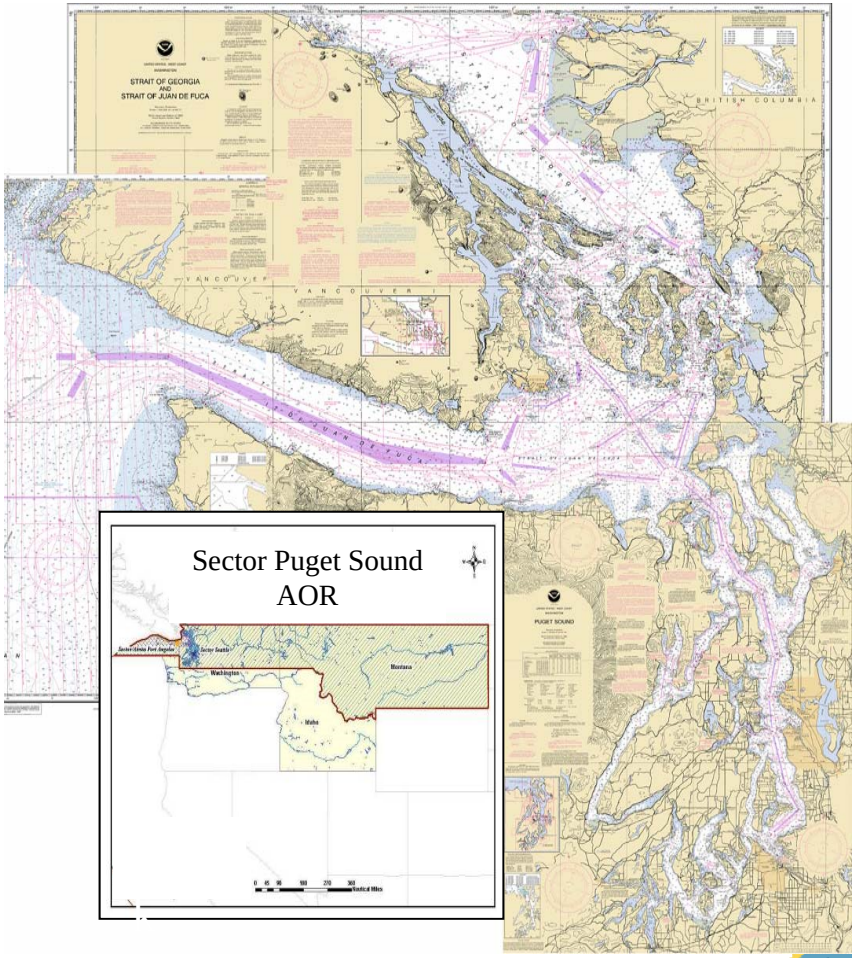
Vessel Traffic in the Salish Sea Mitigating Risk . . . .

Captain Joe Raymond
Coast Sector Puget Sound

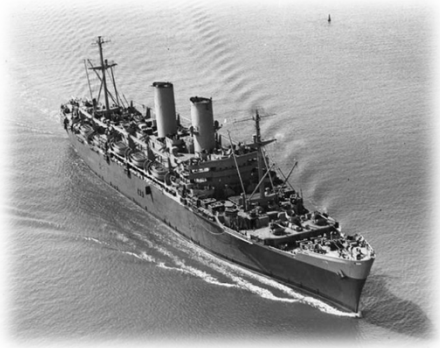
Homeland Security

Overview

- Prevention
- Waterways Management
- Oil Spill Data
- Mitigating Risks



Homeland Security



USS General M.C. Meigs – January 1972
2,300,000 gallons of heavy oil spilled

T/V Arco Anchorage – December 1985
239,000 gallons of crude oil spilled

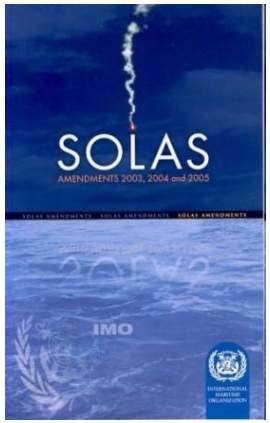
T/V Exxon Valdez – March 1989
Approximately 11 million gallons
of crude oil spilled

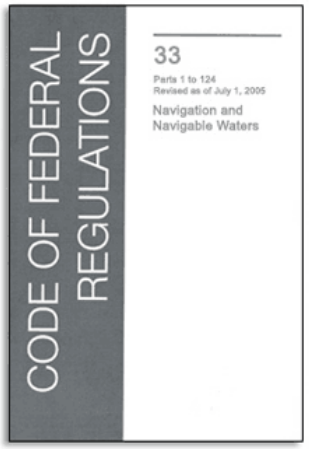
Homeland Security

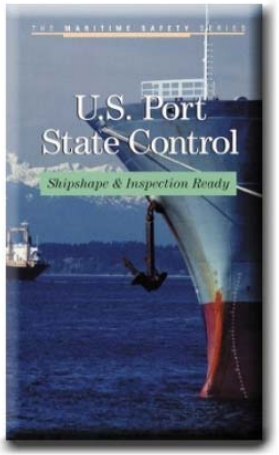
Prevention

- Increasingly Higher Standards
  - International
  - Flag State
  - Port State
  - Classification Society
- Double-Hulls for Tank Vessels and IMO phase in for non-Tank Vessels
- Domestic and Port State Examinations
- Enhanced Navigation (e.g. AIS, digital charts)
- Increased Crew Competency (STCW)
- Vessel Traffic System
  - Deep and wide channels
  - Cooperative VTS with Canada
- Tugs Escorts, Emergency Response Towing Vessels, and Puget Sound Pilots
- Harbor Safety Plan – Standards of Care

