

MARINE POLLUTION INCIDENTS & **THE ROLE OF ITOPF**

Ayumi Therrien, Technical Adviser



JMC & IOPC FUNDS JOINT SEMINAR, 18TH OCTOBRE 2023



PROGRAMME



- Introduction to ITOPF
- ITOPF Mobilisation
- Response On-Site (*SANCHI* 2018)
- Claims Analysis & Damage Assessment
- *Peacetime* Activities

ITOPF

BACKGROUND

TORREY CANYON (1967)



1970-1980



1990-2000



50
Years

1968 - 2018



1968: The **International Tanker Owners Pollution Federation** is founded to administer the **TOVALOP**

ITOPF develops its **technical services** through attendance of numerous **large tanker incidents**

ITOPF's services formally extended to **other types of ships**

Main Function

Today ITOPF's members and associates represent **90% of all ocean-going tonnage**

Technical advice on effective response to spills of **oil, chemicals and other substances** in the marine environment.

Primarily funded by the **global shipping industry** (annual fee), operating on a **non-for-profit** basis.

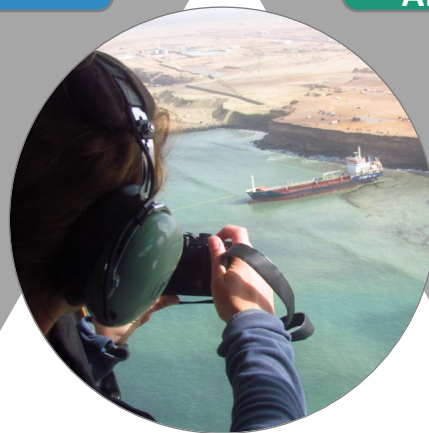
ITOPF'S SHIPOWNER MEMBERS & ASSOCIATES



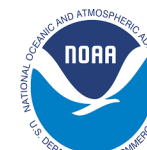
FUNDING



TECHNICAL
ADVICE



SPILL RESPONSE COMMUNITY & STAKEHOLDERS



Transport
Canada



environment, forestry
& fisheries
Department:
Environment, Forestry and Fisheries
REPUBLIC OF SOUTH AFRICA



Maritime &
Coastguard
Agency



ITOPF

BACKGROUND



Multi-lingual
Fluency in English, French,
Spanish, Mandarin
Portuguese,
Russian...



Multi-skilled
Biologists, Chemists,
Environmental
Scientists, Geologists,
Engineers

ITOPF STAFF
48



20
RESPONDERS



24/7
365



+44 (0)20 7566 6998.
(Please do not email for an emergency situation)

TECHNICAL
5
SERVICES



ITOPF'S AIM:



**PROMOTING EFFECTIVE
SPILL RESPONSE**

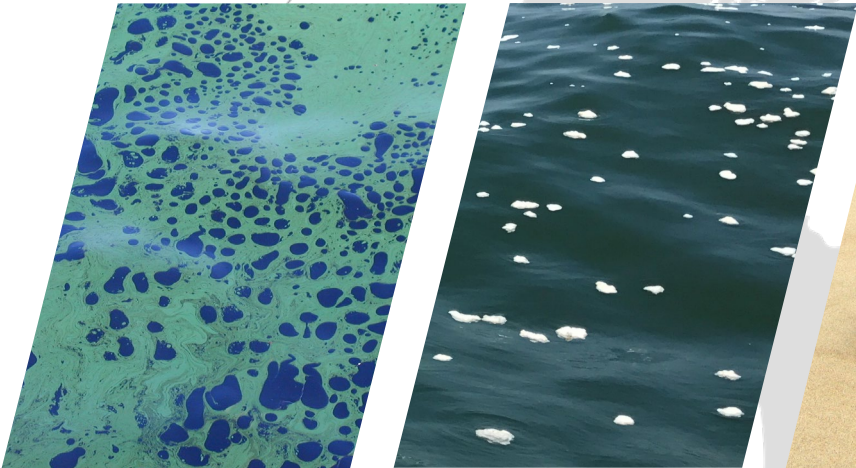
**TECHNICAL
5
SERVICES**





ITOPF'S REMIT:

