeting agend and Trollino planning P Garly mource tracking was difficult* Grant Calibration to 200 from: "A Keep Care Calibration on 200 from: "A Keep Care Calibration on 200 from: "A Keep Care Calibration on 200 from: "A Keep Care Care Care Care Care Care Care Care	See above First hour to see what the issue was investigate a smoother transition for resource management, is this a responder conference issue over First hour to see what the issue was figure out how but the expectation, figure out how but the expectation, figure out how the spectation, figure out how the spectation of
creat terrection with public responders Membring agends defor Pations planning P starly resource tracking was difficult* fear collaboration 200 femans* Need better information flow on 2150 special collaboration on 200 femans* Need better information flow on 2150 special collaboration on 200 femans* Start Collaboration on 200 femans* Start Collaboration on 200 femans on 2	less above Risks hat to see shift the issue was. Investigate a smoother travision for recourse management. In this a responder conference issue officials had to see shift the issue was. Fisch had to see shift the issue was. Fisch had to see shift the depictions. It sees the seed of the depictions of the seed of
Great Interaction with public responders Meeting agends don't Follow planning in Kny's recovers tracking was alfimilated Kny's recovers tracking was alfimilated Kny's recovers tracking was alfimilated Nacy letter information flow on 25% Nacy letter information flow Nacy letter information flow Nacy letter information flow Nacy letter information flow Nacy letter information Nacy letter	tes above free de la commentación de la commentaci
Grat Interaction with public responders Meeting agend and Trollino planning P sarly mourse trading was difficula? Grat Collaboration on 200 from? Baselation of 232 compares in 30 monders in unrealistic on the reasonable of 200 from the Logic discounts basely risk until BLE. But Embed with DFS Demok plan needs to go through the check & adjust phases outside of the difficulty of th	Set above Figure out to see what the issue was. Interesting a smoother transition for resource management. Is this a responder conference issue out Fish that It see what the issue was. Fish that It see what the issue was. Fish that It see what the issue was. Fish that It see what It is issue was. Fish that It see what It issue was. Fish that It see what It issue was. Fish that It see what It is issue was. Fish that It see was that It is issue was. Fish that It see was that It is is is was. Fish that It see was that It is is was. Fish that It see was that It is was that It is was. Fish that It see was that It was that
Great Interaction with Applics responders. Meeting agends doth Follow planning P Early assource tracking with difficult Early assource tracking with Early Early assource tracking wit	test above files and to see what the issue was files and to see what the issue was files and to see what the issue was. Fisch and to provide with RLC. What was a warrows of Difference for guidance There of the district of the separation. Defined and the see was a was a see what the issue was a warrow of the see of guidance There did not deven due a demand yellow add to Defi objectives. Defined and yellow ent well There are warrows of Defined to connecting What has been annealment of deat from Fisch Engage. This sealer's Make like ANM dies Bedfore expected on the read and Like Continue Annealment.
Great Interaction with public responders Meeting agends dolf Tollion planning in Eurly associated Tollion planning in Eurly associated trading with difficult Great California on 2016 remail* Need better information flow on 2015 reparts Better cregagement with Logic Better credit Logic Bette	Set above frein and to see what the issue was investigates a smoother transition for resource management. It is his a responder conference issue only Frainh and to see what the issue was injuried to the see what the issue was injuried to the set the appectation. Reshorter place freight with BLU, frainh and to the see what the place frainh Reshorter place freight with BLU, frainh and the see what the see of the see of the see of the see was frainh and the see of
Great Interaction with public responders Meeting agends don't Follow planning in Surfy, resource tracking was difficult? Surfy, resource tracking was difficult? Surfy and tracking and difficult of the surfy of the	test above files and to see what the issue was files and to see what the issue was files and to see what the issue was. Fisch and to provide with RLC. What was a warrows of Difference for guidance There of the district of the separation. Defined and the see was a was a see what the issue was a warrow of the see of guidance There did not deven due a demand yellow add to Defi objectives. Defined and yellow ent well There are warrows of Defined to connecting What has been annealment of deat from Fisch Engage. This sealer's Make like ANM dies Bedfore expected on the read and Like Continue Annealment.