IMO



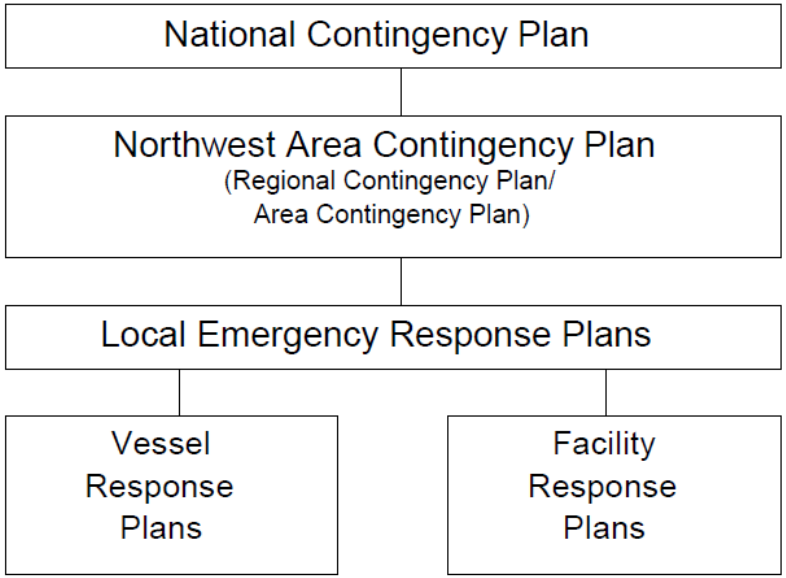




Homeland Security

Preparedness

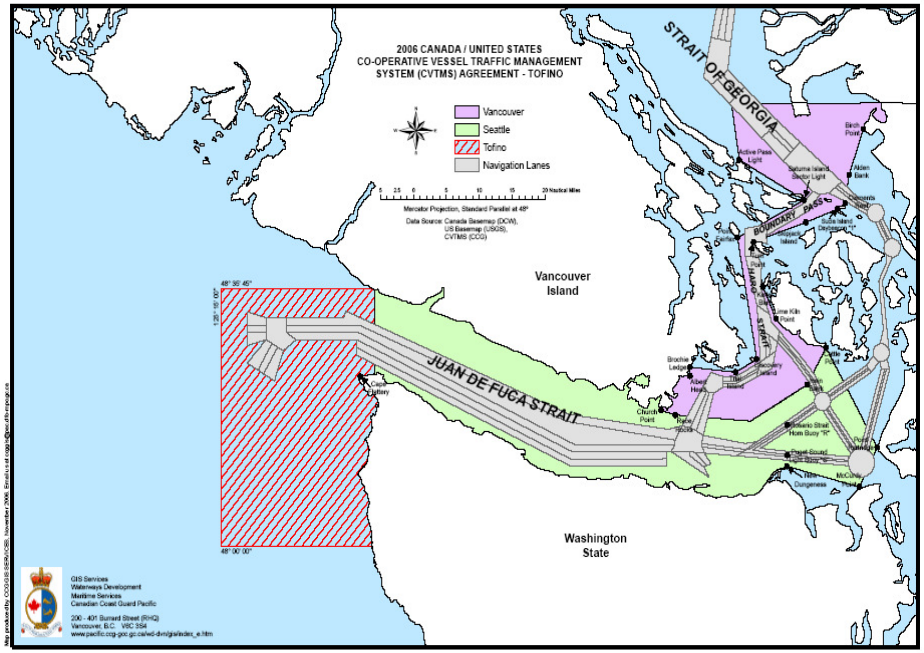
- National Contingency Plan
- Northwest Area Contingency Plan (NWACP)
- Vessel Response Plans
  - Tank Vessels
  - Non-tank Vessels
  - Certificate of Financial Responsibility (COFR)
- Facility Response Plans
- Canada/U.S. Joint Marine Pollution Contingency Plan - Pacific Geographical Annex (CANUSPAC)
- Incident Command System (ICS) Training and Qualifications
- Drills and Exercises



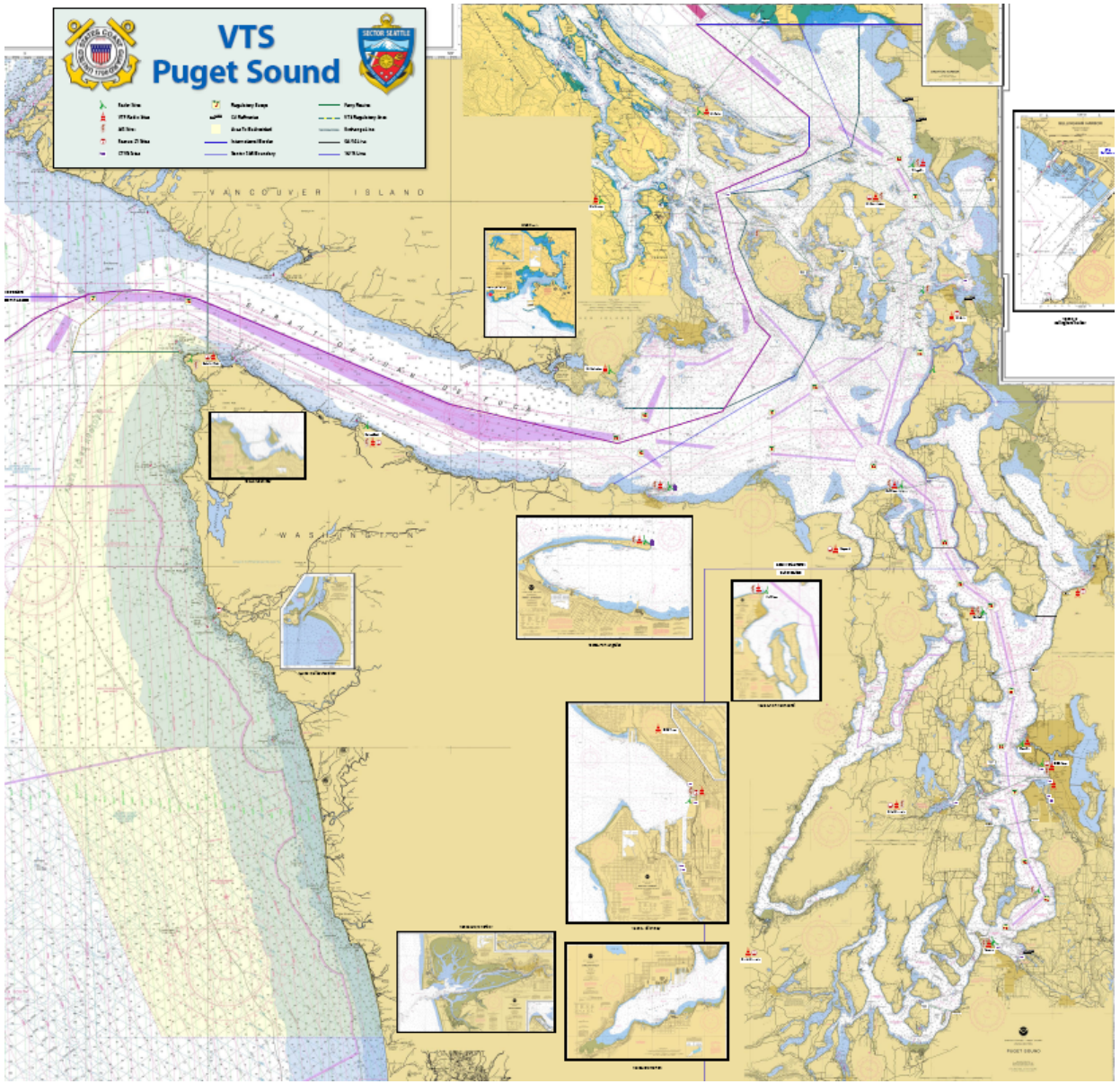
Homeland Security

Waterways Management

- Cooperative Vessel Traffic Service
  - Works Jointly with Canada to Manage Vessel Movements
  - Monitors 2,900 Square Miles with Radar, AIS, and Cameras to Deconflict Approximately 2 Near Misses per Month
- Waterways Operations
  - Maintains and Monitors Aids to Navigation to Provide for a Safe Traffic Separation Scheme
  - Issues Marine Permits to ensure Events within Waterways do not Interfere with Vessel Traffic

