



safe
S E A S

NOAA

Emergency Response PREP Exercise

San Francisco, CA
July & August, 2006

www.safeseas.noaa.gov

Overall goals

- Develop skills in coordination, contingency planning, emergency response and health & safety
- Integrate capabilities for the protection of marine & coastal resources
- Build relationships and foster long-term collaboration to protect the environment

Partner organizations...

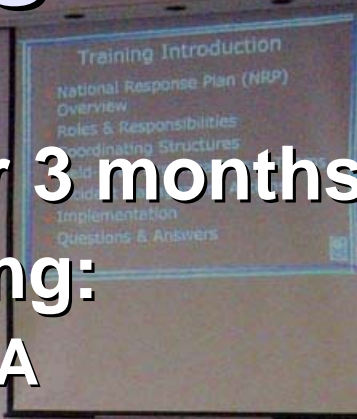
- US Coast Guard
- California's Office of Spill Prevention & Response (OSPR)
- Harley Marine Services
- NOAA
- US Department of the Interior
- California central & Northern Integrated Observing System (CeNCOOS)

Additional partners...

- Oiled Wildlife Care Network
- Farallones Marine Sanctuary Association
- Marine Spill Response Corporation
- Bodega Marine Laboratory
- Alameda County Sheriff's Department
- US Air Force Reserve 910th Air Wing
- See www.safeseas.noaa.gov for more...

Trainings

- 21 sessions conducted over 3 months
- 14 different courses including:
 - ICS, SCAT, HAZWOPER, NRDA
 - Oil spill modeling, overflight observations, environmental tradeoffs
 - Marine debris, wildlife handling & diseases
- Over 45 different instructors/panelists
- Nearly 400 students

