



2022 YEAR IN REVIEW



MSRC maintained response readiness in our response force and equipment availability

- 99% Equipment reliability factor
- 100% Monthly deployment exercise schedule completion rate

Internal QA/QC Program	2020	2021	2022
QA Drills Testing Personnel Readiness Posture	45	27	131
QC Drills Testing Equipment Readiness	7	16	99
HSE Audits	39	57	70
NTVRP / SOPEP Drills on MSRC Vessels	291	290	164

2022 Dedicated Equipment Availability

MSRC maintained 100% WCD OSRO coverage in all operating areas throughout 2022

Dispersant Aircraft
737-500
93.7%

OSRVs
98.0%

Temporary Storage
(OSRVs, Barges, Tanks, Bladders)
687,340 BBLs

Barges
99.1%

Dispersant Stockpile
191,000 Gals
100%

Gulf Boom
131,500 ft
100%

Atlantic EDRC
352,570 BBLs
100%

Surveillance Equipment
99%

Pacific Boom
400,300 ft
100%

Gulf EDRC
501,800 BBLs
98.0%

Communications Equipment
100%

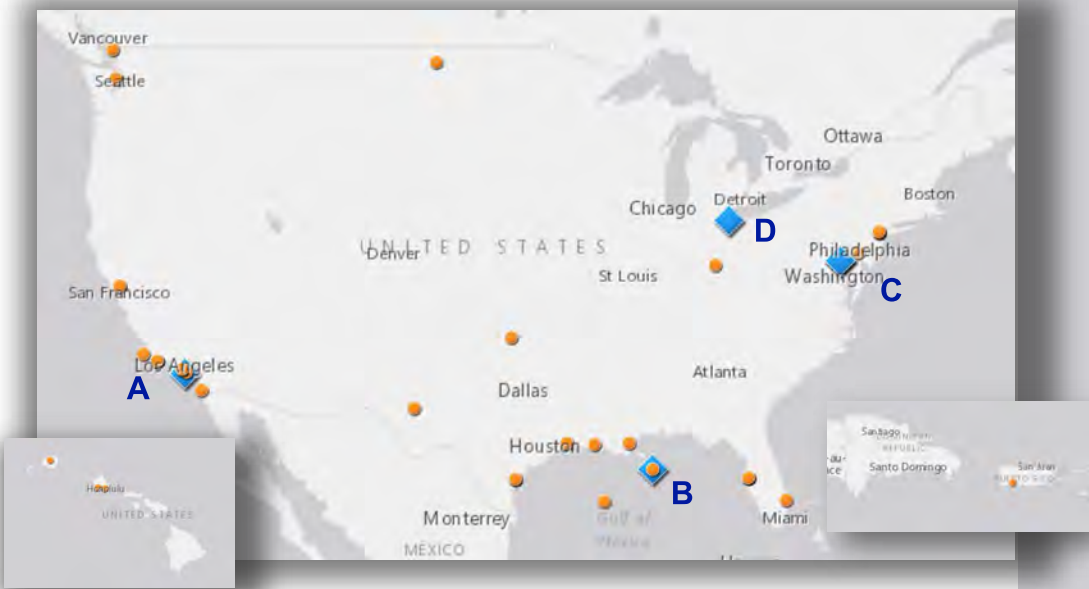
Atlantic Boom
121,360 ft
100%

Pacific EDRC
593,340 BBLs
97.0%

*includes planned and unplanned outages



47 MSRC ACTIVATIONS IN 2022



Significant Responses in 2022

- ◆ **A** Subsea pipeline repair standby
- ◆ **B** Offshore well repair standby
- ◆ **C** Vessel grounding standby
- ◆ **D** Inland pipeline leak