Great Leneration with public responders Meeting agends don't Pollow planning P tarly resource tracking was difficult* farely and confidence of the confid	tes above frein not to see short the toose we frein not to see short the toose we frein not to see short the toose we frein not to see short the toose too frein not to see short the toose we frein not to see short the toose we frein not too set the seperation. Menfore points with NLI. Margare out who set the seperation. Menfore points with NLI. Margare out who set the seperation. Menfore points with NLI. Margare out who set the seperation. Menfore points with NLI. Margare out who set the seperation. Menfore see short the seperation. Menfore see short the see short to see short too for several set of the seed of set of see short too see short too see short too on menting Menfore see short too on menfore Menfore see short too on menfore Menfore see short too on menfore Menfore see short too on menfo
Great Lensestion with Applics responders. Meeting agends dott Pollow planning P Early a souncer tracking was difficult* Early associated tracking was difficult* Early associated tracking was difficult* Faste deliberation or 2016 forms** Hased Setter information flow on 2015 in September 1 with Supplement With	Set above Test above Test and to see what the issue wax Investigates amounter transition for resource management. It is his a responder conference issue one Test has the see what the issue wex Test has the see what the issue wexe Test has the see what the issue wexe Test has the see what the issue wexe Test has the see what the see pectation. Test has a secretion of the see of the guidance Test has a secretion of the see of the guidance Test has the discount meeting. Test has the discount meeting. Test has the second meeting meeting meeting meeting meeting. Test has the second meeting meeting meeting meeting meeti
Creat Lensetton with public responders Meeting agends dot Pollow planning P starly resource tracking was difficult* fearly resource tracking was difficult for the company of	test above final hard to see what the issue was. Interdigues a smoother transition for recourse mutagame or. It this a responder conference issue officially not to see what the issue was. Final hard to see what the issue was. Final hard to see what the separation. If you can be seen that the separation of the seen of the s
Great Lenses (Low with Apublic responders) Meeting agends don't Pollow planning P tarly resource tracking was difficult* factly responders to the Control of the	test above freigh and to see what the issue was freight and was the separation. Need for a position with NLC The seed of the seed of the separation was a warrent or OFF seed for galaxies The seed of the seed of a demand plan add to Dell objectives Defined 25 by west well Defined 25 by west well The seed of the
Great Lineraction with Applics responders. Meeting agends dott Pollow planning P Early associated Trailing with Application of P Early associated Trailing with difficult* Cases of Celliberations or 200 Fermits* tend better information flow on 2015 N Expectation of 252 complete in 30 monutures is junealistic. Better engagement with Loop South Early and South Early Sout	Set above If the not to see what the insex wax Investigates a smoother transition for resource managements. It is this a responder conference issue only First he not see what the insex wex First he not see the operation. Resolvers positive with BLU, First he not this, describe All and the second positive with BLU, First he not the second positive with BLU, First he not because of one of the notion of the second positive with BLU, First he not the second positive with BLU, First he not because of the second positive with BLU, First he not the second positive with BLU, First he not developed and positive and the second positive with BLU, First he not developed and become meeting. When the second positive with BLU, First he not become the second positive with BLU, First he not become the second positive with BLU, First he notice with BLU, First he not become the second positive with BLU, First he not become the second positive with BLU, First he not be sec
Creat Lenser Latin with Applic responders Meeting agend and Traflow planning P Larly mounts tracking was difficult* Carly mounts tracking was difficult* Larly mounts tracking was difficult* Larly mounts tracking was difficult* Larly mounts could be compared to the mounts of the compared to the compared to the mounts of the compared to	test above freigh and to see what the issue was freight and was the separation. Need for a position with NLC The seed of the seed of the separation was a warrent or OFF seed for galaxies The seed of the seed of a demand plan add to Dell objectives Defined 25 by west well Defined 25 by west well The seed of the
Great Lenserston with public responders Meeting agends don't Police planning P tarly resource tracking was difficult* for a California or 200 forms** tracking account tracking was difficult* for a California or 200 forms** trace better information flow on 250 forms* trace better information flow on 250 forms* trace appearance with buse fall, Control with Control Control to The Control Control to The Control	test above frein not to see what the issue was frein not was to the separation. Need for product with NUL The second was to the separation frein not was to the separation frein not was a warrent of the second was frein not was a warrent not to the second was frein not was needed to the second was a frein not to the second was frein not was needed to the second was a frein not to the second was not was a frein to the second was to the second was not was a frein not was not
