



Risk & Tiered Response in India; Shipping Incidents

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Funded by Global Shipping Industry



**To Promote Effective Response
to Ship-Source Spills**



ITOPF Membership



- 6,300 tanker owner **Members**
- 10,900 tankers of 338 million GT
- Other ship owner **Associates** (since 1999)
- 660 million GT of non-tanker tonnage
- P&I Clubs arrange ITOPF entries & pay dues
- ITOPF 'Not for Profit' Company

BOARD OF DIRECTORS



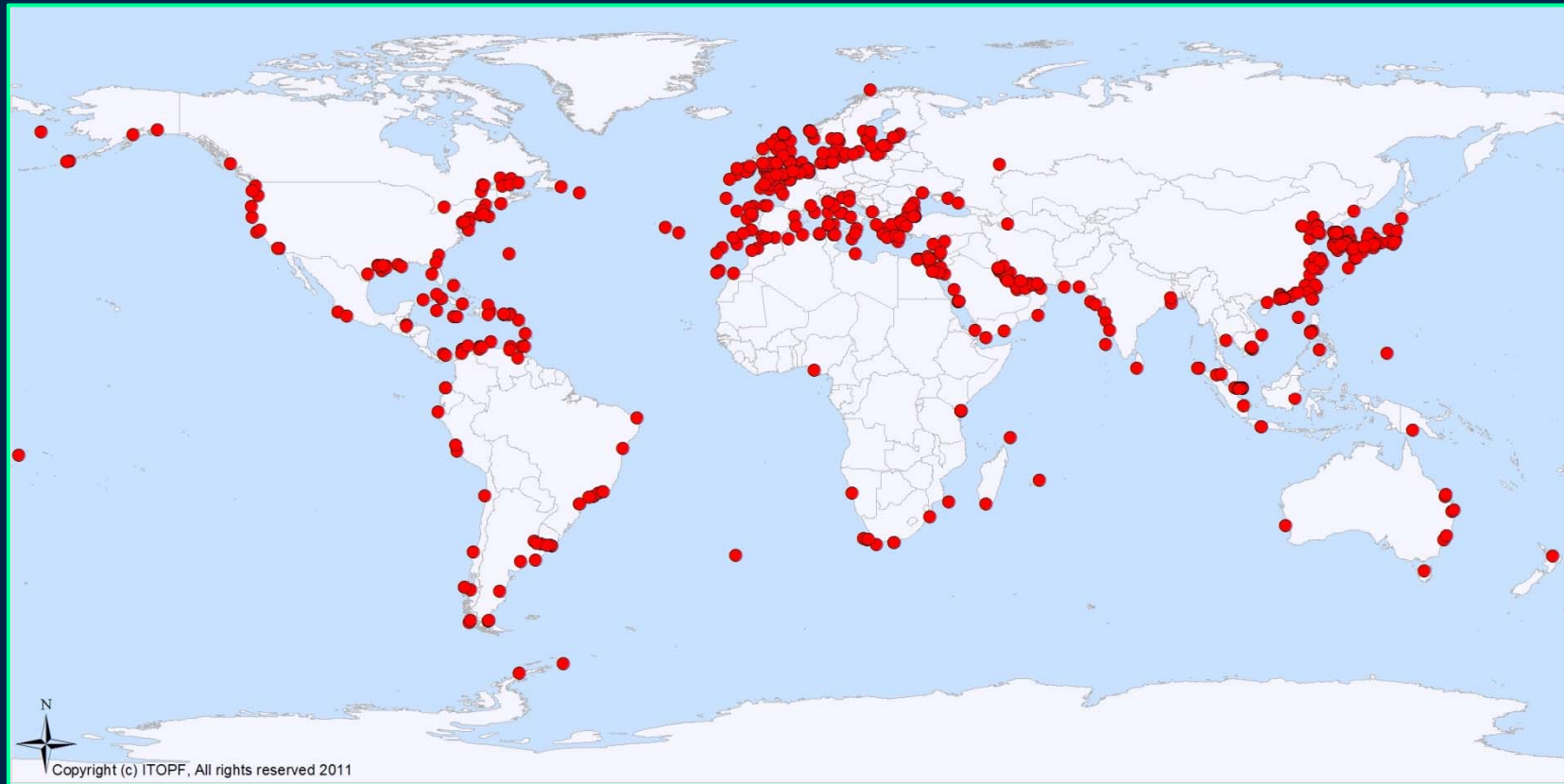
- Teekay Corporation (Chair), *Canada*
- ITOPF Ltd, *UK*
- Vela International Marine Ltd, *UAE*
- ExxonMobil SeaRiver Maritime Inc, *USA*
- Gard (UK) Ltd, *UK*
- BW Maritime Pte Ltd, *Singapore*
- Triandros Corporation, *USA*
- Stena Bulk AB, *Sweden*
- Shell Int Trading & Shipping Co, *UK*
- Valles Steamship Company Ltd, *Hong Kong*
- Keystone Shipping Co, *USA*
- Stolt-Nielsen Trans Group BV, *the Netherlands*
- China Shipping Development Co Ltd, *PR China*
- NYK Line, *Japan*
- Transpetro, *Brazil*
- Japan Shipowners' Mutual P&I, *Japan*
- Sovcomflot, *Russian Federation*
- BP Shipping Ltd, *UK*
- Euronav, *Belgium*
- Chevron Shipping Company LLC, *USA*
- F Laeisz GmbH, *Germany*
- **Great Eastern Shipping Co. Ltd, *India***
- Maersk Tankers, *Denmark*
- JX Tanker Company Ltd, *Japan*
- North of England P&I Association, *UK*
- Steamship Insurance Management Services Ltd, *UK*

Attended all the major tanker spills

- EXXON VALDEZ
- HAVEN
- BRAER
- SEA EMPRESS
- EVOIKOS
- NAKHODKA
- NATUNA SEA
- ERIKA
- PRESTIGE
- TASMAN SPIRIT
- HEBEI SPIRIT



ITOPF Resources



- 32 staff with 15 technical advisers on call 24 hrs a day
- Technical Advisers from different countries & backgrounds
- Attendance at almost 700 incidents in 97 countries
- Worldwide network of contacts
- Databases on oil & chemical spills