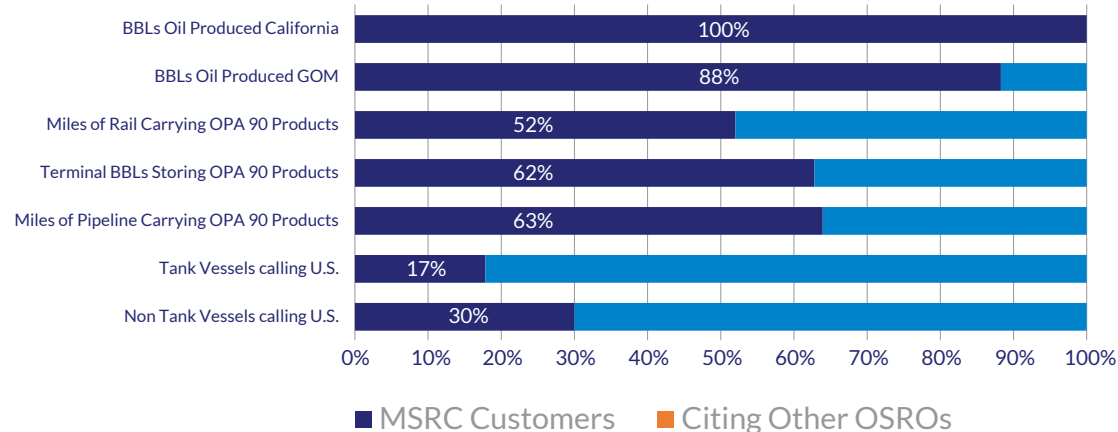
2022 Response Activity

Incident Type	Number of Activations
Offshore E&P	9
Non Tank	17
Coastal Pipeline / Terminal / Refinery	4
Tank Barge	3
Inland Pipeline / Terminal / Refinery	6
Standby	6
Communications	1
Tank Vessel	1
Total	47

KEY LESSONS LEARNED IN 2022

- **Involving MSRC early in an incident to ensure availability of contracted resources and to facilitate mobilization of dedicated resources is becoming more important. The 24-hour rule can help overcome hesitancy to seek technical advice from MSRC.**
 - Labor shortages and diversification of STARs contractors into other service lines has impacted the availability of contractors in a local area, requiring cascading of resources from farther locations. Greater lead time for identifying available resources and transit time is increasingly necessary, even for small events.
 - Reserving MSRC activation exclusively for more complex events delays the efficient coordination of resources early in a response.

MSRC Provides OSRO Coverage Across the U.S. Oil and Gas Supply Chain



MSRC has expanded its midstream footprint significantly in the past five years from ~24% to ~62% of total U.S. storage barrels and pipeline miles.



Asset Enhancement Plan	Approved recapitalization plan to high-grade mix of nearshore and offshore assets to include more 47' / 65' Fast Response Vessels on all three U.S. Coasts.
International Strike Team	Expanded International Strike Team from 6 to 20+ Members, including 2 Response Managers, 16 Field Supervisors, 2 Maintenance and Logistics Specialists, 2 Safety Specialists, and 10 Communications and Remote Sensing Technicians.
Dispersant Aircraft & Stockpile	Received second 737 Jet at Shenandoah Valley location. MSRC transferred 60K gals of dispersant from Alaska to the existing 131K gals stockpile for a total of 191K gals.
Interior Capability	Added 2 Coordinator positions to staff 2 new regions in the Southwest and Southeast of the Interior Region to support expanding midstream customer base and increased customer utilization of MSRC services.
Surveillance & Comms Upgrades	Added 2 large utility drones to MSRC drone fleet for a total of 14; added a third TK-7 sensor package for high-altitude surveillance; added additional compact rapid deployable units "CRDs" for a total of 2 in MSRC portfolio.
Internal GIS Analyst Capability	Added two GIS Analysts with specialized skillsets in analyzing GIS data and customizing ESRI ArcGIS applications to develop useful geo-referenced response tools.
Digital Response Resource Dashboard	Expanded functionality of GIS-enabled Digital Response Resource Dashboard to quickly aggregate and summarize key response equipment and their sources from both MSRC dedicated and STARs equipment pools by distance and by travel time.
Special Projects for Customers	T&IS provided drone surveillance services to build 3D geo-referenced maps of firefighting capability at a customer's tank farm facilities, and communications services to amplify their cellular coverage at select facilities.

Overall Customer Satisfaction with MSRC Service:

Exercise Support Delivery: 3.9 / 4.0 VERY SATISFIED
Response: 3.56 / 4.0 VERY SATISFIED