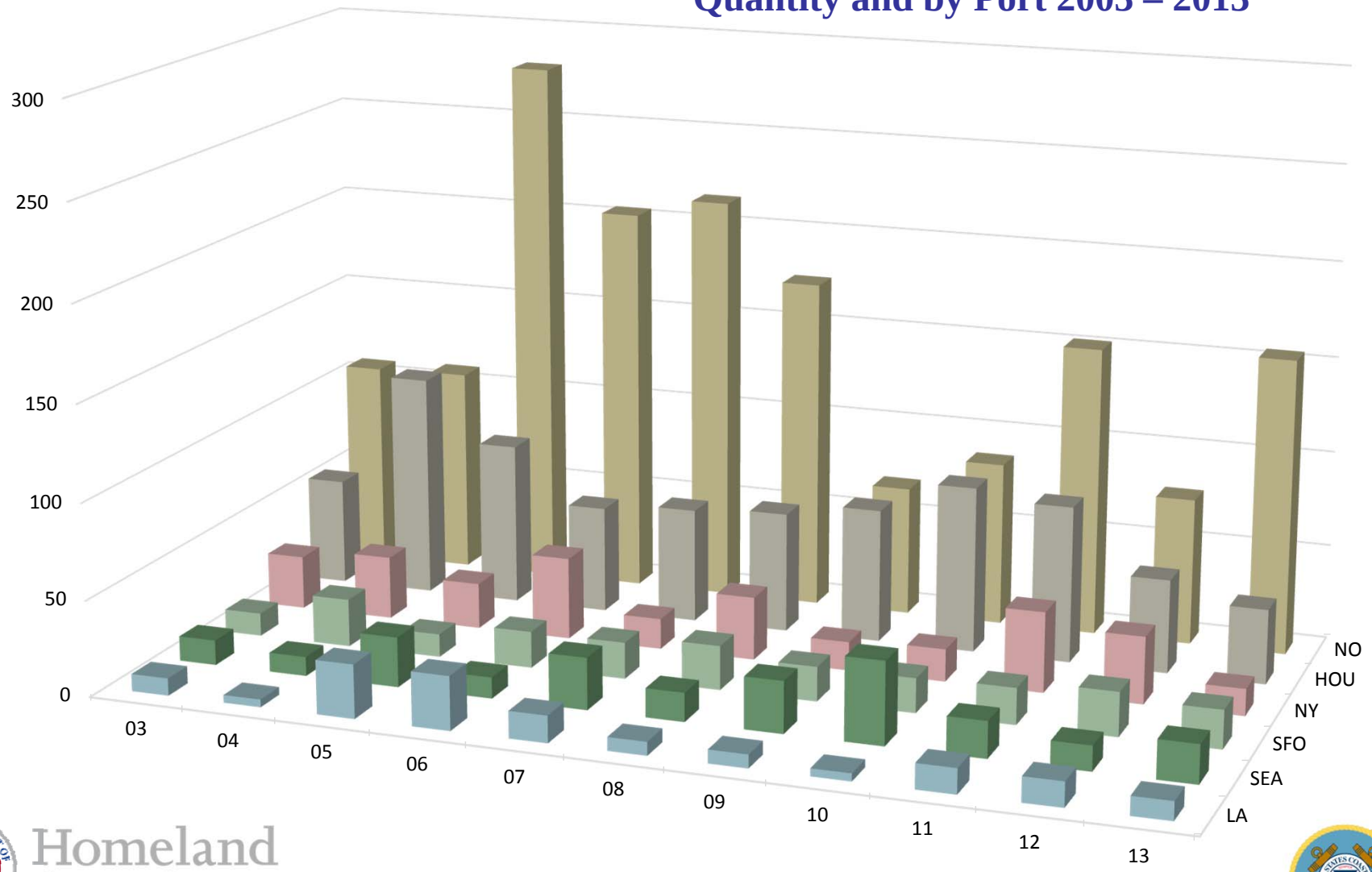


Homeland Security



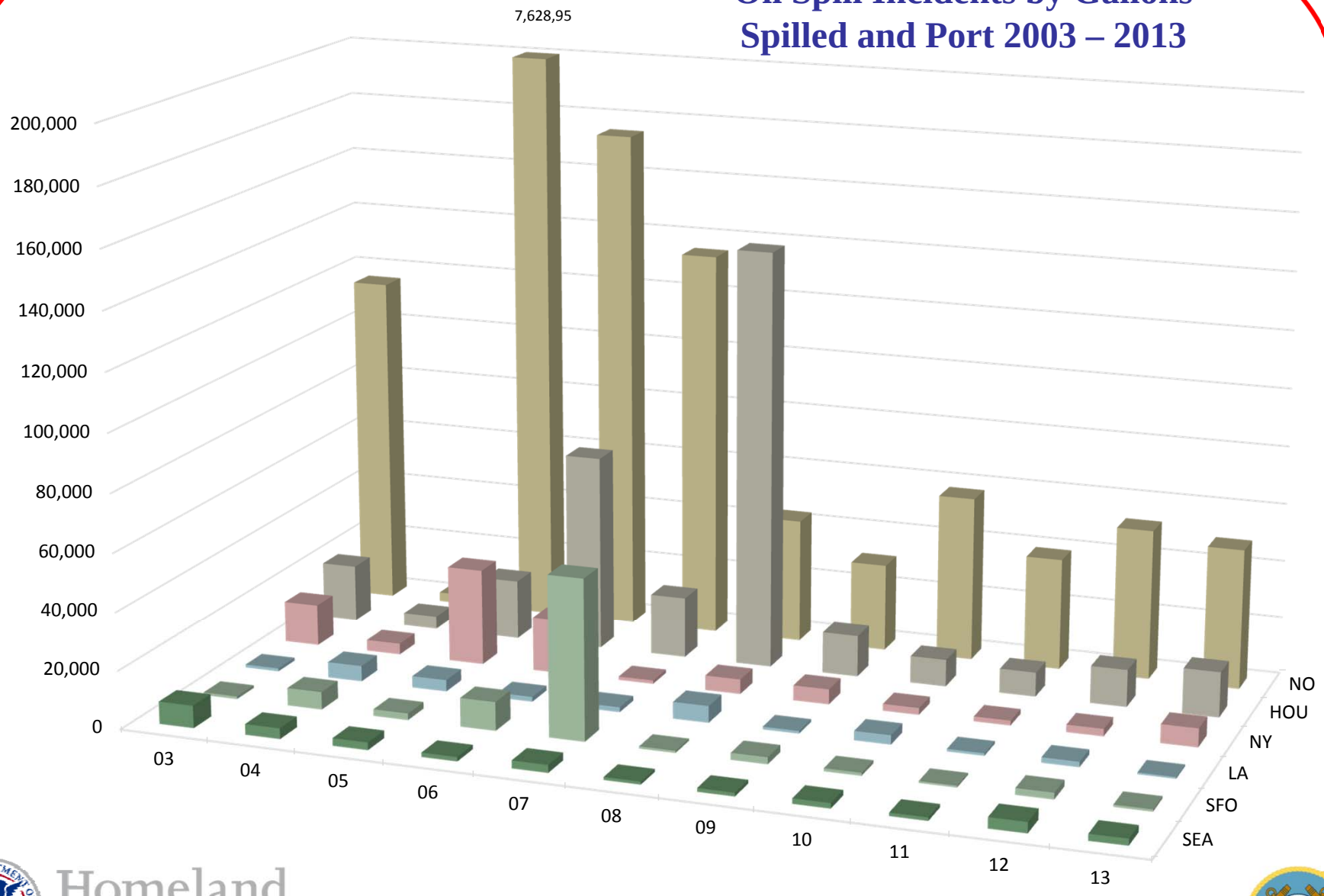
Homeland Security

Serious Marine Casualties by Quantity and by Port 2003 – 2013