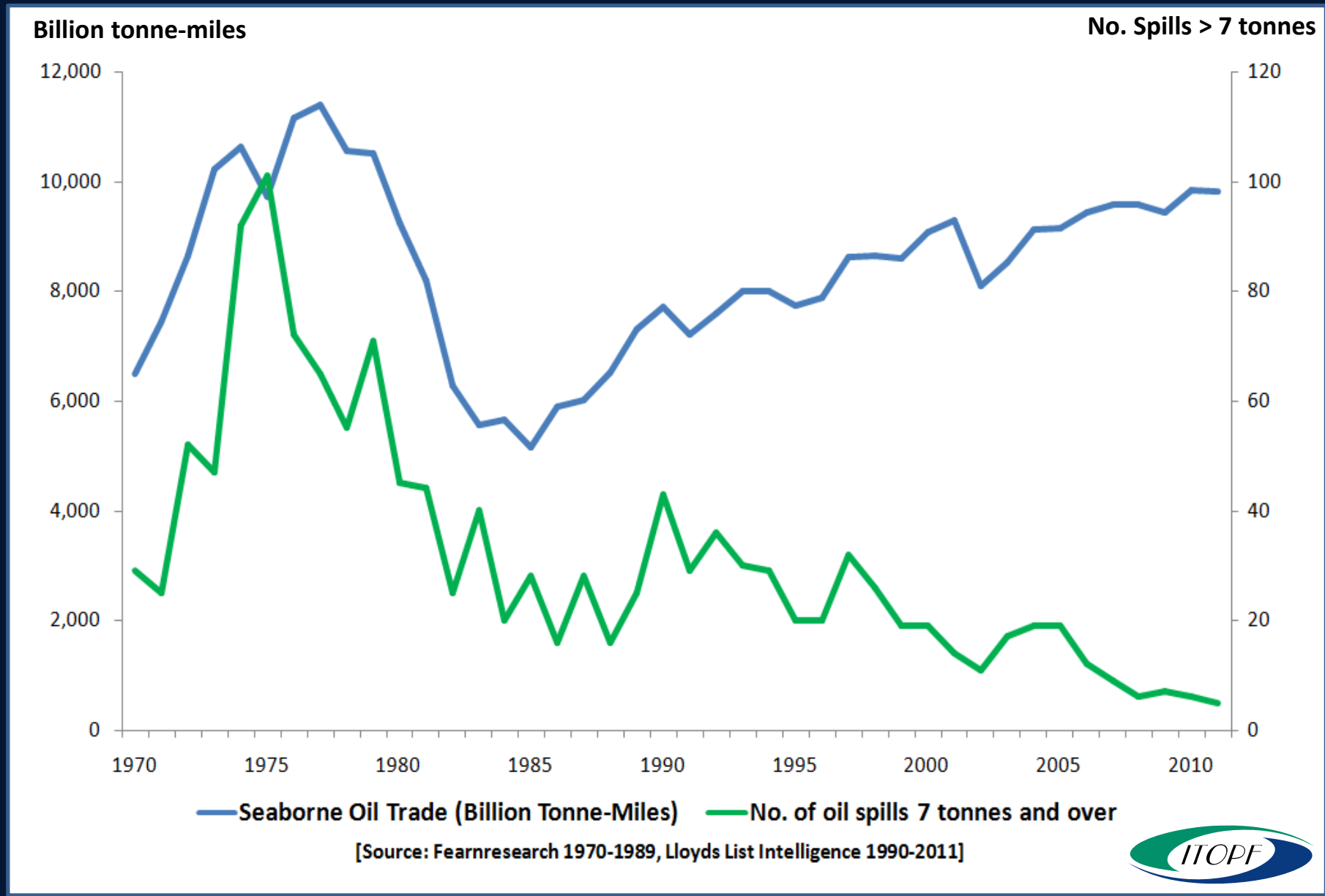
ROLE ON SITE



- Role varies depending on the requirements and preparedness
- Provide technical advice to government, responders & victims
- Promote effective response, joint assessments & cooperation
- Monitor spill response & investigate damage to sensitive resources
- Arrange for additional expertise & equipment to be brought on site

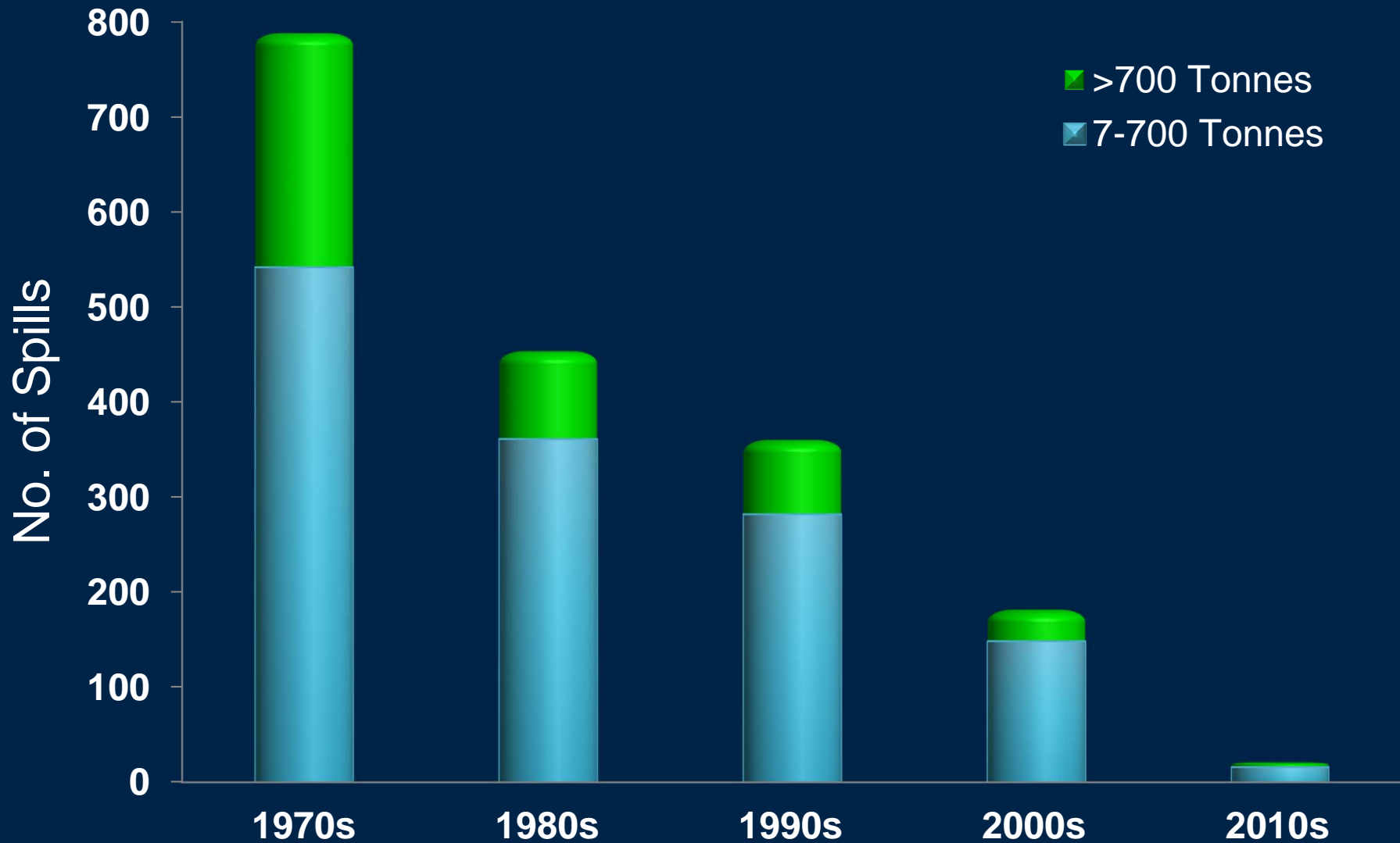
Global Trends: Seaborne Oil Trade & Tanker Spills

