Harbor Safety Committee
of the San Francisco Bay Region

Mandated by the California Oil Spill Prevention and Response Act of 1990

Harbor Safety Committee of the San Francisco Bay Region
Thursday, May 8, 2008
Pier 1 Conference Center, Port of San Francisco, San Francisco, California

Joan Lundstrom, Chair of the Harbor Safety Committee of the San Francisco Bay Region (HSC), Bay Area Conservation and Development Commission (BCDC); called the meeting to order at 1005. **Alan Steinbrugge**, Marine Exchange of the San Francisco Bay Region (Marine Exchange), confirmed a quorum of the HSC.

The following committee members (M) and alternates (A) were in attendance: **Capt. Esam Amso** (A), Valero Marketing and Supply Company; **Capt. Marc Bayer** (M), Tesoro Refining & Marketing Company; **John Berge** (M), Pacific Merchant Shipping Association, (PMSA; **Margot Brown** (M), National Boating Federation; **Len Cardoza** (M), Port of Oakland; **Ron Chamberlain** (M), Port of Benicia; **Capt. John Cronin** (M), Matson Navigation Company; **John Davey** (A); Port of San Francisco; **Capt. Fred Henning** (M), Baydelta Maritime; **Capt. Bruce Horton** (M), San Francisco Bar Pilots (Bar Pilots); **Robert J. Lawrence** (M), U.S. Army Corps of Engineers (COE); **Capt. Peter McIsacc** (A), Bar Pilots; **Richard Nagasaki** (M), Chevron Shipping Company; **William Nickson** (A), Transmarine Navigation Corporation; **Linda Scourtis** (A), BCDC; **Keith Stahnke** (A), San Francisco Bay Area Water Transit Authority (WTA); **Capt. David J. Swatland** (M), United States Coast Guard (USCG); **Tom Wilson** (M), Port of Richmond.

Also present and reporting to the HSC were **Bob Chedsey**, California State Lands Commission (State Lands); **Col. Craig Kiley**, COE; **Capt. Lynn Korwatch**, Marine Exchange; **Lt. Anthony Paopoa**, USCG; **Dave Reynolds**, National Weather Service (NWS); **Capt. Gary Toledo**, California Office of Spill Prevention and Response, (OSPR).

The meetings are always open to the public.

Approval of the Minutes

There were corrections to the minutes of the meeting of April 10, 2008:

On page one, the first sentence of the last paragraph should read: "**Lundstrom** said that **Kathy Hoffman**, Field Representative for **Congressman George Miller**…"

On page three, in the first sentence of the second paragraph, correct the spelling of **Warner Chabot's** name.

On page four, the first sentence of the second paragraph should read: "Lundstrom said that the timely reporting of harbor depth is a long standing HSC issue."

On page four, in the first paragraph under the briefing on fendering, the first sentence should read: "…by deep draft vessels and tugs with tows."

On page four, correct the last sentence of the last paragraph to read: "…coming from The American Association of State Highway and Transportation Officials (AASHTO).

On page five, the last sentence of the fourth paragraph should read "that bridge designers need to include the impact of damage to the ship as part of the analysis, as well as consider all of the non-technical approaches …"

On page six, the fifth and sixth sentences of the Plan Update Work Group report, should read: "**Lundstrom** said that a proposal in the U.S. Senate, S.2430, would give Coast Guard Vessel Traffic Services (VTS) additional authority over vessels. She said that since the HSC has recommended that VTS's need no additional authority, a letter stating that position would be drafted and sent."

Comments by the Chair – Lundstrom

- The Bay Area would be well represented at the next National Harbor Safety Conference in Seattle. Those planning to attend were **Lundstrom**, **Brown**, **Capt. Horton**, **Sean Kelley**, VTS; **Capt. Korwatch**, **Steinbrugge**, and **Gerry Wheaton**, National Oceanographic and Atmospheric Administration (NOAA).
- **Scourtis** had prepared an update on the progress of investigations and legislation in the wake of the *COSCO Busan* allision. It is attached to these minutes.
- A letter describing the HSC's recommendations on fendering has been sent to the California Department of Transportation (CalTrans), as was discussed at the April meeting. **Lundstrom** thanked the staff of the Coast Guard's Waterways Management Branch for providing fifteen years worth of data on bridge allisions.
- A letter describing the HSC's opposition to additional authority for VTS had been sent to Diane Feinstein and Barbara Boxer, California Senators, and to Nancy Pelosi, Speaker of the House, and Representative from California's eighth district The bill is S.2430, and the letter had been discussed at the March meeting of the HSC.
- The Festival of Sail is looking for volunteers for this tall ships event to be held in July 2008. Contact information can be found at: http://www.festivalofsail.org/contact.asp.

Coast Guard Report – Capt. Swatland

- Thanked the HSC for its letter in opposition to S.2430. The Coast Guard believes that it has sufficient authority under existing statutes and regulations.
- The roll-out for the Transportation Worker Identity Card (TWIC) program has been rescheduled for April 2009. Two registration centers are open in Oakland and two new registration centers would be opened in San Francisco by the end of May. Coast Guard had recently met with representatives from the Transportation Security Administration (TSA) and Lockheed Martin, the contractor. TSA and Lockheed

Martin were able to answer some questions, but not all. **Capt. Swatland** expressed the opinion that the program is still not running smoothly.

Lt. Paopao read from a report attached to these minutes.

Capt. Horton asked if the Coast Guard could report on two draw-bridge incidents that he had hear of. **Dave Sulouff**, Chief of Bridge Section for USCG Eleventh District, said that there had been two recent incidents. One had occurred at the Rio Vista drawbridge and the other was at the Benicia-Martinez Railroad Drawbridge. **Sulouff** could not comment in detail, since both incidents were still under investigation. Sulouff said that Union Pacific had signed a letter of intent to install a Physical Oceanographic Real Time System (PORTS) wind sensor on the bridge. He said that it could be installed as early as the end of May.

Capt. Horton thanked the Coast Guard for their assistance with the *Cielo Di Parigi*. On her arrival on May 1 she was found to have mechanical problems. The agent wanted the vessel to go to the dock but the Coast Guard directed her to Anchorage 9, where she was still undergoing repairs at the time of the HSC meeting.

Clearinghouse Report – Steinbrugge

Steinbrugge read from a report that is attached to these minutes.

OSPR Report – Capt. Toledo

- There would be a session on best practices at the National Harbor Safety Conference.
- OSPR was investigating two cases of failing to notify the clearing house of an escorted move.
- **Capt. Pete Bonebakker** resigned his membership on the HSC due to changing responsibilities at his place of employment. **Capt. Toledo** thanked **Capt. Bonebakker** for his years of service to the HSC. **Capt. Nagasaki** was appointed to represent tanker operators and there was now an opening for an alternate representative. **Michael McMillan**, the alternate representative for the Port of Oakland, was resigning his position on the HSC due to retirement. **Capt. Toledo** announced that **Berge** had been appointed to OSPR's technical advisory committee. **Berge** and **Capt. Nagasaki** were sworn into their new roles by **Capt. Toledo**.

Lundstrom thanked **McMillan** and **Capt. Bonebakker** for their service to the HSC.

NOAA Report – Reynolds, NWS

- Six or seven new pages of material about Bay Area micro-climates have been included in the new edition of *Coast Pilot 7*. The new material mainly has to do with wind and fog patterns in the microclimates through the changing seasons. He said that while the summer fog in the central bay may get the most attention, winter tule fog in the delta may be more serious.
- Small boat advisories have been modified due to feedback from stakeholders.

- NWS is in the process of creating a new product called marine weather watches. Testing was scheduled to begin June 1, 2008, with implementation scheduled for early August. **Reynolds** said that there was plenty of time for interested parties to provide feedback. He can be reached care of david.reynolds@noaa.gov.

Lundstrom thanked **Reynolds** for the update. She said that it would be useful to include weather data in the HSC's report to the Governor on the *COSCO Busan* allision. **Reynolds** said they could help. He added that NWS was working on providing dense fog advisories eighteen to twenty-four hours in advance.

US Army Corp of Engineers (COE) Report – Lawrence

Lawrence read from a report that is attached to these minutes.

Amso asked if there was a schedule to deploy the hopper dredge to Pinole Shoals. **Lawrence** said that there was no schedule for dredging Pinole Shoals. He said that they may have to contract a clamshell dredge since the hopper dredges are dedicated to the main ship channel.

San Francisco Corps of Engineers Briefing – Col. Kiley

- **Col Kiley** said that he was in attendance in response to a letter from the HSC, dated April 25, 2008. He identified three areas of concern to the HSC.
- 1. Timely reporting of survey depths: **Col. Kiley** said that maintaining and reporting survey depths were primary missions of the COE, but they don't have access to unlimited funds to fulfill their mission. He admitted that 2007 was not a banner year for the COE. **Col. Kiley** distributed a handout that shows that response is on the upswing in 2008. That handout is attached to these minutes. In addition to improving internal staff processes, the COE is looking forward to receiving new equipment in late summer, with more online for summer 2009.
- 2. Quarterly surveys: Once again the problem is funding. Col. Kiley said that costs are going up while funding remains flat.
- 3. A written protocol from the COE to the HSC describing depth reporting procedures: This is a complicated issue that will require time for the COE to respond to. For one thing, the COE has no standard procedure for dealing with such requests. There are budgetary constraints to this process as well. **Col. Kiley** said that it is not unknown for outside groups to fund specialists within the COE. He said that the COE was willing to explore a memorandum of understanding with the HSC.
- **Col. Kiley** went on to say that they continue to lose staff to overseas commitments.
- A Channel acceptance handout is attached to these minutes. The latest version was supposed to be available at this web site: ftp://ftp.usace.army.mil/pub/spn/Harbor_Safety_Committee.

Capt. Horton described problems experienced by users attempting to download information from the local COE website. **Col. Kiley** said that there was no local control over information technology anymore; all of the data servers are in Portland, Oregon.

Lundstrom said that the HSC will continue to be concerned about timely reporting of channel depths. She said that the HSC is concerned that internal reporting goals are lost with every change in command. The HSC is interested to know if the next commander of the local office will be responding to the same goals or starting from scratch. **Lundstrom** asked for additional work group level meetings between the COE, Coast Guard, and HSC representatives.

Lundstrom said that the HSC has a history of supporting COE funding, and appropriate disbursements from the Harbor Maintenance Trust Fund. She encouraged the COE to keep the HSC informed at appropriate occasions in the funding cycle. **Cardoza** said that he felt the lobbying efforts of the American Association of Port Authorities and the California Marine Affairs and Navigation Conference were making progress.

State Lands Commission Report – Chedsey

Chedsey read from a report that is attached to these minutes.

Capt. Korwatch asked if the recent chemical spill in Richmond came under State Land's jurisdiction. **Chedsey** said that since it was not at a marine terminal it was not their jurisdiction. Capt. Swatland said that the Coast Guard and OSPR were assisting investigations by county and local law enforcement agencies.

Tug Escort Work Group – Capt. Henning

- Best practices are on the agenda for their next meeting.

Navigation Work Group – Capt. Horton

- The last meeting of the work group on April 18 was well attended. The subjects were speed restrictions in reduced visibility and crew staffing. The issues were addressed in response to the directives issued by the Governor after the *COSCO Busan* allision. The recommendations of the workgroup are attached to these minutes.
- The next item on their agenda is to look into navigational tools and technology. They will be working with the State Board of Pilot Commissioners on that.
- Capt. Horton summarized the work group's recommendations on speed restrictions in reduced visibility.

Lundstrom asked for comments on the recommendations for speed restriction in reduced visibility. There were no comments or questions. **Lundstrom** called for a motion to accept the recommendations. The motion was made and seconded. The motion passed without abstention or dissent.

Berge said that the California Air Resources Board (CARB) was discussing speed regulations and asked that the HSC forward a copy of their recommendations to CARB. **Lundstrom** said that would happen.

- **Capt. Horton** summarized the work group's recommendations on crew staffing that are attached to these minutes.

Capt. Henning asked those in attendance to appreciate the amount of research conducted by **Capt. Horton** and **Lt. Cmdr. Kevin Mohr**, Coast Guard. **Capt. Henning** said that they had conducted an exhaustive examination of the applicable regulations and included their findings in the documentation of recommendations on speed restrictions and crew staffing.

Lundstrom asked for comments on the recommendations for crew staffing. There were no comments or questions. **Lundstrom** called for a motion to accept the recommendations. The motion was made and seconded. The motion passed without abstention or dissent.

Ferry Operations Work Group –- Davey

- **Davey** thanked those that had worked on the issue of ferry routing protocols over the past several years. **Davey** said that all stakeholders had actively participated in the process and agreed to the ferry routing protocols.

