



CLEAN SEA - 2



MUMBAI

04 – 05 NOV 2009



CLEAN SEA - 2

- ① Introduction
- ② Exercise Settings
- ③ Participation
- ④ Exercise Areas & Weather
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INTRODUCTION

- What will happen if an oil spill of TIER-II / TIER-III hits the coast of Mumbai ?
- **Large scale consequences**
 - **Two major sea ports**
 - **Beaches**
 - **Fisheries**
 - **Entire marine life**
 - **Industrial establishments**



EXERCISE SETTINGS

- **DECIDED IN 13TH NOSDCP MEETING ON 15 APR 2009**
- **EXERCISE PLANNED 4-5TH NOV 2009**
- **VENUE – MUMBAI**



EXERCISE AIM

- **TO EVALUATE COAST GUARD AND RESOURCE AGENCIES, POLLUTION RESPONSE CAPABILITIES UNDER THE PROVISIONS OF THE NOSDCP.**
- **TO CHECK READINESS AS PER THE CURRENT POLICIES.**
- **TO CHECK INTEGRATION OF THE RESOURCE AGENCIES WITH COAST GUARD.**
- **TO CHECK EQUIPMENT, COMMUNICATION PROCEDURES AND EFFECTIVENESS OF TRAINING IMPARTED.**



SITUATION

- ① **TANKER (20,000 GRT) MT BIRU SINGH WHILE EMBARKING OIL FROM BMD CONSORTIUM CONTROLLED SINGLE POINT MOORING SIGHTED OIL SHEEN AND DARK PATCHES OF CRUDE OIL AROUND HER.**
- ② **TANKER REPORTED MATTER TO HER FIRM**
- ③ **AFTER FOUR HOURS SPILL SIZE GROWS LARGER**

SITUATION

- ① **FIRM REDUCES PRESSURE AND DEPLOYS ASSETS FOR SURVEILLANCE**
- ② **SPILL BECAME UNCONTROLLABLE. TANKER ATTEMPTS TO DISENGAGE FROM SPM. IN PROCESS COLLIDES WITH ASSISTING MSV**
- ③ **ONE OF HER TANK SUSTAINS 2" RUPTURE AND CRUDE OIL SPILLS INTO SEA**
- ④ **CREW ATTEMPTS PREVENTING SPILL.**

SITUATION

- ① **TANKER CATCHES FIRE. FIRE FURTHER SPREADS AFT.**
- ② **AT 050900 CREW ABANDONS TANKER. EMBARK LIFEBOATS**
- ③ **COAST GUARD ALERTED FOR SAR, FIRE CONTROL AND PREVENTION OF OIL SPILL.**

AGENCIES / ORGANISATIONS

- MHA
- MoS
- COAST GUARD
- INDIAN NAVY
- DG SHIPPING
- VARIOUS PORTS
- ONGC
- SCI
- ICMAM PD
- INCOIS
- ISRO
- NIO
- CIVIL ADMIN
- FISHERIES DEPT
- MS PCB
- OIL HANDLING AGENCIES
- DGLL

AGENCIES / ORGANISATIONS INVITED PARTICIPATION

CENTRAL / STATE GOVT DEPARTMENTS

MAJOR PORTS

OIL HANDLING AGENCIES



AGENCIES / ORGANISATIONS PARTICIPATED

- HPCL
- RELIANCE
- ESSAR
- MPSEL
- NIKKO RESOURCES
- BORL
- BG EXPLORATION
- MBPT
- CAIRN ENERGY
- PORT BLAIR PORT
- JNPT
- NMPT
- PPT
- TPT
- MPCB
- GPCB
- IOC
- KRISHNAPATNAM PORT
- MMB(MB)

PARTICIPANTS

- **04 Nov 2009**
- **Work shop / Table top exercise**
 - **31 participants**

- **05 Nov 2009**
- **Main exercise**
 - **23 participants**
 - **63 media persons**



ASSETS

- ◎ **COAST GUARD**
 - 02 AOPVs (SANKALP & SANGRAM)
 - 01 OPV (VEERA)
 - 03 FPV (SK CHAUHAN, KAMALA DEVI, SB PHULE)
 - 01 IB (C-143)
 - 01 CG DORNIER
 - 02 CG CHETAK