Great Interaction with Applic responders. Meeting agends do Tellion planning P Early amounts tracking was difficult* Early amounts tracking was difficult* Early amounts tracking was difficult* tend collaboration or 2016 remark* tend deliberation of 2016 remarks in unrealistic. Son trace registeration of 2016 remarks in unrealistic. Softer, amounts of 2016 remarks in unrealistic and unrealistic. Softer, amounts of 2016 remarks in unrealistic. Softer 2016 remarks in unrealistic.	tes above frein and to see short the issue was investigates a smoother transition for resource managements. It this a responder conference (issue resource) issue such the issue was freinh and the see what the issue was freinh and the see what the issue was freinh and the see what the issue was freinhors provide with MLI. And the second of DPS meet for guidance that are assurements of DPS meet for guidance that are assurements of DPS meet for guidance To the second individual and among plan add to DPII objectives. DEAD of JETS went well To the second individual and the DPII objectives. DEAD of JETS went well To the objective of the second or the second of the second
Creat Lenser Latin with Applics responders Meeting agends de Tration planning P Larly mounts tracking was difficult* Creat califoration and 200 forms** Need better information flow on 1715 September 1915 September 1	test above files not to see which the issue was. Files not the see was to see was. Files not to see which the issue was. Files not the see was to see was. Files not the see was to see was. Files not was to see was to see was. Files not was a warreness of OFS need for guidance Was a warreness of OFS need for guidance. Base a warreness of OFS need for guidance. Was a warreness of OFS need for guidance.
Great Linearction with Applic responders. Meeting agends don't Follow planning P tarly resource tracking was difficult* tarly resource tracking was difficult* tarly resource tracking was difficult* tardy and collaboration of the Collab	tes above frein not to see short the issue was investigates a smoother transition for resource managements. It this a responder conference (issue out the seed of the seed of the issue was freinhood to see what the issue was freinhood to see what the issue was freinhood to see what the issue was freezing most who set the expectation. Another populous with NLL Management was the seed of the issue was a seed of the issue of the issue was a seed of the issue of the issue was a seed of the issue of the issue was a seed of the issue of the issue was a seed of the issue of the issue of the issue was a seed of the issue of the issue of the issue was a seed of the issue of the issue of the issue was a seed of the issue of the issue of the issue was a seed of the issue of the issue of the issue was a seed of the issue of the issue of the issue was a seed of the issue of the issu
Great Leneration with Applics responders. Meeting agends dott Pollow planning P Early encounter tracking was difficult* Early encounter tracking was difficult* Facel Colliberation or 2016 forms** Hond Colliberation of 2016 forms* Sometic Pollow or 2016 forms** For the Colliberation of 2016 Commob plan meeds to go through the check & adjust phases southers for 2016 Softers or 2016 forms* Hond Colliberation or 2016 Softers or 2016 Softers or 2016 For the Colliberation of 2016 For the C	Set above If the not to see what the issue was Investigates a smoother transition for resource managements. It is to a responder conference issue only If the not to see what the issue was If the not to see what the issue was If the not to see what the issue was If the not to see what the issue was If the not to see what the issue was If the not to see what the sepectation. Bearlows positive with MUL Area in the notion of
Great Lenserston with public responders Merchica general des Tellow planning P Early resource tracking was difficult* Certain Control of Control of Control of Control Early resource tracking was difficult* Certain Collection Control Early Resource tracking was difficult* Early Resource tracking was difficult* Early Resource tracking was difficult for Control Early Early Early Resource tracking was difficult for Control Early	Set above If the not to see what the issue was Investigates a smoother transition for resource managements. It is to a responder conference issue only If the not to see what the issue was If the not to see what the issue was If the not to see what the issue was If the not to see what the issue was If the not to see what the issue was If the not to see what the sepectation. Bearlows positive with MUL Area in the notion of
Great Leneration with Applics responders. Meeting agends dott Pollow planning P Early encounter tracking was difficult* Early encounter tracking was difficult* Facel Colliberation or 2016 forms** Hond Colliberation of 2016 forms* Sometic Pollow or 2016 forms** For the Colliberation of 2016 Commob plan meeds to go through the check & adjust phases southers for 2016 Softers or 2016 forms* Hond Colliberation or 2016 Softers or 2016 Softers or 2016 For the Colliberation of 2016 For the C	tes above freigh and to see what the issue we move grief in the see what the issue we move grief in and to see what the issue we move grief in an extra see what the issue we move grief in an extra see what the issue we move grief in an extra see what the issue we move grief in an extra see what the issue was grief in an extra see a second of the issue of LOTS meet for guidance to the second in a se