MINERAL & VEGETABLE OILS

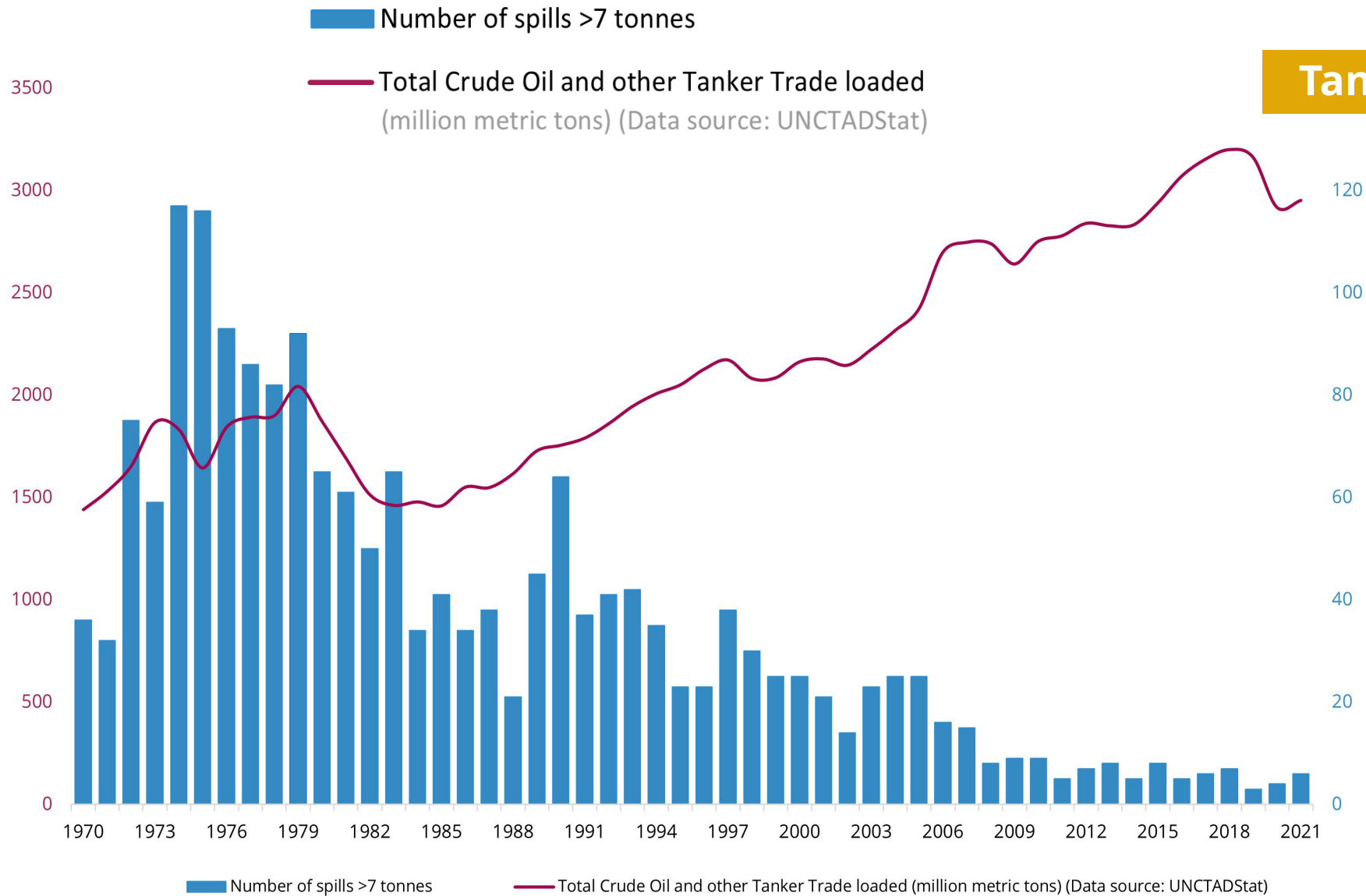


OTHER SUBSTANCES CARRIED BY SHIPS



CHEMICALS

Tanker Spills vs Global Trade



ITOPF

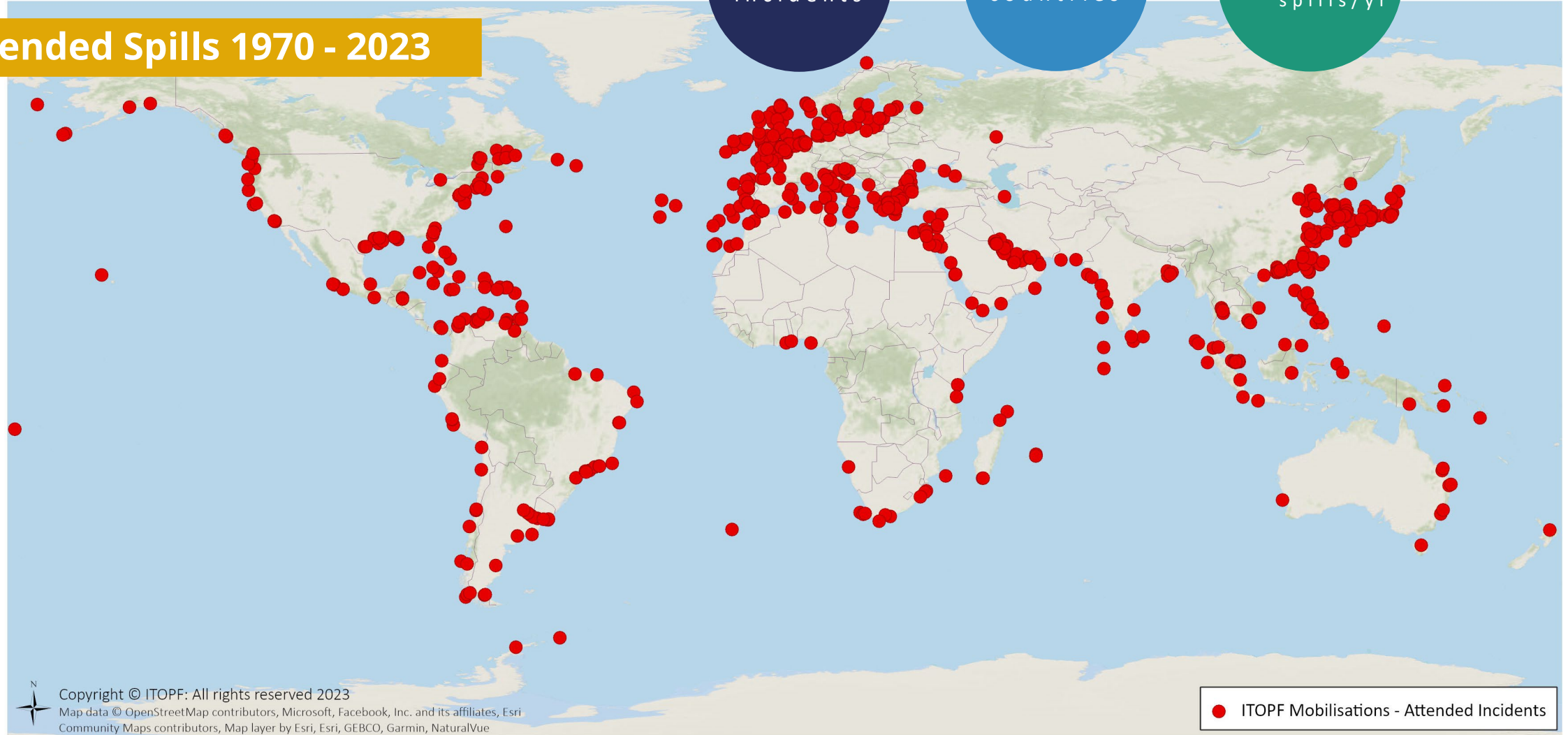
STATISTICS

Attended Spills 1970 - 2023

> 850
incidents

in 100
countries

Avg.
20-30
spills/yr



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Community Maps contributors, Map layer by Esri, Esri, GEBCO, Garmin, NaturalVue