1970-2012

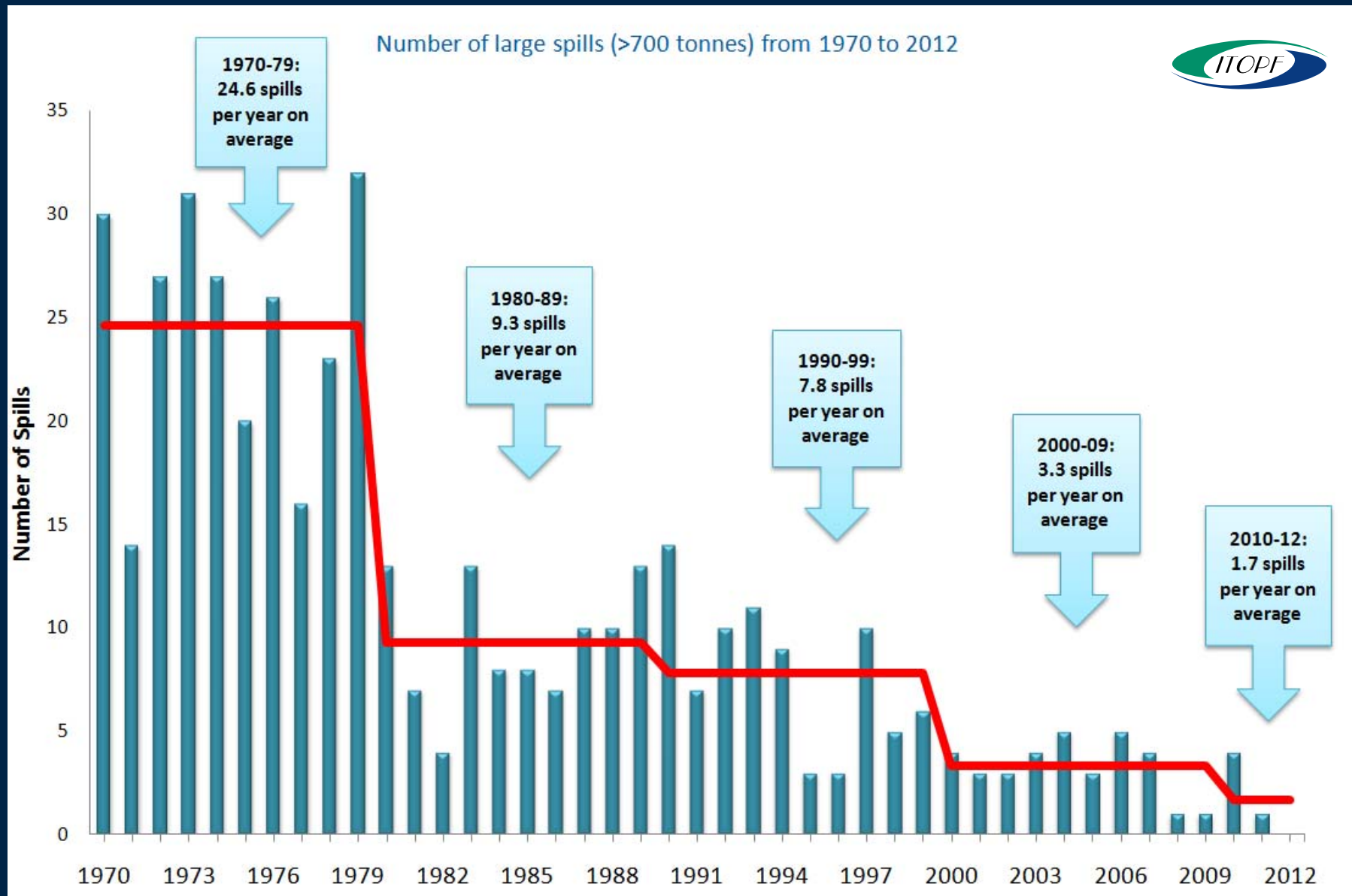


Tanker Spills (1970 – 2012)

Medium (7-700 t) and Large (> 700 t)