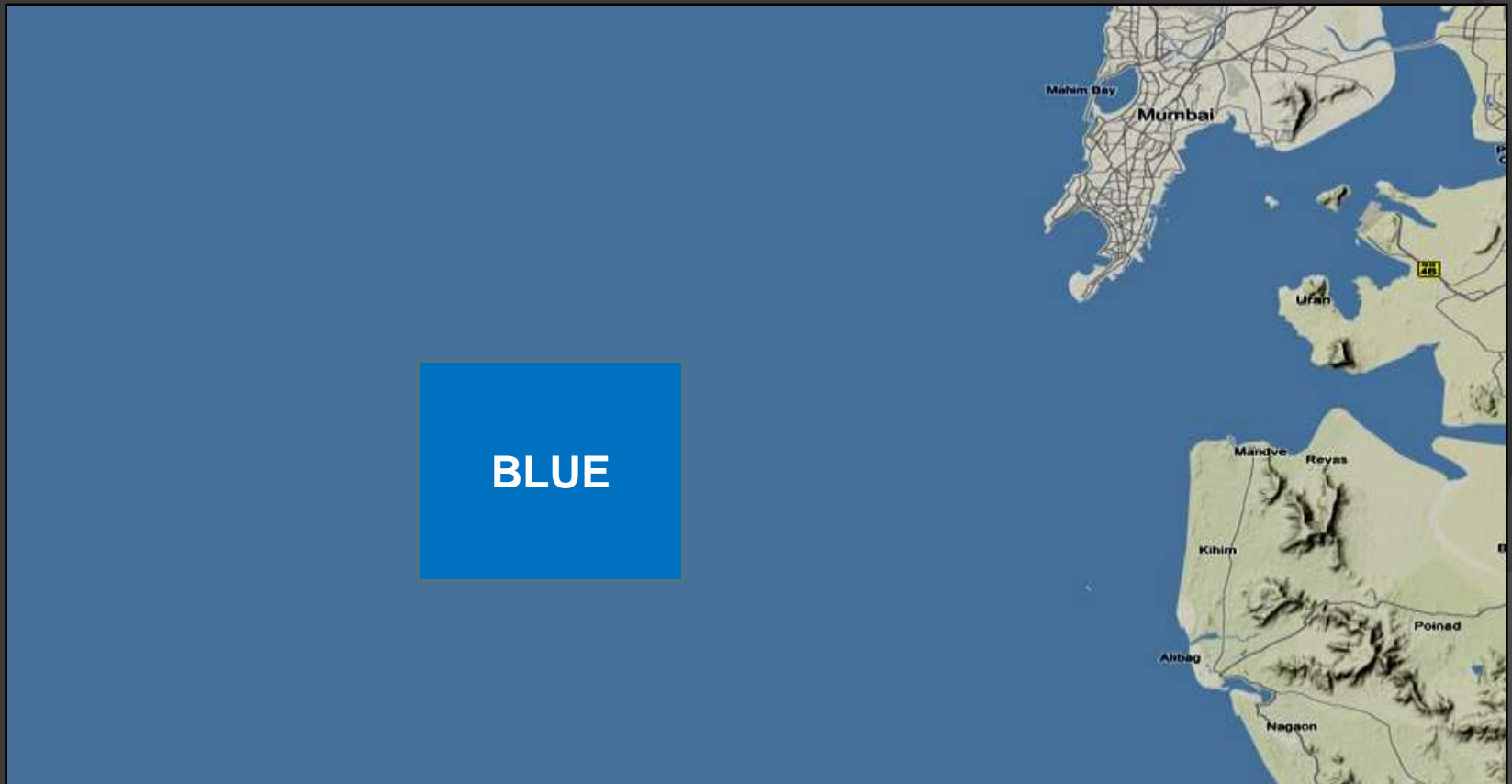


AGENCIES PARTICIPATED

<u>SL NO</u>	<u>COMPANY</u>	<u>RESOURCES</u>	<u>REMARKS</u>
(A)	ONGC	ONE MSV (MALVIKA 36)	INVOLVED IN LAYING OF CONTAINMENT BOOM
(B)	BG EXPLORATION	ONE OSV (MIGHTY TIDE)	--DO--
(C)	MbPT	ONE TUG (POST DELIBERATIONS BY CG)	INVOLVED IN INSHORE (TIER-I) OPERATIONS FOR LAYING OF RIVER BOOM.
(D)	SCI	ONE TANKER PVC KARAM SINGH	SIMULATED AS POLLUTING VESSEL
(E)	INDIAN NAVY	ONE LEANDER CLASS SHIP	SIMULATED TOWING AND SCUTTLING OF DISABLED POLLUTING TANKER.