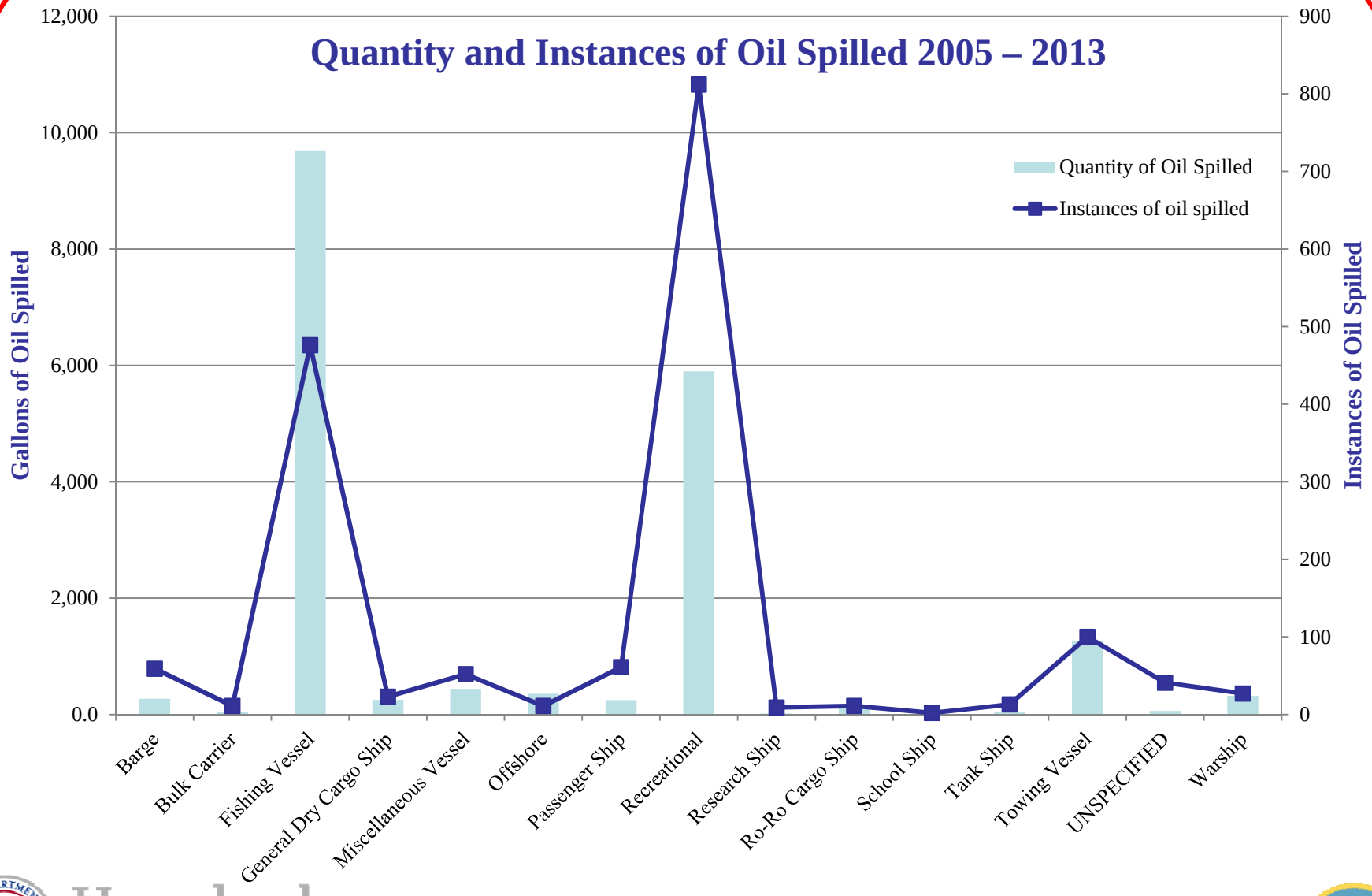


Homeland Security

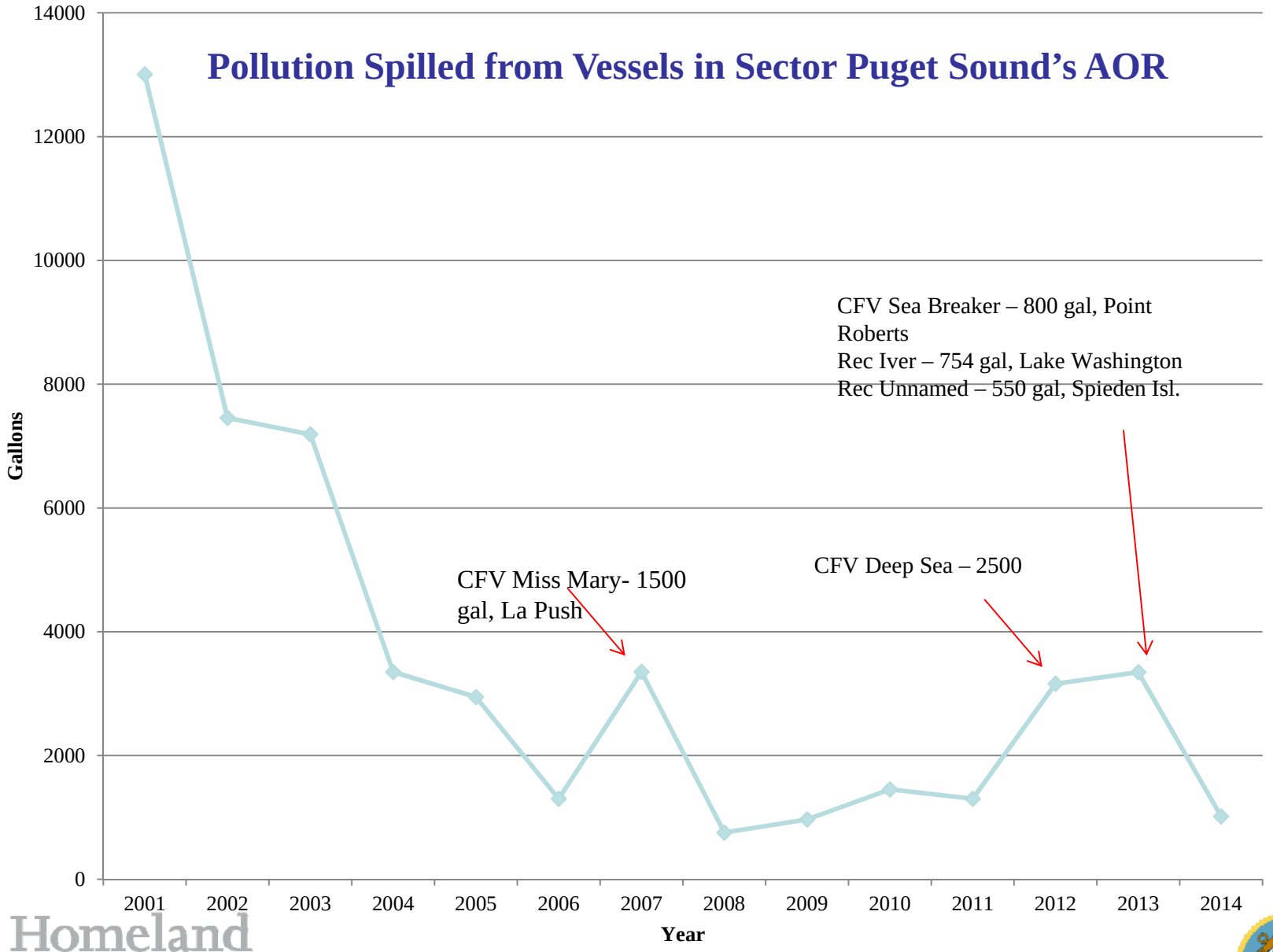
Oil Spill Incidents by Gallons Spilled and Port 2003 – 2013



