

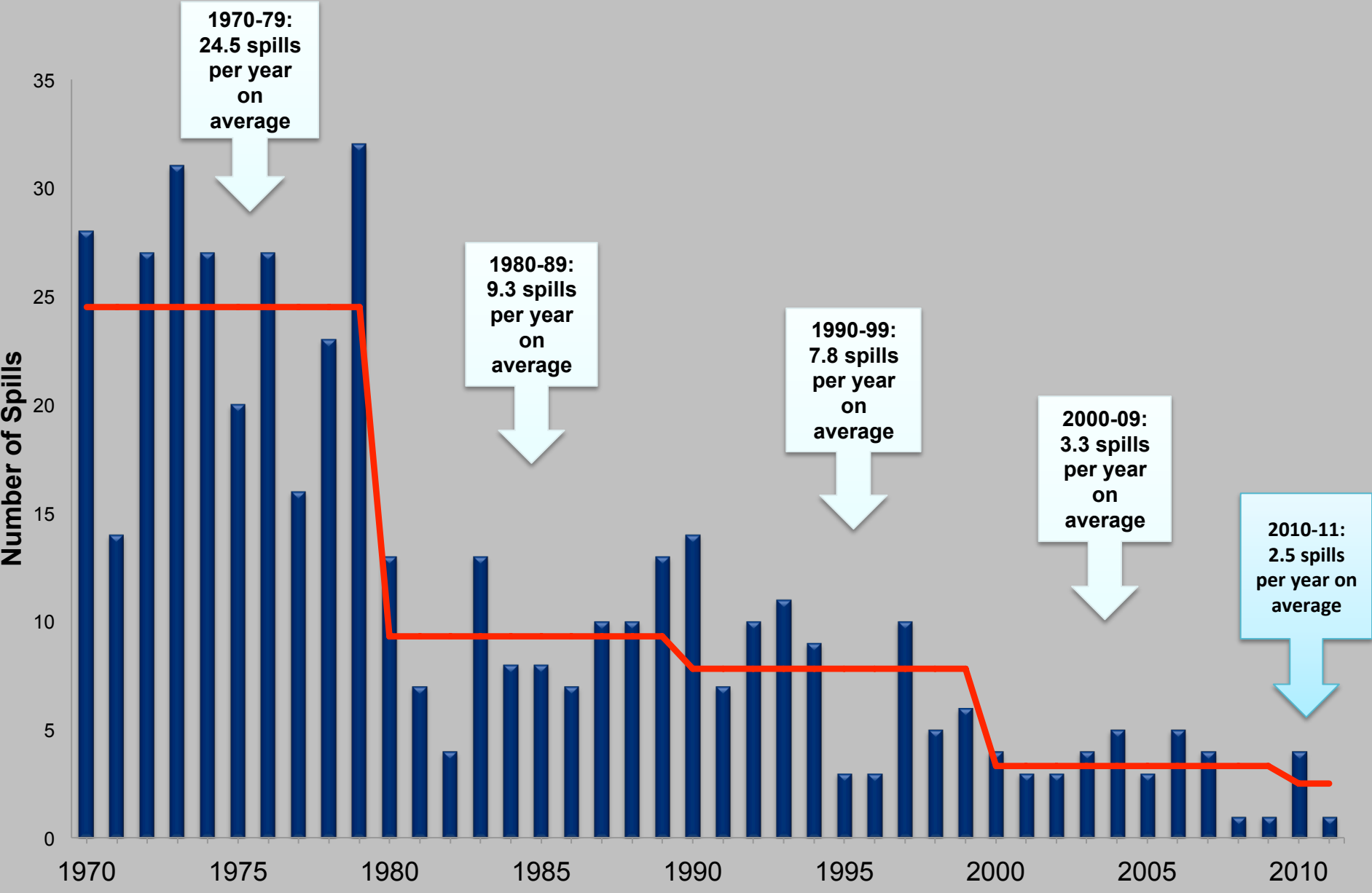


Issues from Containership Incidents