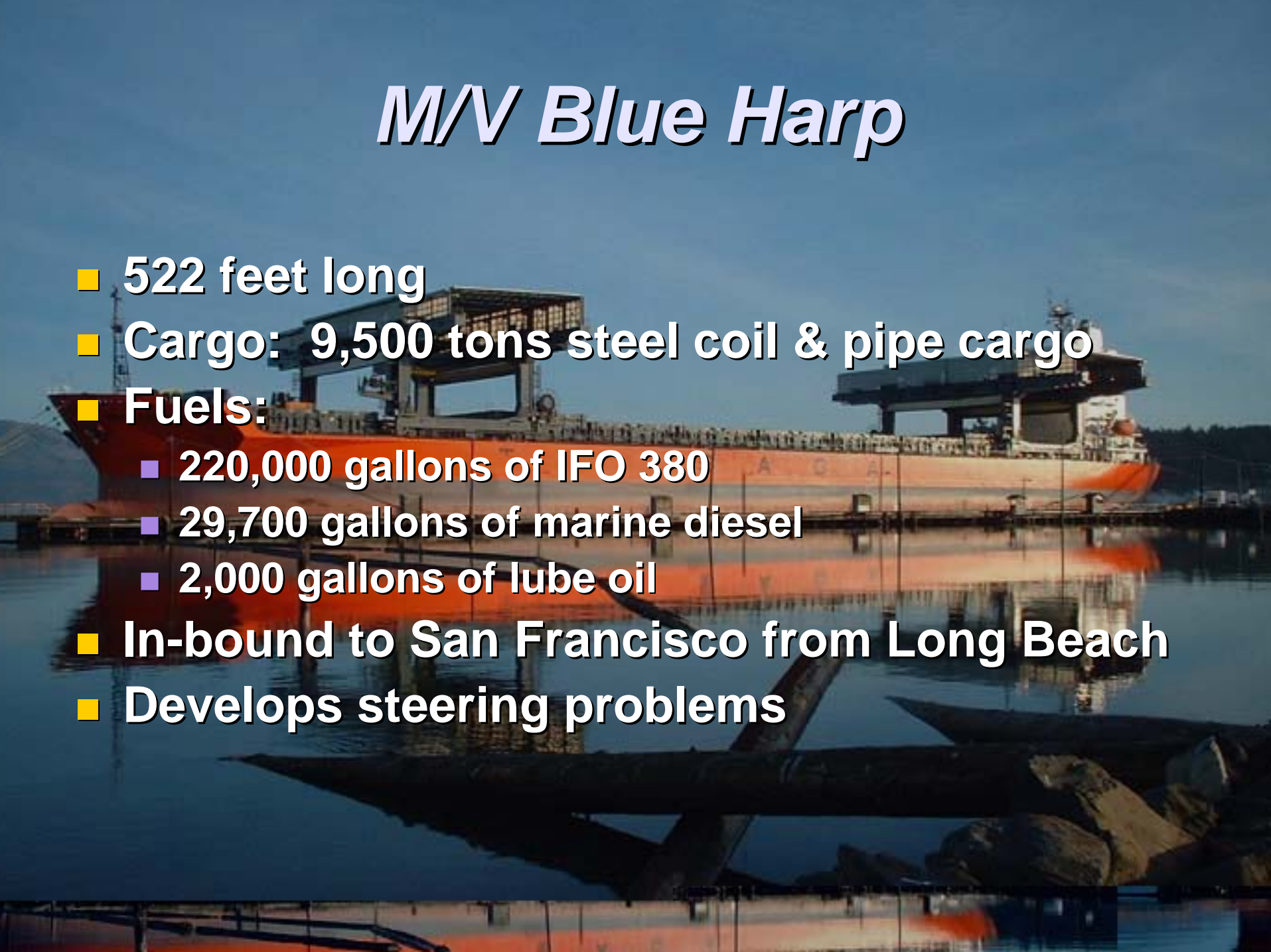


Major exercise elements

- **Conduct vessel assessments & develop:**
 - Salvage, damage control, transit and disposal plans
 - Waterside firefighting requirements
- **Conduct environmental assessments & develop:**
 - Shoreline, wildlife and cultural resource protection plans
 - Dispersant use
 - Place of Safe Refuge
- **Assess conditions, protect sensitive areas & treat spilled oil**
- **Initiate joint Natural Resource Damage Assessment activities with NOAA, DOI, OSPR and the Responsible Parties**

M/V Blue Harp

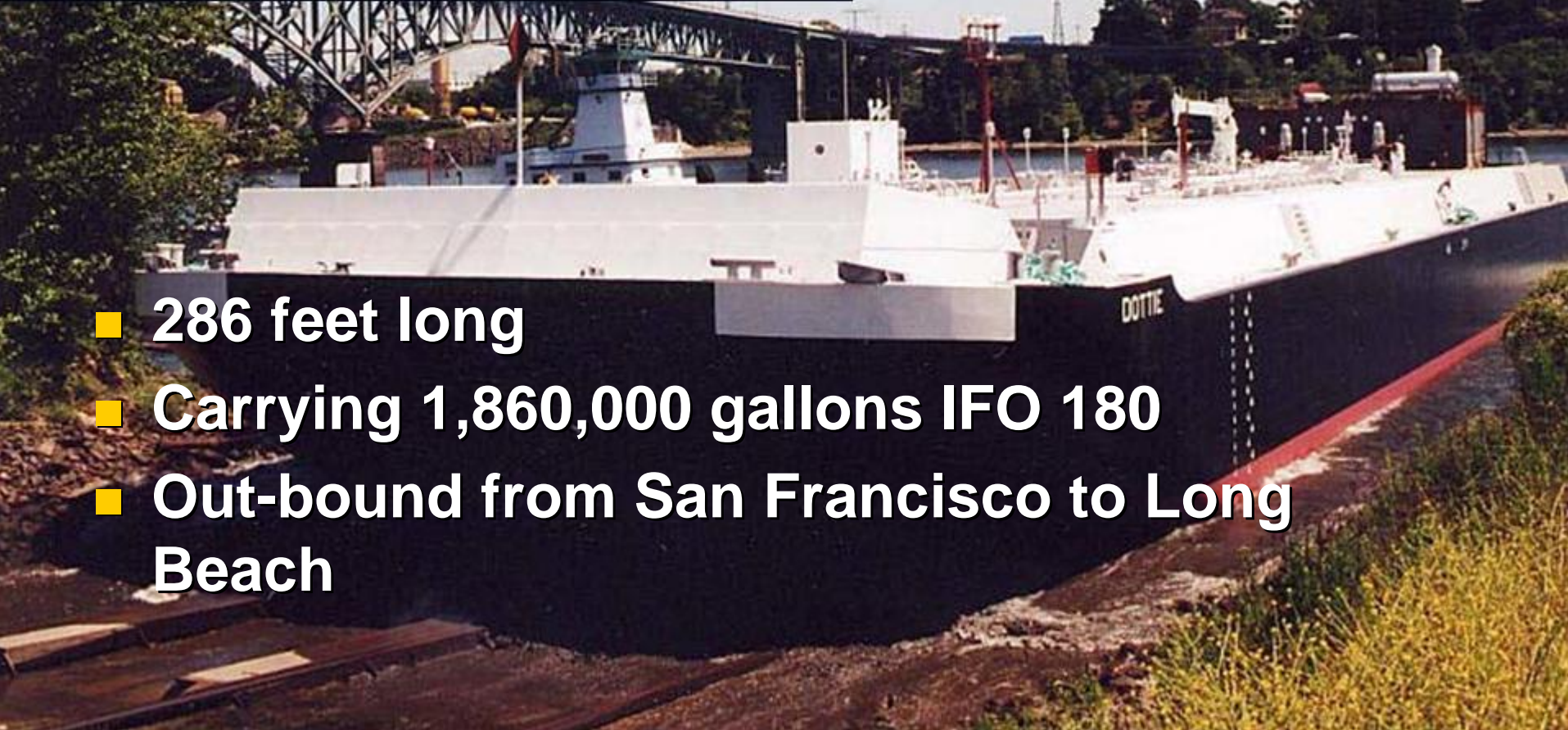
- 522 feet long
- Cargo: 9,500 tons steel coil & pipe cargo
- Fuels:
 - 220,000 gallons of IFO 380
 - 29,700 gallons of marine diesel
 - 2,000 gallons of lube oil
- In-bound to San Francisco from Long Beach
- Develops steering problems



