



Acquisition Directorate

Research & Development Center

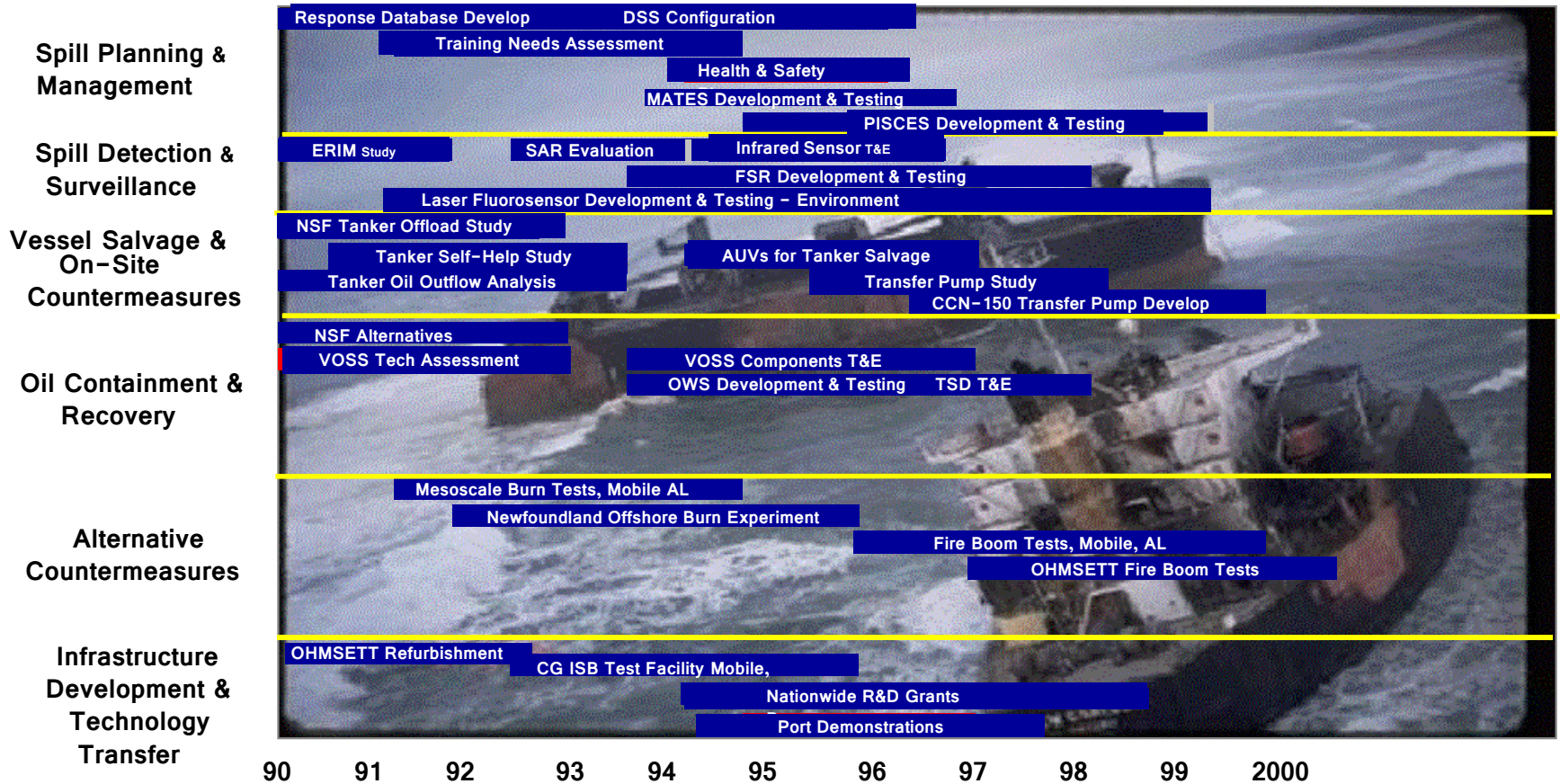
Mitigation Research

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**RDC | Kurt Hansen (UNCLAS)
Marine Technology Society
Tech Surge – Oil Spill Mitigation
February 5, 2018**