● ITOPF Mobilisations - Attended Incidents

ITOPF

RESPONSE ACTIVITES

New incidents over the last 12 months



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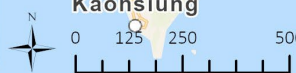
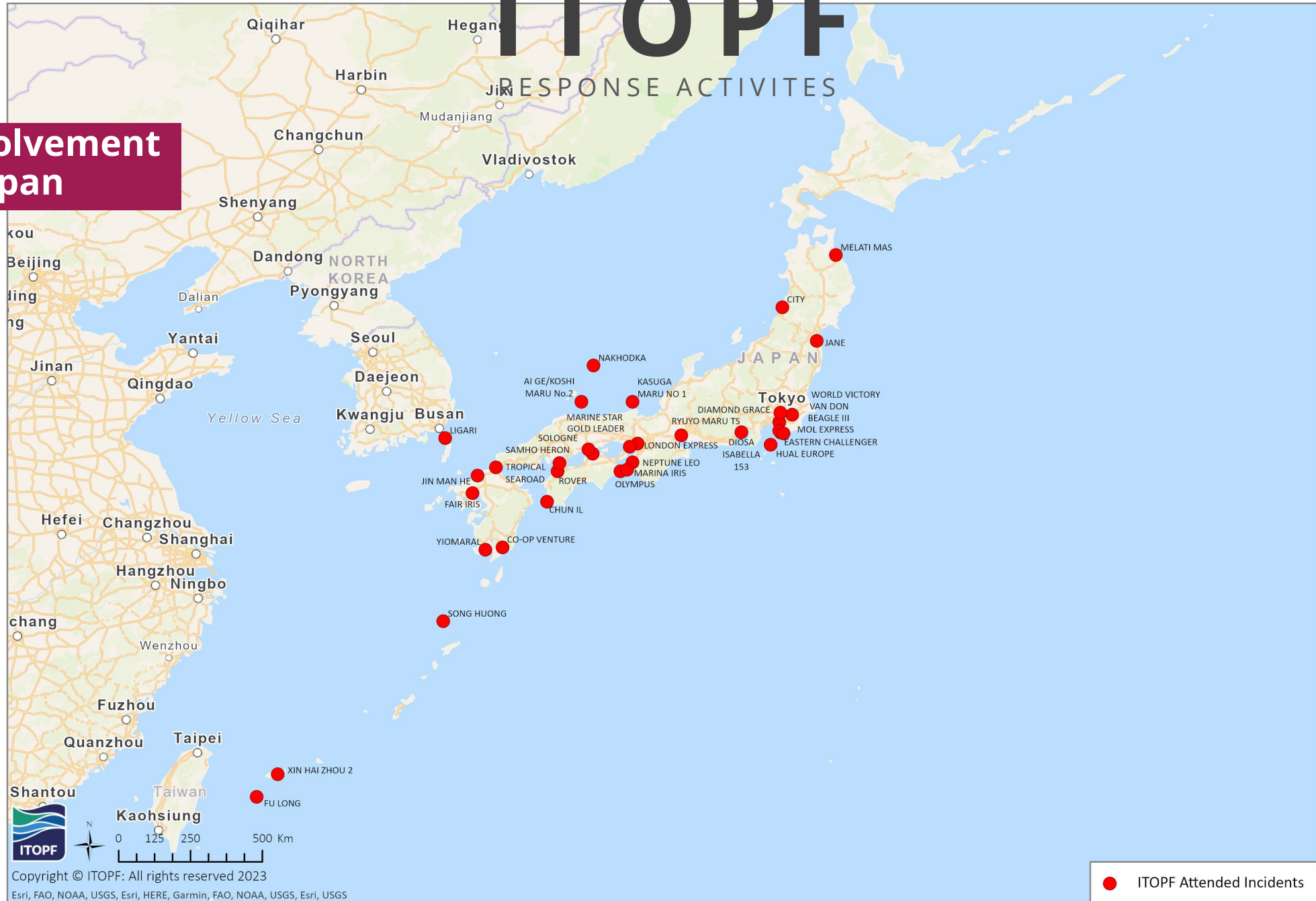
ITOPF Mobilisations

- Attended
- Remote Advice

ITOPF

RESPONSE ACTIVITIES

ITOPF Involvement in Japan



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Esri, FAO, NOAA, USGS, Esri, HERE, Garmin, FAO, NOAA, USGS, Esri, USGS

● ITOPF Attended Incidents



ITOPF RESPONSE ON-SITE



SOUTH KOREA

42 MT lube oil
119 MT diesel oil

1,900 MT IFO 380

111,388 MT condensate

- 6th January 2018 – **Collision** EEZ of China
 - ✓ SANCHI (crude oil tanker)
 - ✓ CF CRYSTAL (bulk carrier)
- **Fire** broke out on SANCHI
 - ✓ ~ 111,388 MT Gas Condensate
 - ✓ ~ 1,900 MT Fuel Oil (type unconfirmed)
 - ✓ ~ 119 MT Diesel Oil
 - ✓ ~ 42 MT Lube Oil
- **Media attention**
- 9th January 2018 – ITOPF arrives on-site

SOUTH KOREA

JAPAN

CHINA



After drifting for 8 days, on January 14th, SANCHI sank at a depth of 115m.