Tug Ernest Campbell & T/B Dottie

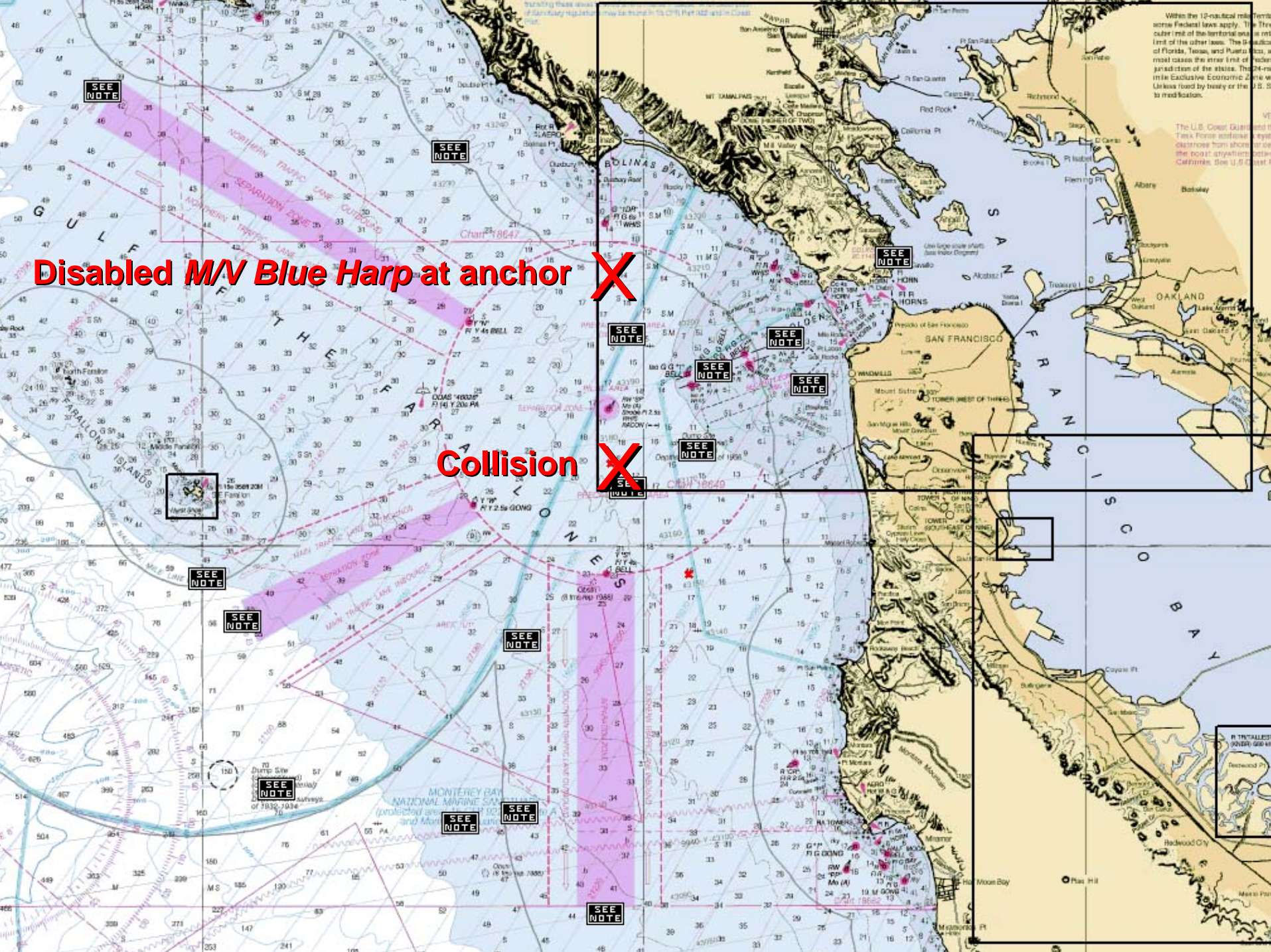


- 286 feet long
- Carrying 1,860,000 gallons IFO 180
- Out-bound from San Francisco to Long Beach