AREA OF EXERCISE

- MAIN EXERCISE - OFF MUMBAI
 - 13 NM SOUTH WEST FROM PRONGS LT
 - AERIAL DISTANCE 12.5 NM FROM PRONGS



MET PREDICTION (04 - 05 NOV)

- (a) **Morning winds** - **N – 03 Knots**
- (b) **Evening winds** - **NW – 07 Knots**
- (c) **BMP** - **1007 – 1010 hPA**
- (d) **Cloud cover** - **1-2 Octa**
- (e) **Rel Humidity** - **66 – 73 %**
- (f) **Surface Temp** - **32° / 25° C**
- (g) **Sea State** - **1-2**
- (h) **Visibility** - **Good**
- (j) **Rain** - **Unlikely**
- (k) **Current** - **Sly - 0.5 knots**

EXECUTION – DAY -1

Forenoon session-Work shop

Presenting of professional papers



-HNS Contingency plan D (F&E), CGHQ

-Oil Pollution Legislations and Future Needs PRT (A&N)

-New OSD Guidelines 2009 PRT (E)

-Pollution Response Efforts for Offshore Installations / Pipelines PRT(W)

EXECUTION – DAY -1

Afternoon session-Table top exercise



EXECUTION – DAY -1

Afternoon session-Table top exercise



EXECUTION – DAY – 2

- ◎ ISSUE OF POLWARN
- ◎ MOBILISATION OF RESOURCES
- ◎ ASSESSMENT
- ◎ ISSUE OF NAVAREA

FISHERIES PROHIBITION



EXECUTION – DAY - 2

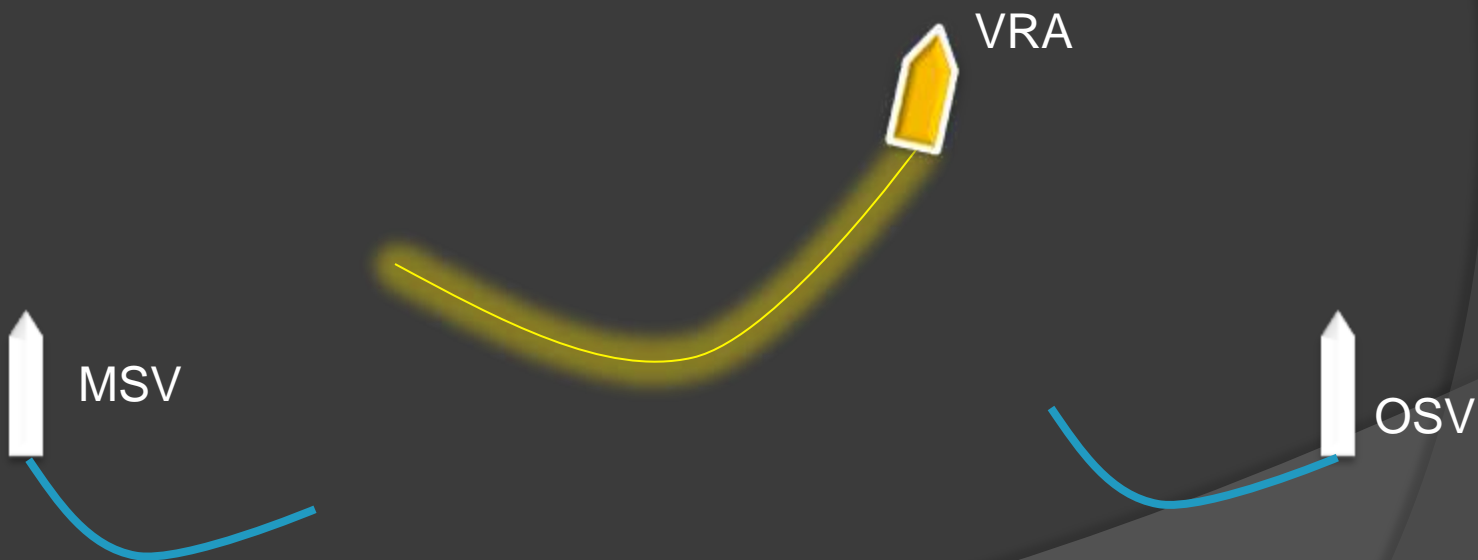
