

PETROLEUM ASSOCIATION OF JAPAN
OIL SPILL SYMPOSIUM 96
4-5 March 1996

**OIL SPILL CONTINGENCY
PLAN & TRAINING OF
PERSONNEL IN MALAYSIA**

BY

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General Manager
Engineering & Safety Unit
PETRONAS**



OBJECTIVE

- ❑ OIL SPILL CONTINGENCY PLANNING AND ITS CAPABILITY IN MALAYSIA.
- ❑ COOPERATION AND ENHANCEMENT OF CONTINGENCY PLANNING.



OVERVIEW

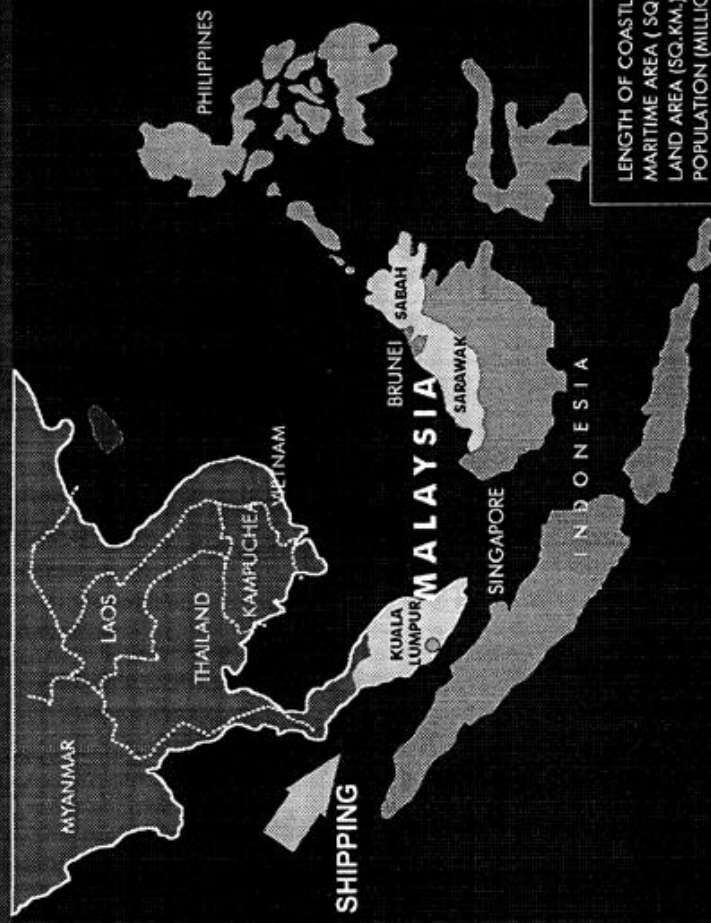
- NEED FOR OIL SPILL CONTINGENCY PLAN
- PRESENT SET-UP OF CONTINGENCY PLANNING
- GOVERNMENT / INDUSTRY COOPERATION
- TRAINING AND EXERCISE
- WAY FORWARD



NEED FOR OSCP

- ❑ MALAYSIA'S GEOGRAPHICAL LOCATION
- ❑ INCREASE IN TRAFFIC DENSITY IN THE STRAITS OF MALACCA
- ❑ INCREASE IN EXPLORATION AND PRODUCTION ACTIVITIES

SOUTH EAST ASIA



LENGTH OF COASTLINE	4500 KM
MARITIME AREA (SQ. KM.)	592,630
LAND AREA (SQ. KM.)	329,758
POPULATION (MILLION)	19
GROWTH IN GDP	8.4%

**NO OF TANKERS, CONTAINER AND
CARGO VESSELS PLYING THE STRAITS
OF MALACCA 1987-1993 (40% TANKERS))**

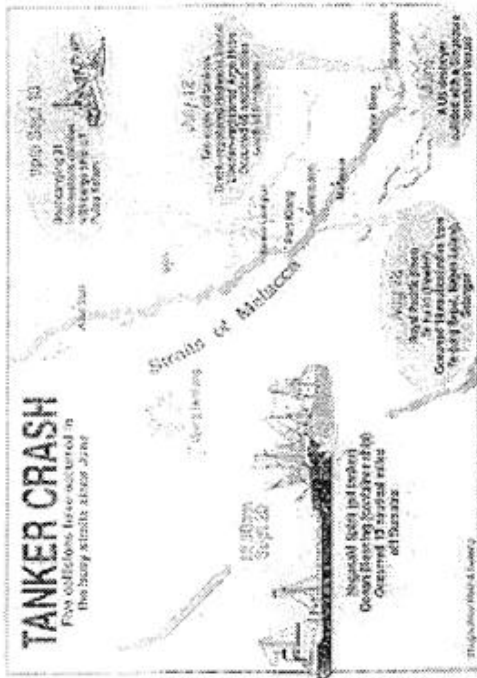
YEAR	TANKER	CNTNER	CARGO	VESSELS
1987	10 769	2 478	13 248	26 495
1988	13 621	3 508	12 551	29 680
1989	12 222	4 753	11 210	28 185
1990	11 298	4 506	11 502	27 306
1991	10 719	4 658	10 658	26 035
1992	11 307	5 397	11 554	28 258
1993	11 177	5 582	12 298	29 057