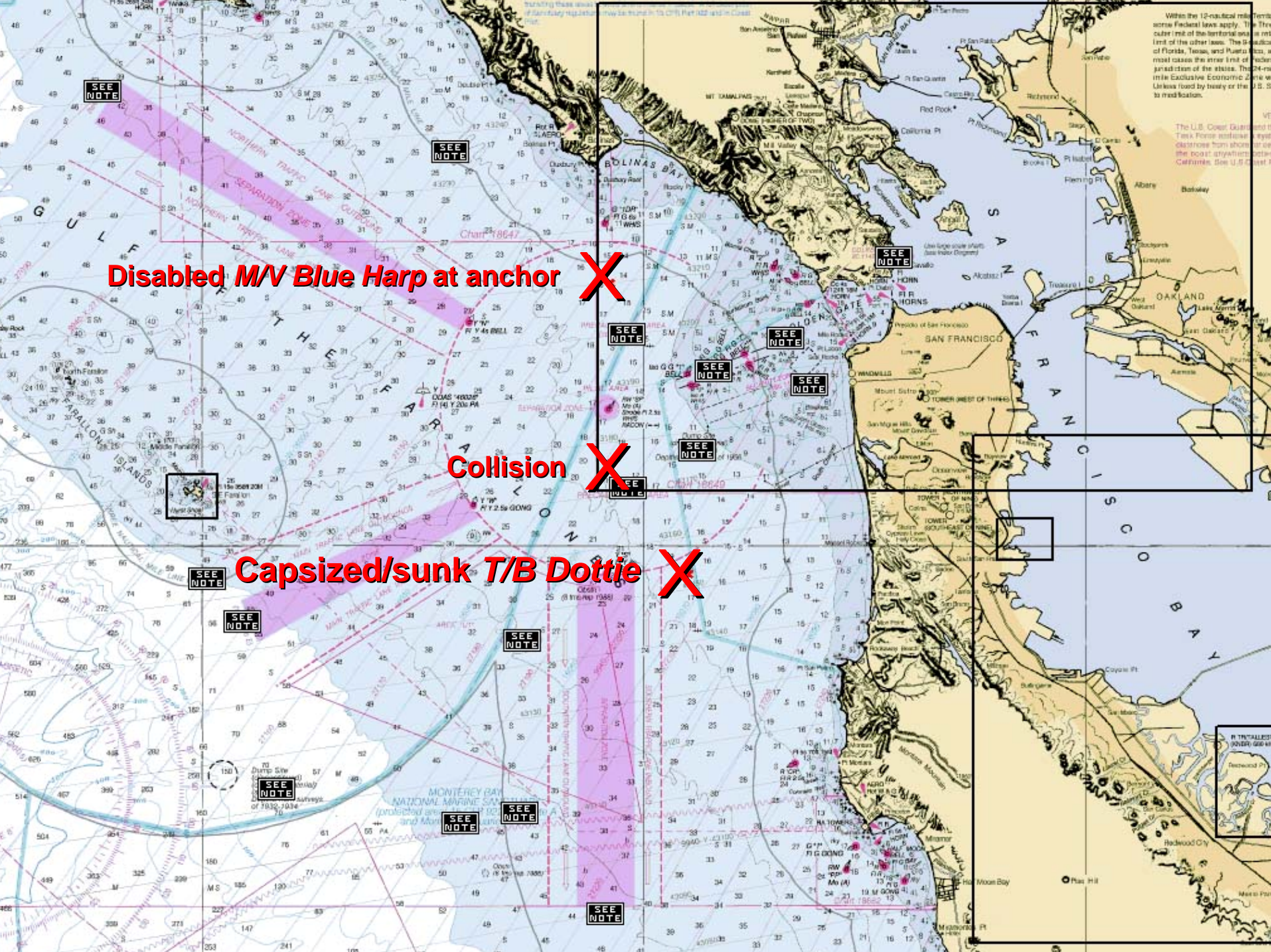
Disabled M/V Blue Harp at anchor X

Collision X



When the 12-nautical mile Territorial Sea is shown, some Federal laws apply. The three outer limit of the territorial sea is in relation to the other laws. The 9-mile limit of Florida, Texas, and Puerto Rico, in most cases the inner limit of Federal jurisdiction of the states. The 24-mile Exclusive Economic Zone is shown unless found by treaty or the U.S. to modification.

The U.S. Coast Guard's Task Force maintains a system of close-to-shore buoyage to assist the coastwise traffic in California. See U.S. Coast



Disabled M/V Blue Harp at anchor X

Collision X

Capsized/sunk T/B Dottie X

When the 12-nautical mile Territorial Sea is overlaid on some Federal laws apply. The three nautical mile limit of the territorial sea is in addition to the other laws. The 9-mile limit of Florida, Texas, and Puerto Rico, in most cases the inner limit of Federal jurisdiction of the states. The 24-mile Exclusive Economic Zone is the U.S. Exclusive Economic Zone. U.S. S. to modification.

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Deployed assets

- Personnel
- Aircraft
- Vessels
- Oceanographic technology





Aircraft





Vessels





Technology

Biodegradable Non-Toxic

DRIFT CARD

August 9, 2006

This drift card is part of an oceanographic current study conducted by the National Oceanic and Atmospheric Administration

Please let us know where you found this card by visiting

www.safeseas.noaa.gov

Your response will provide valuable information to the California National Marine Sanctuaries