INCIDENT BACKGROUND

RYÜKYÜ ISLANDS



Monitor & Evaluate



Containment & Recovery



Chemical Dispersion



In-situ Burning




AT-SEA RESPONSE

Technique toolbox



- **Condensate:** (non-persistent HC) – burned in the fire; remaining oil **spread** and **evaporated**.

- 
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 - **IFO 380:** some may have burned; remainder drifted and persisted at sea.



OIL DRIFT MONITORING

Aerial Surveillance

RYÜKYÜ ISLANDS

- ✓ 31st January – notification of pollution in the Ryukyu Islands
- ✓ 2nd February: ITOPF Arrival in Japan



ROLE OF ITOPF ON SITE



Shipping Interests

- Correspondent/Local P&I office
- Local & London lawyers
- Owner's representative
- Salvors & SCR
- Local surveyors
- Spill Management Team (US)
- Clean-up Contractor/OSRO

Other

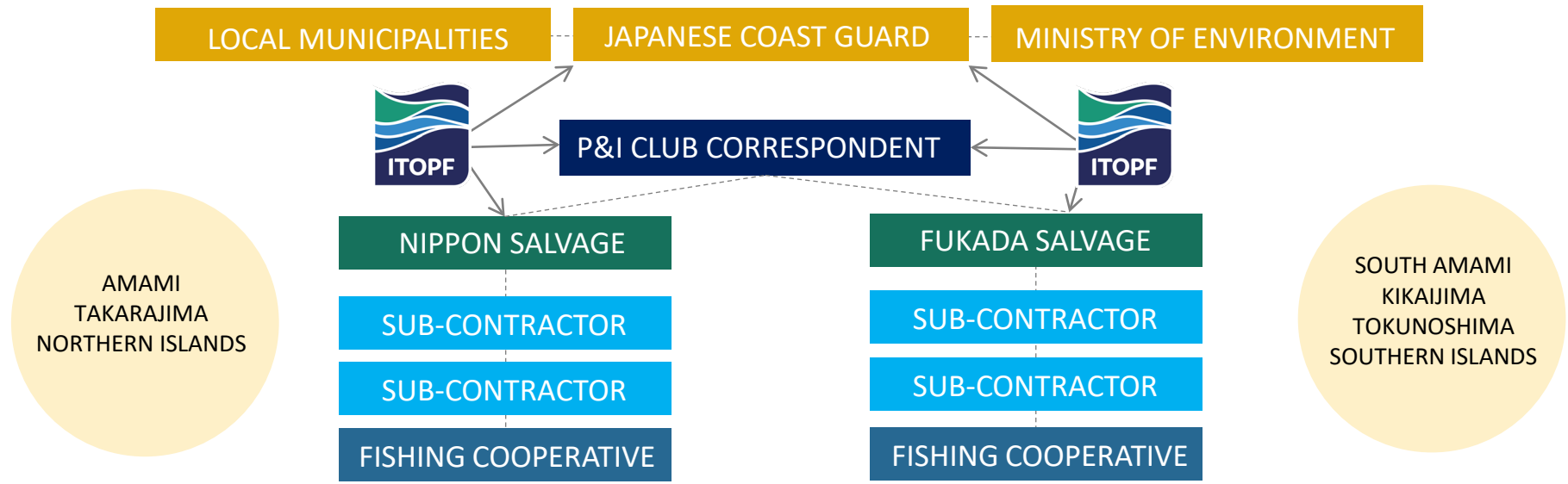
- Media interests
- Environmental groups
- Volunteer groups

Technical Specialists

- ITOPF
- Government advisers
- International experts

Government Interests

- Lead authority
- Environmental authorities
- Fisheries authorities
- Local government
- Clean-up Contractor / OSRO



SHORELINE RESPONSE



Safety?

Access?

Season?

Technical viability?

Window of opportunity?

Equipment availability?