THE STRAITS TIMES, 21 SEPTEMBER 1992

SHIPS COLLIDE

TANKER CRASH

FOUR COLLISIONS HAVE OCCURRED IN THE BUSY STRAITS SINCE JUNE



The Star - 21 September 1992

DOE sends 4000 tons to assist in cleanup

MAJOR OIL SPILL INCIDENTS IN MALAYSIAN WATER

YEAR	INCIDENT	LOCATION	Kbbl. SPILL	CLEAN-UP COST (RM)
1976	SHOWA MARU	S. MALACCA	30	2.6 MIL
1976	DIEGO SILANG	S. MALACCA	40	-
1979	M.V. FORTUNE	S. C. SEA	70	-
1992	NAGASAKI SPIRIT	S. MALACCA	100	1.9MIL

Tanker detained for dumping sludge, oil

By JIMMY YEW

MALAYSIAN authorities have detained a Liberian tanker, the *Abu Bakar*, for dumping sludge and oil in the waters off Singapore yesterday.

The Director-General of the Department of Environment (DOE) Datuk Dr Abu Bakar Jasser said the tanker was intercepted and detained off the southern coast of Singapore 13 miles north and 100 degrees 33 minutes East, just inside the Singapore fleet limit.

"We received a report at 12pm that the ship was detained in the waters off Singapore," he said.

The DOE said the detention order was issued under section 41 of the Environmental Quality Act (EQA) 1976.

However, Abu Bakar said the Marine Department has not been able to serve the detention order on the tank-

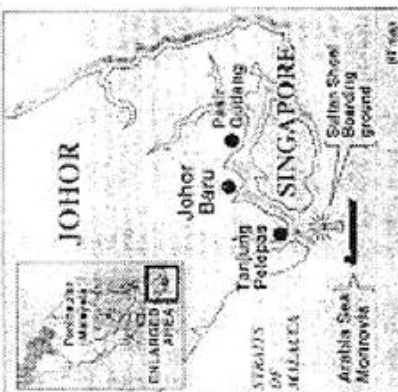
er's captain, had refused permission to board the vessel.

"The Marine Department has requested help from the Royal Australian Navy to arrest the ship from slipping away and to serve the detention

order issued on Saturday to the shipmaster," he said.

Abu Bakar said the tanker has been down from 26 incidents in 1988 to 20 cases last year because of the banning of sludge cleaning in Johor waters and tighter enforcement.

"Though there is a lack of oil or waste reception facilities at Malayan ports, shipowners or their representatives should not irresponsibly dump wastes into the sea," he said.



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EXAMPLE OF WORLD MAJOR OIL SPILL INCIDENTS

- ❑ **AMOCO CADIZ 1978** : **COAST OF FRANCE**
- 223 TONNES OF CRUDE
- ❑ **IXTOC 1979** : **GULF OF MEXICO**
- ❑ **EXXON VALDEZ 1989** : **ALASKA**
- 20MIL GAL OF CRUDE
- ❑ **BRAER 1993** : **SHETLAND ISLAND**
- 80K TONNES OF CRUDE
- ❑ **SEA EMPRESS 1996** : **MILFORD HAVEN**
- 50K TONNES OF CRUDE



OIL SPILL RESPONSE SYSTEM IN MALAYSIA

- ☐ **LOCAL OIL SPILL CP**
 - **OIL INDUSTRY**
 - **PORT AUTHORITY**
- ☐ **PIMMAG**
- ☐ **NATIONAL OIL SPILL CONTINGENCY PLAN**
- ☐ **REGIONAL OIL SPILL CONTINGENCY PLANS**



FEATURES OF CONTINGENCY PLAN IN MALAYSIA

- ❑ TIERED RESPONSE CONCEPT**
- ❑ SCENARIO DEVELOPMENT IS BASED ON RISK ASSESSMENT**
- ❑ EMPHASISE ON MECHANICAL RECOVERY**
- ❑ GOVERNMENT/OIL INDUSTRY INTEGRATION - GOVT TAKING A LEAD**
- ❑ REGIONAL COOPERATION**