Lundstrom said that over the duration of this project **Wheaton** had made NOAA cooperation dependent on unanimous consent among stakeholders. **Davey** said that that all stakeholders had actively participated in the process. **Davey** said that all ferry industry stakeholders trusted **Stahnke** to represent their views with his vote.

Lundstrom called for a motion to accept the recommendations. The motion was made and seconded. The motion passed without abstention or dissent.

Lundstrom said that the new ferry routing protocols would be passed on to the prevention through people work group to coordinate education of recreational boaters.

Prevention Though People Work Group – Brown

- There was nothing to report..

PORTS Work Group – Capt. Bayer

- There was nothing to report.

Plan Work Group – Scourtis

- **OSPR** has granted extra time to complete this requirement to update the Harbor Safety Plan**.**

PORTS Report – Steinbrugge

- The Richmond buoy current sensor is presently planned to be installed in June or July.

Public Comment

Capt. Korwatch introduced the consultants that are working with the Marine Exchange on the current round of grants from the Federal Emergency Management Agency. She said that they would be attending the Marine Exchange's annual May Day party held later that day.

Old Business

There was no old business.

New Business

There was no new business.

Next Meeting

Steinbrugge said that the next meeting would convene at 1000, June 12, 2008, at the Port of Oakland.

Adjournment

A motion to adjourn was made and seconded. It passed without discussion or dissent. **Lundstrom** adjourned the meeting adjourned at 1133.

Respectfully submitted,

Captain Lynn Korwatch
Executive Secretary

USCG SECTOR SAN FRANCISCO

PREVENTION / RESPONSE - SAN FRANCISCO HARBOR SAFETY STATISTICS

April-08

PORT SAFETY CATEGORIES	TOTAL
Total Port Safety (PS) Cases opened for the period:	**8**
1. Total Number of Port State Control Detentions for period:	**0**
SOLAS (0), MARPOL (0), ISM (0), ISPS (0	
2. Total Number of COTP Orders for the period:	**0**
Navigation Safety (0), Port Safety & Security (0), ANOA (0)	
3. Marine Casualties (reportable CG 2692) within SF Bay: Allison (1), Collision (1), Fire (0),	**3**
Grounding (0), Sinking (0), Steering (0), Propulsion (0), Personnel (1), Other (0)	
4. Total Number of (routine) Navigation Safety related issues / Letters of Deviation	**5**
Radar (4), Steering (0), Gyro (1), Echo sounder (0), AIS (0), AIS-835 ((	
5. Reported or Verified "Rule 9" or other Navigational Rule Violations within SF Bay	**0**
6. Significant Waterway events or Navigation related cases for the period:	**0**
7. Maritime Safety Information Bulletins (MSIBs): MSIB 06-05	**0**

MARINE POLLUTION RESPONSE	TOTAL
Total Oil/Hazmat Pollution Incidents within San Francisco Bay for Period	**39**
*** Source Identification (Discharges and potential Discharges):**	
TOTAL VESSELS	**5**
Commercial Vessels	**2**
Public Vessels (Military)	**0**
Commercial Fishing Vessels	**0**
Recreational Vessels	**3**
TOTAL FACILITIES	**11**
Regulated Waterfront Facilities	**1**
Other Land Sources	**10**
UNKNOWN/UNCONFIRMED	**23**
***Spill Information**	
Pollution Cases Requiring Clean-up	**3**
Federally Funded Cases	**0**
Oil Discharge and Hazardous Materials Release Volumes by Spill Size Category:	
1. Spills < 10 gallons	**7**
2. Spills 10 - 100 gallons	**1**
3. Spills 100 - 1000 gallons	**0**
4. Spills > 1000 gallons	**0**
5. Spills - Unknown	**30**
Total Oil Discharge and/or Hazardous Material release volumes:	**67**
1. Estimated spill amount from Commercial Vessels:	**1**
2. Estimated spill amount from Public Vessels:	**0**
3. Estimated spill amount from Commercial Fishing Vessels:	**0**
4. Estimated spill amount from Recreational Vessels:	**0**
5. Estimated spill amount from Regulated Waterfront Facilities:	**1**
6. Estimated spill amount from Other Land Sources:	**63**
7. Estimated spill amount from Unknown sources:	**2**
Penalty Action:	
Civil Penalty Cases for Period	**0**
Notice of Violations (TKs)	**3**
Letters of Warning	**3**

** SIGNIFICANT PORT SAFETY & SECURITY (PSS) CASES **	
* A. MARINE CASUALTIES - PROPULSION / STEERING	
None.	
* B. MARINE CASUALTIES - VESSEL SAFETY CONDITIONS	
Marine Casualty - Crewmember Injury, Tug EL LOBO GRANDE II (7 Apr): While the vessel was undergoing an anchoring evolution at Anchorage 22 enroute to Benicia, a crewmember had crossed under a wire and then stood up too fast, causing the wire to strike him in the face. Crewmember incurred a lacerated lip and a chipped tooth. The member was transported to a local hospital in Benicia for medical attention where the he was found fit for full duty.	
Marine Casualty - Collision, Tug PETALUMA (14 Apr): While pushing the sand barge LEEANNE JOAN, the tug PETALUMA collided with a moored 34' fishing vessel at Haystack Landing in the Petaluma River. The tug was unable to complete it's turn prior to mooring. Upon realizing that the barge was not coming around the Master backed down to stop momentum, but still made contact with the moored fishing vessel. The fishing vessel sustained a 3 foot hole in the portside amidships. The tug's company immediately pulled the damaged fishing vessel out of the water and assumed all responsibility. There was no pollution or injuries, and the tug was issued a letter of warning.	
Allision - M/V OSKI with the Pier 39 Sea Lion Dock (25 Apr): The M/V OSKI allided with a protruding piece of wood at the Pier 39 Sea Lion Dock breaking one of it's port side windows. The OSKI was attempting to avoid collision with a 30 foot recreational vessel that was blocking the entrance, in a restricted area, when high winds pushed the OSKI into the Sea Lion Dock. The OSKI moored safely and immediately secured operations until the window the was properly repaired. There was no other damage to the vessel and there were no injuries. The Coast Guard attempted to locate the recreational vessel after the incident, but was unsuccessful.	
* C. COAST GUARD - GENERAL SAFETY/SECURITY CASES	
None.	
* D. COAST GUARD - NAVIGATIONAL SAFETY	
Navigation Safety - M/V MAERSK BUFFALO (1 Apr): Vessel reported an inoperable 10 cm, s-band radar and was issued an inbound LOD while transiting to the Port of San Francisco. On 3 Apr, the repairs were made and the vessel was allowed to depart.	
Navigation Safety - M/V SEA LAND LIGHTNING (2 Apr): Vessel reported an inoperable 10 cm, s-band radar and was issued an inbound LOD while transiting to the Port of Oakland. On 4 Apr, the repairs were made and the vessel was allowed to depart.	
Navigation Safety - M/V YI CHANG HAI (15 Apr): Vessel reported an inoperable gyrocompass and was issued an inbound LOD while transiting to the Port of San Francisco. On 28 Apr, the repairs were made and the vessel was allowed to depart.	
Navigation Safety - M/V SANTA MONICA (18 Apr): Vessel reported an inoperable 10 cm, s-band radar and was issued an inbound LOD while transiting to the Port of Oakland. On 19 Apr, the repairs were made and the vessel was allowed to depart.	
Navigation Safety - M/V MAERSK BERING (24 Apr): Vessel reported an inoperable 10 cm, s-band radar and was issued an inbound LOD while transiting to the Port of San Francisco. On 25 Apr, the repairs were made and the vessel was allowed to depart.	
SIGNIFICANT INCIDENT MANAGEMENT DIVISION (IMD) CASES:	
None.	
SIGNIFICANT PORT SAFETY INFORMATION or EXERCISES	
None.	

OSPR
Office of Spill Prevention and Response

San Francisco Bay Region
Tank Vessel Escort Clearing House
c/o Marine Exchange of the San Francisco Bay Region
Fort Mason Center, Building B, Suite 325
San Francisco, California 94123-1308

San Francisco Clearinghouse Report

May 8, 2008

- In April the clearinghouse did not contact OSPR about possible escort violations.
- In April the clearinghouse did not receive any notifications of vessels arriving at the Pilot Station without escort paperwork.
- The Clearinghouse has contacted OSPR 1 time so far in 2008 about possible escort violations. The Clearinghouse called 9 times in 2007, 9 times in 2006; 16 times in 2005; 24 times in 2004; twice in 2003; twice in 2002; 6 times in 2001; 5 times in 2000.
- In April there were 109 tank vessels arrivals; 1 LPG, 3 Chemical Tankers, 10 Chemical/Oil Carriers, 25 Crude Oil Tankers, 1 Molasses Tanker, 24 Product Tankers, plus 45 tugs with barges.
- In April there were 334 total arrivals.

San Francisco Bay Clearinghouse Report For April 2008

San Francisco Bay Region Totals

			2007	
Tanker arrivals to San Francisco Bay	64		58	*(before 2008 barge arrivals were not totaled)*
Barge arrivals to San Francisco Bay	45			
Total Tanker and Barge Arrivals	109			
Tank ship movements & escorted barge movements	394		338	
Tank ship movements	210	53.30%	191	
Escorted tank ship movements	107	27.16%	101	
Unescorted tank ship movements	103	26.14%	90	
Tank barge movements	184	46.70%	147	
Escorted tank barge movements	88	22.34%	70	
Unescorted tank barge movements	96	24.37%	77	

Percentages above are percent of total tank ship movements & escorted barge movements for each item.

Escorts reported to OSPR	0		0							

Movements by Zone	Zone 1	%	Zone 2	%	Zone 4	%	Zone 6	%	Total	%
Total movements	214		365		0		189		768	
Unescorted movements	102	47.66%	183	50.14%	0	0.00%	91	48.15%	376	48.96%
Tank ships	64	29.91%	103	28.22%	0	0.00%	40	21.16%	207	26.95%
Tank barges	38	17.76%	80	21.92%	0	0.00%	51	26.98%	169	22.01%
Escorted movements	112	52.34%	182	49.86%	0	0.00%	98	51.85%	392	51.04%
Tank ships	65	30.37%	102	27.95%	0	0.00%	46	24.34%	213	27.73%
Tank barges	47	21.96%	80	21.92%	0	0.00%	52	27.51%	179	23.31%

Notes:
1. Information is only noted for zones where escorts are required.
2. All percentages are percent of total movements for the zone.
3. Every movement is counted in each zone transited during the movement.
4. Total movements is the total of all unescorted movements and all escorted movements.

San Francisco Bay Clearinghouse Report For 2008

San Francisco Bay Region Totals

			2007	
Tanker arrivals to San Francisco Bay	283		785	*(before 2008 barge arrivals were not totaled)*
Barge arrivals to San Francisco Bay				
Total Tanker and Barge Arrivals	283			
Tank ship movements & escorted barge movements	1,611		3,907	
Tank ship movements	905	56.18%	2,241	
Escorted tank ship movements	440	27.31%	1,121	
Unescorted tank ship movements	465	28.86%	1,120	
Tank barge movements	706	43.82%	1,666	
Escorted tank barge movements	330	20.48%	869	
Unescorted tank barge movements	376	23.34%	797	
Escorts reported to OSPR	1		9	

Percentages above are percent of total tank ship movements & escorted barge movements for each item.

Movements by Zone	Zone 1	%	Zone 2	%	Zone 4	%	Zone 6	%	Total	%
Total movements	909		1,508		0		751		3,168	
Unescorted movements	448	49.28%	784	51.99%	0	0.00%	371	49.40%	1,603	50.60%
Tank ships	294	32.34%	463	30.70%	0	0.00%	176	23.44%	933	29.45%
Tank barges	154	16.94%	321	21.29%	0	0.00%	195	25.97%	670	21.15%
Escorted movements	461	50.72%	724	48.01%	0	0.00%	380	50.60%	1,565	49.40%
Tank ships	269	29.59%	428	28.38%	0	0.00%	181	24.10%	878	27.71%
Tank barges	192	21.12%	296	19.63%	0	0.00%	199	26.50%	687	21.69%

Notes:
1. Information is only noted for zones where escorts are required.
2. All percentages are percent of total movements for the zone.
3. Every movement is counted in each zone transited during the movement.
4. Total movements is the total of all unescorted movements and all escorted movements.