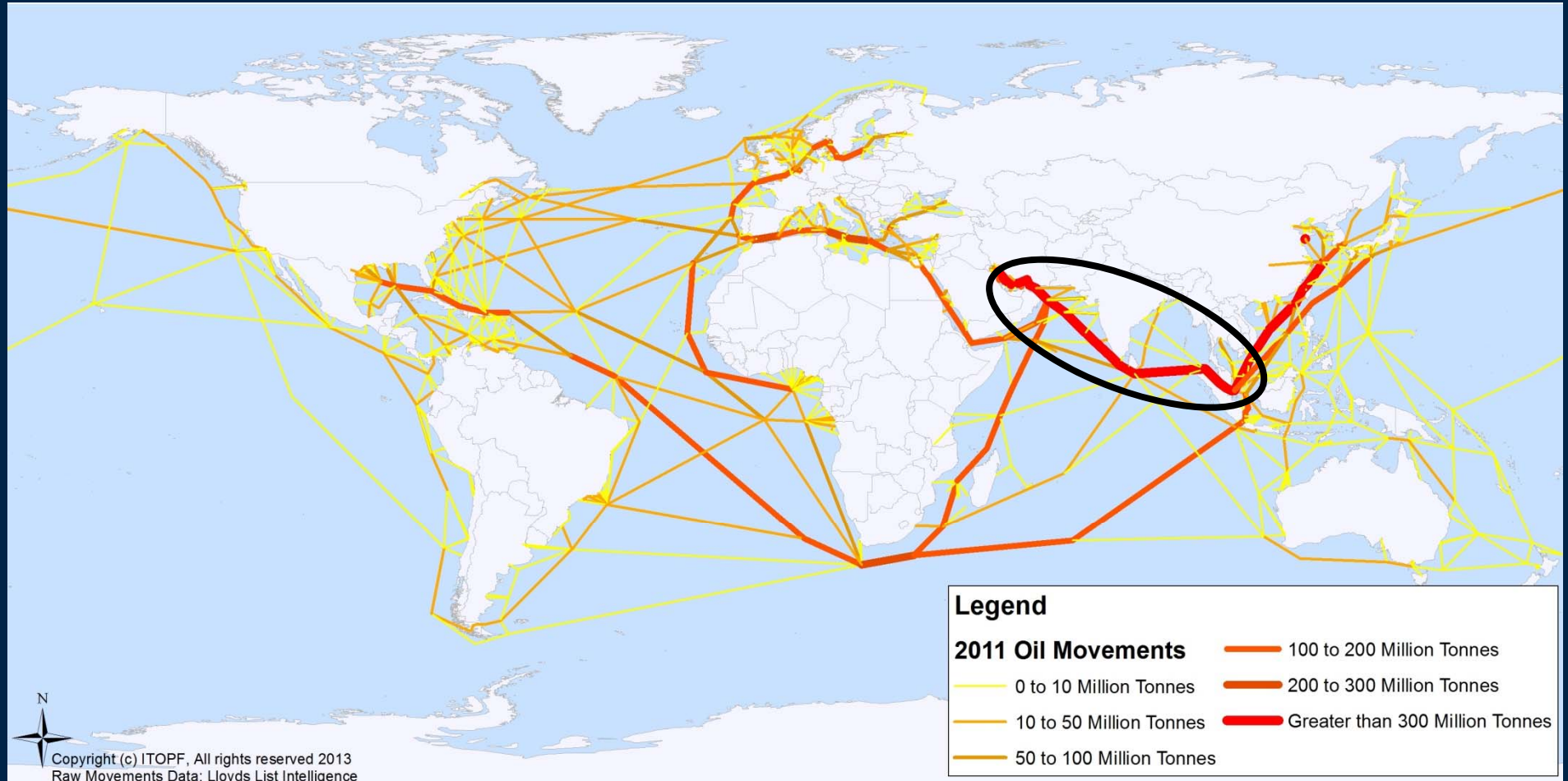


Oil Tanker Spills >700 tonnes: a 40 Year Trend

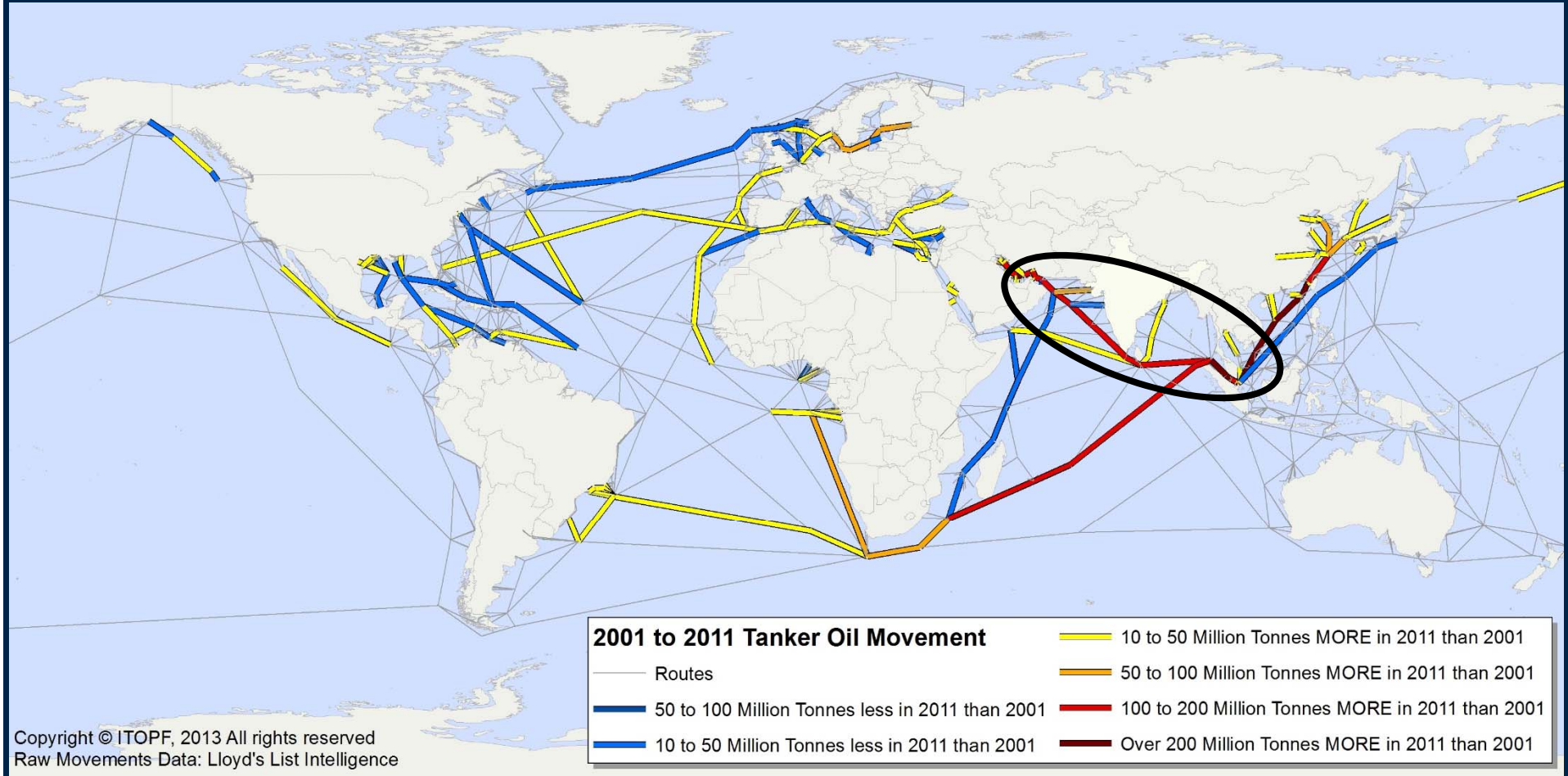




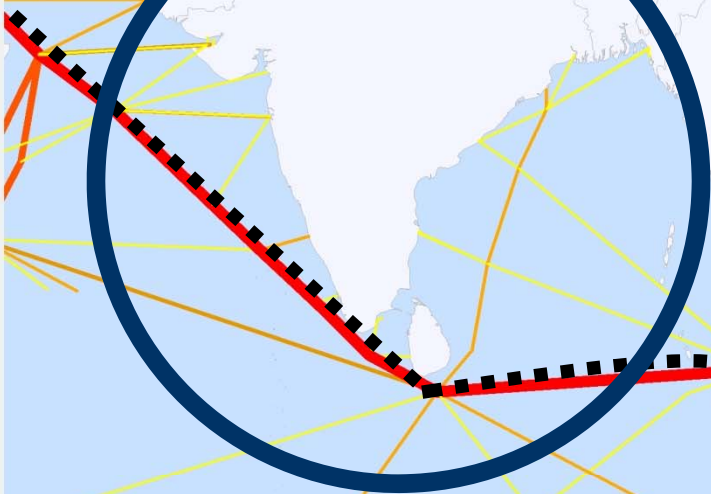
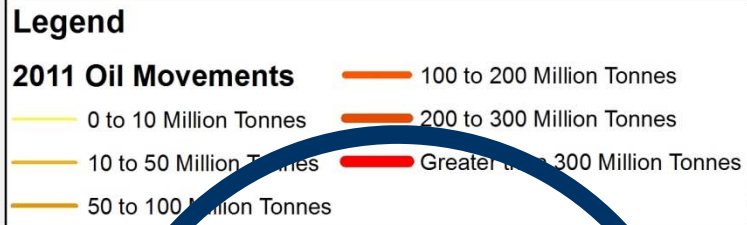
Global Tanker Traffic 2011



Global Tanker Traffic Comparison of 2001 and 2011



Oil Movements Around India; 2011



More than half of the world's annual merchant fleet tonnage passes through the Straits of Malacca, Sunda, and Lombok