NATIONAL OIL SPILL CONTINGENCY PLAN

- ☐ **ESTABLISHED IN 1976**
- ☐ **BASED ON TIERED RESPONSE**
- ☐ **COVERS:**
 - S. MALACCA, SOUTH CHINA SEA AND EEZ**
- ☐ **COORDINATE BY A NATIONAL COMMITTEE**
 - LED BY DEPARTMENT OF ENVIRONMENT**
- ☐ **THE COMMITTEE COMPRISES:**
 - GOVERNMENT AGENCIES AND PIMMAG**
- ☐ **INTEGRATION WITH OTHER
REGIONAL CONTINGENCY PLANS**



PETROLEUM INDUSTRY OF MALAYSIA (PIMMAG)

- ☐ **INCORPORATED IN 1993 AS A NON-PROFIT
COMPANY**
- ☐ **EFFORT BY PETROLEUM COMPANIES OPERATING IN
MALAYSIA**
- ☐ **COVERS MALAYSIAN WATERS INCLUDING EEZ**
- ☐ **CONTRIBUTION BASED ON RELATIVE EXPOSURE TO
OIL SPILL**
- ☐ **CATEGORY OF MEMBERSHIP**
 - **ORDINARY**
 - **ASSOCIATE**



PETROLEUM INDUSTRY OF MALAYSIA (PIMMAG)

- ☐ **PROVIDE TIER 2 RESPONSE**
- ☐ **SHARING COMMON RESOURCES**
- ☐ **PROVIDE OSR TO MEMBERS AND NON-MEMBERS**
- ☐ **INTEGRATE WITH NATIONAL OIL SPILL
CONTINGENCY PLAN**



PETROLEUM INDUSTRY OF MALAYSIA (PIMMAG)

- ☐ **PRESENT STATUS:**
- ☐ **10 MEMBER COMPANIES**
 - 6 *ORDINARY*
 - 4 *ASSOCIATES*
- ☐ **MANAGE BY PIMMAG MANAGEMENT
OFFICE**
- ☐ **THREE STOCKPILES MANAGEMENT BY
SERVICE CONTRACTORS**
- ☐ **FULLY OPERATIONAL BY MAY 1996**



REGIONAL PLANS

- ASEAN-OSRAP
- LOMBOK-MACASSAR CP
- BAY OF BRUNEI CP
- *Standard Operating Procedures for
Joint Oil Spill Combat for the Straits
of Malacca & Singapore*



OIL SPILL RESPONSE CAPABILITY IN MALAYSIA **('000BBL)**

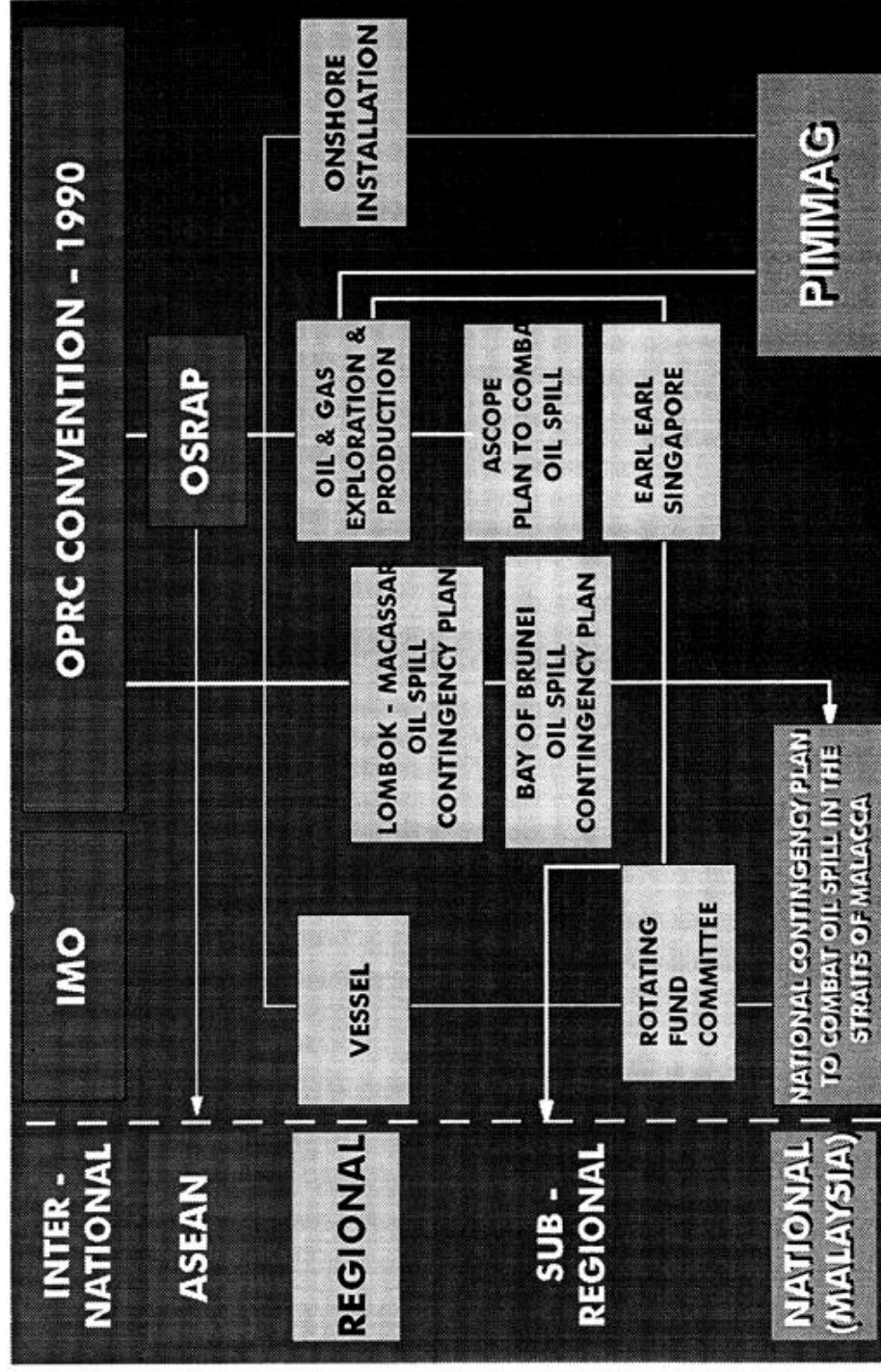
Region	Govt/ OSPAR	PIMMAG*	Oil Co's Tier 1	PAJ	Total
West Coast Peninsular Malaysia	30	63	50	10	153
East Coast Peninsular Malaysia	20	68	10	-	98
Sabah/Sarawak	10	68	1	-	79
Grand Total	60	199	61	10	330