Harbor Safety Committee
Of the San Francisco Bay Region

Report of the
U.S. Army Corps of Engineers, San Francisco District
May 8, 2008

1. CORPS 2008 O&M DREDGING PROGRAM

The following is this years O & M dredging program for San Francisco Bay.

a. **Main Ship Channel –** A survey was completed March 3-4, 2008. The new survey has been posted. A hopper dredge (not the Essayons) will be arriving soon and dredging is due to begin by the end of May.

b. Richmond Outer Harbor and Richmond Long Wharf – Survey was conducted February 1 and 2, 2008 and has been posted. Dredging will be conducted this summer and fall. To be dredged by the hopper dredge when dredging of the main channel is not possible (sea conditions).

c. Richmond Inner Harbor – Surveys were conducted in April, 2008 and have posted. Dredging will be conducted this summer and fall if needed – there has ben very little sediment deposition.

d. Oakland O & M Dredging – The turning basin and inner harbor were completed on December 7, 2007. Surveys have been posted. There is a high spot in the inner channel. This high spot appears to be a pile of rocks (from an unknown source), which will be removed in the next month or two as part of the deepening project. The rock pile still has not yet been removed. See 50' deepening project. No change.

e. **Suisun Bay Channel –** Suisun Bay Channel, Bullshead and New York Slough have been dredged. New surveys have been posted for Bullshead (see Hydrographic Survey Update). An approximately 5,000 cubic yard shoal has been note on recent surveys (see hydrosurveys) of Bullshead. The Corps is exploring options for removing that sediment. Also, light shoaling has been noted in the Suisun Channel and Pinole Shoal channels. The Corps is examining options to deal with these two areas, as well.

f. Pinole Shoal - Pinole Shoal will be dredged this year. A condition survey will be conducted this spring. Presumably in April. See above (Suisun Bay)

g. Redwood City/San Bruno Shoal – Because of endangered species issues, dredging is being delayed until June 2008, with completion in August 2008. No change

2. DEBRIS REMOVAL Debris totals for April 2008 was 35 tons. The Grizzly was not in service for 7 days to work on the salmon tagging project. The Raccoon is now back in Sausalito undergoing operating tests and is expected to be back in service by mid-May.

	Grizzly	Raccoon		Total
May	13.00	0.00		13
June	5.25	0.00		5
July	4.00	0.00		4
August				
September	12.50	0.00		13
October	16.50	0.00		17
November	32.00			32
December	4.50			5
Jan. 2008	57.00	0.00		57
Feb	38.00			38
March	16.50	0		17
April	35.00	0		35
Totals	234.25	0.00	0.00	236

3. UNDERWAY OR UPCOMING HARBOR IMPROVEMENTS

f. Oakland 50-ft Deepening Project - Deepening of Oakland's Outer Harbor began on March 16, 2007. Completion targeted for September 2008, for the entire Outer Harbor. The rock pile. The project team has no yet decided what to do with it. It is right now not scheduled to be removed until that part of the Harbor is deepened in October of next year. The rock is presumed to be 6' and less, and is not considered to be a navigational hazard. The rock does show up in the Alameda side of the channel on recent surveys. No change.

4. EMERGENCY (URGENT & COMPELLING) DREDGING

There has been no emergency dredging in FY 2008.

5. OTHER WORK

a. **San Francisco Bay to Stockton** The project team conducted two very successful public scoping meetings - on March 26 and April 2, co-hosted by local sponsors Port of Stockton and Contra Costa County Water Agency. Key attendees were: regulatory and resource agencies, EBMUD, DOT, CALTRANS, League of Women Voters, reclamation districts, oil companies, and local landowners. The team continues to receive written comments for the EIS/R. This

project is moving forward. Unfortunately, the project manager has not been available for a detailed update.

b. Sacramento River Deep Water Ship Channel Deepening Federal funding has been received (no money from the local sponsor as yet). The money will be used to develop a sampling and analysis plan, a Supplemental Environmental Impact Study and to continue with the salinity modeling work group (for Central Valley RWQCB). The proposed design depth is -35 feet mean lower low water, plus overdepth. No change.

6. HYDROGRAPHIC SURVEY UPDATE

Address of Corps' web site for completed hydrographic surveys. New surveys.

http://www.spn.usace.army.mil/hydrosurvey/

Main Ship Channel – Survey was completed in March 2008 and has been posted.
Pinole Shoals –Surveys completed in March and April 2008 have been posted.
Suisun Bay Channel, Bullshead Channel – Surveys dated May 2008 have been posted.
Suisun Bay Channel, NY Slough – Post-dredge surveys dated October 2007 have been posted.
Redwood City – Surveys completed in February 2008 have been posted.
San Bruno Shoal – Surveys completed in February and March 2008 have been posted.
Oakland Inner, Outer and Entrance – Surveys dated 11-12, 14, 17-18 March 2008 have been posted.
Southampton Shoal and Richmond Long Wharf – Surveys completed in February 1-2, 2008 have been posted.
Richmond Inner Harbor: Surveys completed in April 2008 have been posted.
North Ship Channel: Surveys completed 12-13 and 20-21 March 2008 have been posted.

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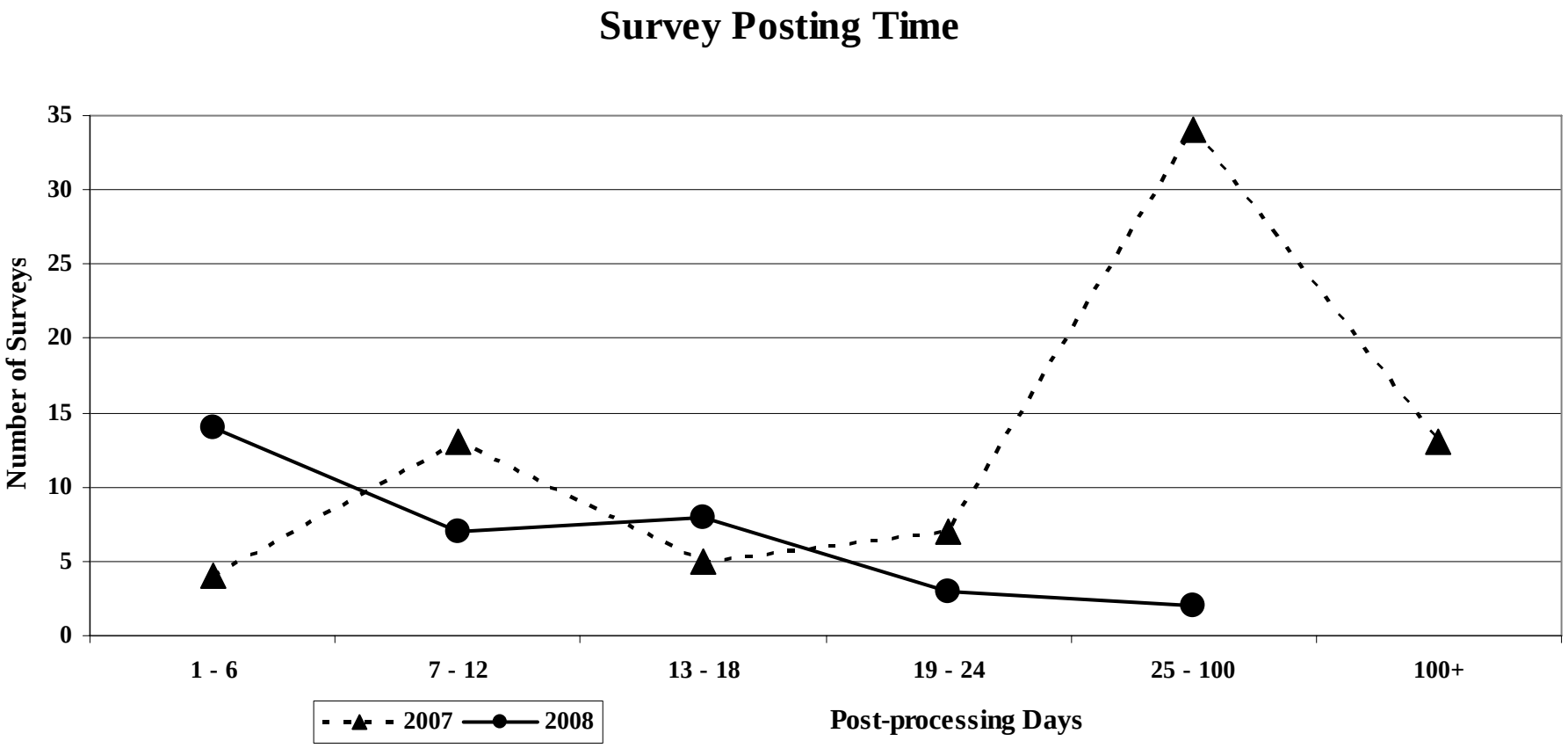
San Francisco Engineer District



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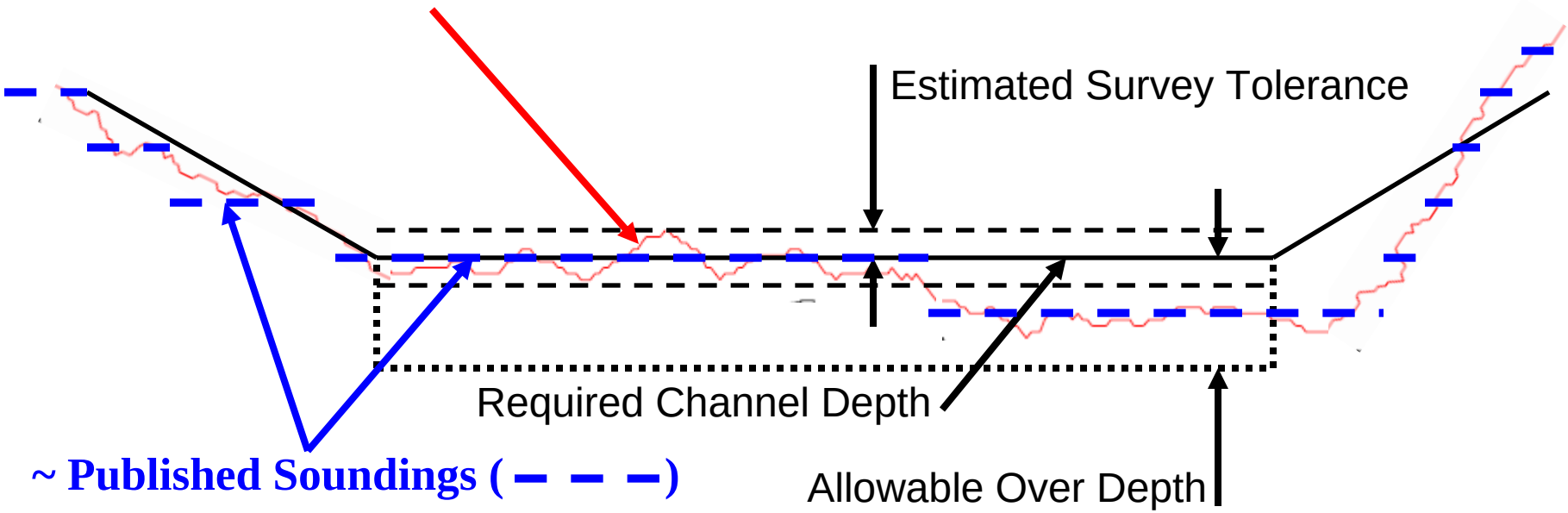
Channel Acceptance (Taking into Account Survey Uncertainty)

Material falling within the estimated survey tolerance window need not be removed.



~ Published Soundings (– – –)

Published Soundings Will Be Rounded

A – Survey Tolerance ±0.2 ft to ±0.5 ft => Nearest 0.5 ft

B – Survey Tolerance >0.5 ft => Nearest 1.0 ft

Download - EC Dredge Clearance Surveys 2008 02 01 FIRST DRAFT.doc
From ftp://ftp.usace.army.mil/pub/spn/Harbor_Safety_Committee/

CALIFORNIA STATE LANDS COMMISSION

HARBOR SAFETY COMMITTEE MONTHLY REPORT - APRIL COMPARISON

VESSEL TRANSFERS

	Total Transfers	Total Vessel Monitors	Total Transfer Percentage
April 1 - 30, 2007	246	114	46.34
April 1 - 30, 2008	274	137	50

CRUDE OIL / PRODUCT TOTALS

	Crude Oil (D)	Crude Oil (L)	Overall Product (D)	Overall Product (L)	GRAND TOTAL
April 1 - 30, 2007	13,190,000	0	20,037,700	8,361,263	28,398,963
April 1 - 30, 2008	13,285,500	0	21,499,100	10,931,352	32,430,452

OIL SPILL TOTAL

	Terminal	Vessel	Facility	Total		Gallons Spilled
April 1 - 30, 2007	1	0	0	1		Crude/Other 42 gals
April 1 - 30, 2008	1	1	0	2	T V	Other / 1 gallon Fuel Oil / 1 gallon

*** Disclaimer:
Please understand that the data is provided to the California State Lands Commission from a variety of sources; the Commission cannot guarantee the validity of the data provided to it.

Generated by: MRA 5/8/2008
CSLC NCFO

NAVIGATION WORK GROUP

From: Bruce Horton, Work Group Chair
Subject: Work Group Recommendation on Speed Restrictions in Reduced Visibility
Date: May 8, 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.