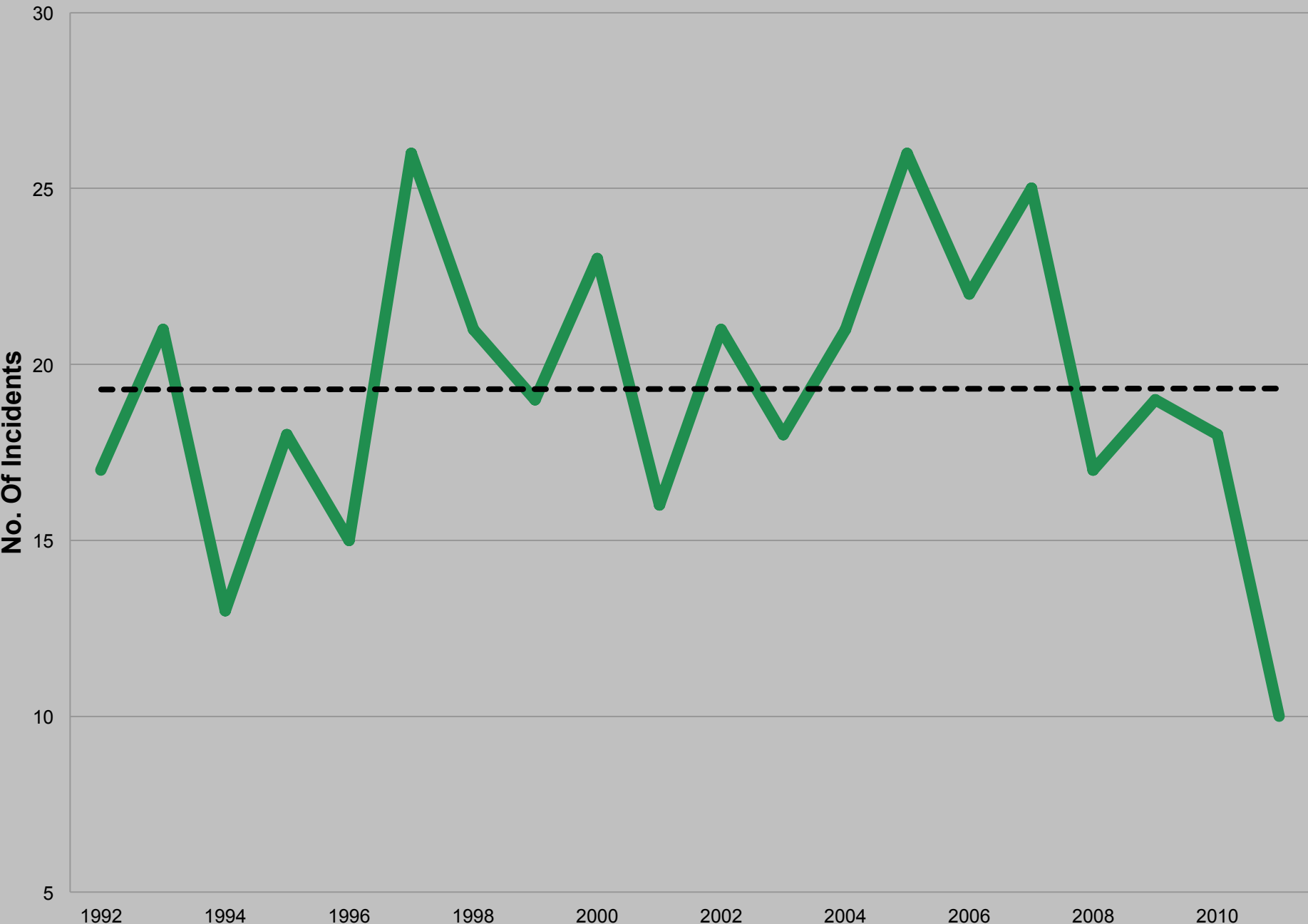
Andrew Tucker – Senior Technical Adviser