Great Lensestion with Applics responders. Meeting agends dott Pollow planning P Early exonutes tracking was difficult* Early exonutes tracking was difficult* Early exonutes tracking was difficult* Face of Colliberation or 2016 remore ** traced better information flow on 2015 ** Benediction of 230 counged in 130 minutes is unrealistic. Some face significant with Lobo Early exonutes in 140 counged in 150 minutes is unrealistic. Softer any operation of 150 counged in 150 minutes is unrealistic. Softer any operation of 150 counged in 150 minutes is unrealistic. Softer any operation of 150 counged in 150 minutes in 150 counged in 150 co	tion above the production of t
Great Learnes on with Apalici responders Merchica general desir Pollow planning P Larly resource tracking was difficult* Carly resource tracking was difficult* Carly resource tracking was difficult* Variety of the Commission of	test above fine of the see what the issue was. Fine of the see what the separation. If you was the see was the separation of the see was a warrener of of 19 see of the guidance Need to see was was was of 09 see of the guidance Need to see was was of the see of
Great Linearction with public responders. Meeting agends don't Pollow planning P tarly resource tracking was difficult* tarly resource tracking was difficult* tarly resource tracking was difficult* tardy and collision of the Collision of t	test above freigh and to see what the issue was investigates a smoother transition for resourch management. It this a responder conference issue out freigh and to see what the issue was. Freigh and the see what the issue was. Freigh and the see what the issue was. Freigh and the see that the seperation. Menuforce produce with NLC. As a secondary of the seed of guidance Need to decendo a demake plan add to Dell'objectives. Date of 21% west west Read better annufation of date from Fireti, frequent Cittle series/* Pales in the AMT drift and was assessment of City accordance Date of 21% west west of 21% of continue Annuerous Date of 21% of 21% of 10% of 21% of
creat increation with public responders Membring agends del Totton planning P tarly resource tracking was difficult* Creat collaboration 200 forms** Need better information flow on 2150 separation of 250 country of 250 country on 250 country of 250 country on 250 country of 250 country o	test above fish and to see short the issue wan, incredible as smoother travestor for recourse management. In this a regularder conference issue on fish and to see short the issue wan, ingree not who set this despiration. If so the see short the separation of the see season one set of the see season one set of the see season one set of the season one season one set of the season one set of the s
Grast Linearction with Apalici responders Merchica general desired from planning P Larly resource tracking was difficult* Larly resource tracking was difficult to large tracking and large tracking to large tracking to large tracking to large tracking to large tracking tracking to large tracking tracking tracking tracking tracking Large tracking tracking tracking tracking Large tracking tracking tracking tracking Large tracking tracking tracking Large tracking tracking tracking Large tracking tracking tracking Large	test above fine of the time with the issue with. International substitute in the second of the sec
Great Linearction with Auditic responders. Meeting agends dott Pollow planning P Early resource tracking was difficult* Early resource tracking was difficult to Early resource tracking was difficult to Early resource tracking was difficult to Early resource tracking was difficult Early resource Early r	test above fish and to see short the issue wan, incredible as smoother travestor for recourse management. In this a regularder conference issue on fish and to see short the issue wan, ingree not who set this despiration. If so the see short the separation of the see season one set of the see season one set of the see season one set of the season one season one set of the season one set of the s

The Exercise Stats



- 7 member Unified Command
- Two-and-one-half days spent in exercise
- 213 participants representing 23 organizations
- 1 Full planning cycle
- 2800 feet of Cat5 cable
- Equipment display by OSRO



Summary



- Drill planning process A-
 - Need more engagement by locals
- Marathon IMT A-
 - Improving through higher level training
 - Continue training to a higher savviness in national response system
- Unified Command, Plans, JIC, OPS, Environmental A+

Marathon Petroleum thanks:



- USCG
- USEPA
- NOAA
- IEPA
- IDNR
- MDNR
- County of St. Louis
- City of St. Louis (EMA & PD)
- Environmental Restoration
- T&T Salvage
- Tristate Bird Rescue

- HP
- EMSI
- WPNT
- The Response Group
- GRS
- URS
- Arcadis
- CTEH
- Blackbox
- Foster Wheeler



Pat McCaffrey psmccaffrey@marathonpetroleum.com 419-421-3058