On March 20, 2008, the Harbor Safety Committee forwarded to OSPR its findings and recommendations related to large vessel transit of San Francisco Bay during reduced visibility, based on the advice of the Navigation Work Group. Subsequently, the Work Group met to consider the speed of large vessels transiting the region during periods of reduced visibility.

Note: the following findings and recommendations should be considered preliminary, as not all evidence was accessible. As new information becomes available, the Harbor Safety Committee may revisit or address other policy implications.

Role of Speed in Cosco Busan Incident

In addition to reduced visibility, speed also is being explored as a possible causal factor in the allision of the Cosco Busan with the San Francisco-Oakland Bay Bridge: the State Board of Pilot Commissioners found in its Accusation (Case No. 07-01) that the pilot charged had "reason to doubt whether the ship could safely proceed under the prevailing circumstances… [and proceeded] at a speed that was excessive for the circumstances…."

The Board of Pilot Commissioners Accusation states that the speed of the Cosco Busan just prior to the allision was 11 knots with a one-knot flood current. It should be noted that this is a preliminary accusation that has not been confirmed through any investigation as of the time of this writing.

COLREGS

Maritime practices accepted worldwide are codified under the International Regulations for Prevention of Collisions at Sea (COLREGS), which address safe transit speed, risk of collision, and conduct of vessels in restricted visibility.

COLREGS Rule 6 states, in part, that, "Every vessel shall at all times proceed at a safe speed so that [the vessel] can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions." Rule 6 continues, stating that factors to be taken into account in determining a safe speed include, but are not limited to, the state of visibility and the manageability of the vessel with special reference to stopping distance and turning ability in the prevailing conditions.

Rule 7 addresses risk of collision, and states, in part, that, "Every vessel shall use all available means appropriate to the prevailing circumstances and conditions to determine if risk of collision exists. If there is any doubt such risk shall be deemed to exist."

Rule 19, Conduct of Vessels in Restricted Visibility, states, in part, that, "Every vessel shall proceed at a safe speed adapted to the prevailing circumstances and conditions of restricted visibility [and] [e]very vessel shall have due regard to the prevailing circumstances and conditions of restricted visibility when complying with the Rules...."

U.S. Coast Guard Authority to Regulate Vessel Speed

The Federal Ports and Waterways Safety Act of 1972 (33 USC 1223) grants authority to the Coast Guard to further regulate vessel speed, and specifically states:

> [The Coast Guard] may control vessel traffic in areas subject to the jurisdiction of the United States which the Secretary [of the Department of Homeland Security] determines to be hazardous, or under conditions of reduced visibility, adverse weather, vessel congestion, or other hazardous circumstances by [a number of means, including] establishing vessel traffic routing schemes and by establishing vessel size, speed, draft limitations and vessel operating conditions.

Under 33 Code of Federal Regulations (CFR) 161.11, the Coast Guard may, through the Vessel Traffic System (VTS), issue measures or directions to enhance navigation and vessel safety and to protect the marine environment, including establishing vessel traffic routing schemes.

Existing Coast Guard Speed Restrictions in San Francisco Bay

The San Francisco Bay region, consisting of several bays and rivers, is one of the foggiest harbors in the United States. Navigating San Francisco Bay during periods of reduced visibility requires mariners to exercise additional caution and vigilance. To aid mariners, the Coast Guard established several Regulated Navigational Areas (RNAs) in the Bay region in 1995, which were designed to improve navigation safety by organizing traffic flow patterns; reducing meeting, crossing, and overtaking situations in constricted channels; and by limiting vessel speeds.

Federal regulation 33 CFR Parts 162 and 165 state in part that the maximum speed for all power driven vessels of 1,600 or more gross tons shall not exceed 15 knots through the water from the COLREGS Demarcation Line to the southern tip of Bay Farm Island, Alameda and the Union Pacific Railroad Bridge in Benicia. This standard also applies to a tug with a tow of 1,600 or more gross tons.

Harbor Safety Committee Endorsements of RNAs

The Harbor Safety Committee endorsed the RNAs, as they were established based on the operating characteristics of ships transiting the Bay. For example, industry related that lower speeds, such as a 12 knot limit, would unnecessarily restrict the maneuverability of some ships in swift currents.

Within the San Francisco Bay region, boundaries of the specific areas where the 15 knot speed limit apply are described in 33 CFR 165.1181 (attached as an addendum):

- Golden Gate Traffic Lanes, which include the westbound and eastbound lanes west of the Golden Gate Precautionary Area
- Golden Gate Precautionary Area
- Central Bay Traffic Lanes, which include the Deep Water Traffic Lane, the east-bound lane (south of Alcatraz Island) and the westbound lane (south of Harding Rock
- Central Bay Precautionary Area
- North Ship Channel between North Channel Lighted Buoy "A" and the Richmond-San Rafael Bridge
- Southampton Shoal Channel including the Richmond Long Wharf maneuvering area
- Richmond Harbor Entrance Channel
- Oakland Harbor Bar Channel including the Outer and Inner Harbors Entrance Channels
- San Pablo Strait Channel
- Pinole Shoal Channel
- Benicia-Martinez Railroad Drawbridge

Additionally, the Harbor Safety Committee recommended that all vessels remain in a response mode, allowing for an immediate response to an engine order. 33CFR165 states that, "Power driven vessels of 1,600 or more gross tons shall have their engines ready for immediate maneuver and shall not operate in control modes or with fuels that prevent an immediate response to any engine order ahead."

It should be noted that in instances where a slower speed than the 15 knot RNA limit is required for safe navigation, the COLREGS will prevail.

Conclusion. In reviewing the speed restrictions in place in San Francisco Bay, the Work Group agreed that sufficient regulations and guidelines exist regarding speed limitations for large vessels transiting the San Francisco Bay region during periods of reduced visibility.

Recommendation to the Harbor Safety Committee. The Work Group recommends that no additional measures are required to restrict the speed of large vessels in reduced visibility.

COLREGS Addressing Speed Restrictions

(data taken from http://www.navcen.uscg.gov/mwv/navrules/navrules.htm)

RULE 6
SAFE SPEED

Every vessel shall at all times proceed at a safe speed so that she can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions.

In determining a safe speed the following factors shall be among those taken into account:

(a) By all vessels:

i. The state of visibility;

ii. The traffic density including concentrations of fishing vessels or any other vessels;

iii. The manageability of the vessel with special reference to stopping distance and turning ability in the prevailing conditions;

iv. At night, the presence of background light such as from shore lights or from back scatter from her own lights;

v. The state of wind, sea and current, and the proximity of navigational hazards;

vi. The draft in relation to the available depth of water.

(b)Additionally, by vessels with operational radar:

i. The characteristics, efficiency and limitations of the radar equipment;

ii. Any constraints imposed by the radar range scale in use;

iii. The effect on radar detection of the sea state, weather and other sources of interference;

iv. The possibility that small vessels, ice and other floating objects may not be detected by radar at an adequate range;

v. The number, location and movement of vessels detected by radar;

vi. The more exact assessment of the visibility that may be possible when radar is used to determine the range of vessels or other objects in the vicinity.

RULE 7
RISK OF COLISION

(a) Every vessel shall use all available means appropriate to the prevailing circumstances and conditions to determine if risk of collision exists. If there is any doubt such risk shall be deemed to exist.

(b) Proper use shall be made of radar equipment if fitted and operational, including long-range scanning to obtain early warning of risk of collision and radar plotting or equivalent systematic observation of detected objects.

(c) Assumptions shall not be made on the basis of scanty information, especially scanty radar information.

(d) In determining if risk of collision exists the following considerations shall be among those taken into account:

i. Such risk shall be deemed to exist if the compass bearing of an approaching vessel does not appreciably change;

ii. Such risk may sometimes exist even when an appreciable bearing change is evident, particularly when approaching a very large vessel or a tow or when approaching a vessel at close range.

RULE 19: CONDUCT OF VESSELS IN RESTRICTED VISIBILITY

(a) This Rule applies to vessels not in sight of one another when navigating in or near an area of restricted visibility.

(b) Every vessel shall proceed at a safe speed adapted to the prevailing circumstances and conditions of restricted visibility. A power-driven vessel shall have her engines ready for immediate maneuver.

(c) Every vessel shall have due regard to the prevailing circumstances and conditions of restricted visibility when complying with the Rules [of Section I of this Part / 4 through 10].

(d) A vessel which detects by radar alone the presence of another vessel shall determine if a close-quarters situation is developing and/ [Intl] or risk of collision exists. If so, she shall take avoiding action in ample time, provided that when such action consists of an alteration in course, so far as possible the following shall be avoided:

(i) An alteration of course to port for a vessel forward of the beam, other than for a vessel being overtaken;

(ii) An alteration of course toward a vessel abeam or abaft the beam.

(e) Except where it has been determined that a risk of collision does not exist, every vessel which hears apparently forward of her beam the fog signal of another vessel, or which cannot avoid a close-quarters situation with another vessel forward of her beam, shall reduce her speed to be the minimum at which she can be kept on her course. She shall if necessary take all her way off and in any event navigate with extreme caution until danger of collision is over.

SFBay RNAs in 33CFR165

(VTS web site: http://www.uscg.mil/d11/vtssf/33cfr165.1181.pdf)

[Code of Federal Regulations]
[Title 33, Volume 2]
[Revised as of July 1, 2006]
From the U.S. Government Printing Office via GPO Access
[CITE: **33CFR165**]
[Page 762-766]
TITLE 33--NAVIGATION AND NAVIGABLE WATERS
CHAPTER I--COAST GUARD, DEPARTMENT OF HOMELAND SECURITY (CONTINUED)
PART 165_REGULATED NAVIGATION AREAS AND LIMITED ACCESS AREAS--Table of Contents
Subpart F_Specific Regulated Navigation Areas and Limited Access Areas
Sec. 165.**1181** San Francisco Bay Region, California--regulated navigation area.
(a) Applicability. This section applies to all ressels unless otherwise specified.
(b) Deviations. The Captain of the Port, San Francisco Bay, or the Commanding Officer, Vessel Traffic Service San Francisco, as a representative of the Captain of the Port, may authorize a deviation from the requirements of this regulation when it is deemed necessary in the interests of safety.
(c) Regulated Navigation Areas--(1) San Francisco Bay RNA. (i) The following is a regulated navigation area--The waters bounded by a line connecting the following coordinates, beginning at:
37[deg]47[min]18[sec] N, 122[deg]30[min]22[sec] W; thence to
37[deg]48[min]55[sec] N, 122[deg]31[min]41[sec] W; thence along the shoreline to 37[deg]50[min]38[sec] N, 122[deg]28[min]37[sec] W; thence to 37[deg]50[min]59[sec] N, 122[deg]28[min]00[sec] W; thence to
37[deg]51[min]45[sec] N, 122[deg]27[min]28[sec] W; thence to
37[deg]52[min]58[sec] N, 122[deg]26[min]06[sec] W; thence to
37[deg]51[min]53[sec] N, 122[deg]24[min]58[sec] W; thence to
37[deg]51[min]53[sec] N, 122[deg]24[min]00[sec] W; thence to
37[deg]51[min]40[sec] N, 122[deg]23[min]48[sec] W; thence to
37[deg]49[min]22[sec] N, 122[deg]23[min]48[sec] W; thence to
37[deg]48[min]20[sec] N, 122[deg]22[min]12[sec] W; thence to
37[deg]47[min]02[sec] N, 122[deg]21[min]33[sec] W; thence to
37[deg]47[min]02[sec] N, 122[deg]23[min]04[sec] W;
[[Page 763]]
thence along the shoreline to the point of beginning.
Datum: NAD 83
(ii) The San Francisco Bay RNA consists of the following defined sub-areas:
(A) Golden Gate Traffic Lanes--(1) Westbound traffic lane: Bounded by the Golden Gate precautionary area and the COLREGS Demarcation Line (33 CFR 80.1142), between the separation zone and a line connecting the following coordinates:

37[deg]48[min]30[sec] N, 122[deg]31[min]22[sec] W; thence to
37[deg]49[min]03[sec] N, 122[deg]29[min]52[sec] W.
Datum: NAD 83
(2) Eastbound traffic lane. Bounded by the COLREGS Demarcation Line (33 CFR 80.1142) and the Golden Gate precautionary area, between the separation zone and a line connecting the following coordinates:
37[deg]47[min]50[sec] N, 122[deg]30[min]48[sec] W; thence to
37[deg]48[min]30[sec] N, 122[deg]29[min]29[sec] W.
Datum: NAD 83
(3) Golden Gate Separation Zone: The area 75 yards each side of a line connecting the following coordinates:
37[deg]48[min]08[sec] N, 122[deg]31[min]05[sec] W; thence to
37[deg]48[min]46[sec] N, 122[deg]29[min]40[sec] W.
Datum: NAD 83
(B) Golden Gate Precautionary Area: An area bounded by a line connecting the following coordinates beginning at:
37[deg]48[min]30[sec] N, 122[deg]29[min]29[sec] W; thence to
37[deg]48[min]52[sec] N, 122[deg]28[min]41[sec] W; thence to
37[deg]48[min]52[sec] N, 122[deg]27[min]49[sec] W; thence to
37[deg]49[min]36[sec] N, 122[deg]27[min]46[sec] W; thence to
37[deg]49[min]55[sec] N, 122[deg]28[min]09[sec] W; thence to
37[deg]49[min]28[sec] N, 122[deg]28[min]45[sec] W; thence to
37[deg]49[min]03[sec] N, 122[deg]29[min]52[sec] W; thence returning to the point of beginning.
Datum: NAD 83
(C) Central Bay Traffic Lanes--(1) Westbound traffic lane: Bounded by the Central Bay precautionary area and the Golden Gate precautionary area, between the Central Bay and the Deep Water Traffic Lane separation
zones.
(2) Eastbound traffic lane: Bounded by the Golden Gate precautionary area and the Central Bay precautionary area, between the Central Bay Separation Zone and a line connecting the following coordinates, beginning at:
37[deg]48[min]41[sec] N, 122[deg]25[min]17[sec] W; thence to
37[deg]48[min]50[sec] N, 122[deg]26[min]14[sec] W; thence to
37[deg]48[min]52[sec] N, 122[deg]27[min]49[sec] W.
Datum: NAD 83
(3) Deep Water (two-way) Traffic Lane: Bounded by the Central Bay precautionary area and the Golden Gate precautionary area, between the Deep Water Traffic Lane separation zone and a line connecting the

following coordinates, beginning at:
37[deg]49[min]55[sec] N, 122[deg]28[min]09[sec] W; thence to
37[deg]50[min]36[sec] N, 122[deg]27[min]12[sec] W; thence to
37[deg]50[min]47[sec] N, 122[deg]26[min]26[sec] W.
Datum: NAD 83
(D) Central Bay Separation Zone: The area 75 yards each side of a line connecting the following coordinates, beginning at:
37[deg]49[min]17[sec] N, 122[deg]27[min]47[sec] W; thence to
37[deg]49[min]35[sec] N, 122[deg]25[min]25[sec] W.
Datum: NAD 83
(E) Deep Water Traffic Lane Separation Zone: The area 75 yards each side of a line connecting the following coordinates, beginning at:
37[deg]49[min]36[sec] N, 122[deg]27[min]46[sec] W; thence to
37[deg]50[min]22[sec] N, 122[deg]26[min]49[sec] W; thence to
37[deg]50[min]25[sec] N, 122[deg]26[min]22[sec] W.
Datum: NAD 83
(F) Central Bay Precautionary Area: An area bounded by a line connecting the following coordinates, beginning at:
37[deg]48[min]41[sec] N, 122[deg]25[min]17[sec] W; thence to
37[deg]49[min]32[sec] N, 122[deg]25[min]13[sec] W; thence to
37[deg]50[min]25[sec] N, 122[deg]26[min]22[sec] W; thence to
37[deg]50[min]47[sec] N, 122[deg]26[min]26[sec] W; thence to
37[deg]51[min]04[sec] N, 122[deg]24[min]58[sec] W; thence to
37[deg]51[min]53[sec] N, 122[deg]24[min]58[sec] W; thence to
37[deg]51[min]53[sec] N, 122[deg]24[min]00[sec] W; thence to
37[deg]51[min]40[sec] N, 122[deg]23[min]48[sec] W; thence to
37[deg]49[min]22[sec] N, 122[deg]23[min]48[sec] W; thence to
37[deg]48[min]20[sec] N, 122[deg]22[min]12[sec] W; thence to
37[deg]47[min]02[sec] N, 122[deg]21[min]33[sec] W; thence to
37[deg]47[min]02[sec] N, 122[deg]23[min]04[sec] W; thence returning along the shoreline to the point of beginning.
Datum: NAD 83
(2) North Ship Channel RNA. The following is a regulated navigation area--The waters bounded by a line connecting the following coordinates,
beginning at:
37[deg]51[min]53[sec] N, 122[deg]24[min]58[sec] W; thence to
37[deg]54[min]15[sec] N, 122[deg]27[min]27[sec] W; thence to
37[deg]56[min]06[sec] N, 122[deg]26[min]49[sec] W; thence to
37[deg]56[min]06[sec] N, 122[deg]26[min]34[sec] W; thence to
37[deg]54[min]48[sec] N, 122[deg]26[min]42[sec] W; thence to
37[deg]54[min]02[sec] N,
[[Page 764]]

122[deg]26[min]10[sec] W; thence to 37[deg]51[min]53[sec] N, 122[deg]24[min]00[sec] W; thence to returning to the point of beginning.
Datum: NAD 83
(3) San Pablo Strait Channel RNA. The following is a regulated navigation area--The waters bounded by a line connecting the following coordinates, beginning at:
37[deg]56[min]06[sec] N, 122[deg]26[min]49[sec] W; thence to
37[deg]57[min]26[sec] N, 122[deg]27[min]21[sec] W; thence to
38[deg]00[min]48[sec] N, 122[deg]24[min]45[sec] W; thence to
38[deg]01[min]54[sec] N, 122[deg]22[min]24[sec] W; thence to
38[deg]01[min]44[sec] N, 122[deg]22[min]18[sec] W; thence to
37[deg]57[min]37[sec] N, 122[deg]26[min]23[sec] W; thence to
37[deg]56[min]06[sec] N, 122[deg]26[min]34[sec] W; thence returning to the point of beginning.
Datum: NAD 83
(4) Pinole Shoal Channel RNA. The following is a regulated navigation area--The waters bounded by a line connecting the following coordinates, beginning at:
38[deg]01[min]54[sec] N, 122[deg]22[min]25[sec] W; thence to
38[deg]03[min]13[sec] N, 122[deg]19[min]50[sec] W; thence to
38[deg]03[min]23[sec] N, 122[deg]18[min]31[sec] W; thence to
38[deg]03[min]13[sec] N, 122[deg]18[min]29[sec] W; thence to
38[deg]03[min]05[sec] N, 122[deg]19[min]28[sec] W; thence to
38[deg]01[min]44[sec] N, 122[deg]22[min]18[sec] W; thence returning to the point of beginning.
Datum: NAD 83
(5) Benicia-Martinez Railroad Drawbridge Regulated Navigation Area (RNA): The following is a regulated navigation area--The waters bounded by the following longitude lines:
(i) 122[deg]13[min]31[sec] W (coinciding with the charted location of the Carquinez Bridge)
(ii) 121[deg]53[min]17[sec] W (coinciding with the charted location of New York Point)
Datum: NAD 83
(6) Southampton Shoal Channel/Richmond Harbor RNA: The following, consisting of two distinct areas, is a regulated navigation area--
(i) The waters bounded by a line connecting the following coordinates, beginning at:
37[deg]54[min]17[sec] N, 122[deg]22[min]00[sec] W; thence to
37[deg]54[min]08[sec] N, 122[deg]22[min]00[sec] W; thence to
37[deg]54[min]15[sec] N, 122[deg]23[min]12[sec] W; thence to
37[deg]54[min]30[sec] N, 122[deg]23[min]09[sec] W; thence along the shoreline to the point of beginning.
Datum: NAD 83

(ii) The waters bounded by a line connecting the following coordinates, beginning at:
37[deg]54[min]28[sec] N, 122[deg]23[min]36[sec] W; thence to
37[deg]54[min]20[sec] N, 122[deg]23[min]38[sec] W; thence to
37[deg]54[min]23[sec] N, 122[deg]24[min]02[sec] W; thence to
37[deg]54[min]57[sec] N, 122[deg]24[min]51[sec] W; thence to
37[deg]55[min]05[sec] N, 122[deg]25[min]02[sec] W; thence to
37[deg]54[min]57[sec] N, 122[deg]25[min]22[sec] W; thence to
37[deg]53[min]26[sec] N, 122[deg]25[min]03[sec] W; thence to
37[deg]53[min]24[sec] N, 122[deg]25[min]13[sec] W; thence to
37[deg]55[min]30[sec] N, 122[deg]25[min]35[sec] W; thence to
37[deg]55[min]40[sec] N, 122[deg]25[min]10[sec] W; thence to
37[deg]54[min]54[sec] N, 122[deg]24[min]30[sec] W; thence to
37[deg]54[min]30[sec] N, 122[deg]24[min]00[sec] W; thence returning to the point of beginning.
Datum: NAD 83
(7) Oakland Harbor RNA: The following is a regulated navigation area--The waters bounded by a line connecting the following coordinates,
beginning at:
37[deg]48[min]40[sec] N, 122[deg]19[min]58[sec] W; thence to
37[deg]48[min]50[sec] N, 122[deg]20[min]02[sec] W; thence to
37[deg]48[min]29[sec] N, 122[deg]20[min]39[sec] W; thence to
37[deg]48[min]13[sec] N, 122[deg]21[min]26[sec] W; thence to
37[deg]48[min]10[sec] N, 122[deg]21[min]39[sec] W; thence to
37[deg]48[min]20[sec] N, 122[deg]22[min]12[sec] W; thence to
37[deg]47[min]36[sec] N, 122[deg]21[min]50[sec] W; thence to
37[deg]47[min]52[sec] N, 122[deg]21[min]40[sec] W; thence to
37[deg]48[min]03[sec] N, 122[deg]21[min]00[sec] W; thence to
37[deg]47[min]48[sec] N, 122[deg]19[min]46[sec] W; thence to
37[deg]47[min]55[sec] N, 122[deg]19[min]43[sec] W; thence returning along the shoreline to the point of the beginning.
Datum: NAD 83
(d) General regulations. (1) A power-driven vessel of 1600 or more gross tons, or a tug with a tow of 1600 or more gross tons, navigating within the RNAs defined in paragraph (c) of this section, shall not exceed a speed of 15 knots through the water.
(2) A power-driven vessel of 1600 or more gross tons, or a tug with a tow of 1600 or more gross tons, navigating within the RNAs defined in paragraph (c) of this section, shall have its engine(s) ready for immediate maneuver and shall operate its engine(s) in a control mode and
on fuel that will allow for an immediate response to any engine order, ahead or astern, including stopping its engine(s) for an extended period
of time.
(3) The master, pilot or person directing the movement of a vessel within the RNAs defined in paragraph (c) of this regulation shall comply
with Rule 9 of the Inland Navigation Rules (INRs) (33 U.S.C. 2009) in conjunction with the provisions of the associated INRs.

[[Page 765]]
(e) Specific Regulations--(1) San Francisco Bay RNA: (i) A vessel shall navigate with particular caution in a precautionary area, or in areas near the terminations of traffic lanes or channels, as described in this regulation.
(ii) A power-driven vessel of 1600 or more gross tons, or a tug with a tow of 1600 or more gross tons, shall:
(A) Use the appropriate traffic lane and proceed in the general direction of traffic flow for that lane;
(B) Use the Central Bay Deep Water Traffic Lane if eastbound with a draft of 45 feet or greater or westbound with a draft of 28 feet or greater;
(C) Not enter the Central Bay Deep Water Traffic Lane when another power-driven vessel of 1600 or more gross tons or tug with a tow of 1600
or more gross tons is navigating therein when either vessel is:
(1) Carrying certain dangerous cargoes (as denoted in section 160.203 of this subchapter);
(2) Carrying bulk petroleum products; or
(3) A tank vessel in ballast if such entry would result in meeting, crossing, or overtaking the other vessel.
(D) Normally join or leave a traffic lane at the termination of the lane, but when joining or leaving from either side, shall do so at as small an angle to the general direction of traffic flow as practicable;
(E) So far as practicable keep clear of the Central Bay Separation Zone and the Deep Water Traffic Lane Separation Zone;
(F) Not cross a traffic lane separation zone unless crossing, joining, or leaving a traffic lane.
(2) Pinole Shoal Channel RNA: (i) A vessel less than 1600 gross tons or a tug with a tow of less than 1600 gross tons is not permitted within
this RNA.
(ii) A power-driven vessel of 1600 or more gross tons or a tug with a tow of 1600 or more gross tons shall not enter Pinole Shoal Channel RNA when another power-driven vessel of 1600 or more gross tons or tug with a tow of 1600 or more gross tons is navigating therein if such entry would result in meeting, crossing, or overtaking the other vessel,
when either vessel is:
(A) Carrying certain dangerous cargoes (as denoted in Sec. 160.203 of this subchapter);
(B) Carrying bulk petroleum products; or
(C) A tank vessel in ballast.
(iii) Vessels permitted to use this channel shall proceed at a reasonable speed so as not to endanger other vessels or interfere with any work which may become necessary in maintaining, surveying, or buoying the channel, and they shall not anchor in the channel except in case of a deviation authorized under paragraph (b) of this section.
(iv) This paragraph shall not be construed as prohibiting any necessary use of the channel by any public vessels while engaged in official duties, or in emergencies by pilot boats.
(3) Benicia-Martinez Railroad Drawbridge Regulated Navigation Area