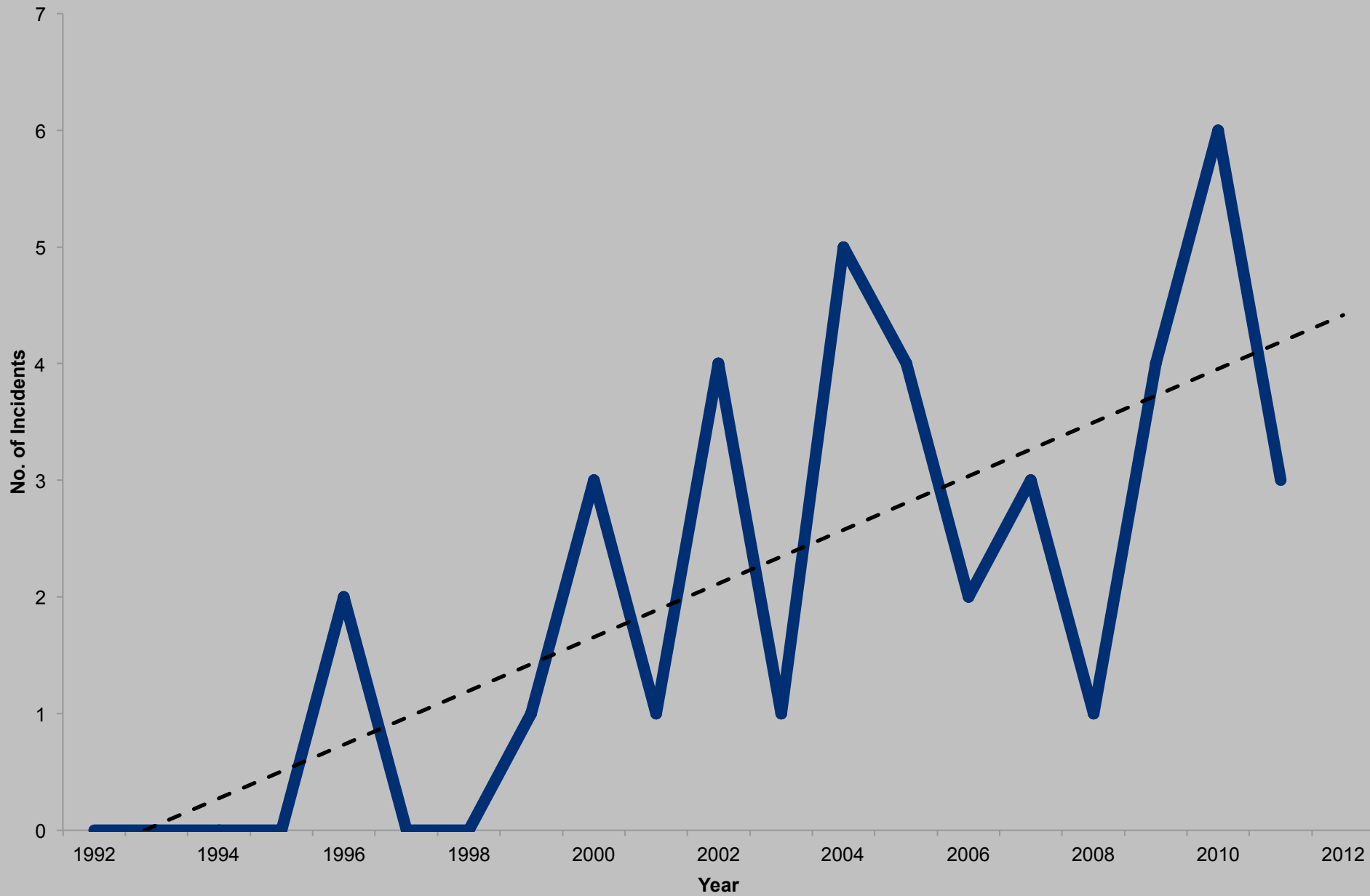
Number of large oil spills (over 700 tonnes)