* Nomination of equipment from member companies will be realised by May 1996.

AREA OF COVERAGE: MALAYSIAN EXCLUSIVE ECONOMIC ZONE



PRODUCTION 1994		CURRENT CONTRACT AREAS (213,797 SQ KM)	
- CRUDE OIL	620,000 BBLSD	- TOTAL PROSPECTIVE ACREAGE	515,600 SQ. KM
- GAS	2,840 MMSCFD	- ACREAGE UNDER P&C	213,797 SQ. KM
		- BALANCE	301,803 SQ. KM
		- ONGSHORE	59,500 SQ. KM
		- OFFSHORE (SHALLOW WATERS)	140,432 SQ. KM
		- DEEP WATER	80,382 SQ. KM
		- MALAYSIATHALAND JOINT DEVELOPMENT AREA (JDA)	7,500 SQ. KM
		- OTHER OPEN AREAS	221,451 SQ. KM



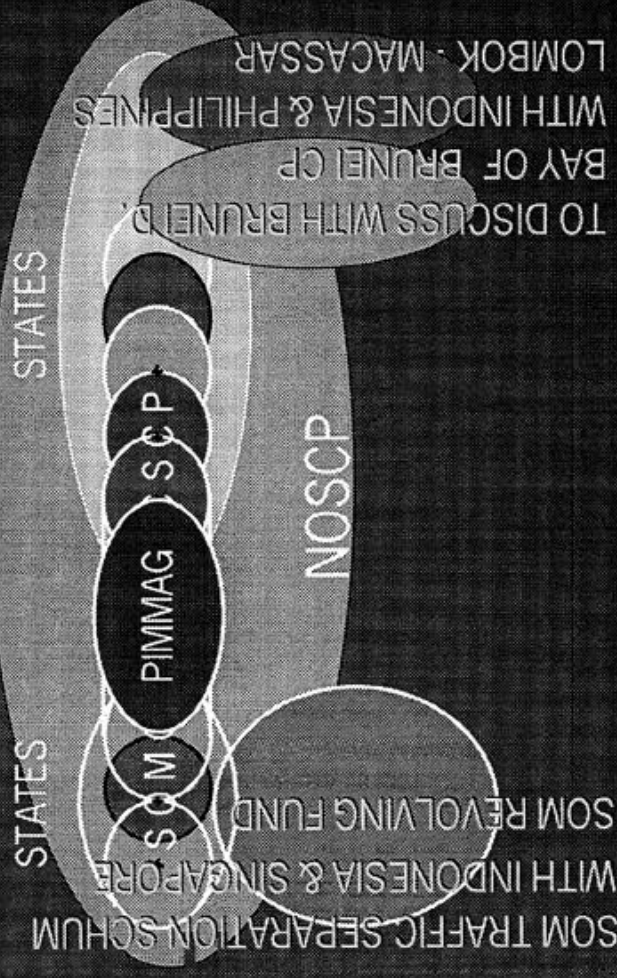
ARRANGEMENTS IN OIL SPILL RESPONSE AND PLANNING