(RNA)--(i) Eastbound vessels: (A) The master, pilot, or person directing
the movement of a power-driven vessel of 1600 or more gross tons or a tug with a tow of 1600 or more gross tons traveling eastbound and intending to transit under the lift span (centered at coordinates 38[deg]02[min]18[sec] N, 122[deg]07[min]17[sec] W) of the railroad bridge across Carquinez Strait at mile 7.0 shall, immediately after entering the RNA, determine whether the visibility around the lift span is \1/2\ nautical mile or greater.
(B) If the visibility is less than \1/2\ nautical mile, or subsequently becomes less than \1/2\ nautical mile, the vessel shall not
transit under the lift span.
(ii) Westbound vessels: (A) The master, pilot, or person directing the movement of a power-driven vessel of 1600 or more gross tons or a tug with a tow of 1600 or more gross tons traveling westbound and intending to transit under the lift span (centered at coordinates 38[deg]02[min]18[sec] N, 122[deg]07[min]17[sec] W) of the railroad bridge across Carquinez Strait at mile 7.0 shall, immediately after entering the RNA determine whether the visibility around the lift span is \1/2\ nautical mile or greater.
(B) If the visibility is less than \1/2\ nautical mile, the vessel shall not pass beyond longitude line 121[deg]55[min]19[sec] W (coinciding with the charted position of the westernmost end of Mallard Island) until the visibility improves to greater
[[Page 766]]
than \1/2\ nautical mile around the lift span.
(C) If after entering the RNA visibility around the lift span subsequently becomes less than \1/2\ nautical mile, the master, pilot, or person directing the movement of the vessel either shall not transit under the lift span or shall request a deviation from the requirements of the RNA as prescribed in paragraph (b) of this section.
(D) Vessels that are moored or anchored within the RNA with the intent to transit under the lift span shall remain moored or anchored until visibility around the lift span becomes greater than \1/2\ nautical mile.
(4) Southampton Shoal/Richmond Harbor RNA: A power-driven vessel of 1600 or more gross tons, or a tug with a tow of 1600 or more gross tons,
shall not enter Southampton Shoal/Richmond Harbor RNA when another power-driven vessel of 1600 or more gross tons, or a tug with a tow of 1600 or more gross tons, is navigating therein, if such entry would result in meeting, crossing, or overtaking the other vessel.
(5) Oakland Harbor RNA: A power-driven vessel of 1600 or more gross tons or a tug with a tow of 1600 or more gross tons shall not enter the Oakland Harbor RNA when another power-driven vessel of 1600 or more gross tons, or a tug with a tow of 1600 or more gross tons, is navigating therein, if such entry would result in meeting, crossing, or overtaking the other vessel.
[CGD11-94-007, 60 FR 16796, Apr. 3, 1995; 60 FR 30157, June 7, 1995. Redesignated by USCG-2001-9286, 66 FR 33642, June 25, 2001, as amended by USCG-2003-15404, 68 FR 37741, June 25, 2003; CGD11-03-001, 69 FR 2843, Jan. 21, 2004]

NAVIGATION WORK GROUP

From: Bruce Horton, Work Group Chair
Subject: Work Group Recommendation on Crew Staffing Requirements
Date: May 8, 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.

The Navigation Work Group met March 4 and April 18, 2008, to consider the question of vessel crew staffing requirements in reduced visibility in the San Francisco Bay Region.

Note: the following findings and recommendations should be considered preliminary, as not all evidence was accessible. As new information becomes available, the Harbor Safety Committee may revisit or address other policy implications.

Existing Crew Staffing Requirements in Reduced Visibility

The Work Group reviewed the following regulations and guidelines regarding requirements for crew staffing on large vessels in restricted visibility. (Attached as an addendum.)

1. Selected COLREGS including Rule 5 Lookouts, Rule 6 Safe Speed, and Rule 19 Conduct of Vessels in Reduced Visibility.
2. 46 CFR 15.705 addressing manning requirements for watches on U.S. vessels.
3. Seafarer's Training, Certification & Watchkeeping (STCW) Code, A-VIII/2 Part 3-1 addressing International Maritime Organization (IMO) requirements for watchkeeping at sea.

Conclusion. The Work Group agreed that sufficient regulations and guidelines exist under federal and international law for crewing requirements. These regulations and guidelines set out watch standards for mariners on ships. Federal regulations regulate only U.S.-flagged ships, while the COLREGS and STCW Code pertain to all ships.

The Work Group noted that crew staffing did not appear to be an issue in the Cosco Busan incident, but was raised in the Governor's Directive as an issue to address.

Recommendation to the Harbor Safety Committee. The Work Group recommends to the Harbor Safety Committee that no additional measures be proposed regarding crew staffing requirements in limited visibility.

Selected COLREGS:

Rule 5

Look-out

Every vessel shall at all times maintain a proper look-out by sight as well as by hearing as well as by all available means appropriate in the prevailing circumstances and conditions so as to make a full appraisal of the situation and of the risk of collision.

Rule 6

Safe Speed

Every vessel shall at all times proceed at a safe speed so that she can take proper and effective action to avoid collision and be stopped within a distance appropriate to the prevailing circumstances and conditions.

In determining a safe speed the following factors shall be among those taken into account:

(a) By all vessels:

(i) The state of visibility;

(ii) The traffic density including concentrations of fishing vessels or any other vessels;

(iii) The manageability of the vessel with special reference to stopping distance and turning ability in the prevailing conditions;

(iv) At night the presence of background light such as from shore lights or from back scatter from her own lights;

(v) The state of wind, sea and current, and the proximity of navigational hazards;

(vi) The draft in relation to the available depth of water.

(b) Additionally, by vessels with operational radar:

(i) The characteristics, efficiency and limitations of the radar equipment;

(ii) Any constrains imposed by the radar range scale in use;

(iii) The effect on radar detection of the sea state, weather and other sources of interference;

(iv) The possibility that small vessels, ice and other floating objects may not be detected by radar at an adequate range;

(v) The number location and movement of vessels detected by radar;

(vi) The more exact assessment of the visibility that may be possible when radar is used to determine the range of vessels or other objects in the vicinity.

Rule 19

Conduct of Vessels in Restricted Visibility

(a) This rule applies to vessels not in sight of one another when navigating in or near an area of restricted visibility.

(b) Every vessel shall proceed at a safe speed adapted to the prevailing circumstances and condition of restricted visibility. A power driven vessel shall have her engines ready for immediate maneuver.

(c) Every vessel shall have due regard to the prevailing circumstances and conditions of restricted visibility when complying with the Rules of Section I of this Part.

(d) A vessel which detects by radar alone the presence of another vessel shall determine if a close-quarters situation is developing and/or risk of collision exists. If so, she shall take avoiding action in ample time, provided that when such action consists of an alteration in course, so far as possible the following shall be avoided:

(i) An alteration of course to port for a vessel forward of the beam, other than for a vessel being overtaken;

(ii) An alteration of course toward a vessel abeam or abaft the beam.

(e) Except where it has been determined that a risk of collision does not exist, every vessel which hears apparently forward of her beam the fog signal of another vessel, or which cannot avoid a close-quarters situation with another vessel forward of her beam, shall reduce her speed to be the minimum at which she can be kept on her course. She shall if necessary take all her way off and in any event navigate with extreme caution until danger of collision is over.

TITLE 46--SHIPPING

CHAPTER I--COAST GUARD, DEPARTMENT OF HOMELAND SECURITY

PART 15_MANNING REQUIREMENTS--Table of Contents

Subpart F_Limitations and Qualifying Factors

Sec. 15.705 Watches.

(a) Title 46 U.S.C. 8104 is the law applicable to the establishment of watches aboard certain U.S. vessels. The establishment of adequate watches is the responsibility of the vessel's master. The Coast Guard interprets the term watch to be the direct performance of vessel operations, whether deck or engine, where such operations would routinely be controlled and performed in a scheduled and fixed rotation.
The performance of maintenance or work necessary to the vessel's safe operation on a daily basis does not in itself constitute the establishment of a watch. The minimum safe manning levels specified in a
vessel's certificate of inspection take into consideration routine maintenance requirements and ability of the crew to perform all operational evolutions, including emergencies, as well as those functions which may be assigned to persons in watches.

(b) Subject to exceptions, 46 U.S.C. 8104 requires that when a master of a seagoing vessel of more than 100 gross tons establishes watches for the licensed individuals, sailors, coal passers, firemen, oilers and watertenders, the personnel shall be divided, when at sea, into at least three watches and shall be kept on duty successively to

perform ordinary work incident to the operation and management of the vessel. The Coast Guard interprets sailors to mean those members of the deck department other than licensed officers, whose duties involve the mechanics of conducting the ship on its voyage, such as helmsman (wheelsman), lookout, etc., and which are necessary to the maintenance of a continuous watch. Sailors is not interpreted to include able seamen and ordinary seamen not performing these duties.

(c) Subject to exceptions, 46 U.S.C. 8104(g) permits the licensed individuals and crew members (except the coal passers, firemen, oilers, and watertenders) to be divided into two watches when at sea and engaged on a voyage of less than 600 miles on the following categories of vessels:

(1) Towing vessel;

(2) Offshore supply vessel; or,

(3) Barge.

(d) Subject to exceptions, 46 U.S.C. 8104(h) permits a licensed master or mate (pilot) operating a towing vessel that is at least 26 feet in length measured from end to end over the deck (excluding sheer) to work not more than 12 hours in a consecutive 24 hour period except in an emergency. The Coast Guard interprets this, in conjunction with other provisions of the law, to permit licensed masters or mates (pilots) serving as operators of towing vessels that are not subject to the provisions of the Officers' Competency Certificates Convention, 1936, to be divided into two watches regardless of the length of the voyage.

(e) Fish processing vessels are subject to various provisions of 46 U.S.C. 8104 concerning watches.

(1) For fish processing vessels that entered into service before January 1, 1988, the following watch requirements apply to the licensed officers and deck crew:

(i) If over 5000 gross tons--three watches.

(ii) If more than 1600 gross tons and not more than 5000 gross tons--two watches.

(iii) If not more than 1600 gross tons--no watch division specified.

(2) For fish Processing vessels which enter into service after December 31, 1987, the following watch requirements apply to the licensed officers and deck crew:

(i) If over 5000 gross tons--three watches.

(ii) If not more than 5000 gross tons and having more than 16 individuals on board primarily employed in the preparation of fish or fish products--two watches.

(iii) If not more than 5000 gross tons and having not more than 16 individuals on board primarily employed in the preparation of fish or fish products--no watch division specified.

(f) Properly manned uninspected passenger vessels of at least 100 gross tons--

(1) Which are underway for no more than 12 hours in any 24-hour period,

[[Page 252]]

and which are adequately moored, anchored, or otherwise secured in a harbor of safe refuge for the remainder of that 24-hour period may operate with one navigational watch;

(2) Which are underway more than 12 hours in any 24-hour period must

provide a minimum of a two-watch system;

(3) In no case may the crew of any watch work more than 12 hours in any 24-hour period, except in an emergency.

[CGD 81-059, 52 FR 38652, Oct. 16, 1987, as amended by USCG-1999-6224, 64 FR 63235, Nov. 19, 1999; USCG-1999-5040, May 15, 2002; USCG-2004-18884, 69 FR 58343, Sept. 30, 2004]

Seafarer's Training, Certification & Watchkeeping (STCW) Code

Chapter VIII of the STCW Annex, and the associated sections of the STCW Code, are a consolidation of material relating to watchkeeping arrangements. The primary focus of the STCW convention is to ensure that an effective watch is maintained on all seagoing ships, by qualified and fit personnel under all circumstances. Part 3 of Chapter VIII addresses maintaining a watch at sea.

PART 3 - WATCHKEEPING AT SEA

Principles applying to watchkeeping generally

8 Parties shall direct the attention of companies, masters, chief engineer officers and watchkeeping personnel to the following principles which shall be observed to ensure that safe watches are maintained at all times.

9 The master of every ship is bound to ensure that watchkeeping arrangements are adequate for maintaining a safe navigational watch. Under the master's general direction, the officers of the navigational watch are responsible for navigating the ship safely during their periods of duty, when they will be particularly concerned with avoiding collision and stranding.

10 The chief engineer officer of every ship is bound, in consultation with the master, to ensure that watchkeeping arrangements are adequate to maintain a safe engineering watch.

Protection of marine environment

11 The master, officers and ratings shall be aware of the serious effects of operational or accidental pollution of the marine environment and shall take all possible precautions to prevent such pollution, particularly within the framework of relevant international and port regulations.