Please DO NOT throw this back in the water

Biodegradable Non-Toxic

DRIFT CARD

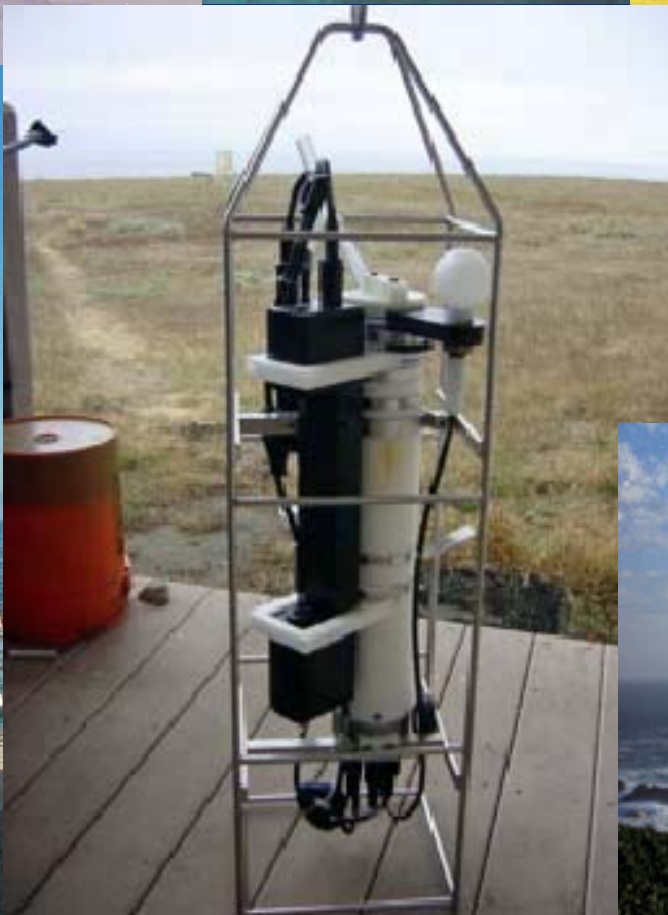
August 9, 2006

Drift cards are important scientific tools used to track ocean currents and pollutants, such as oil and marine debris that may have been released during ship accidents or other marine incidents

NOAA recorded where this card was released, and by reporting the recovery location to www.safeseas.noaa.gov, we can learn more about how these pollutants move through the ocean.



Please DO NOT throw this back in the water



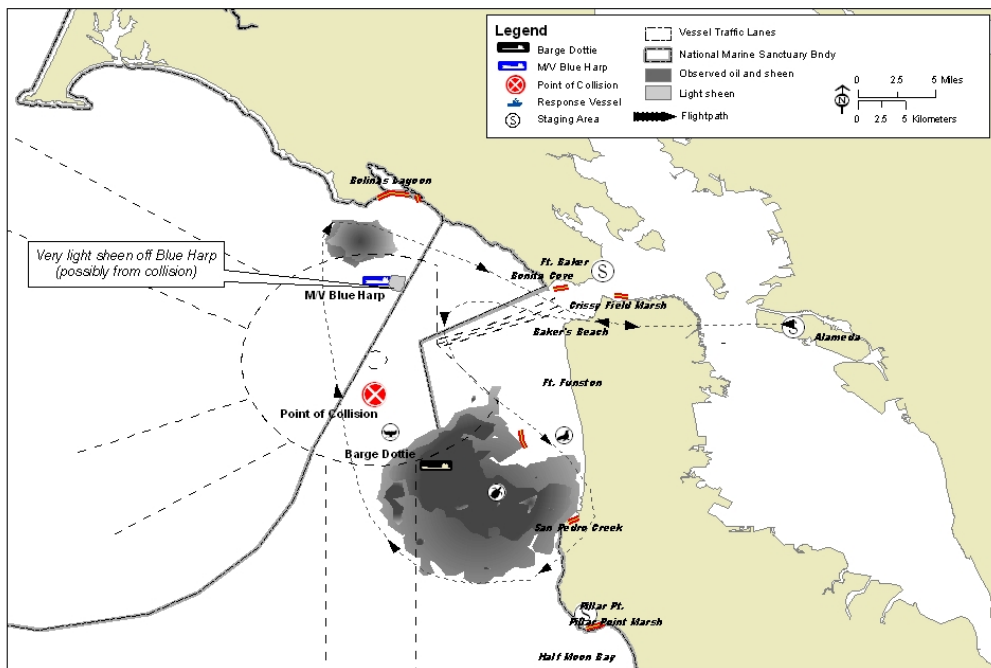
Safe Seas Drill 2006

Overflight Map
prepared by IHOAA

Date/Time: 9 August 2006, 0730
Platform: HH-65
Observer: Jeff Lankford (NOAA)