Inner Harbour Level-1 Exercise



FIRE FIGHTING



SCI TANKER



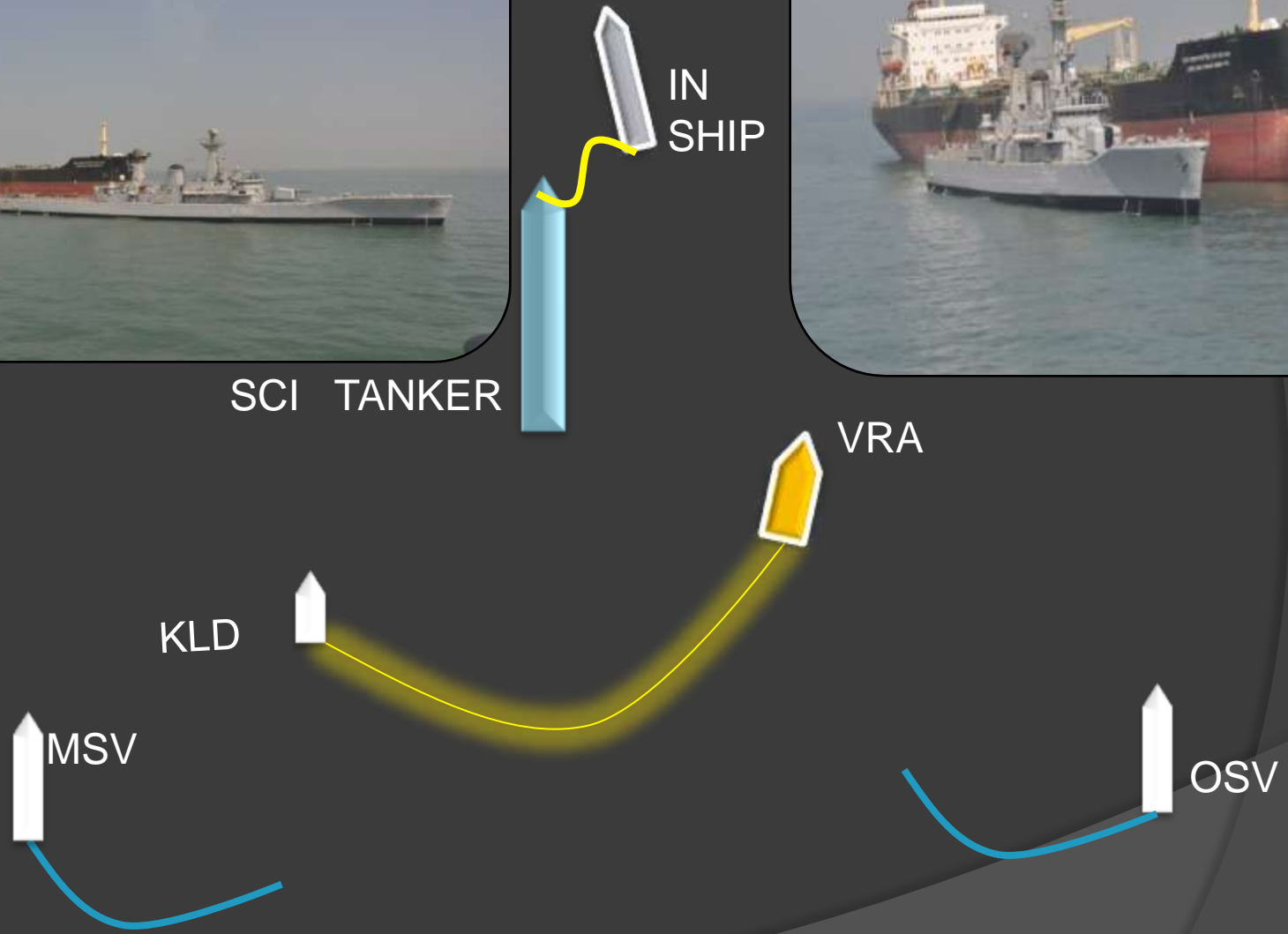
STANDBY TO TOW / SCUTTLE



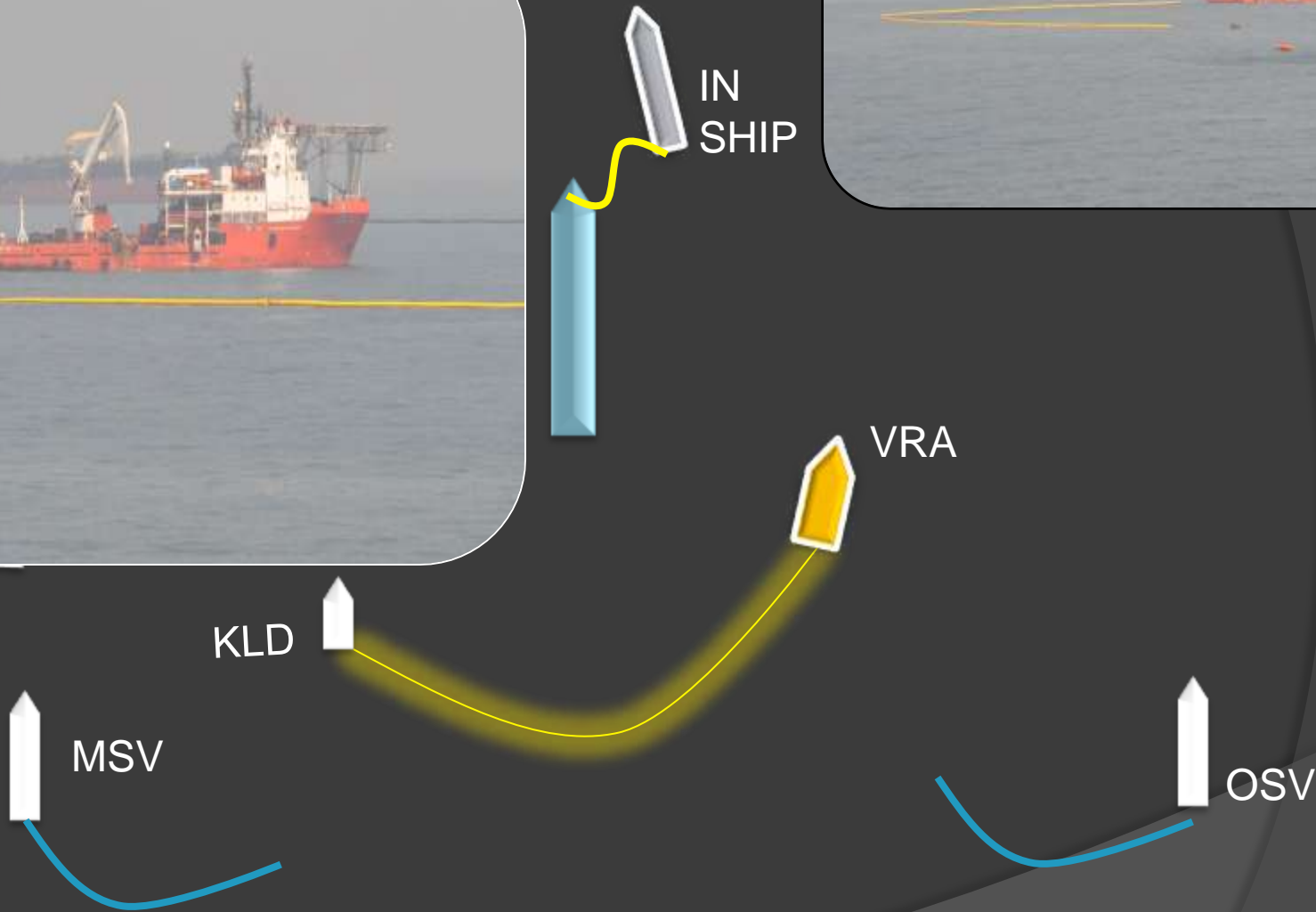
SCI TANKER



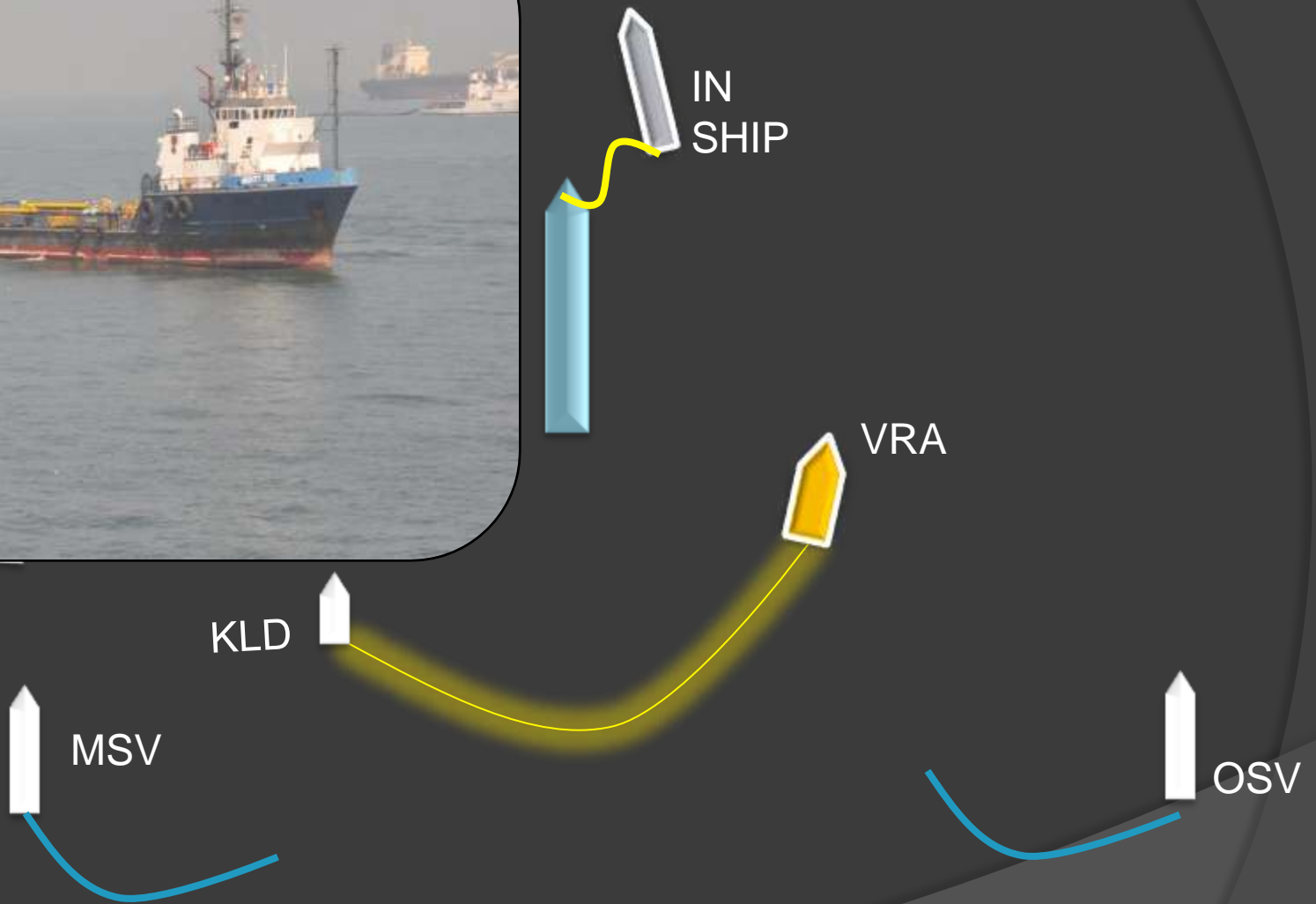
IN SHIP



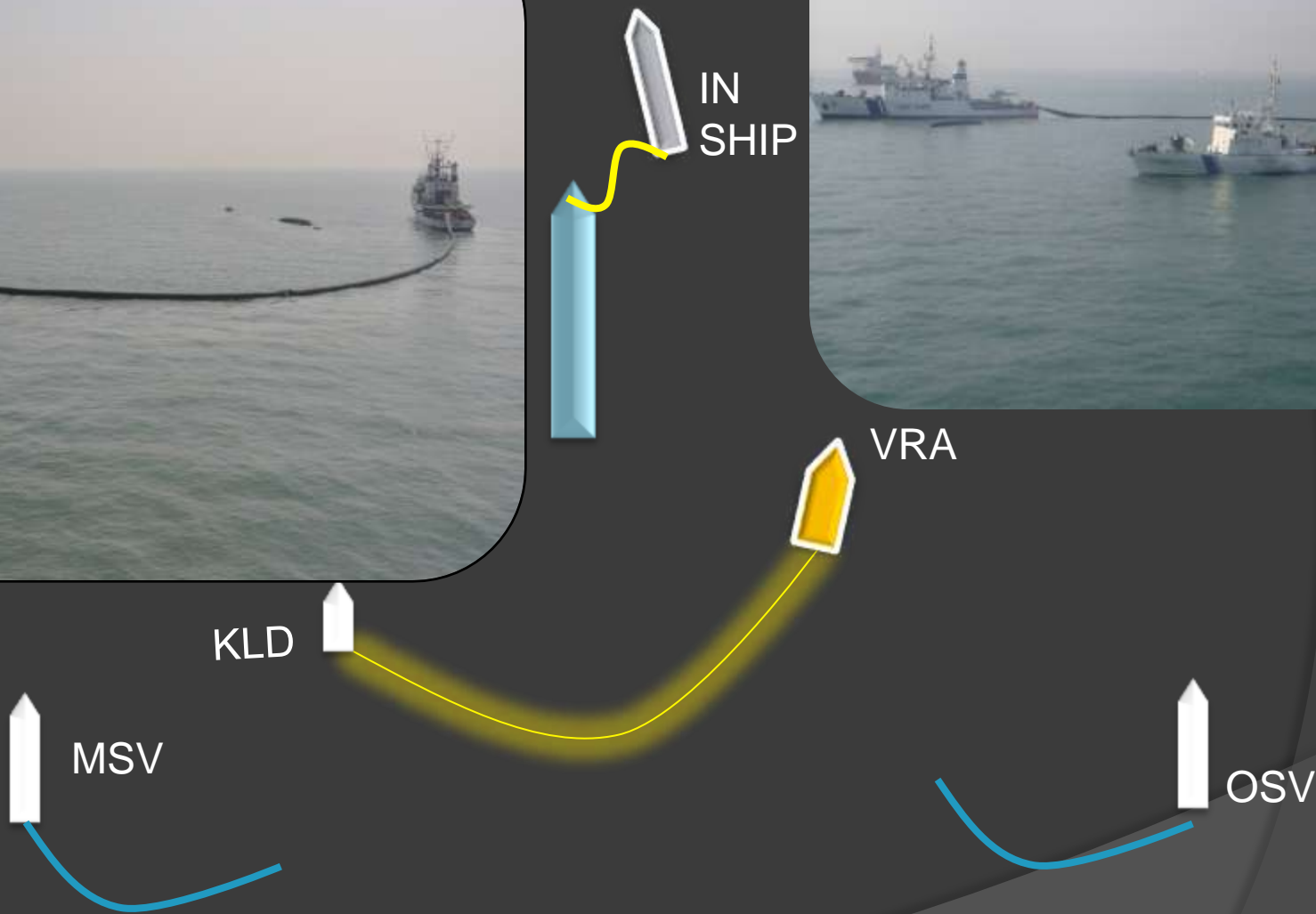
CONTAINMENT / RECOVERY



CONTAINMENT / RECOVERY



CONTAINMENT / RECOVERY



OSD SPRAY



IN SHIP

VRA

MSV

KLD

OSV

SKL



OBSERVATIONS

- ⦿ Inadequate holding of equipment
- ⦿ Building up of Tier-I capabilities as envisaged under NOS-DCP
- ⦿ Identifying suitable vessel for operating boom and skimmers
- ⦿ Incorporation of action plan towards disposal of recovered oily water in local contingency plan

CONCLUSION



Working cohesively



Training / Exercises



JAI HIND