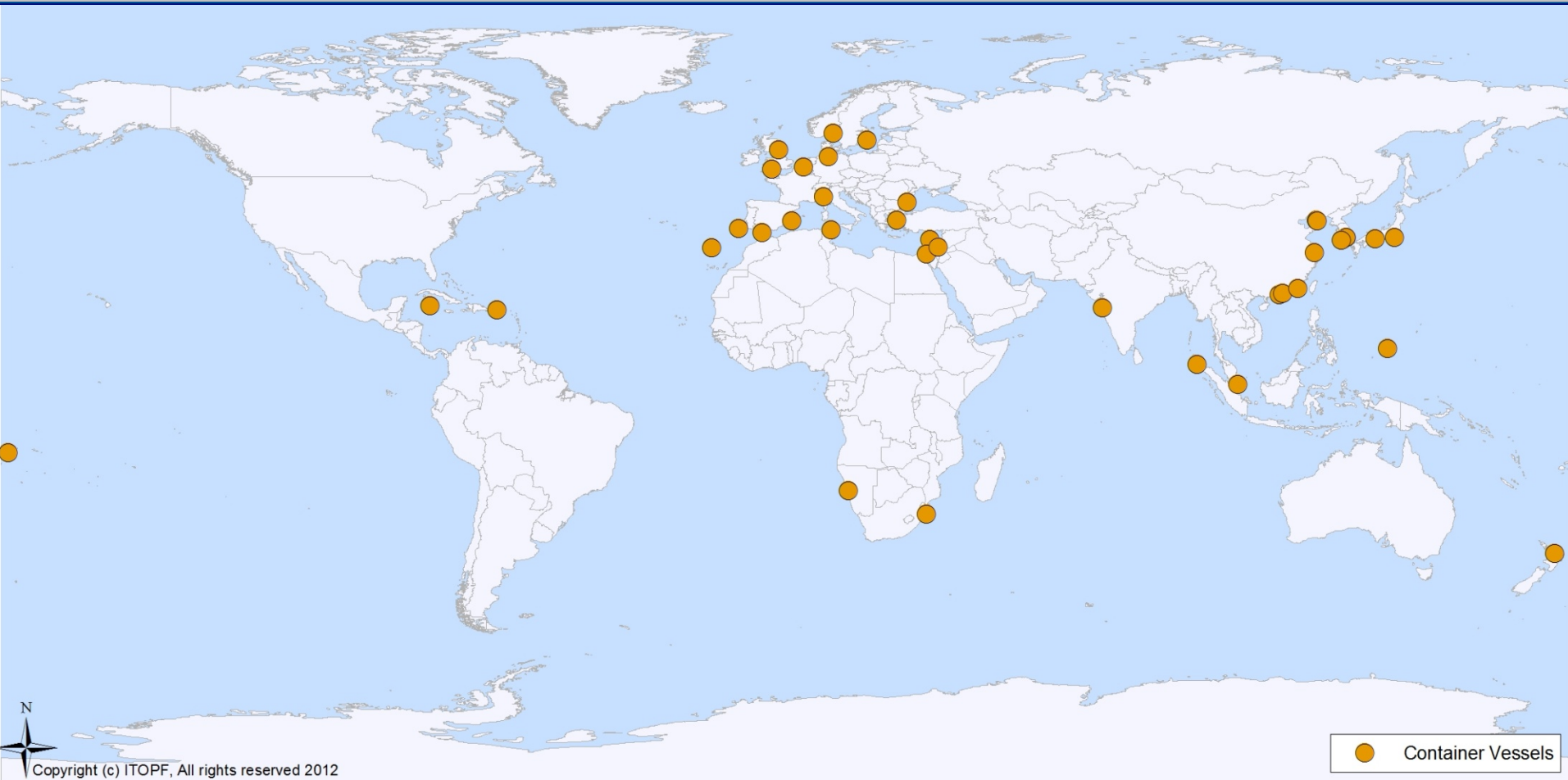
ITOPF attendance on site for Shipping Incidents



Frequency of ITOPF attendance at Containership Incidents



Containership Spill Distribution



- ITOPF attended Container vessel incidents; statistics indicate spills most frequent in European and Far-Eastern waters
- Due to most incidents occurring on approach/exit from coastal waters and Ports.