ELEMENTS OF MALAYSIA'S NATIONAL CONTINGENCY PLAN

NATIONAL OIL SPILL CONTINGENCY PLAN (NOSCP)

ST. OF MALACCA CP SOUTH CHINA SEA CP



□ CP · CONTINGENCY PLAN □ + · OPERATION CENTRE □ SOM · STRAITS OF MALACCA

MAJOR OIL SPILL RESPONSE EXERCISES/TRAINING

Legend: DOE - Department of Environment
 IMO - International Maritime Organisation
 RFC - Revolving Fund Committee

Year	Events	Organiser	Category
1981	Oil Spill Combat Exercise	IMO/DOE	All levels of personnel
1981	Training Course in Oil Spill	DOE/Texas A&M EPMI	Management Supervisors
1984	Exercise 'MELAKA'	DOE	All levels
1990	Joint Oil Spill Combat Exercises	DOE/RFC	All levels
1994	National Oil Spill Exercises	DOE	All levels
1994	Marine Oil Spill Response & Control Course	DOE	Management



OIL SPILL TRAINING / EXERCISES

AT INDUSTRY LEVEL :

- ❑ CONDUCT ANNUAL EXERCISES' FOR OPERATORS & SUPERVISORS**
- ❑ INVOLVED GOVT AGENCIES & OTHER OIL CO'S**



OIL SPILL TRAINING / EXERCISES

AT INDUSTRY LEVEL :

❑ MAJOR TRAINING/EXERCISES INCLUDE

- MOBIL SIMULATION EXERCISES INCLUDE , KUALA LUMPUR , 1995.
- ESSO OSR EXERCISES, TERENGGANU, 1991,1992, 1994
- JOINT DOE/EPMI/TEXAS A & M. UNIV. OIL SPILL CONTROL COURSE PORT DICKSON 1981
- CALTEX OIL SPILL CONTROL SPILL EXERCISE PORT KLANG, 1991



OIL SPILL TRAINING / EXERCISES

AT INDUSTRY LEVEL :

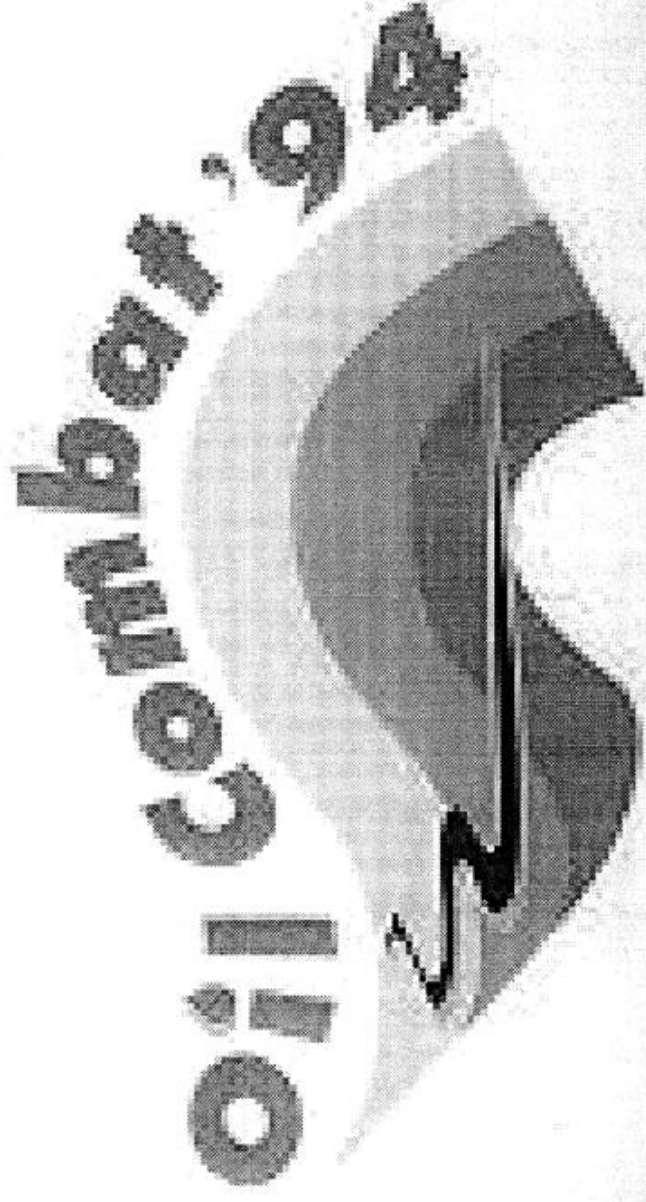
**☐ MANAGEMENT/SUPERVISORY STAFF
TRAINING AT:**