Homeland Security

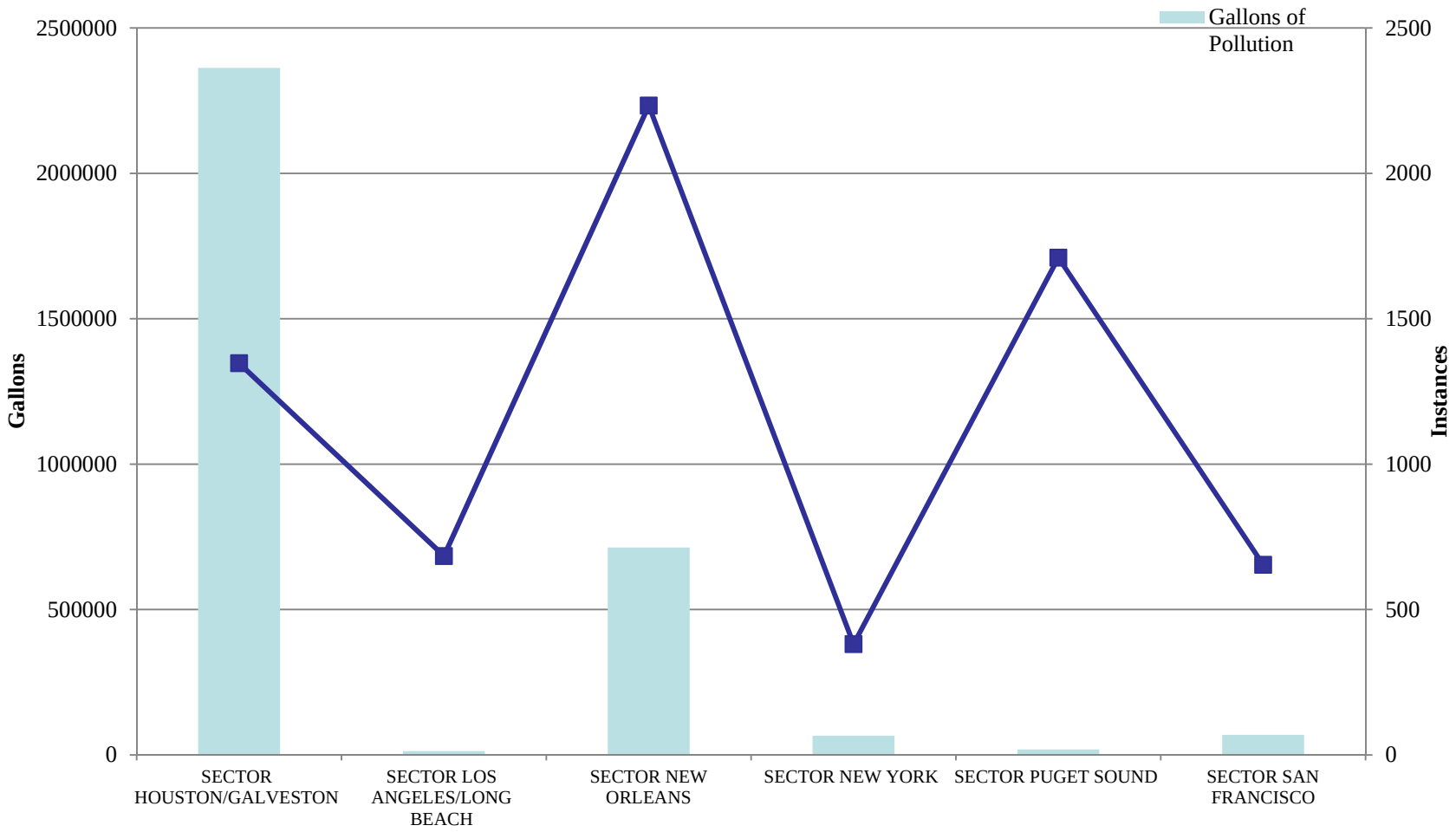


Homeland Security



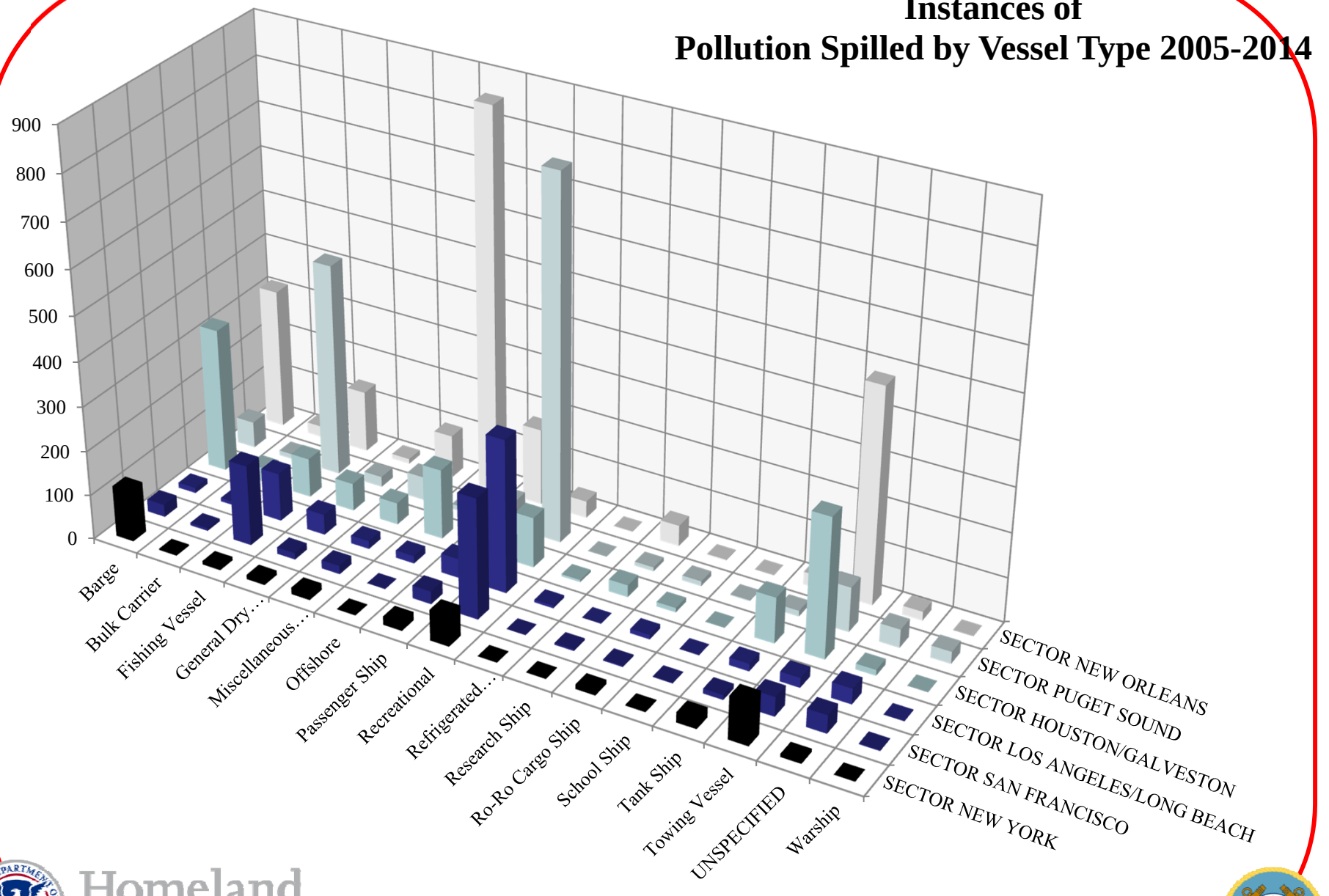
Homeland Security

Gallons and Instances of Pollution 2005-2014



Homeland Security

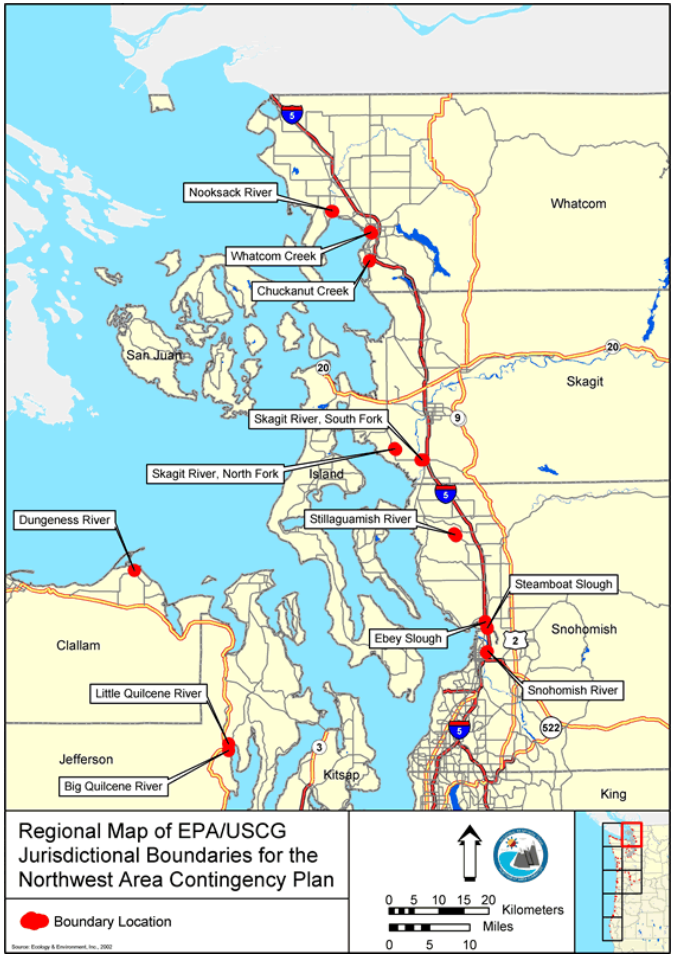
Instances of
Pollution Spilled by Vessel Type 2005-2014



Homeland Security

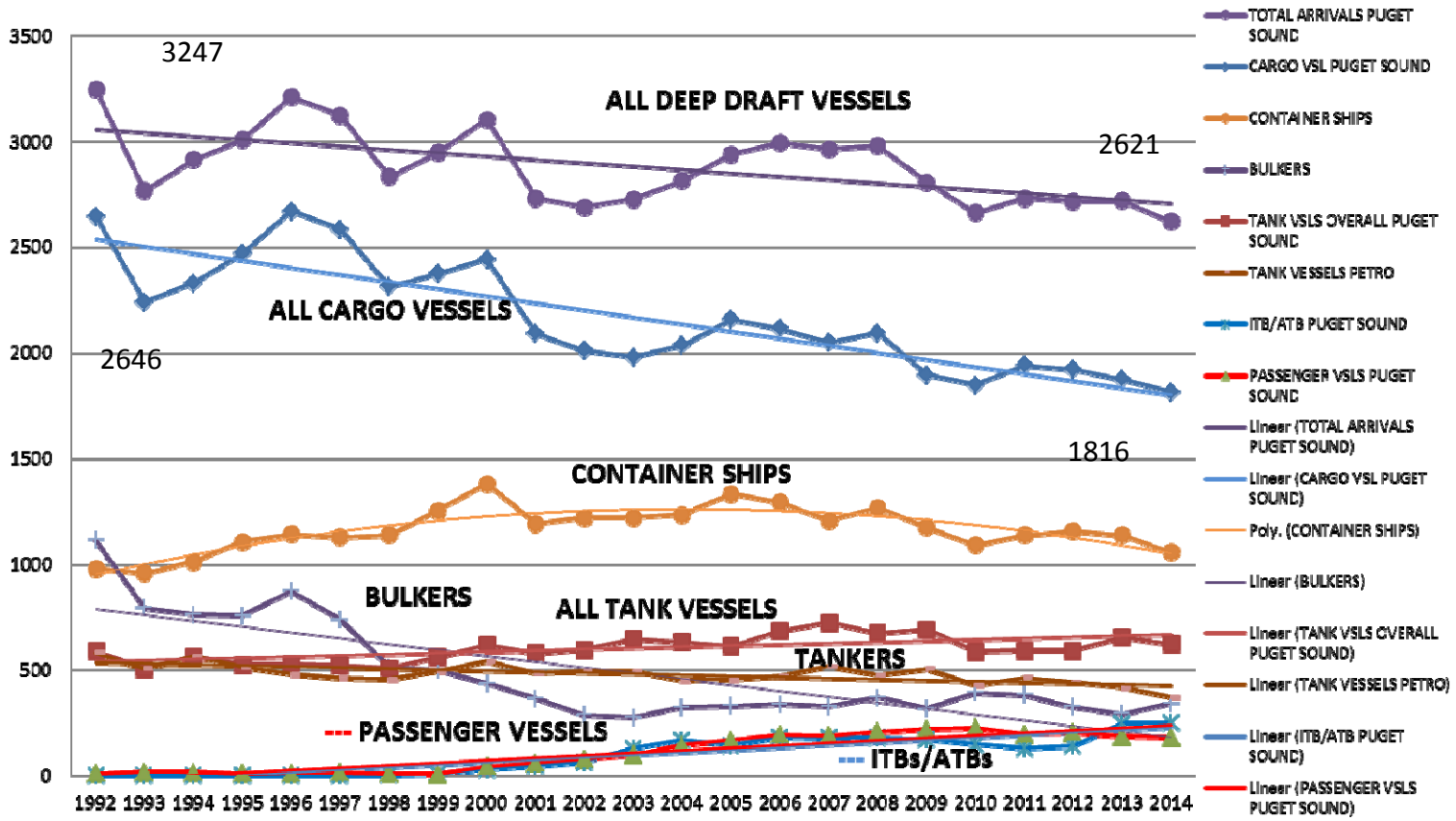
Response

- Incident Command System (ICS)
- Oil Spill Response Organizations (OSROs)
- Oil Spill Liability Trust Fund (OSLTF)
- Coast Guard Strike Teams
- Vessel of Opportunity Skimming System (VOSS) and the Dynamic Incline Plane (DIP) 600 System
- Coast Guard Incident Management Assist Team (IMAT) and Public Information Assistance Team (PIAT)