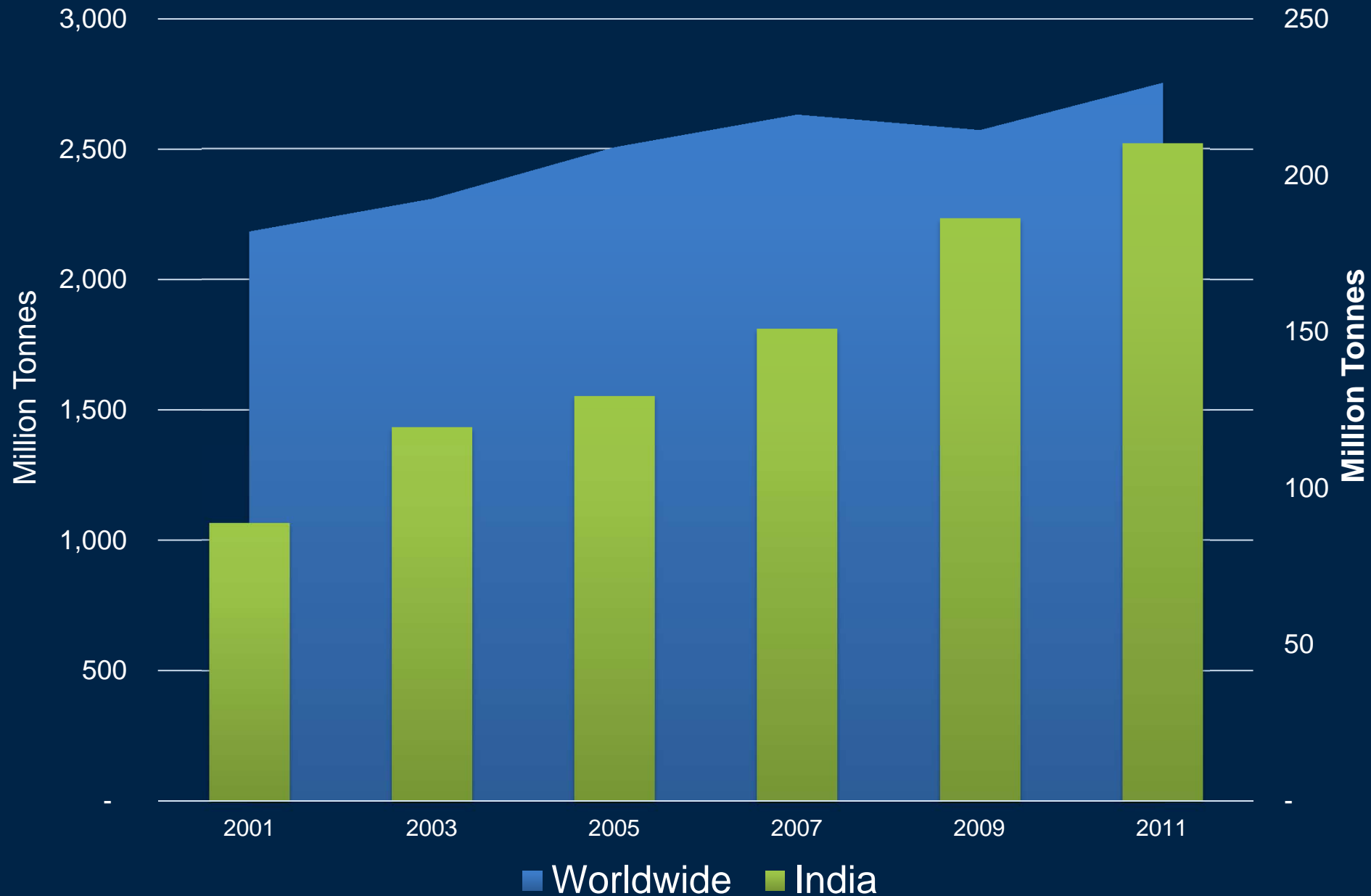
South Asia 2011: 550m tonnes crude

India 2011: 200m tonnes crude/HFO

Oil Imports

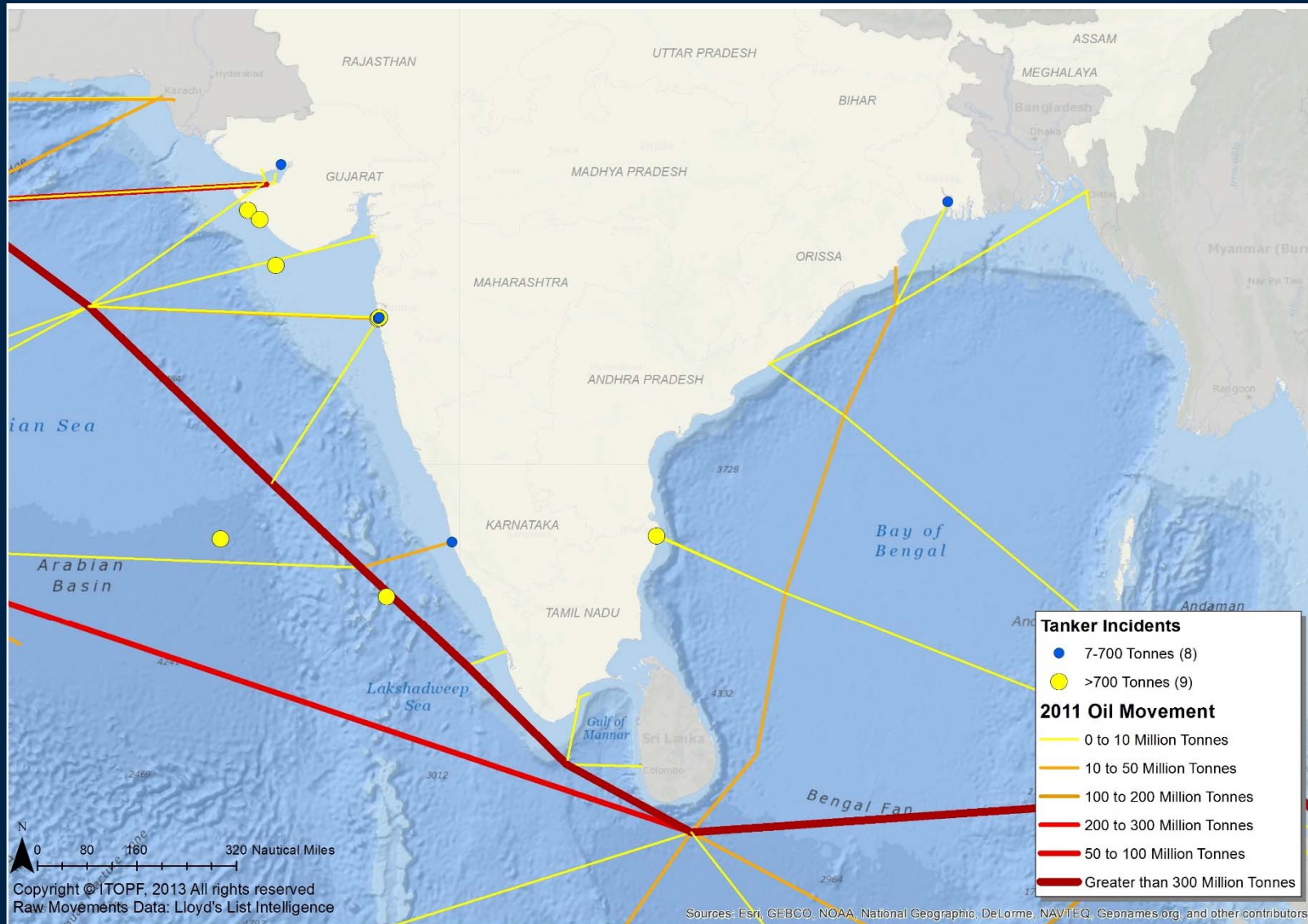
1.	US	10.3m bbl/day
2.	China	5.1m
3.	Japan	4.4m
4.	India	3.1m

Indian & Global Oil Movement



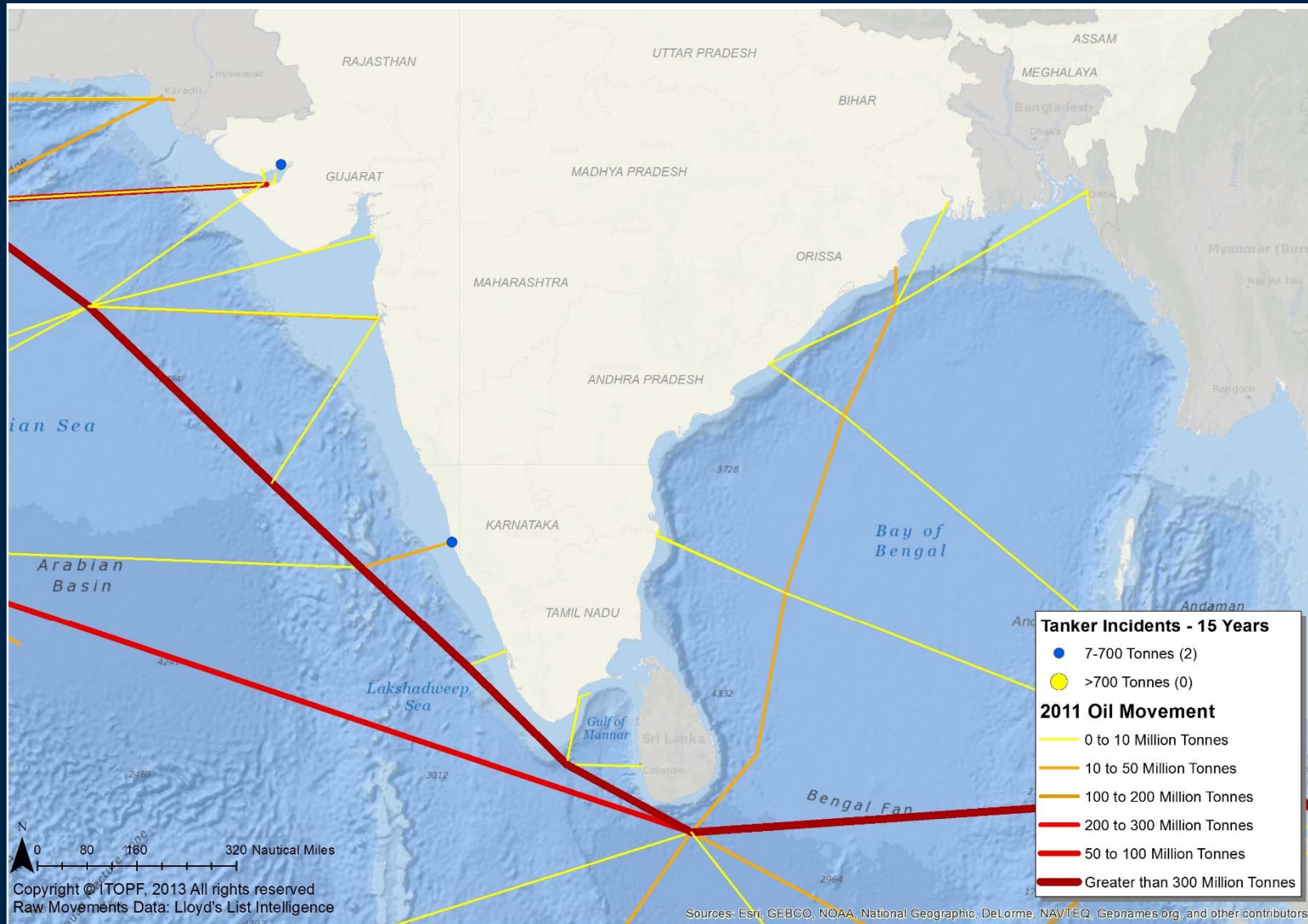
Tanker Spills

(40+ Years: 1970 – 2013)