- SOUTHAMPTON OIL SPILL CENTRE
- EAST ASIA RESPONSE LTD

**OIL SPILL CONTROL COURSE IN SESSION AT
MALAYSIAN MARITIME ACADEMY**



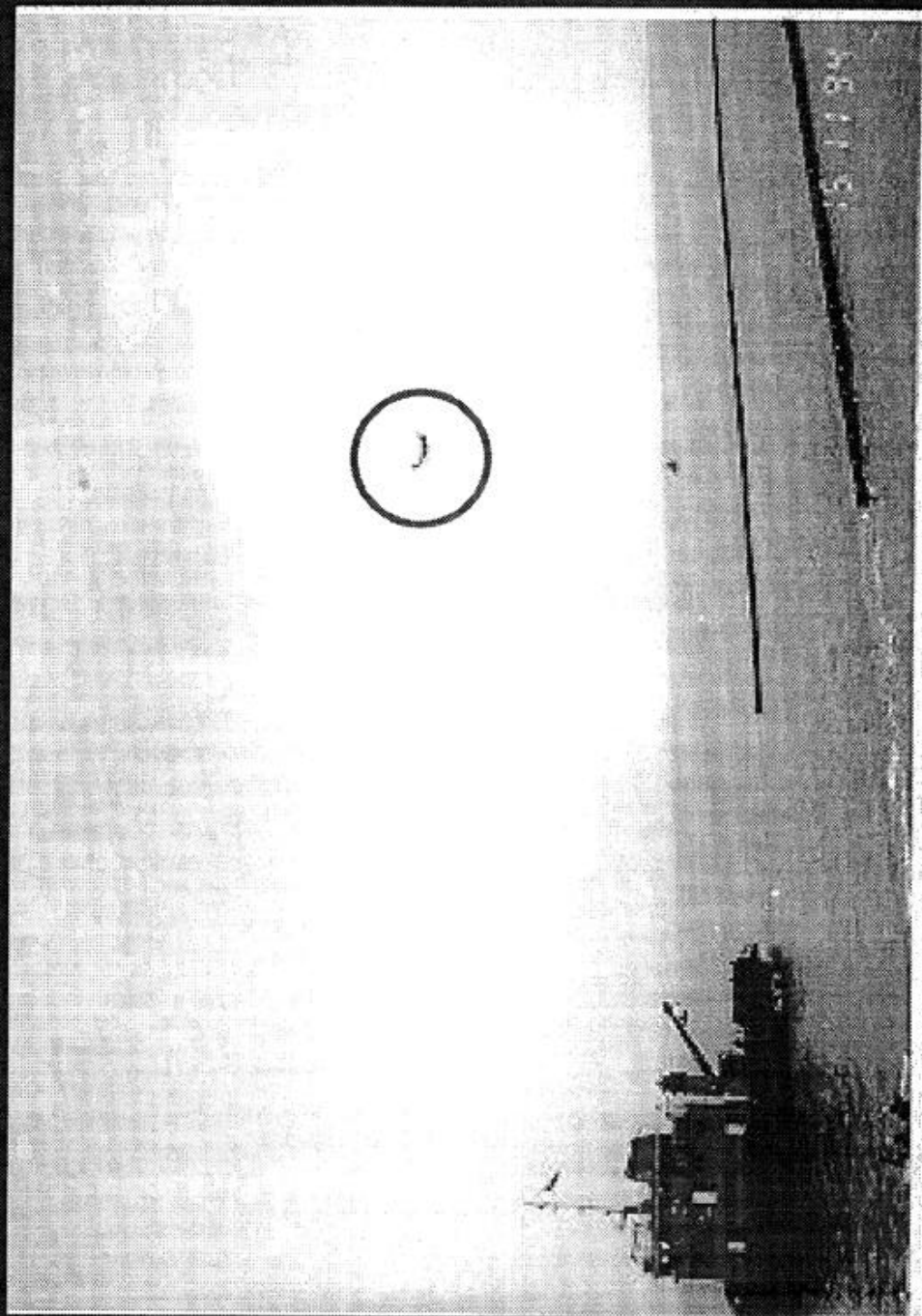
**NATIONAL OIL SPILL CONTROL EXERCISE,
PORT DICKSON 14-16 NOVEMBER 1994**



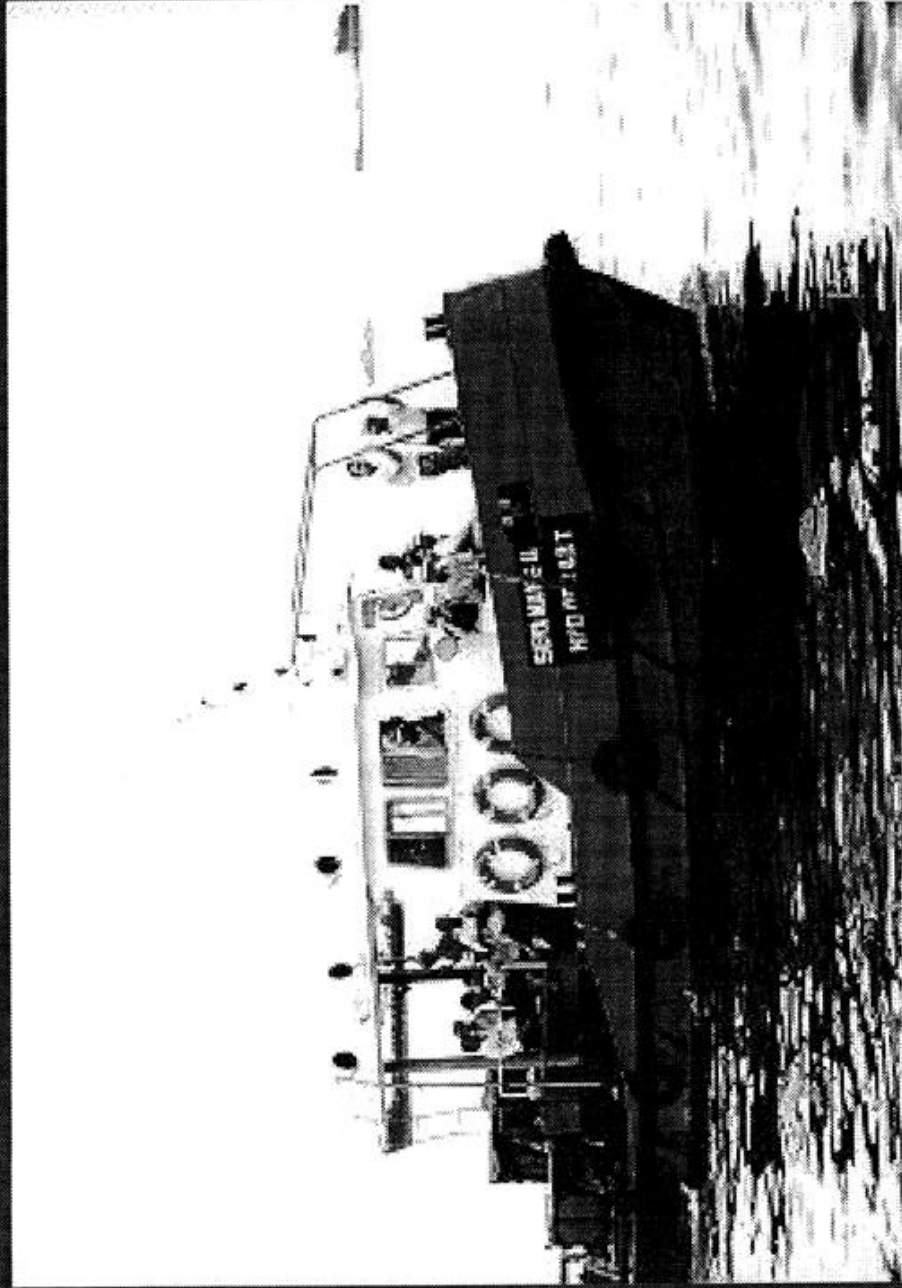
NATIONAL OIL SPILL CONTROL COMMITTEE MEETING IN SESSION



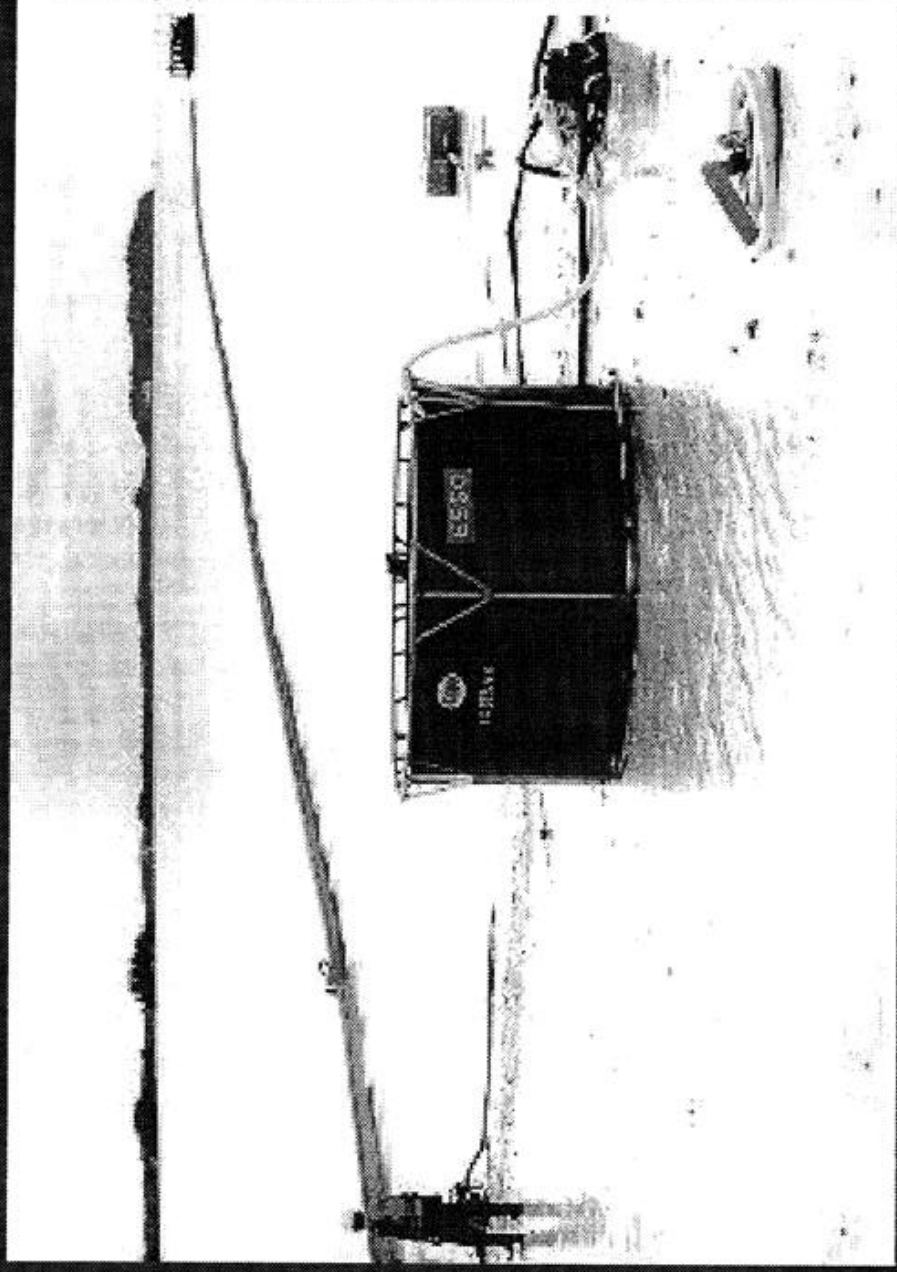
AIR SURVEILLANCE AND BOOM LAYING IN OPERATION