Homeland Security

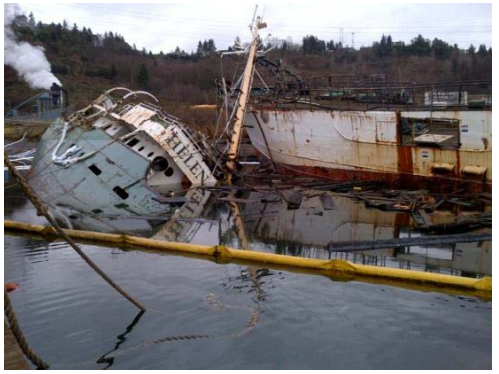
Deep Draft Vessel Traffic
1992 thru 2014

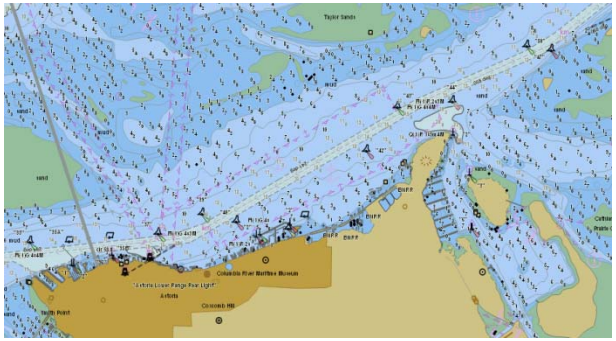


Homeland Security

Some Observations

- Safe System, but . . . . .
- Need to Adapt to Changes in Vessel Traffic
  - Larger Ships (>10,000 TEU and Mega Cruise Ships)
  - Deeper Drafts and Greater Beams
  - New Types of Vessels (e.g. ATBs)
- Today's Oil Spills
  - Fishing and Recreational Vessels
  - Derelict Vessels
- Need to Protect our Tribe's Treaty Rights
- Continue to Implement Lessons Learned
- Goal of Fostering a Culture of Safety and Continuous Improvement





Homeland Security

Turn Point
Special Operating Area

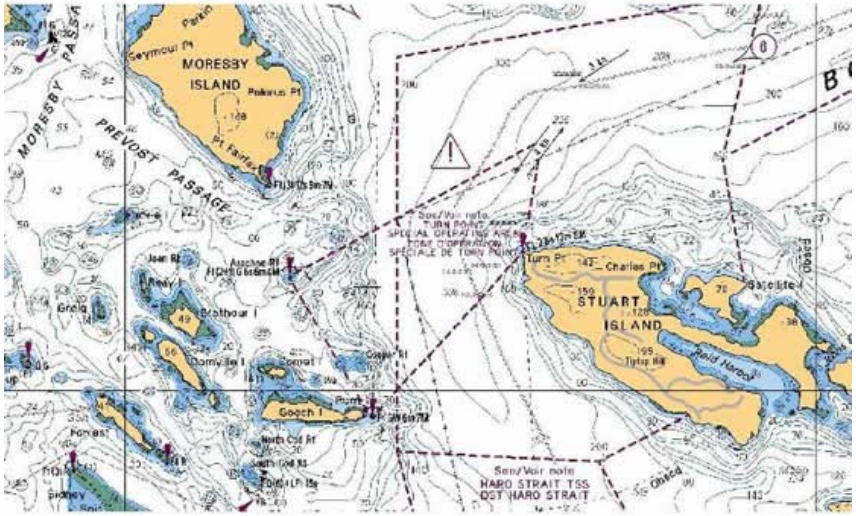
APPLICATION:

These procedures apply to all Canadian and United States VTS participant vessels within or approaching the Turn Point SOA from Boundary Passage, southbound for Haro Strait; and from Haro Strait, northbound for Boundary Passage or Swanson Channel, however, they do not apply to vessels southbound out of Swanson Channel.

MOVEMENT PROCEDURES

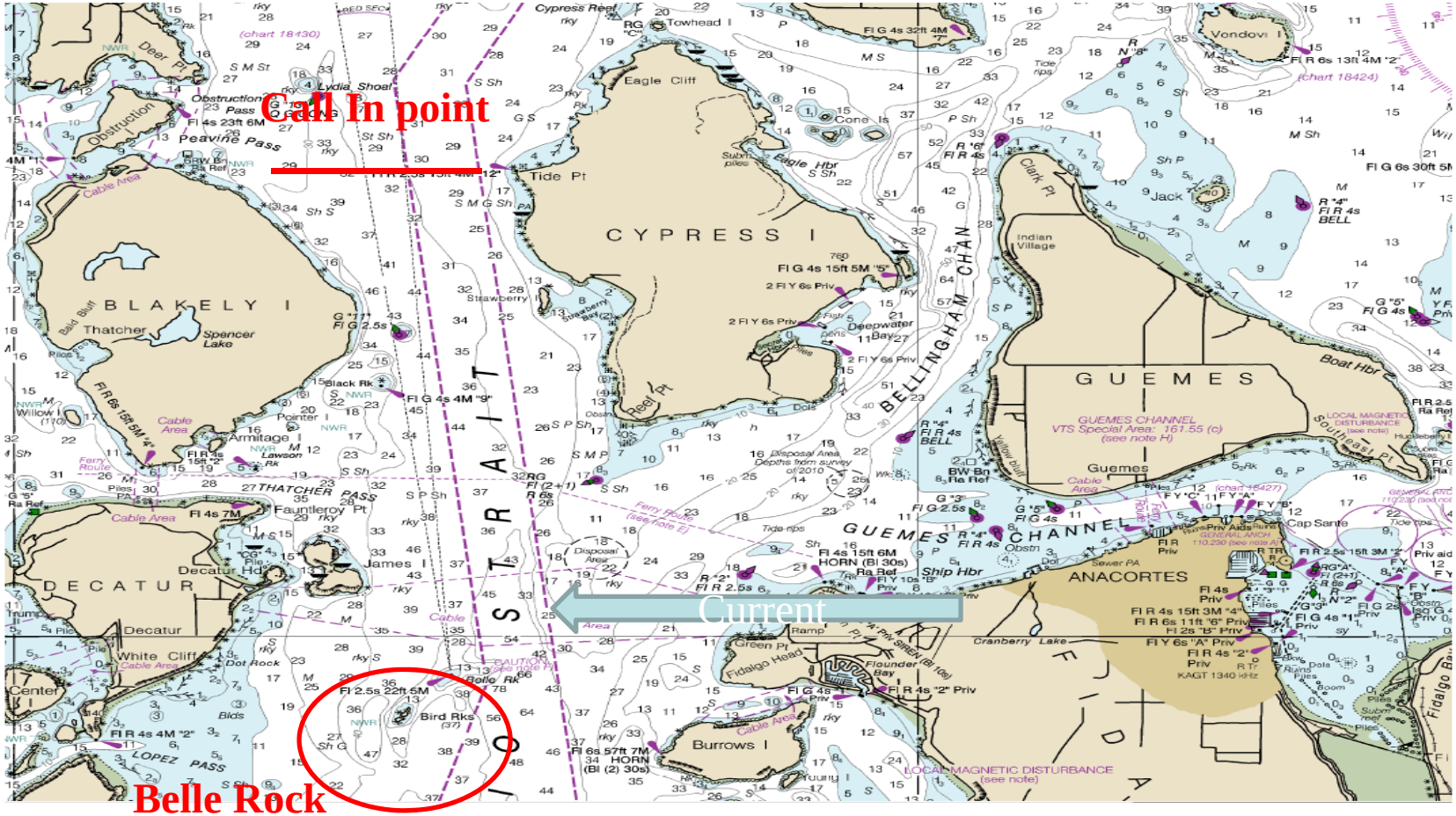
1. A VTS participant, if towing astern, do so with as short a hawser as safety and good seamanship permits.
2. A VTS participant of 100 meters or more in length (LOA) will make best efforts consistent with safety and industry practices:
   a. Not to enter the Turn Point SOA when another VTS participant of 100 meters or more in length is already located within the SOA, unless;
      1. When following astern a minimum .5NM (5 cables) separation is maintained with the vessel ahead, 1-12
      2. When overtaking in the SOA with the concurrence of MCTS Victoria that there is no opposing traffic and a CPA of at least .5NM (5 cables) is maintained,
      3. If outbound from Boundary Pass and meeting an inbound vessel from Haro Strait already in the SOA, enter only after the outbound vessel is past the vector heading of the inbound vessel engaged in the turn and maintain at least a .5NM (5 cables) CPA,
      4. If inbound from Haro Strait and meeting an outbound vessel from Boundary Pass already in the SOA, enter only after the outbound vessel has crossed a bearing line between Turn Point and Arachne Reef and maintain at least a .5NM (5 cables) CPA;
   b. Maintain a distance off of Turn Point of at least .3 NM (3 cables).