USE ONLY AS A GENERAL REFERENCE

Graphic does not represent precise amounts or locations of oil



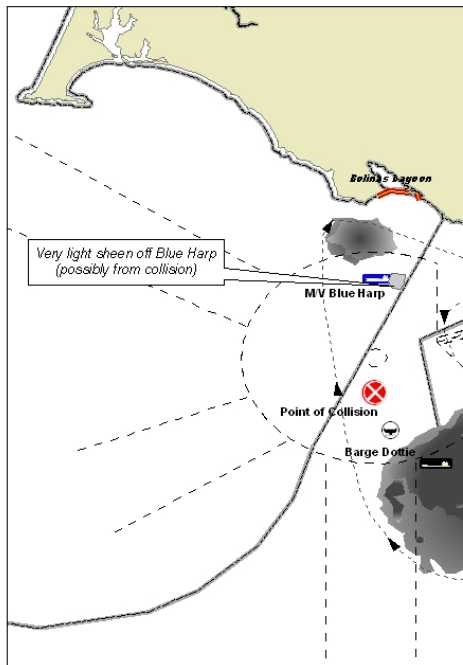
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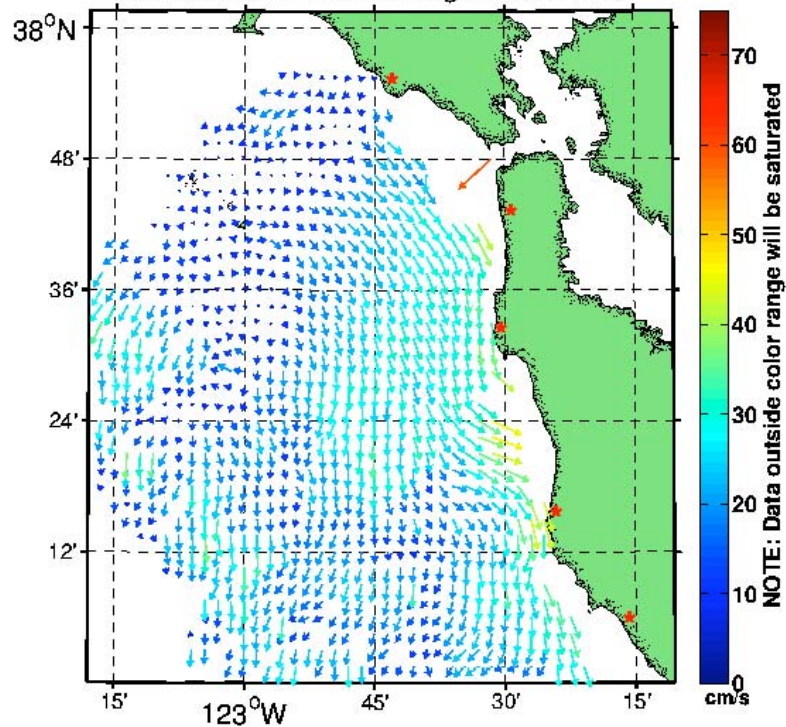
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San Francisco Bay Region OCEAN SURFACE CURRENTS MEASURED BY HIGH FREQUENCY RADAR MEASUREMENT TIME: 08-Aug-2006 23:00 GMT



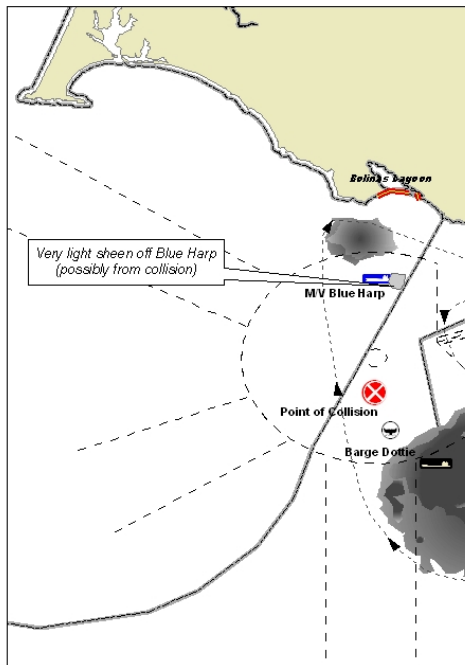
Safe Seas Drill 2006

Overflight Map
prepared by H/OAA

Date/Time: 9 August 2006, 0730
Platform: HH-65
Observer: Jeff Lankford (NOAA)

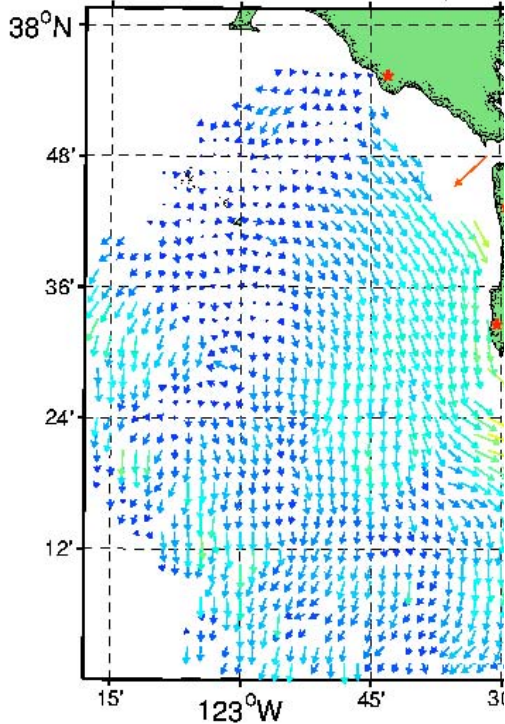
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Legend
 ■ Barge Dottie □ Vessel Traffic Lanes
 ■ MV Blue Harp □ Mutual Media Broadcast Buoy

San Francisco Bay Region OCEAN SURF MEASURED BY HIGH FREQUENCY MEASUREMENT TIME: 08-Aug-2000