Tanker Spills

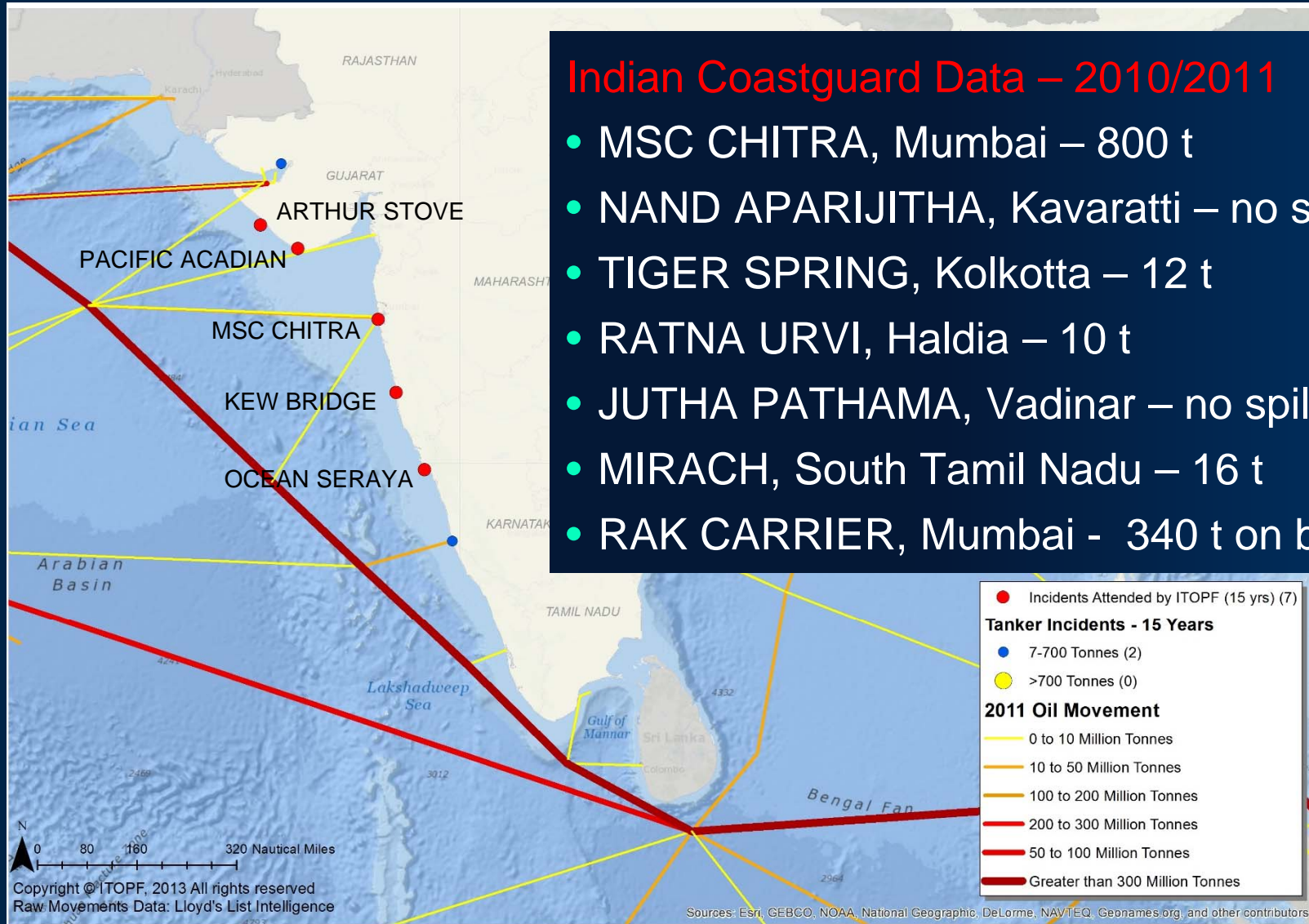
(Last 15 years: 1998 - 2013)





Spills Attended

(Last 15 years: 1998- 2013 Tanker Spills & ITOPF Incidents)





MOL COMFORT

86,692 GT

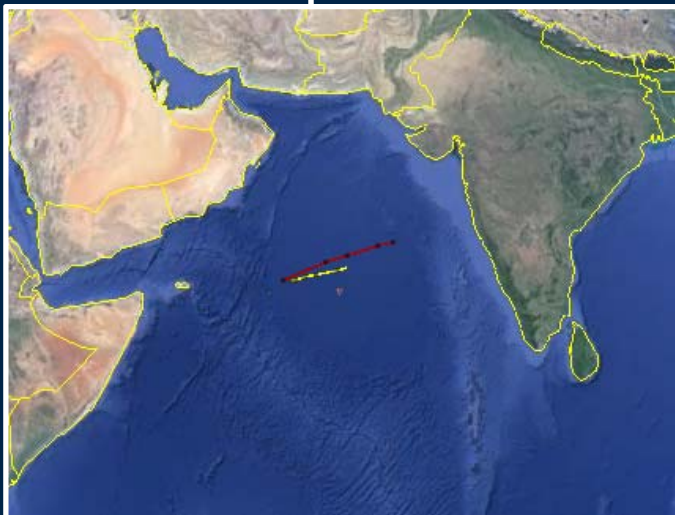
316m LOA

Singapore to Saudi Arabia

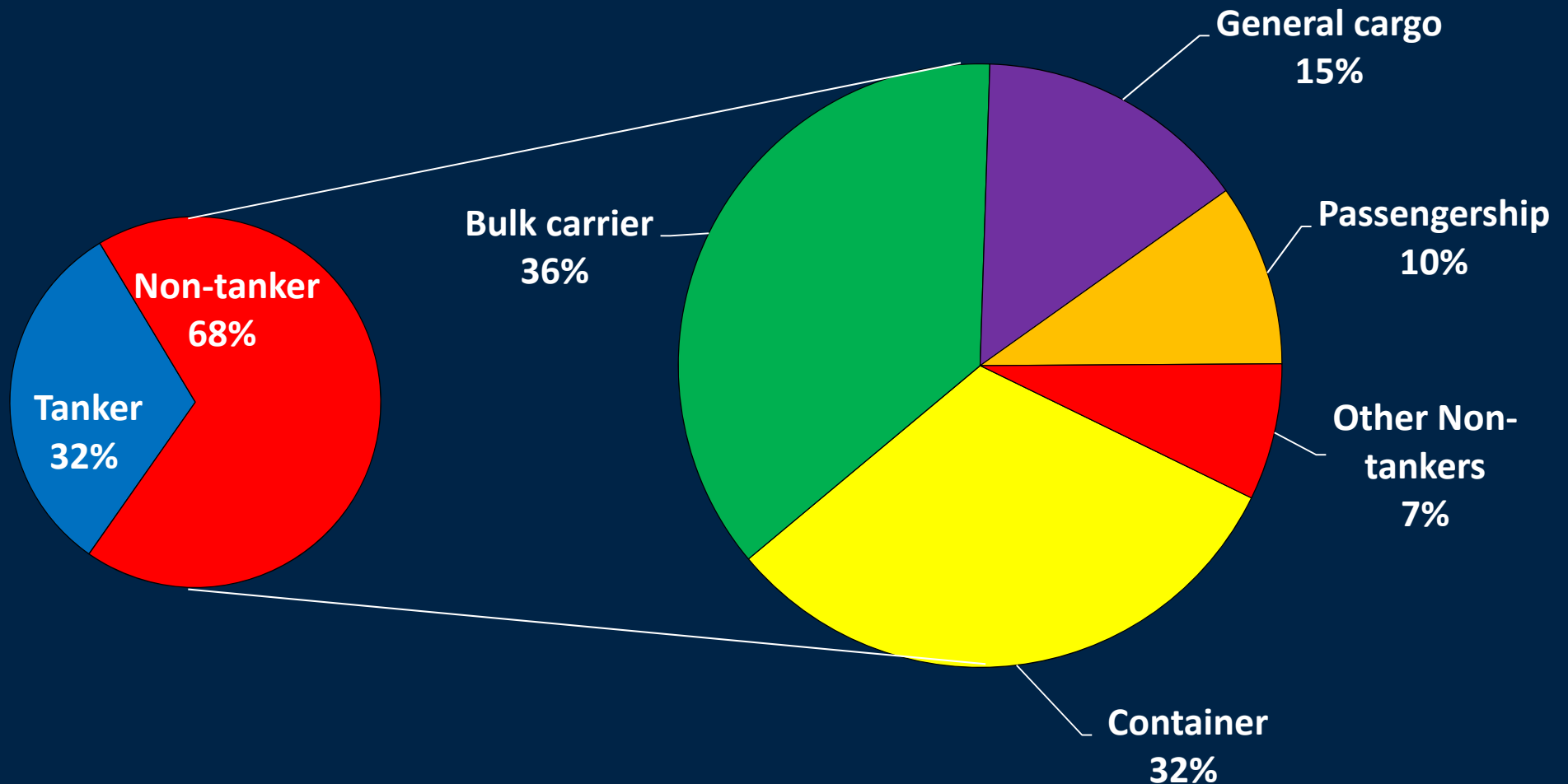
7,041 TEU

Broke in two - 17.07.2013

200nm off Yemen



ITOPF Incident Attendance by Vessel Type (2000 - 2012)