Power Station

Amenity beach

Port terminals

Fish farms

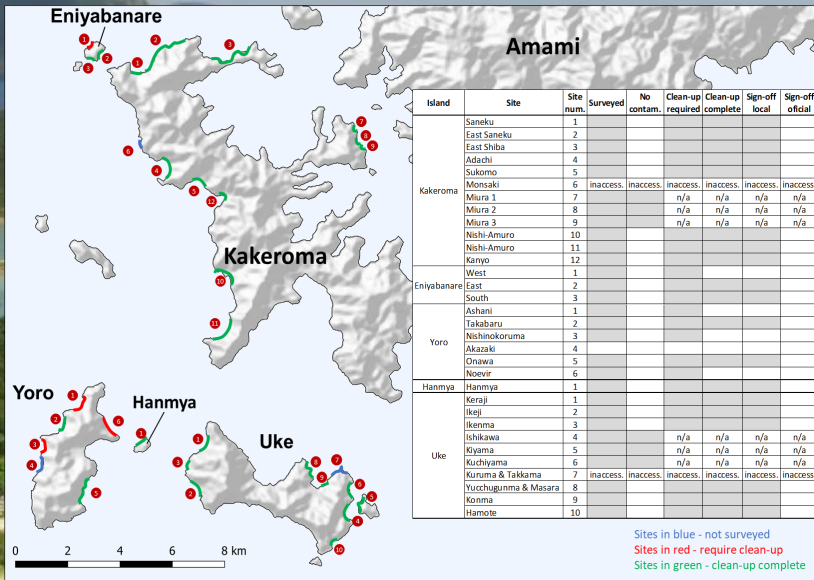
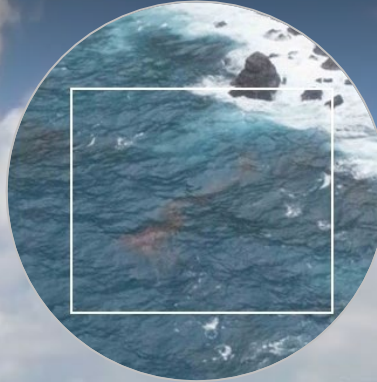
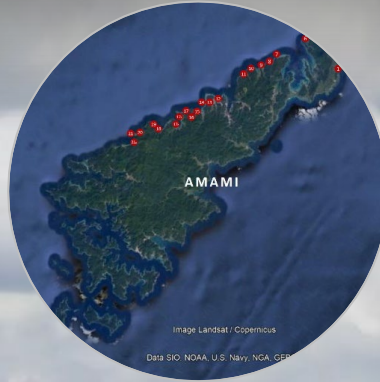
Nature reserve

Marina



AMAMI ŌSHIMA

奄美大島



10	ODANA	SPATIAL EXTENT OF OILING	DESCRIPTION OF OILING	RECOMMENDED METHOD & ENDPOINT	GENERAL RESOURCE REQUIREMENTS
PRIORITY STATUS: HIGH 		16.03.18 Pebble beach with occasional boulders, cement beach structures and tetrapods (~300 m extension surveyed). Oil was found on manmade structures (tetrapods to the east) and on beach sediment in the west.	Manmade structures show occasional contamination in places. The ramp that gives access to the beach shows signs of unacceptable standard of cleaning. Tarballs are observed among pebbles and debris.	Pebble areas: Manual removal of surface oil and debris (areas A, C, D). Test pits to be manually excavated to search for buried oil. If buried oil is found at high concentration (i.e. as a continuous band), further manual removal is recommended. The use of a mini excavator is recommended for buried oil. Excavated substrate to be raked and oil selectively recovered manually. Cement structures and tetrapods: Scraping and manual wiping using cotton rags (A, B). If required, solvent can be used.	Number of workers: 5-10; Number of supervisors 1-2; Basic PPE (gloves, tyvek, boots etc.); Shovels, trowels, rakes scrapers; Cotton rags; Heavy duty bags; Big bags; Plastic sheeting/tarpaulins; Buckets; Sorbent pads for decontamination; Meals and water; Wire mesh sieves/screens; Steel drums.
KEY CONSIDERATIONS:					
HEALTH & SAFETY:		All workers must wear appropriate PPE whilst working; hard hats to be worn in the vicinity of heavy machinery. Due attention to be given to tidal movements. Work areas must be demarcated as such for public safety. Decontamination is required when exiting a work zone into public spaces.			
WASTE MANAGEMENT:		All waste to be suitably segregated according to waste type. Temporary storage areas at the back of beaches must be protected with plastic sheeting to protect surfaces and prevent ingress of rainwater. Consideration must be given to access of waste-trucks and the reach of their cranes. Removal of uncontaminated sediment must be minimised.			
OTHER COMMENTS:					
Daily updates on progress and waste generation to be provided to ITOFF and CSA via written daily reports. Any significant deviation from the agreed methodology to be discussed proactively with CSA and ITOFF. Resources must be suitably scaled down in accordance with the progression of clean-up operations.					