Sea Seas ** THIS IS A DRILL ******

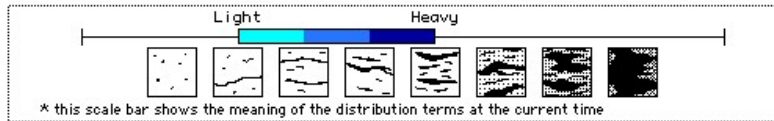
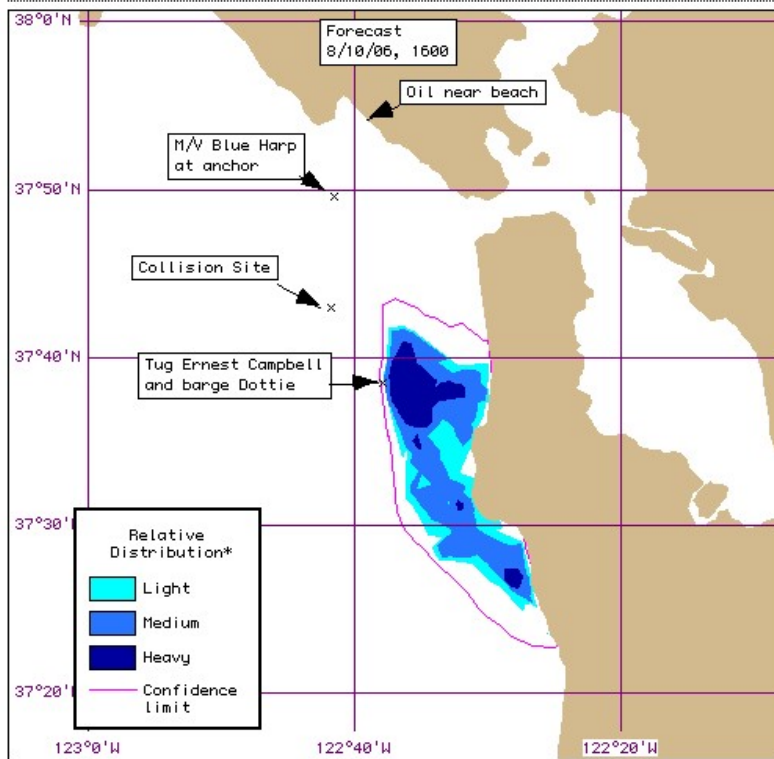
Estimate for: 1500, 8/10/06
Prepared: 0812, 8/10/06

HAZMAT Trajectory Analysis

NOAA/HAZMAT (206) 526-4911



These estimates are based on the latest available information. Please refer to the trajectory analysis briefing and your Scientific Support Coordinator (SSC) for more complete information. This output shows estimated distributions of heavy, light, and medium concentrations as well as an outer confidence line. The confidence line is based on potential errors in the pollutant transport processes.