Recent Incidents;



RENA; 3029 TEU (1368) & ~3,800m³ HFO (1733m³)



**COSCO BUSAN
5,531 TEU & 7,800 m³ HFO**



**MSC CHITRA;
2314 TEU & ~2,800m³ HFO (1,200m³)**

SMIT Salvage

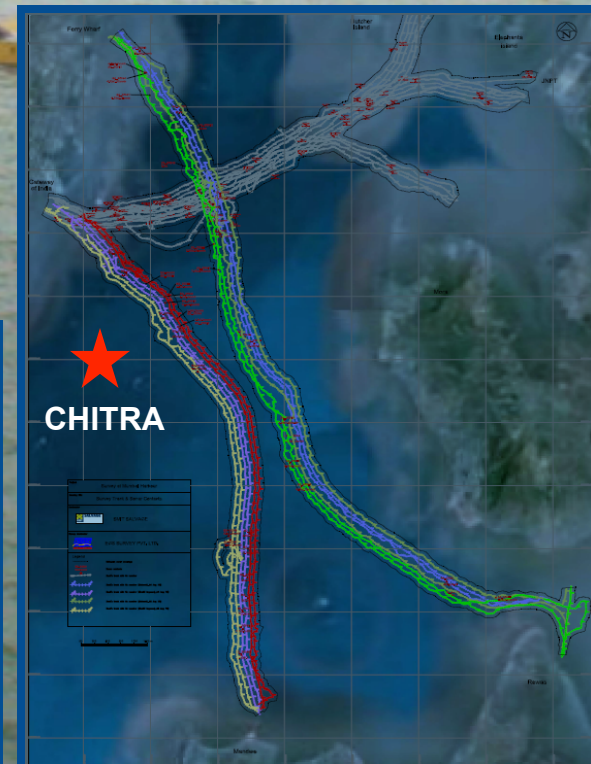


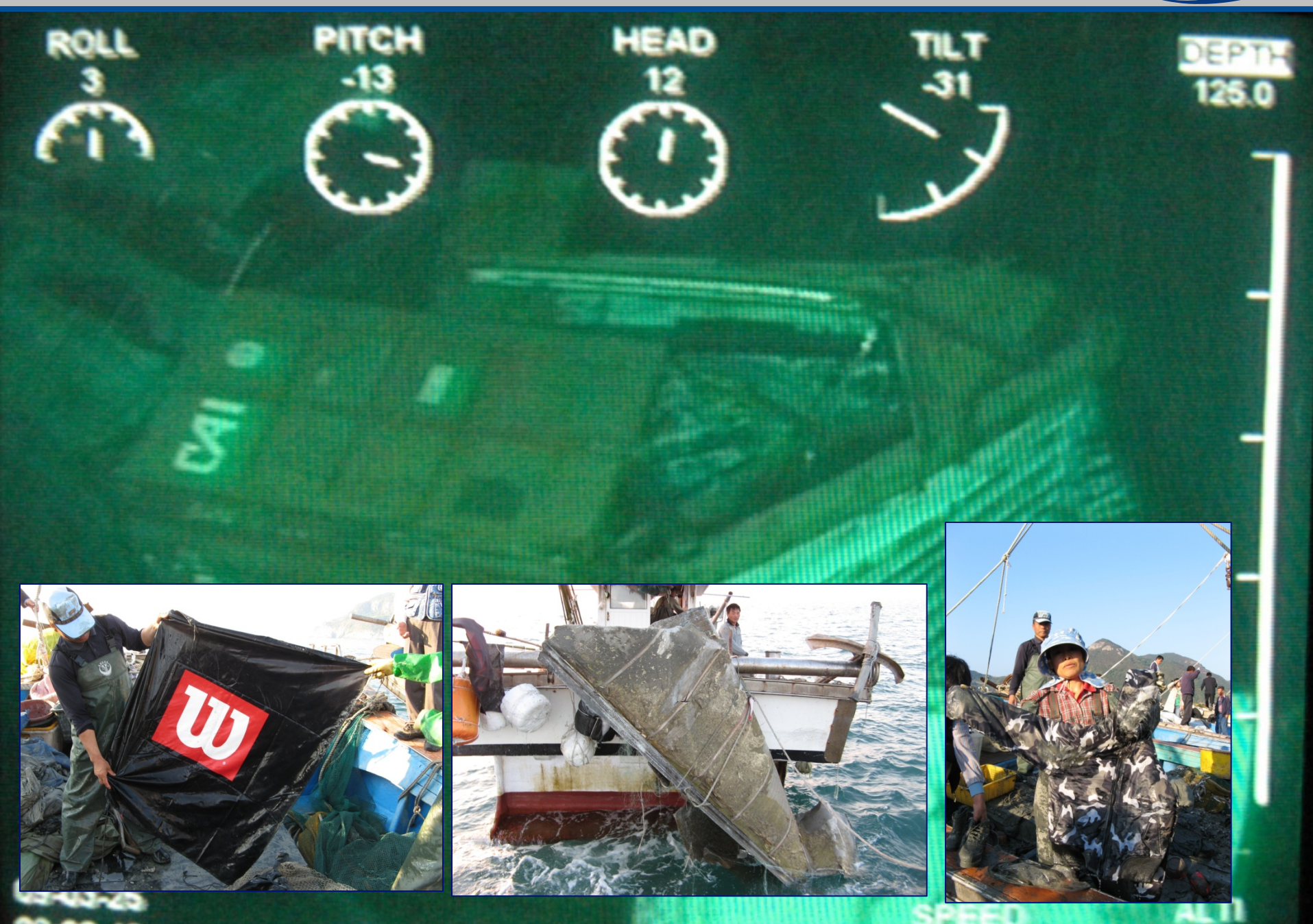
**MSC NAPOLI;
4,688 TEU (2318) & ~6,892m³ HFO (3,200m³)**