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1 REMOVA

SHING



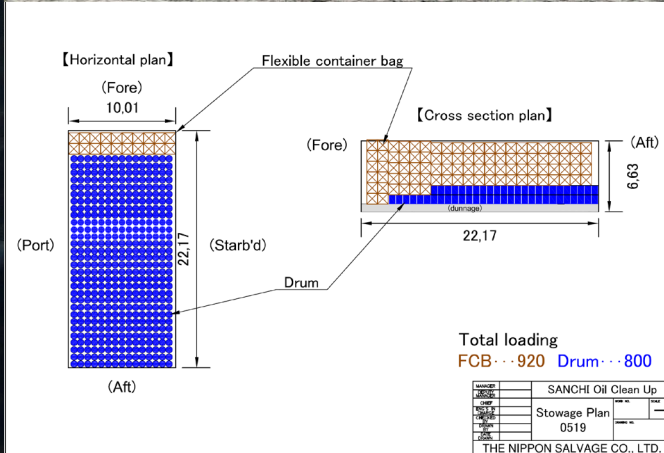
RESPONSE STRATEGY

**GOOD
PRACTICE**



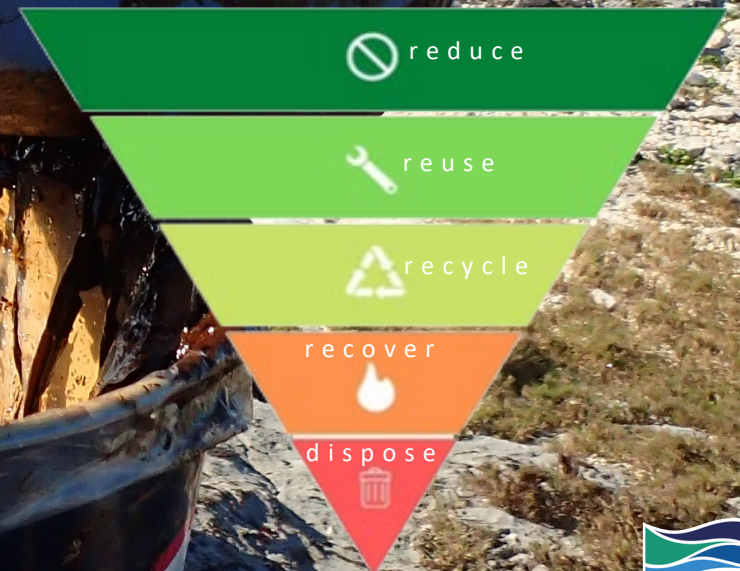






SANCHI Oil Clean Up	
Stowage Plan	
0519	
THE NIPPON SALVAGE CO., LTD.	

WASTE MANAGEMENT





CLAIMS ANALYSIS & DAMAGE ASSESSMENT



IOPC FUNDS
Appointed experts



CLAIMS ANALYSIS & DAMAGE ASSESSMENT



IOPC FUNDS
Appointed experts



ITOPF is ideally placed to provide advice on the technical reasonableness of spill response costs, as well as damage caused by spills

- Aim is to encourage a **cooperative approach** to facilitate the prompt and amicable settlement of claims.

- **Objective** comments on **technical merits** of claims to **all parties**.

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Preventive measures

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Preventive measures

Property Damage



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Preventive measures

Economic loss

Property Damage



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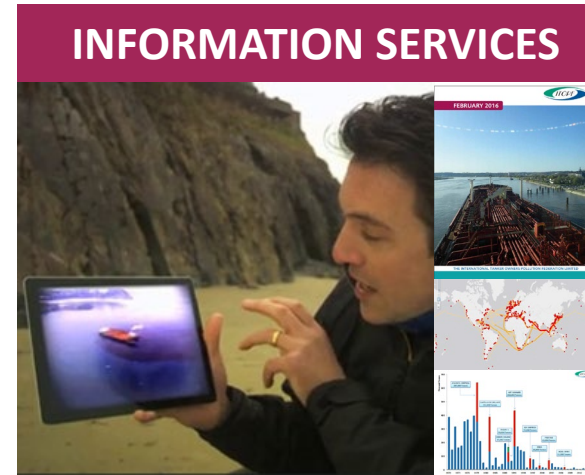
Preventive measures

Economic loss

Property Damage

Environmental Damage





We regularly advise governments and industry on the preparation of contingency plans and other matters related to accidental pollution from ships.