Regulatory Compliance & Exercise Support Activity

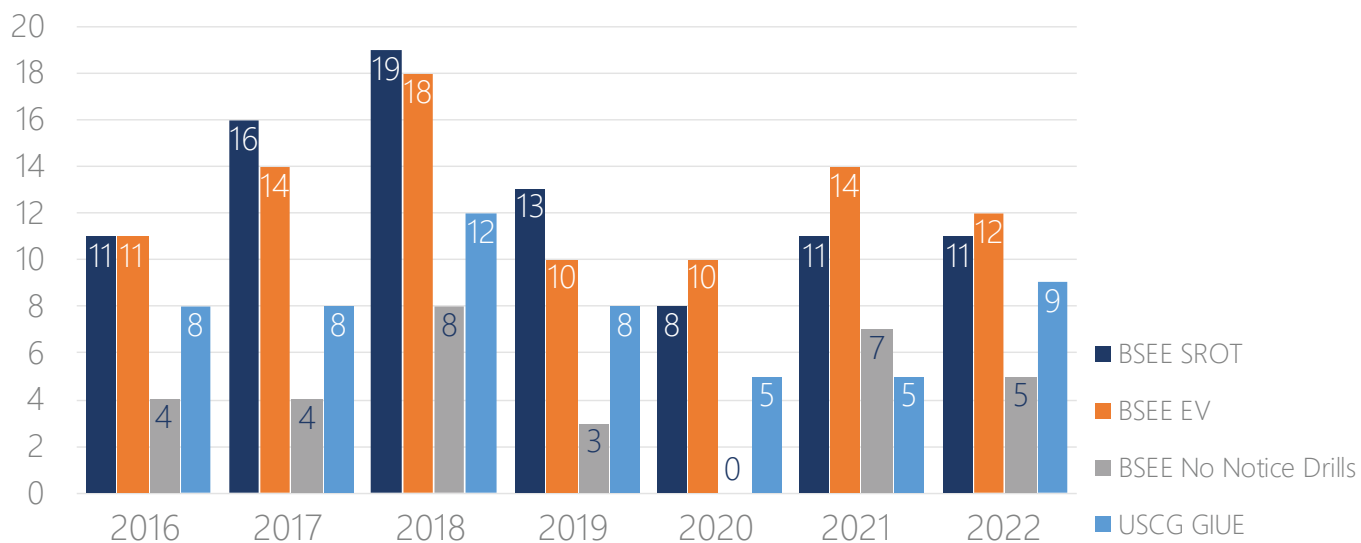
REGION	TTX 2020	TTX 2021	TTX 2022	FTX 2020	FTX 2021	FTX 2022	TOTAL 2020	TOTAL 2021	TOTAL 2022
Interior	51	56	58	5	13	22	56	69	80
Atlantic	23	21	42	-	1	-	23	22	42
Gulf	31	35	38	-	3	4	31	38	42
Pacific*	58	78	110	31	34	38	89	112	148
Communications	1	1	2	-	2	-	1	3	2
TOTAL	164	193	250	36	51	64	200	244	314

- FTX = Field Deployment Exercises
- TTX = Table Top Exercises

*COVID-19 Restrictions significantly impacted field deployment exercises in 2020

MSRC maintains pace and performance with regulatory verification programs with 100% pass rate

Compliance Activity Across U.S. 2016-2022



EXPANDED RESPONSE FORCE



MSRC Dedicated Response Force

315

Response Managers, Supervisors, Field Technicians, Logistics, Safety
15 Years Average Experience for Supervisory level

MSRC Reservists

100

Located on the East Coast, Cascade within 36 hours, Paid Annual Retainer, Trained Annually,
HAZWOPER Certifications Current, Medical Surveillance Current

MSRC STARs Contractors

2,000+

Response Force Augmentation, Environmental Monitoring, Waste Disposal, HAZMAT Response, Non-floating Oils



General Contractors

200+

ICS Staffing, Providers of Aircraft, VOOs, Barges, Tugs

INTERIOR STARs CONTRACTOR TRAINING

MSRC deploys a specialized training program to support a contracted model in the U.S. Interior



STARs Additions/Removals	2022	2021	2020
STARs Location Additions	10	16	26
Across Number of States	7	9	12
STARs Location Removals	6	9	5
Across Number of States	5	8	5

Interior Training Topic	Locations Trained in 2022	...in 2021	...in 2020
Safety Expectations & Standards	79	86	80
Traffic Control	79	79	72
Site Control & Staging Areas	79	76	77
Boom Deployment & Anchoring	79	77	74
Small Boat Handling	65	48	49
Skimming / Recovery & Storage	79	84	77
Shallow Water Barge Systems	12	31	31
Dikes / Berms / Dams	40	49	37
Pits / Trenches / Slots	13	6	NA
Industrial Equipment	46	42	44
In Situ Burning	36	31	35
Communications	72	86	76