Oil and containers lost









Diversity of Container contents



- **Organic materials:** Tea, waste plastic and paper for recycling, cocoa beans, logs, pineapples, sisal (fibre) bags, paper rolls
- **Metallic:** coiled steel rolls, aluminium cans, galvanised steel, fabricated steel structures
- **Chemical:** paraffin, soda ash (Na_2CO_3), glucose, pharmaceuticals, fertilizers, polypropylene, resins, solvents, Hydrogen Peroxide (H_2O_2), fungicide (AIP)
- **Miscellaneous:** personal items, clothing, shoes.



Oil and Cargo ashore together = Hazardous Waste



Dangerous Goods on Container Vessels

RENA – 11 DG containers
MSC NAPOLI – 159 DG containers
MSC CHITRA – 31 DG containers



28/07/2010 21:03



Public Health Issues

- During salvage ops, container with AIP broke open and contents lost to hull/sea
- Contained 4,200kgs AIP – 2,800 x 1.5kg canisters
- Reports received of oiled canisters coming ashore



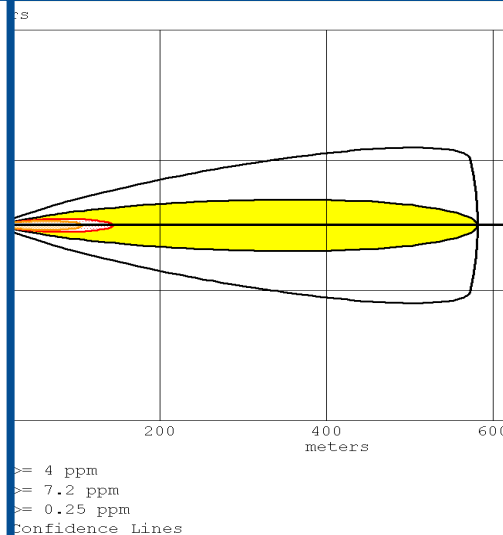
MSC CHITRA
India
24th August 2010

MSC CHITRA SHORELINE RESPONSE

Mumbai, India

DANGEROUS GOODS RISK ASSESSMENT

Distribution List
ITOPF / MSC



- Air modelling done with NCEC – one broken canister and the whole container load; for workers close to wreck (salvors and fishermen), general public (Vessel 500m from Mumbai city), and for shoreline workers
- Full risk assessment written for all Dangerous Goods and the different shoreline clean up techniques used
- Daily sweeps undertaken by MSC and United Phosphorus for all suspicious bottle/canisters – stored in airtight steel box and removed to UP facility for disposal
- Air monitoring undertaken daily before and during clean up at high risk sites