RECENT CONTINGENCY AND ADVISORY PROJECTS:



CONTINGENCY PLANNING & ADVISORY WORK

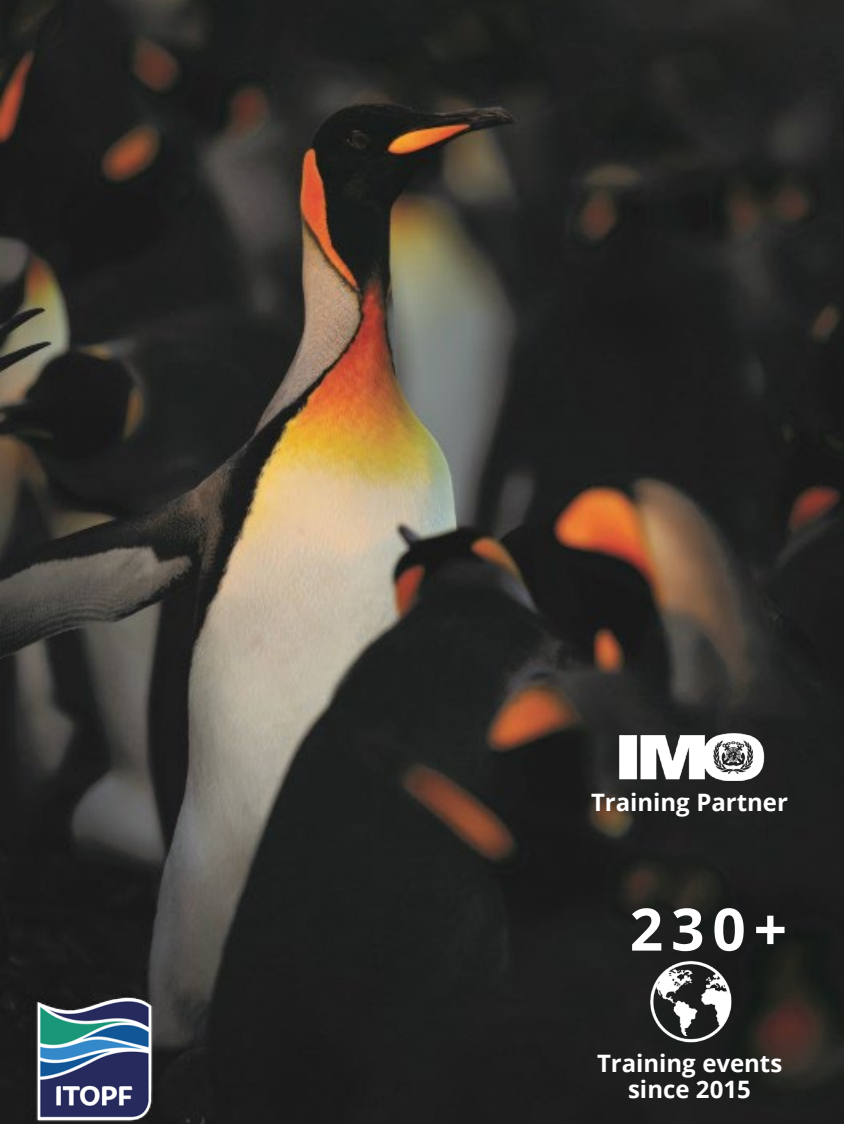
40+



Projects since 2010



TRAINING & EDUCATION



IMO
Training Partner

230+



Training events
since 2015



We organise and participate in training courses, workshops and seminars for government & industry around the world.




We are a primary and trusted source of information on accidental ship-source pollution.




www.itopf.org

INFORMATION SERVICES

50 
Years of
tanker spill
statistics


Resources in
multiple
languages





Thank you

ありがとうございました

MARINE POLLUTION INCIDENTS &
THE ROLE OF ITOPF

