

NAVIGATION WORK GROUP

From: Bruce Horton, Work Group Chair
Subject: Work Group Recommendations on Navigating in Reduced Visibility
Date: March 13, 2008

Introduction

In response to the Cosco Busan oil spill incident, Governor Schwarzenegger directed a state investigation into the causes of and response to the oil spill. The directive outlined a number of issues to ensure “any action necessary to prevent this from ever happening again.” OSPR tasked the Harbor Safety Committee (HSC) of the San Francisco Bay Region to “analyze the navigational safety-related issues of the Governor’s directive and make appropriate recommendations regarding the prevention aspects of the incident.”

The HSC Work Groups addressed the issues raised in the Governor’s directives based on information available, noting that the National Transportation Safety Board (NTSB) report on the cause is not expected to be completed until autumn 2008, and the State Board of Pilot Commissioners Accusation (Case No. 07-01) of the pilot is scheduled for hearing before an Administrative Law Judge beginning September 2, 2008. Other investigations are focused on oil spill response efforts. In this context recommendations should be considered preliminary, as not all evidence is accessible. The Harbor Safety Committee may revisit or address other policy implications as a result of additional investigative findings.

The Navigation Work Group met January 23 and March 4, 2008, to address issues related to navigating San Francisco Bay in inclement weather, specifically, those affecting large vessels transiting during reduced visibility. To advance this effort, the San Francisco Bar Pilots *and* the Coast Guard *developed* Guidelines for Navigating in Reduced Visibility (“Guidelines”), which were reviewed by the Navigation Work Group, which *is part of this* recommendation.

Background

Navigating the San Francisco Bay Region during periods of reduced visibility requires mariners to exercise additional caution and vigilance. The Bay region, consisting of several bays and rivers, is one of the foggiest harbors in the United States. In-Bay distances are long. There is not a single regional climate, but a series of microclimates with variable fog. During summer, 30 to 40 percent of parts of the Bay may experience foggy conditions. In winter, the fog may be denser, originating from a different direction than summer fog.

Role of Reduced Visibility in Cosco Busan Incident

Reduced visibility was a causal factor in the Cosco Busan incident: the State Board of Pilot Commissioners found in its Accusation (Case No. 07-01) that “At the time of departure [from the dock], [the pilot] had reason to doubt whether the ship could proceed

safely and...had insufficient information about the level of visibility along [the] intended route. Under the circumstances, the Cosco Busan's departure from Berth 56 was "contrary to the guidelines in the San Francisco, San Pablo and Suisun Bays Harbor Safety Plan ("HSP"), which provide for various factors to be considered before moving a vessel..." and further provide that "vessels within the Bay at a dock...should not commence movement if visibility is less than .5 nautical miles throughout the intended route, unless the operator's assessment of all variables is that the vessel can proceed safely."

In reviewing the Harbor Safety Plan guidelines quoted above, the Navigation Work Group determined there was a need to clarify and expand on the guidelines because, as was noted, the Bay region is a series of microclimates with variable fog conditions.

Recommended Guidelines for Navigating in Reduced Visibility

Navigating San Francisco Bay during periods of reduced visibility requires mariners to exercise additional caution and vigilance. These guidelines acknowledge that the Bay region is a series of bays and rivers, and that in-Bay distances are long and that there is not a single Bay region climate, but a series of microclimates with variable fog.

These guidelines should be used by the mariner when planning, initiating or navigating a transit in the Bay during periods of reduced visibility. These guidelines acknowledge that **Large Vessels** are not as maneuverable as smaller vessels and therefore define **Large Vessels** as power driven vessels of 1600 gross tons or more, and tugs with petroleum barges of 1600 gross tons or more. Mariners are at all times to comply with the requirement of the International Regulations for Avoiding Collisions at Sea, or COLREGS.

Critical Maneuvering Areas (CMAs): There are areas within the Bay where additional standards of care are required due to the restrictive nature of the channel, proximity of hazards, or the prevalence of adverse currents. **Large vessels** should not transit through CMAs when visibility is less than 0.5 nautical miles.

Locations within the Bay identified as Critical Maneuvering Areas:

Redwood Creek
San Mateo-Hayward Bridge
Oakland Bar Channel*
Islais Creek Channel
Richmond Inner Harbor
Richmond-San Rafael Bridge, East Span
Union Pacific Bridge
New York Slough, up-bound
Rio Vista Lift Bridge

*Note: the Oakland Bar Channel is identified due to cross currents and its proximity to the Bay Bridge and Yerba Buena Island.

Vessels Docked: Large vessels at a dock within the Bay should not commence a movement if visibility is less than 0.5 nautical miles at the dock.

Vessels proceeding to Dock: Large vessels proceeding to a dock should anchor if visibility at the dock is known to be less than 0.5 nautical miles, unless, under all circumstances, proceeding to the dock is the safest option.

Note: Vessel pilots or operators should notify VTS upon determination that a scheduled movement will be delayed or cancelled. If underway, they shall make a sailing plan deviation report per VTS regulations.

Navigation Work Group Recommendations to the Harbor Safety Committee:

1. The Work Group recommends that the “Guidelines for Navigating in Reduced Visibility” developed by the San Francisco Bar Pilots and the Coast Guard be adopted as “Best Maritime Practices for Large Vessels” and that the guidelines be incorporated into the San Francisco Bar Pilots’ Operations Guidelines as well as their Tide Book, the Coast Guard Vessel Traffic Service (VTS) Training Manual, NOAA’s Coast Pilot, and the San Francisco Harbor Safety Plan.

The Navigation Work group concluded the proposed guidelines would increase safe navigation in San Francisco Bay, and thereby respond in part to the Governor’s directive to analyze navigational safety-related issues of the Cosco Busan incident and make appropriate recommendations regarding the prevention of future incidents.

2. The Work Group recommends the Harbor Safety Committee consider *drafting* guidelines for navigating in reduced visibility for vessels less than 1600 gross tons, *to include* tugs with petroleum barges of less than 1600 gross tons, *commercial fishing vessels*, and for passenger *commute* ferries.

3. The Work Group recommends the Harbor Safety Committee review Guidelines for Navigating in Reduced Visibility within one year of adoption.

4. The Work Group recommends that the Harbor Safety Committee address issues surrounding capacity and management of Coast Guard designated anchorages in San Francisco Bay.