PART 3-1 - PRINCIPLES TO BE OBSERVED IN KEEPING A NAVIGATIONAL WATCH

12 The officer in charge of the navigational watch is the master's representative and is primarily responsible at all times for the safe navigation of the ship and for complying with the International Regulations for Preventing Collisions at Sea, 1972.

Look-out

13 A proper look-out shall be maintained at all times in compliance with rule 5 of the International Regulations for Preventing Collisions at Sea, 1972 and shall serve the purpose of:

.1 maintaining a continuous state of vigilance by sight and hearing as well as by all other available means, with regard to any significant change in the operating environment;

.2 fully appraising the situation and the risk of collision, stranding and other dangers to navigation; and

.3 detecting ships or aircraft in distress, shipwrecked persons, wrecks, debris and other hazards to safe navigation.

14 The look-out must be able to give full attention to the keeping of a proper look-out and no other duties shall be undertaken or assigned which could interfere with that task.

15 The duties of the look-out and helmsperson are separate and the helmsperson shall not be considered to be the look-out while steering, except in small ships where an unobstructed all-round view is provided at the steering position and there is no impairment of night vision or other impediment to the keeping of a proper look-out. The officer in charge of the navigational watch may be the sole look-out in daylight provided that on each such occasion:

.1 the situation has been carefully assessed and it has been established without doubt that it is safe to do so;

.2 full account has been taken of all relevant factors including, but not limited to:

- state of weather,

- visibility,

- traffic density,

- proximity of dangers to navigation, and

- the attention necessary when navigating in or near traffic separation schemes; and

.3 assistance is immediately available to be summoned to the bridge when any change in the situation so requires.

16 In determining that the composition of the navigational watch is adequate to ensure that a proper look-out can continuously be maintained, the master shall take into account all relevant factors, including those described in this section of the Code, as well as the following factors:

.1 visibility, state of weather and sea;

.2 traffic density, and other activities occurring in the area in which the vessel is navigating;

.3 the attention necessary when navigating in or near traffic separation schemes or other routeing measures;

.4 the additional workload caused by the nature of the ship's functions, immediate operating requirements and anticipated manoeuvres;

.5 the fitness for duty of any crew members on call who are assigned as members of the watch;

.6 knowledge of and confidence in the professional competence of the ship's officers and crew;

.7 the experience of each officer of the navigational watch, and the familiarity of that officer with the ship's equipment, procedures, and manoeuvring capability;

.8 activities taking place on board the ship at any particular time, including radiocommunication activities and the availability of assistance to be summoned immediately to the bridge when necessary;

.9 the operational status of bridge instrumentation and controls, including alarm systems;

.10 rudder and propeller control and ship manoeuvring characteristics;

.11 the size of the ship and the field of vision available from the conning position;

.12 the configuration of the bridge, to the extent such configuration might inhibit a member of the watch from detecting by sight or hearing any external development; and

.13 any other relevant standard, procedure or guidance relating to watchkeeping arrangements and fitness for duty which has been adopted by the Organization.

Watch arrangements

17 When deciding the composition of the watch on the bridge, which may include appropriately qualified ratings, the following factors, inter alia, shall be taken into account:

.1 at no time shall the bridge be left unattended;

.2 weather conditions, visibility and whether there is daylight or darkness;

.3 proximity of navigational hazards which may make it necessary for the officer in charge of the watch to carry out additional navigational duties;

.4 use and operational condition of navigational aids such as radar or electronic position-indicating devices and any other equipment affecting the safe navigation of the ship;

.5 whether the ship is fitted with automatic steering;

.6 whether there are radio duties to be performed;

.7 unmanned machinery space (UMS) controls, alarms and indicators provided on the bridge, procedures for their use and limitations; and

.8 any unusual demands on the navigational watch that may arise as a result of special operational circumstances.

Taking over the watch

18 The officer in charge of the navigational watch shall not hand over the watch to the relieving officer if there is reason to believe that the latter is not capable of carrying out the watchkeeping duties effectively, in which case the master shall be notified.

19 The relieving officer shall ensure that the members of the relieving watch are fully capable of performing their duties, particularly as regards their adjustment to night vision. Relieving officers shall not take over the watch until their vision is fully adjusted to the light conditions.

20 Prior to taking over the watch relieving officers shall satisfy themselves as to the ship's estimated or true position and confirm its intended track, course and speed, and UMS controls as appropriate and shall note any dangers to navigation expected to be encountered during their watch.

21 Relieving officers shall personally satisfy themselves regarding the:

.1 standing orders and other special instructions of the master relating to navigation of the ship;

.2 position, course, speed and draught of the ship;

.3 prevailing and predicted tides, currents, weather, visibility and the effect of these factors upon course and speed;

.4 procedures for the use of main engines to manoeuvre when the main engines are on bridge control; and

.5 navigational situation, including but not limited to:

.5.1 the operational condition of all navigational and safety equipment being used or likely to be used during the watch,

.5.2 the errors of gyro and magnetic compasses,

.5.3 the presence and movement of ships in sight or known to be in the vicinity,

.5.4 the conditions and hazards likely to be encountered during the watch, and

.5.5 the possible effects of heel, trim, water density and squat on under keel clearance.

22 If at any time the officer in charge of the navigational watch is to be relieved when a manoeuvre or other action to avoid any hazard is taking place, the relief of that officer shall be deferred until such action has been completed.

Performing the navigational watch

23 The officer in charge of the navigational watch shall:

.1 keep the watch on the bridge;

.2 in no circumstances leave the bridge until properly relieved;

.3 continue to be responsible for the safe navigation of the ship, despite the presence of the master on the bridge, until informed specifically that the master has assumed that responsibility and this is mutually understood; and

.4 notify the master when in any doubt as to what action to take in the interest of safety.

24 During the watch the course steered, position and speed shall be checked at sufficiently frequent intervals, using any available navigational aids necessary, to ensure that the ship follows the planned course.

25 The officer in charge of the navigational watch shall have full knowledge of the location and operation of all safety and navigational equipment on board the ship and shall be aware and take account of the operating limitations of such equipment.

26 The officer in charge of the navigational watch shall not be assigned or undertake any duties which would interfere with the safe navigation of the ship.

27 Officers of the navigational watch shall make the most effective use of all navigational equipment at their disposal.

28 When using radar, the officer in charge of the navigational watch shall bear in mind the necessity to comply at all times with the provisions on the use of radar contained in the International Regulations for Preventing Collisions at Sea, in force.

29 In cases of need the officer in charge of the navigational watch shall not hesitate to use the helm, engines and sound signalling apparatus. However, timely notice of intended variations of engine speed shall be given where possible or effective use made of UMS engine controls provided on the bridge in accordance with the applicable procedures.

30 Officers of the navigational watch shall know the handling characteristics of their ship, including its stopping distances, and should appreciate that other ships may have different handling characteristics.

31 A proper record shall be kept during the watch of the movements and activities relating to the navigation of the ship.

32 It is of special importance that at all times the officer in charge of the navigational watch ensures that a proper look-out is maintained. In a ship with a separate chart room the officer in charge of the navigational watch may visit the chart room, when essential, for a short period for the necessary performance of navigational duties, but shall first ensure that it is safe to do so and that proper look-out is maintained.

33 Operational tests of shipboard navigational equipment shall be carried out at sea as frequently as practicable and as circumstances permit, in particular before hazardous conditions affecting navigation are expected. Whenever appropriate, these tests shall be recorded. Such tests shall also be carried out prior to port arrival and departure.

34 The officer in charge of the navigational watch shall make regular checks to ensure that:

.1 the person steering the ship or the automatic pilot is steering the correct course;

.2 the standard compass error is determined at least once a watch and, when possible, after any major alteration of course; the standard and gyro-compasses are frequently compared and repeaters are synchronized with their master compass;

.3 the automatic pilot is tested manually at least once a watch;

.4 the navigation and signal lights and other navigational equipment are functioning properly;

.5 the radio equipment is functioning properly in accordance with paragraph 86 of this section; and

.6 the UMS controls, alarms and indicators are functioning properly.

35 The officer in charge of the navigational watch shall bear in mind the necessity to comply at all times with the requirements in force of the International Convention for the Safety of Life at Sea, (SOLAS) 1974*. The officer of the navigational watch shall take into account:

.1 the need to station a person to steer the ship and to put the steering into manual control in good time to allow any potentially hazardous situation to be dealt with in a safe manner; and

.2 that with a ship under automatic steering it is highly dangerous to allow a situation to develop to the point where the officer in charge of the navigational watch is without assistance and has to break the continuity of the look-out in order to take emergency action.

36 Officers of the navigational watch shall be thoroughly familiar with the use of all electronic navigational aids carried, including their capabilities and limitations, and shall use each of these aids when appropriate and shall bear in mind that the echo-sounder is a valuable navigational aid.

37 The officer in charge of the navigational watch shall use the radar whenever restricted visibility is encountered or expected, and at all times in congested waters having due regard to its limitations.

38 The officer in charge of the navigational watch shall ensure that range scales employed are changed at sufficiently frequent intervals so that echoes are detected as early as possible. It shall be borne in mind that small or poor echoes may escape detection.

39 Whenever radar is in use, the officer in charge of the navigational watch shall select an appropriate range scale and observe the display carefully, and shall ensure that plotting or systematic analysis is commenced in ample time.

40 The officer in charge of the navigational watch shall notify the master immediately:

.1 if restricted visibility is encountered or expected;

.2 if the traffic conditions or the movements of other ships are causing concern;

.3 if difficulty is experienced in maintaining course;

.4 on failure to sight land, a navigation mark or to obtain soundings by the expected time;

.5 if, unexpectedly, land or a navigation mark is sighted or a change in soundings occurs;

.6 on breakdown of the engines, propulsion machinery remote control, steering gear or any essential navigational equipment, alarm or indicator;

.7 if the radio equipment malfunctions;

.8 in heavy weather, if in any doubt about the possibility of weather damage;

.9 if the ship meets any hazard to navigation, such as ice or a derelict; and

.10 in any other emergency or if in any doubt.

41 Despite the requirement to notify the master immediately in the foregoing circumstances, the officer in charge of the navigational watch shall in addition not hesitate to take immediate action for the safety of the ship, where circumstances so require.

42 The officer in charge of the navigational watch shall give watchkeeping personnel all appropriate instructions and information which will ensure the keeping of a safe watch, including a proper look-out.

Watchkeeping under different conditions and in different areas

Clear weather

43 The officer in charge of the navigational watch shall take frequent and accurate compass bearings of approaching ships as a means of early detection of risk of collision and bear in mind that such risk may sometimes exist even when an appreciable bearing change is evident, particularly when approaching a very large ship or a tow or when approaching a ship at close range. The officer in charge of the navigational watch shall also take early and positive action in compliance with the applicable International Regulations for Preventing Collisions at Sea, 1972 and subsequently check that such action is having the desired effect.

44 In clear weather, whenever possible, the officer in charge of the navigational watch shall carry out radar practice.

Restricted visibility

45 When restricted visibility is encountered or expected, the first responsibility of the officer in charge of the navigational watch is to comply with the relevant rules of the International Regulations for Preventing Collisions at Sea, 1972 with particular regard to

the sounding of fog signals, proceeding at a safe speed and having the engines ready for immediate manoeuvre. In addition, the officer in charge of the navigational watch shall:

.1 inform the master;

.2 post a proper look-out;

.3 exhibit navigation lights; and

.4 operate and use the radar.

In hours of darkness

46 The master and the officer in charge of the navigational watch when arranging look-out duty shall have due regard to the bridge equipment and navigational aids available for use, their limitations; procedures and safeguards implemented.

Coastal and congested waters

47 The largest scale chart on board, suitable for the area and corrected with the latest available information, shall be used. Fixes shall be taken at frequent intervals, and shall be carried out by more than one method whenever circumstances allow.

48 The officer in charge of the navigational watch shall positively identify all relevant navigation marks.

Navigation with pilot on board

49 Despite the duties and obligations of pilots, their presence on board does not relieve the master or officer in charge of the navigational watch from their duties and obligations for the safety of the ship. The master and the pilot shall exchange information regarding navigation procedures, local conditions and the ship's characteristics. The master and/or the officer in charge of the navigational watch shall co-operate closely with the pilot and maintain an accurate check on the ship's position and movement.

50 If in any doubt as to the pilot's actions or intentions, the officer in charge of the navigational watch shall seek clarification from the pilot and, if doubt still exists, shall notify the master immediately and take whatever action is necessary before the master arrives.