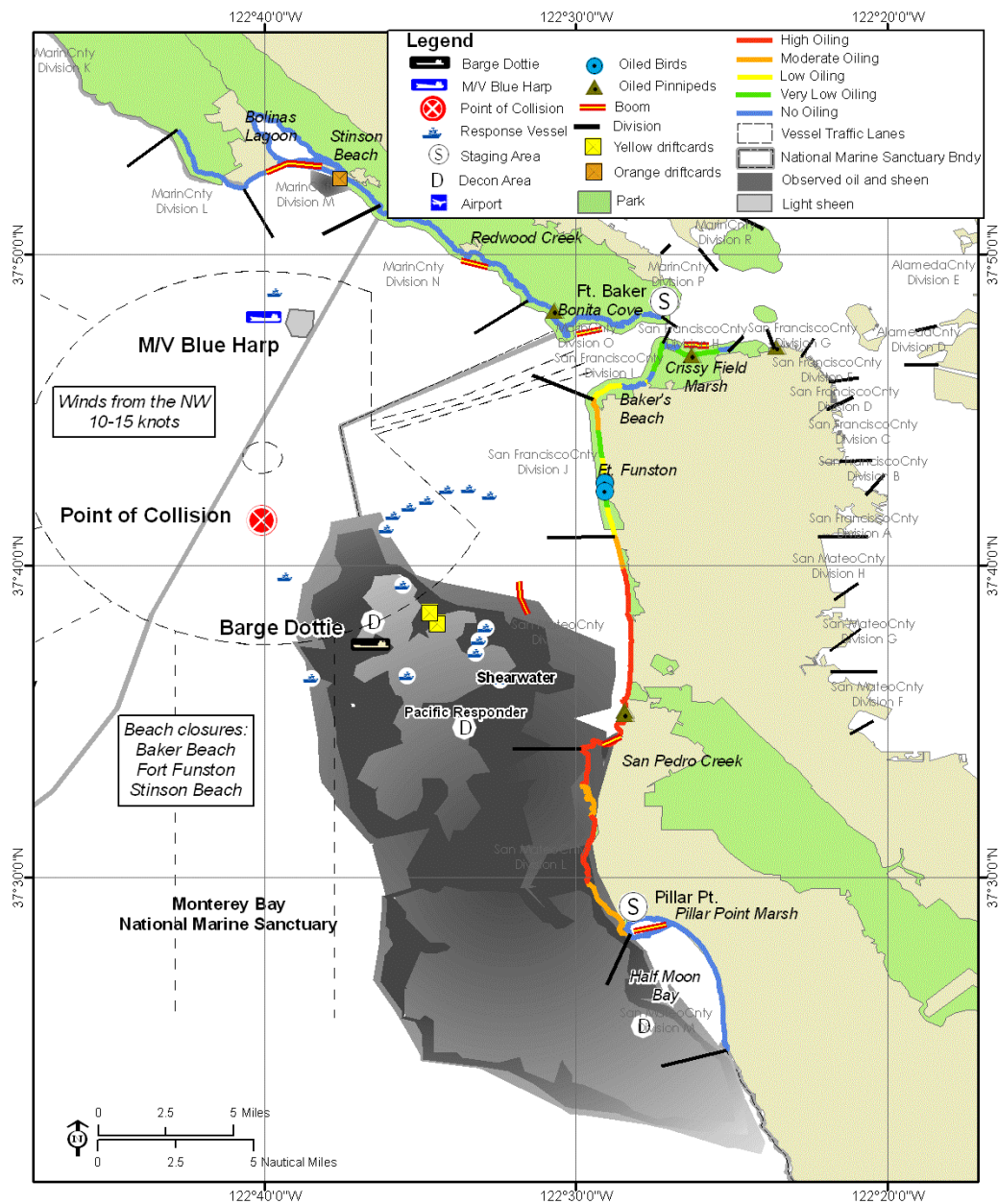
Safe Seas Drill 2006

Situation Map
prepared by NOAA

Date/Time: 10 August 2006, 0830
Platform:
Observers:

USE ONLY AS A GENERAL REFERENCE

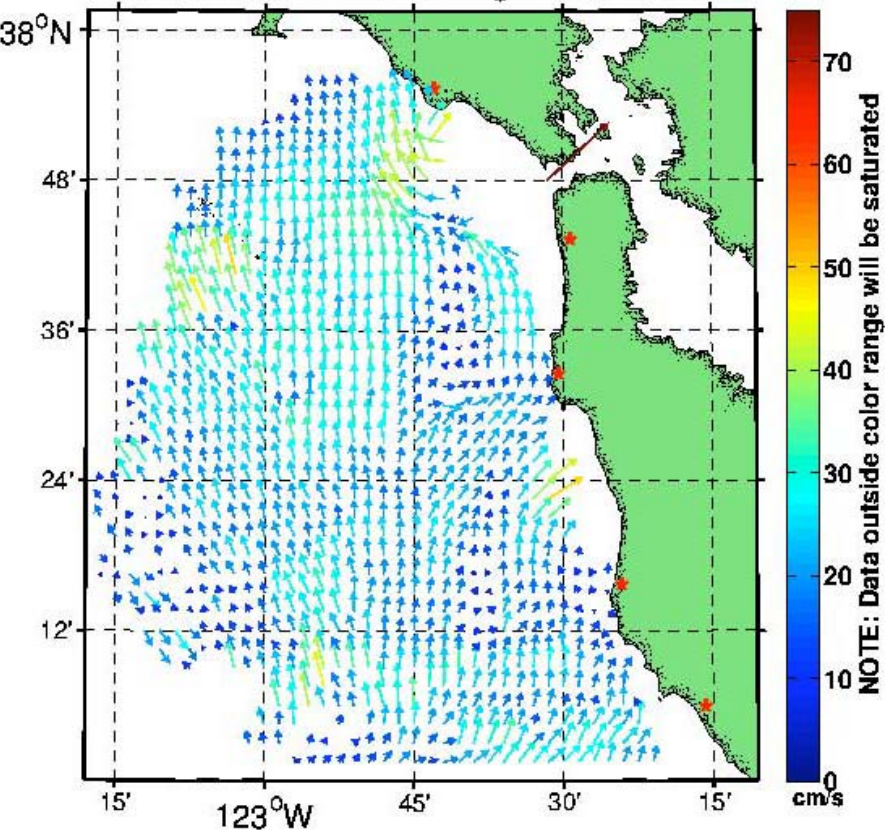
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Continuing observations

Available at <http://www.cencoos.org>

San Francisco Bay Region OCEAN SURFACE CURRENTS
MEASURED BY HIGH FREQUENCY RADAR
MEASUREMENT TIME: 09-Aug-2006 16:00 GMT



Available at <http://www.safeseas.noaa.gov>



Lessons Learned

- Role of resource Trustees in UC needs clarification
- End to End Dispersant planning & Application useful
- pre-drill “Short Courses” Useful
- Need Clarification where Place of Refuge issue is addressed within UC
- NRDA may not function well within SCAT teams, Should be supported separately
- Drill was good opportunity to update Sensitive site strategies

Summary

- More than 400 people from over 40 agencies & organizations
- Varying levels of spill response experience
- Developed skills with pre-drill & in-drill trainings
- Integrated human and technological capabilities
- Built relationships among resource specialists, planners, responders & managers local, regional and national

More information at www.safeseas.noaa.gov



Questions?

