



New Emergency Management in a Resilience Era Facing Health, Climate and Energy Challenges

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Date and slot of presentation to be filled in shortly

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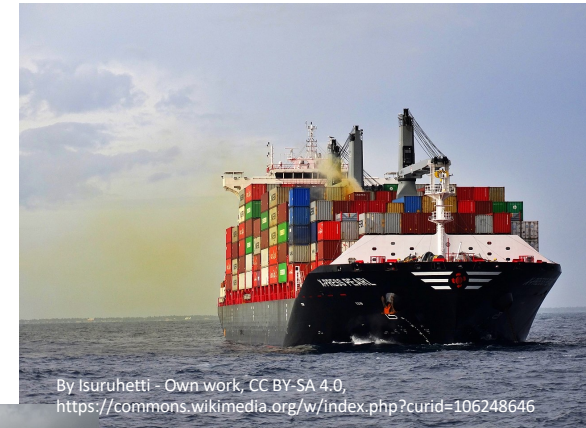
Bigger Ships, More Containers: An Emerging Hazard



A New Thing that can go Wrong with Ships

The Case of the container ship X-Press Pearl, Sri Lanka, 2021

- Relatively small container ship
- Nitric acid leaking from some containers
- No port willing to off-load containers
- Eventually, containers, and ship, caught fire
- Marine pollution
- Loss of ship (and continuing marine pollution)



Why Something New?

- Growing the size of container ships – now up to 20,000 container equivalent units ships
- Fire hazard management - Inefficiencies of fire control below deck level; use of water above deck level (but some chemicals should not come in contact with water); limited hands-on fire fighting capacities on board
- Mis-declared Container Contents – incompetence or to reduce costs; limited ability of ship operator to check container contents
- Not-in-my-Port Risk Management – no incentive for ports to take leaking or burning containers (or ships) as it could close port and requires special capacities
- A Gap in Response Capacities – oils spill response but not ship-accident-and-marine pollution response



A Few More Challenges

- What to do with a burning ship?
 - Traditional deep-water sinking can lead to more pollution, and may not be successful
- What happens when container stacks on a ship come apart and a fire starts? (The case of Zim Kingston, British Columbia, Canada, 2021)



What Next?

- Improve accuracy of container documentation – ship operators can't operate safely if they don't know what they are carrying
- Address container ship fire fighting abilities – a matter of active concern to insurers, but still gaps in practical implementation
- Rethink how ship fires are managed – deep-sixing a burning ship is a centuries old approach which needs reconsideration based on current environmental awareness and modern means
- Establish formal institutional and operational capacities to deal with container fires, ship fires and resulting pollution – take the marine oil spill model and apply it to container ships



Conclusions

- Fire on container ships is an emerging challenge for the environment and safe ship operation
- The issue is gaining attention, but the scale of what could happen - a burning 20,000 unit container ship- does not appear to be reflected in the intensity of effort to address the challenge
- A fundamental rethink of how container ship fire risk and fire events are handled is needed – assuming the ocean will contain all pollution and insurance cover all cost are outdated thinking
- We need to get into the 21st century on managing this emerging hazard



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