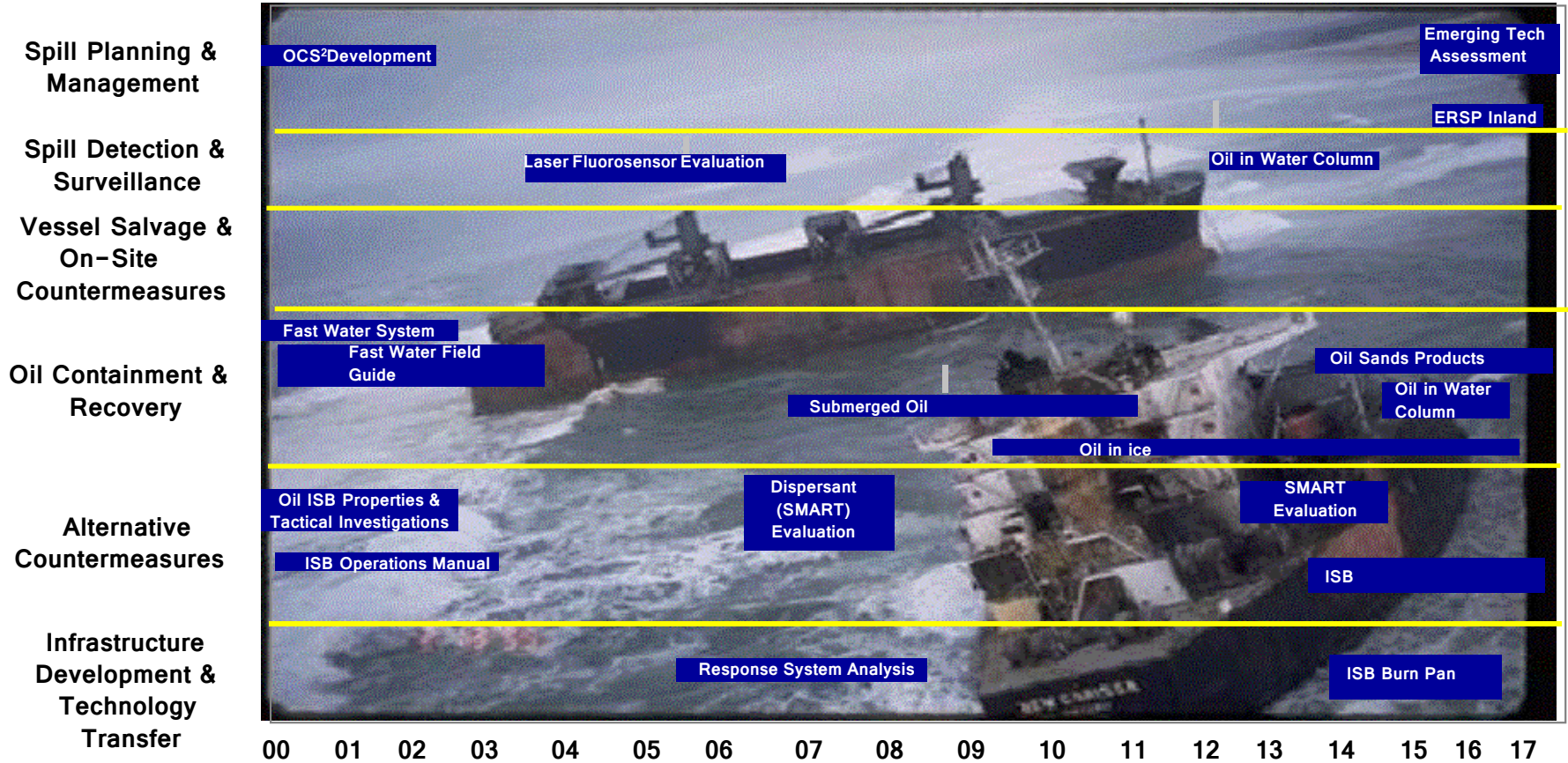
RDT&E Funded Projects Using OSLTF 1990-1999



Wide Variety of Products Were Developed for CG use



RDT&E Funded Projects 2000-Present

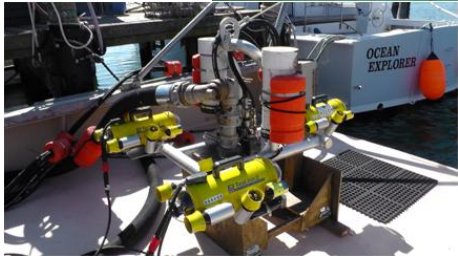
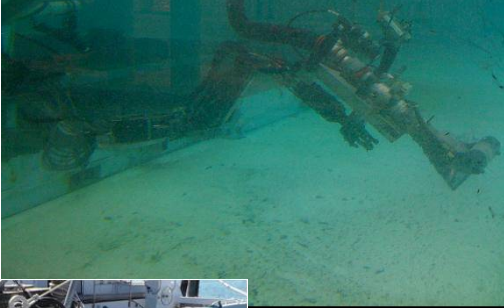


Testing and Demonstrations

(Applied Research in the Field)



BSEE
Ohmsett
Facility



Galveston, TX



Great Lakes



JMTF, Mobile AL



Arctic (CGC Healy)



Recent Efforts

CG RDC

- **Response to Oil-in-Ice**
- **Response to Oil Sands Products**
- **Response to Submerged and Sunken Oil (in water column and on bottom)**

<http://www.dtic.mil/dtic/search/tr/tr.html>

Bureau of Safety and Environmental Enforcement

- **Multiple in-situ burn projects**
 - Increasing efficiency
 - Measuring efficiency
- **Tagging oil in ice**
- **RFID with heave/pitch/roll sensors**
- **Recovery sensors (in-line)**

<https://www.bsee.gov/what-we-do/research/oil-spill-preparedness/oil-spill-response-research>



Improvements Needed (Operational)

Mechanical Recovery

- Sensors to improve automation
 - Skimmer Performance (thickness, throughput, oil level in storage)
 - Oil/water analysis
- Detect and recover simultaneously (sonar, laser fluorometer or laser scanning, etc)
- Finding oil in sand/silt

In-situ Burning

- Sensors in fire
- Sensors on boom

Dispersants

- Sensors for tracking plums in near-real time
- Comparison of surface versus subsurface movement
- Remote Long Range Monitoring



Questions

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