   All VTS participants approaching the Turn Point SOA are expected to make safe passing arrangements with other VTS participants at either Monarch Head or Blunden Islet southbound; and Lime Kiln Light (LL222/US19695) or Kellett Bluff Light (LL229/US19720) northbound. These arrangements should be made no later than reaching CIP 6 at Gowlland Point (LL253/US19800) southbound and approximately abeam Danger Shoal Light and Horn Buoy (US19775) northbound.



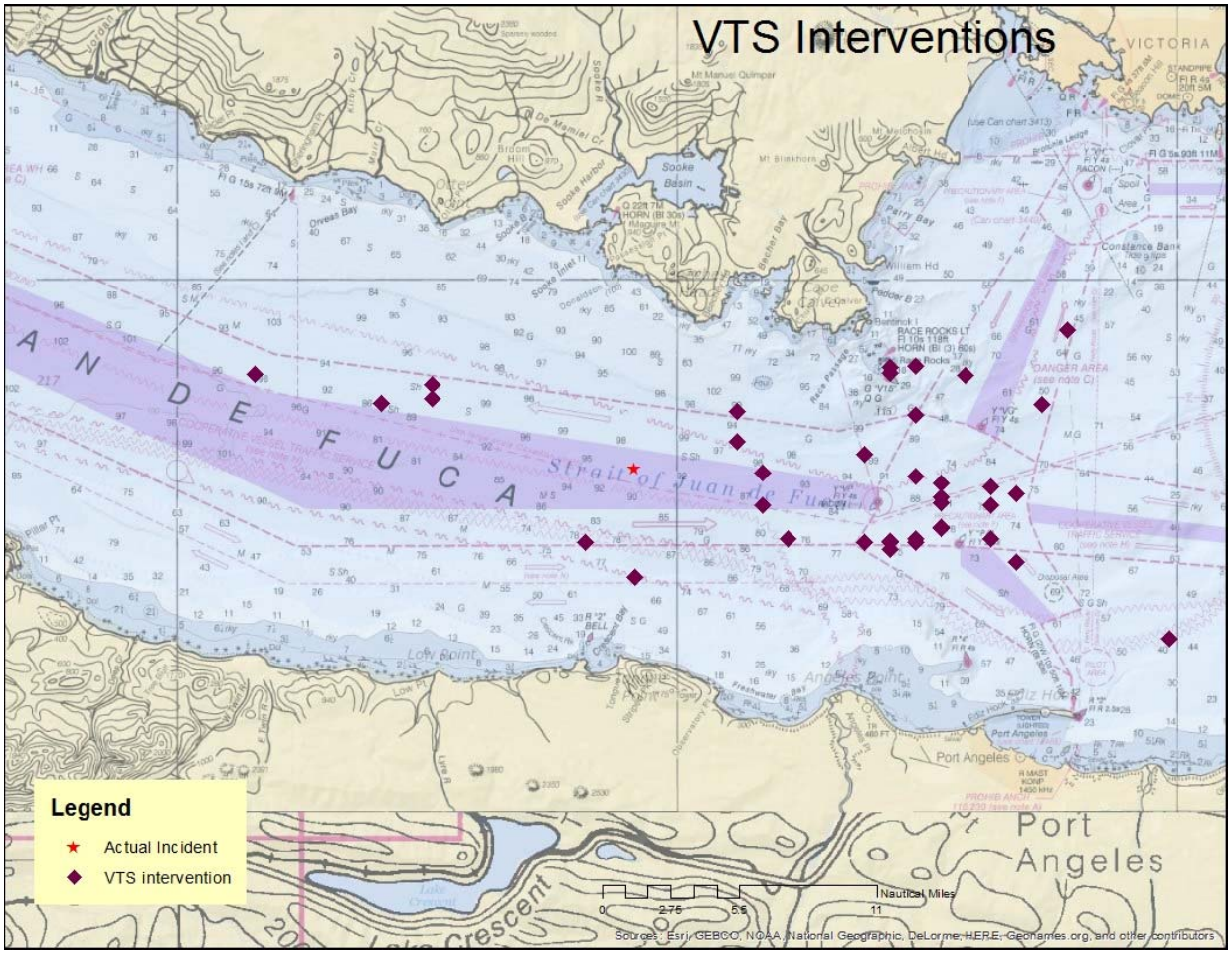
Homeland Security

Rosario Standard of Care



Homeland Security

Port Angeles Precautionary Area



Homeland Security

Puget Sound Harbor Safety Committee

- Local Government
- Labor
- Passenger Vessel Operators
- Tribal
- Pilots
- Tug and Barge
- Petroleum Shippers
- Recreational Boaters
- Public at Large
- Aquaculture
- Public Ports
- Environmental Advocacy
- State Ferry System
- Commercial Fishing

These meetings are open to the public. The upcoming meetings and meeting notes be found at: http://pshsc.org/meetings

Homeland Security

Questions?

Homeland Security

Harbor Safety Plan
Standards of Care

- Standards of Care are the procedures and practices, beyond regulatory requirements, that experienced and prudent maritime professionals follow to ensure safe, secure, efficient and environmentally responsible maritime operations.
- Formalized Standards of Care are “good marine practices” that are developed and published to provide a guide for maritime professionals to consider and incorporate into their decision making process.
- Standards of Care are not regulations and thus not enforceable. In some special circumstances, they may not be the best course of action to take. Alternative procedures may be more appropriate.
- Mariners should be mindful that if they are involved in a maritime incident when not following relevant “Standards of Care” they could be subject to legal action based on a rebuttable presumption of negligence.
- Most recent Standard of Care –Rosario Strait Tug Situational Awareness Standard of Care

Homeland Security