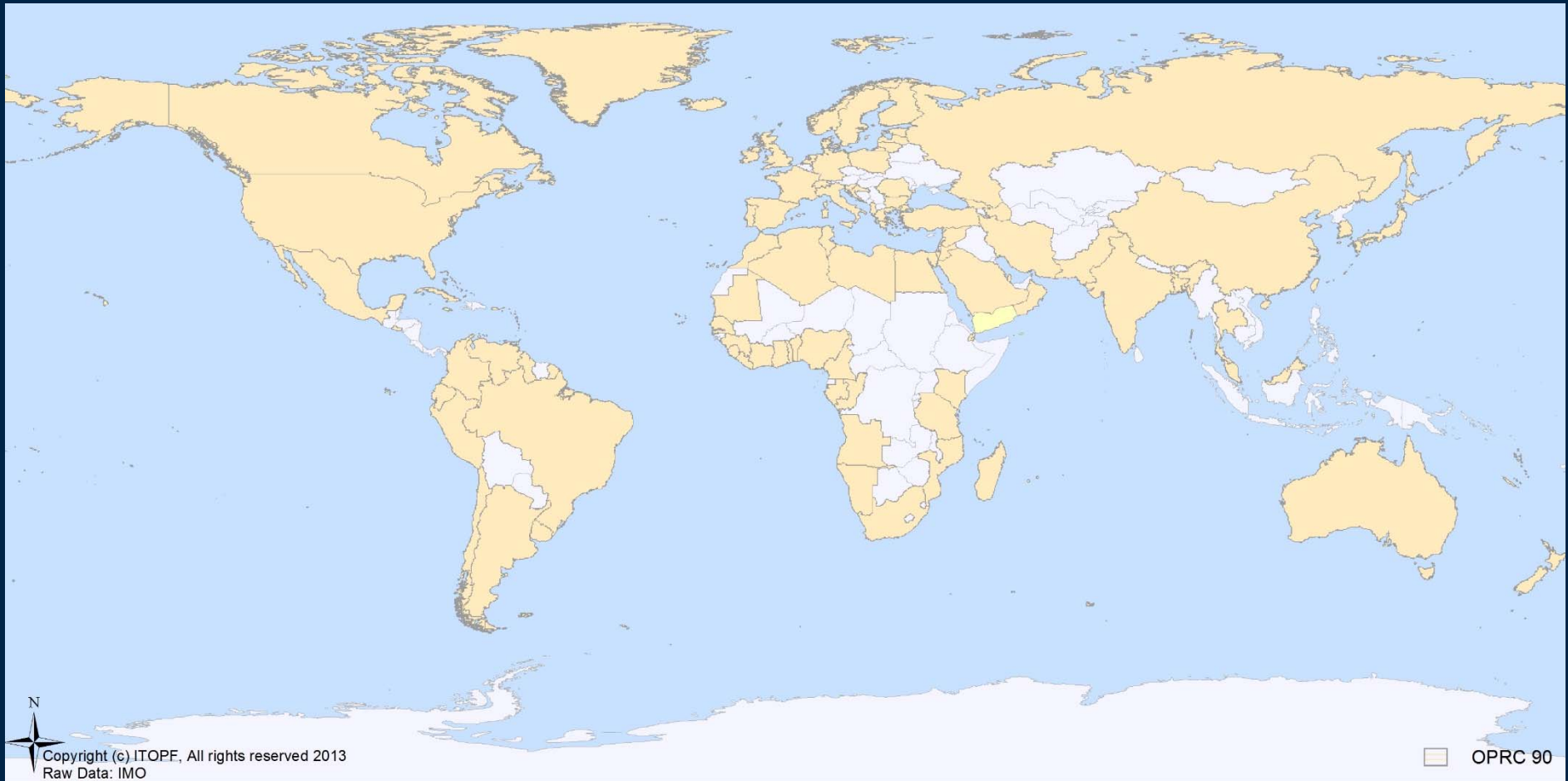
Preparedness

Effective response

- Legal frameworks in place
- Defined roles & responsibilities
- Comprehensive, realistic contingency plans
- Risk assessment (most likely / worst scenarios)
- Appropriate equipment (maintained)
- Tiered response
- Regional agreements
- Government & Industry partnerships
- Trained & exercised
- Lessons learned

International Convention on Oil Pollution Preparedness, Response and Cooperation

OPRC 1990



Ratified by 106 States

OPRC-90

Article 6

6.1 Establish a national system for responding promptly and effectively to oil pollution incidents.

6.2 Each Party, within its capabilities either individually or through bilateral or multilateral co-operation and, as appropriate, **in co-operation with the oil and shipping industries**, port authorities and other relevant entities, shall establish:

- a minimum level of pre-positioned equipment
- a programme of training & exercises
- detailed plans & communication capabilities for responding to an oil pollution incident
- a mechanism or arrangement to co-ordinate the response with, if appropriate, the capabilities to mobilize the necessary resources.

MSC CHITRA c/w KHALIJA III

Mumbai, India (7th August 2010)