OBSERVERS AT THE OIL SPILL CONTROL EXERCISE 1994



NATIONAL OIL SPILL CONTROL EXERCISE 94 BEACH CLEAN-UP IN PROGRESS



**OIL SPILL
CONTROL
EXERCISE**

**BEACH CLEAN
UP IN PROGRESS**



NATIONAL OIL SPILL CONTROL EXERCISE 94
Briefing to the Minister of Science,
Tech & Environment





WAY AHEAD

- ☐ **STRENGTHEN REGIONAL COOPERATION - DEVELOP GUIDELINES AND PROTOCOL - JOINT TRAINING & EXERCISES WITHIN REGION**
- ☐ **ASSISTANCE FROM MAJOR USERS OF THE STRAITS
 - **ENHANCE EQUIPMENT CAPABILITY**
 - **TRAINING PROGRAMME ESPECIALLY IN COMMUNICATION****
- ☐ **RATIFICATION OF MARPOL 73/78 AND OPRC CONVENTION 1990**
- ☐ **SHIPPING COMMUNITY TO DEVELOP OWN CONTINGENCY PLAN IN ACCORDANCE WITH OPRC CONVENTION 1990**



CONCLUSION

**FOR EFFECTIVE PREVENTIVE MEASURES,
MALAYSIA CONTINUES TO WORK WITH OIL
INDUSTRY AND OTHER NATIONAL AND
INTERNATIONAL ORGANISATIONS TO
TO ENHANCE THE EXISTING ARRANGEMENT**

TERIMA KASIH

ARRIGOZO

GEZAGNAS

THANK YOU