Rotting Cargo



- Salvors reported PH_3 on board MSC CHITRA
- Continual levels; did not fluctuate – not consistent with PH_3
- This out to be H_2S – cargo in containers rotted; exposed to $35^\circ\text{C}+$ temperatures and continually wet (anaerobic conditions)
- Organic and Refrigerated goods rot very quickly in warm & wet condition
- H_2S and PH_3 could not be differentiated by monitoring equipment on board wreck

Complexity of Salvage

5th October



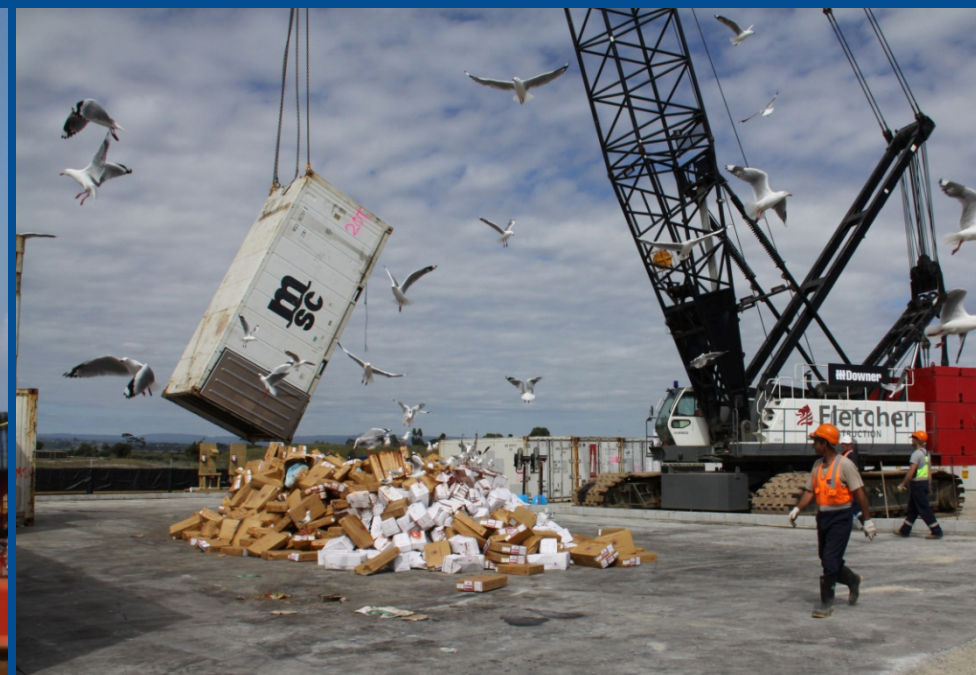
23rd November



Svitzer Salvage



Container Storage, Processing and Disposal





The Future

- Incidents involving container ships have the potential to be complex and long response; incidents so far have involved relatively “small vessels”
- Global trade in containerised goods is growing
- Ever larger vessels; the EMMA MAERSK has capacity of 13,800 TEU & ~17,000 m³ bunkers
- Maersk have recently ordered 10 new “triple E” container vessels – 18,000 TEU & 20,000m³ + bunkers – they will be the worlds largest commercial vessels
- Container vessel incidents tend to happen relatively close to port
- Container Vessels may carry large volumes of HNS/ difficult HNS; potential for public health issues
- Contingency Planning; pre-identify most frequently transported HNS past coastlines as well as temporary storage areas, waste disposal sites, availability of expertise/ equipment, contractors particularly in dealing with the chemical issues
- Entry of HNS Convention!



EMMA MAERSK



New “Triple E” Container Vessel –
Delivery 2013 - 2015



Thank You
www.itopf.com