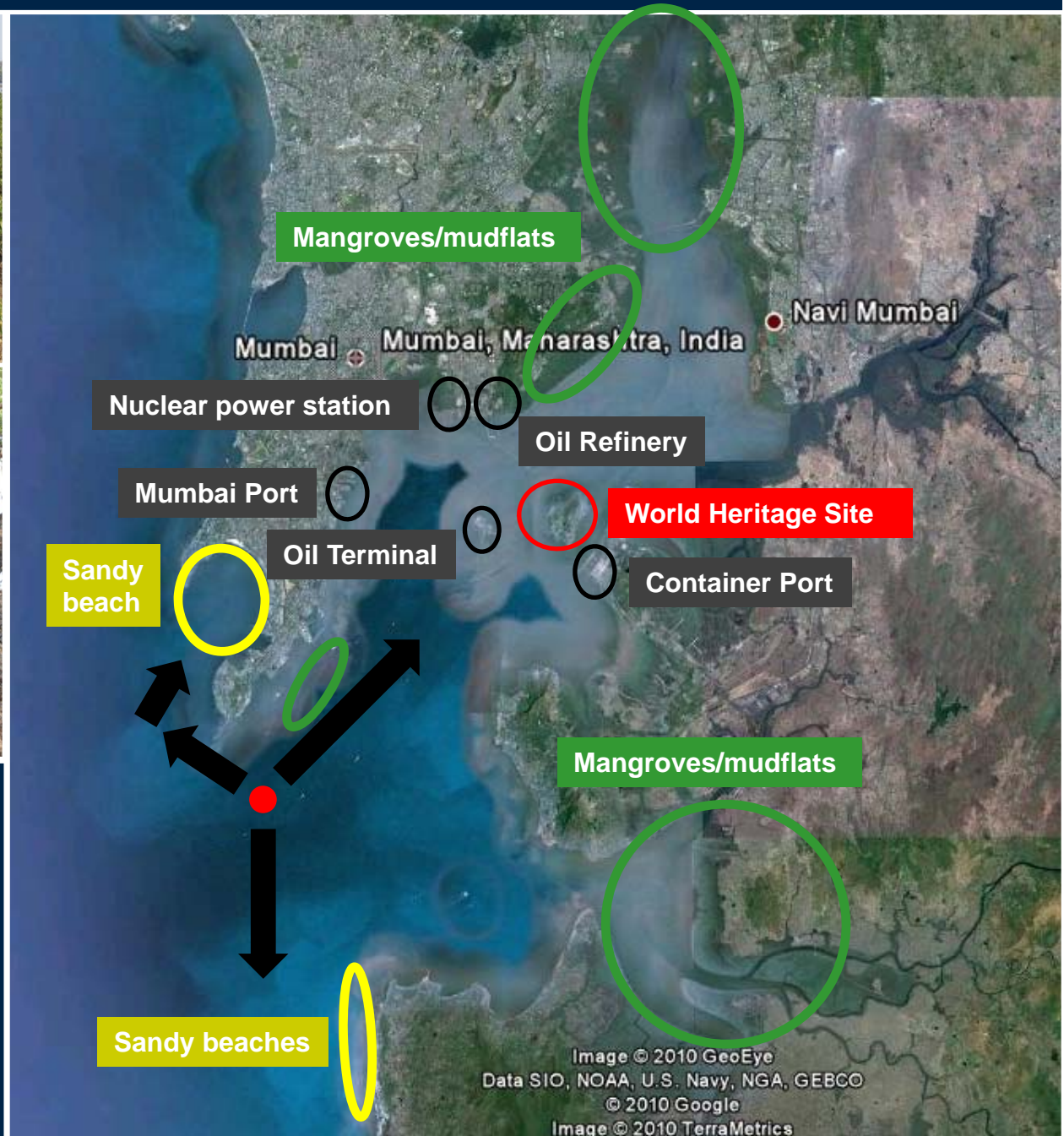


- 2,600 t of IFO 380 on board
- Estimated 800 t released
- 1,300 containers on board (31 with dangerous goods)
- 300 containers lost (8 + 5 dangerous good)

IMPACTED RESOURCES



- 110 km coast affected
- 70 % mangrove or mudflat



PREPAREDNESS & INITIAL RESPONSE



- India has a National Contingency Plan (1996)
- Indian Coast Guard responsible for at-sea response
- ICG: centralised with clear role and spill experience
- Rapid response at-sea although hampered by monsoon & strong currents



PREPAREDNESS & INITIAL RESPONSE



- Maharashtra PCB responsible for shoreline clean-up
- MPCB: state agency with limited prior spill experience
- Uncertainty regarding shoreline clean-up: roles, organisation & techniques

TECHNICAL ASSISTANCE: SHORELINE CLEAN-UP



- Tier III OSRO brought on site to assist
- Local personnel & equipment - Seaworthy
- Clean-up completed within 5 months



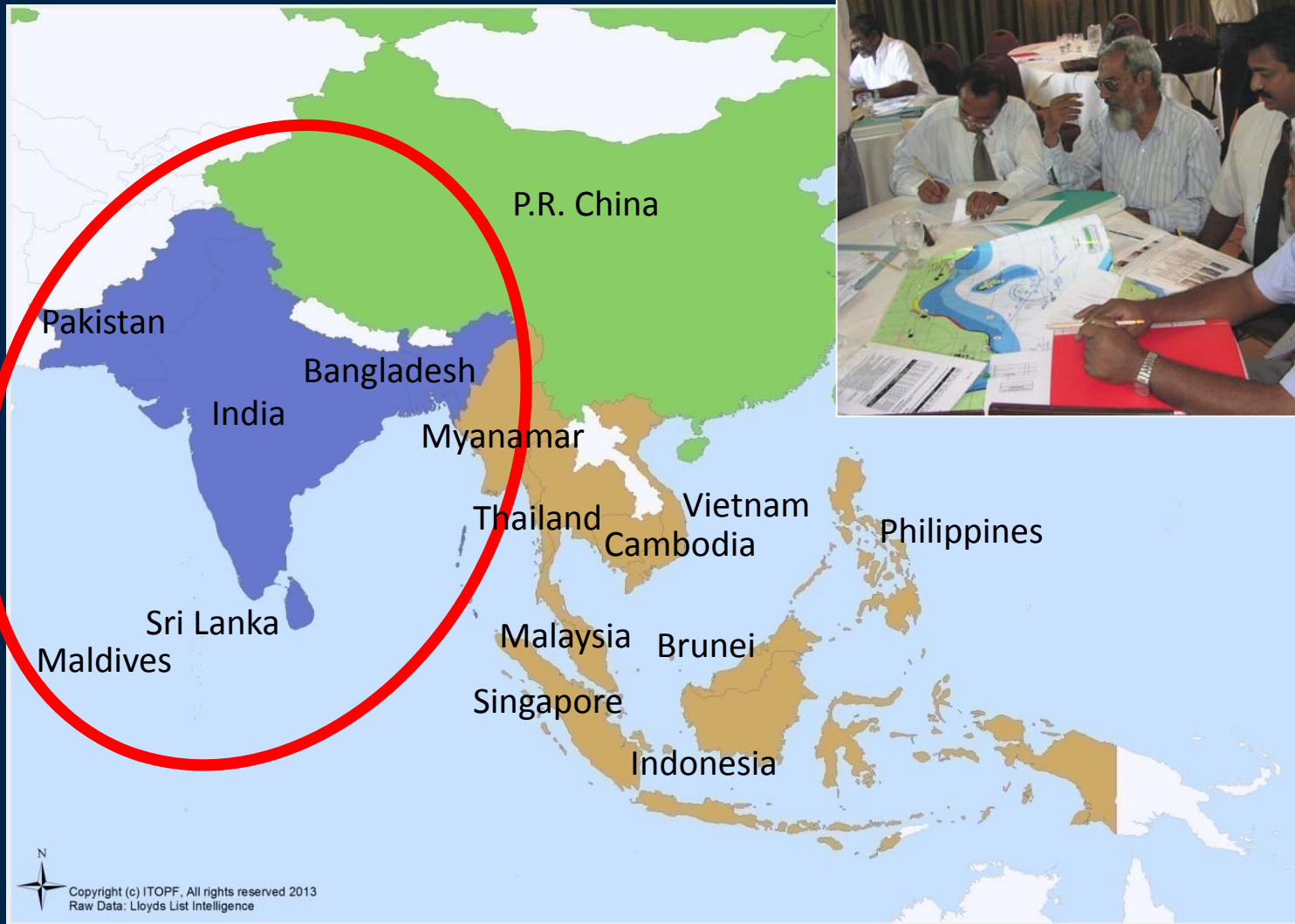
KEY ISSUE: OILY DEBRIS



Is India Well Prepared?

- National Contingency Plan (Legal framework)
- Government led response
 - (Passing tanker/ship syndrome)
- Defined roles & responsibilities - at sea, shoreline
- Risk assessment ? (most likely / worst scenarios)
 - offshore, shipping, HNS
- Tiered response – mobilisation issues?
 - India Tier 1: <700t, Tier 2: 700 -10,000t, Tier 3: >10,000t
 - Standardisation of Tier I inventories?
- Regional agreements (e.g. SACEP, bilateral plans)
- Appropriate strategies and equipment (maintained) - inventory
- Trained & exercised
- Lessons learned (e.g. NOSDCP Preparedness Meetings)

Regional Agreements



SACEP



ASEAN



NOWPAP

Summary

- Introduction to ITOPF
- India Risk Profile
 - India lies on tanker traffic axis from Middle East – Far East
 - Oil consumption and Tanker traffic to India is increasing and so is the associated risk of spills from tankers
 - Many non-tank vessels in the region. (75% spills attended by ITOPF globally are for non-tank vessels in last 10 years)
- India State of Preparedness
 - National Contingency Plan. Regional agreement
 - Govt & Industry co-operation
 - Tiered Response
 - India has ratified International Conventions (OPRC 90, 1992 CLC, 1992 Fund, not Bunkers Convention)



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