Ship at anchor

51 If the master considers it necessary, a continuous navigational watch shall be maintained at anchor. While at anchor, the officer in charge of the navigational watch shall:

.1 determine and plot the ship's position on the appropriate chart as soon as practicable;

.2 when circumstances permit, check at sufficiently frequent intervals whether the ship is remaining securely at anchor by taking bearings of fixed navigation marks or readily identifiable shore objects;

.3 ensure that proper look-out is maintained;

.4 ensure that inspection rounds of the ship are made periodically;

.5 observe meteorological and tidal conditions and the state of the sea;

.6 notify the master and undertake all necessary measures if the ship drags anchor;

.7 ensure that the state of readiness of the main engines and other machinery is in accordance with the master's instructions;

.8 if visibility deteriorates, notify the master;

.9 ensure that the ship exhibits the appropriate lights and shapes and that appropriate sound signals are made in accordance with all applicable regulations; and

.10 take measures to protect the environment from pollution by the ship and comply with applicable pollution regulations.

Note: to view entire STCW document, see IMO or U.S. Coast Guard web sites:

http://www.imo.org/includes/blastDataOnly.asp/data_id%3D7864/STCWCode.pdf

http://www.uscg.mil/STCW/stcw-code-ach8.htm

FERRY OPERATIONS WORK GROUP

From: John Davey, Work Group Chair
Subject: Work Group Recommendation on Routes and Ferry Building Approach Zone
Date: May 8, 2008

Background

Small commercial passenger vessels operate year round on San Francisco Bay, San Pablo Bay and tributaries, in 2007 carrying five million passengers on nearly 73,000 transits. In total, passenger vessels make up more than 58 percent of all transits tracked by the USCG Vessel Traffic Service.

Currently, commuter service on six routes is provided by three ferry operators that regularly serve a dozen ferry terminals in the Bay Area. High speed ferries (more than 30 knots) currently operate on the Vallejo and Larkspur routes. The Water Transit Authority (WTA) is currently planning to add up to six new commuter routes to the region within the next few years.

While ferries have been one of the safest forms of public transportation, the planned increase in number of routes prompted concern of increased risk of collision. The Ferry Operations Work Group was assigned the task to develop and forward recommendations to the HSC designed to promote safe navigation of commute ferries.

Planning Process

To avoid future possible collisions of ferries, the Bay Area's three commute ferry companies/agencies agreed to work with the Harbor Safety Committee, Coast Guard Vessel Traffic Service (VTS), the WTA and interested parties to develop a protocol for ferry navigation in the San Francisco and San Pablo Bays. The group held more than a dozen meetings, including outreach to tug captains.

Beginning in 2006, the Ferry Operations Work Group reviewed a ferry routing model developed by George Washington University to identify risks associated with proposed increased ferry traffic. This model provided data that confirmed the protocols would increase vessel predictability for the ferry captains and VTS, which reduced the risk of collision.

From this information routes and waypoints were developed, and the Work Group and ferry captains tested the protocols using simulator training at the Army's small vessel training facility on Mare Island.

Because the ferries use a common electronic chart program, an overlay of the routes and waypoints was produced to familiarize and assist ferry captains with the route protocols.

Outreach

- San Francisco Bar Pilots provided input on routes and communications.
- Presentations of the route protocols by the VTS were given to the HSC and the WTA technical advisory committee.

Trial Period

Test use of the proposed routes commenced November 2006 and continued through 2007 to allow the Work Group to assess the routes and to incorporate suggested modifications. The work group met a number of times in 2006 and 2007 with ferry operators and captains to discuss lessons learned and to receive input on refining routes. Following the trial period, the ferry companies agreed upon the routing in the Central Bay and the area around the San Francisco Ferry Building.

Proposed Ferry Routing

The proposed routes and Ferry Building Approach Zone are shown in Figures 1-7, attached, and are incorporated herein. Diagrams are screen print files from vector-based electronic nautical charts (ENCs). Additional lines and labels were added to the screen print files for emphasis and clarity. For more information contact:

Scott Humphrey
Training Director
Sector San Francisco Vessel Traffic Service
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Benefits

If the protocols are approved by the Harbor Safety Committee, future VTS outreach programs to waterway users will include ferry protocol information. The National Ocean and Atmospheric Administration (NOAA) has also agreed to include information about the ferry protocols on nautical charts and in publications. Including ferry routes in the Central Bay on NOAA charts will alert the maritime community and recreational boaters in particular that fast ferries use this area. A Maneuvering Zone at the Ferry Building will alert recreational boaters of the high frequency of inbound and outbound ferries.

Establishing the routes also lends predictability for VTS tracking: when ferries deviate from a route, there may be a need to advise the ferry captain of possible unsafe movements.

Future Ferry Operations Work Group Actions

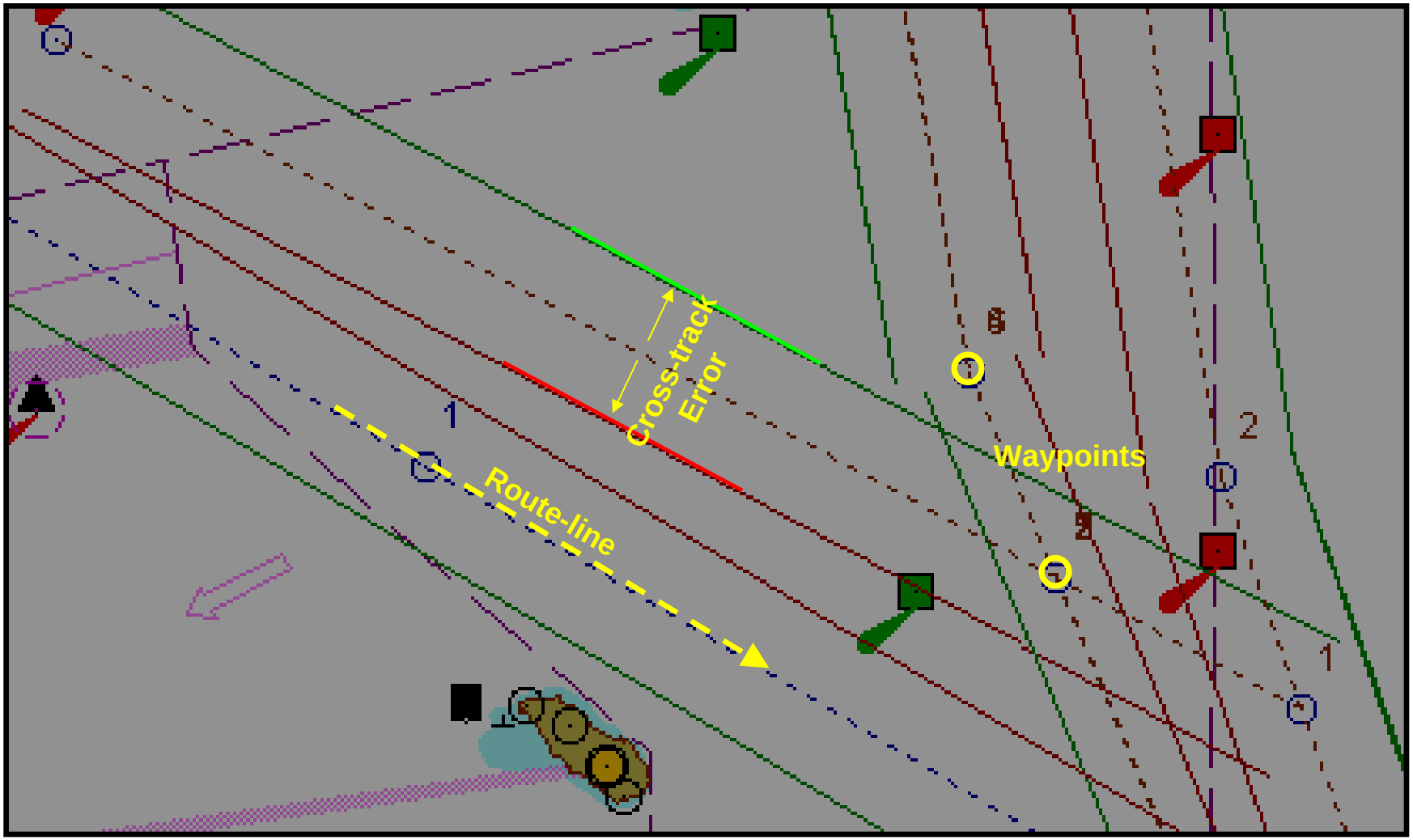
- The Work Group will develop Best Practices as guidelines for ferry transit in inclement weather, to be adopted by the HSC and incorporated in the Harbor Safety Plan.
- The Work Group will work with Bay Area ferry operators to define a Maneuvering Zone for the waterfront adjacent the San Francisco Ferry Building and to develop approach and departure protocols for this area.
- The Work Group will work with NOAA to ensure the ferry routes and special zones are accurately reflected on navigational charts for San Francisco Bay.

Recommendations to the Harbor Safety Committee:

1. The Ferry Operations Work Group recommends that the ferry routes developed by the Work Group working with ferry operators, captains and the VTS, be adopted by the Harbor Safety Committee and incorporated into the Harbor Safety Plan.

2. The Work Group further recommends the HSC work with NOAA to include the routes and accompanying notes on area nautical charts.

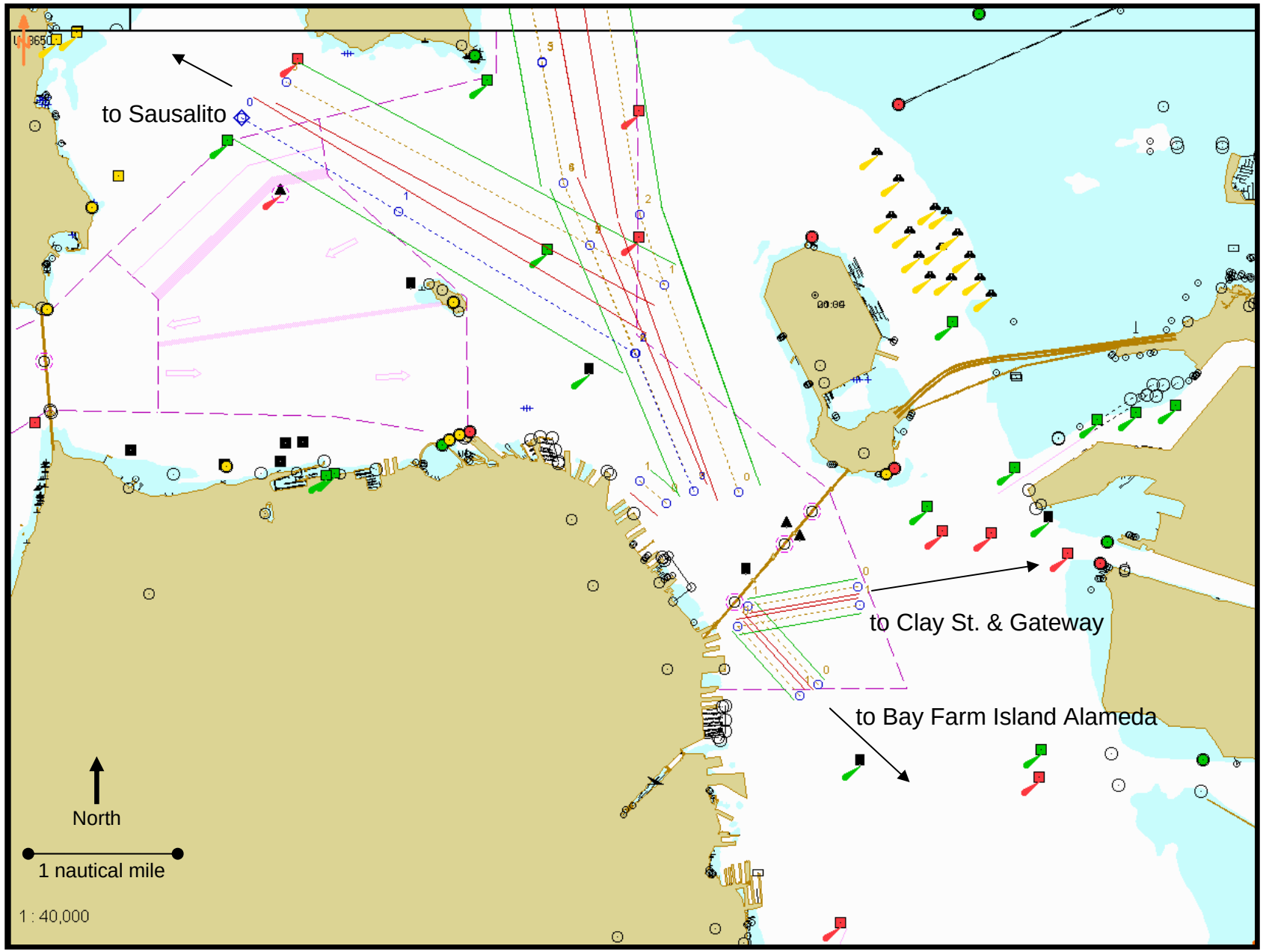
Diagram Key



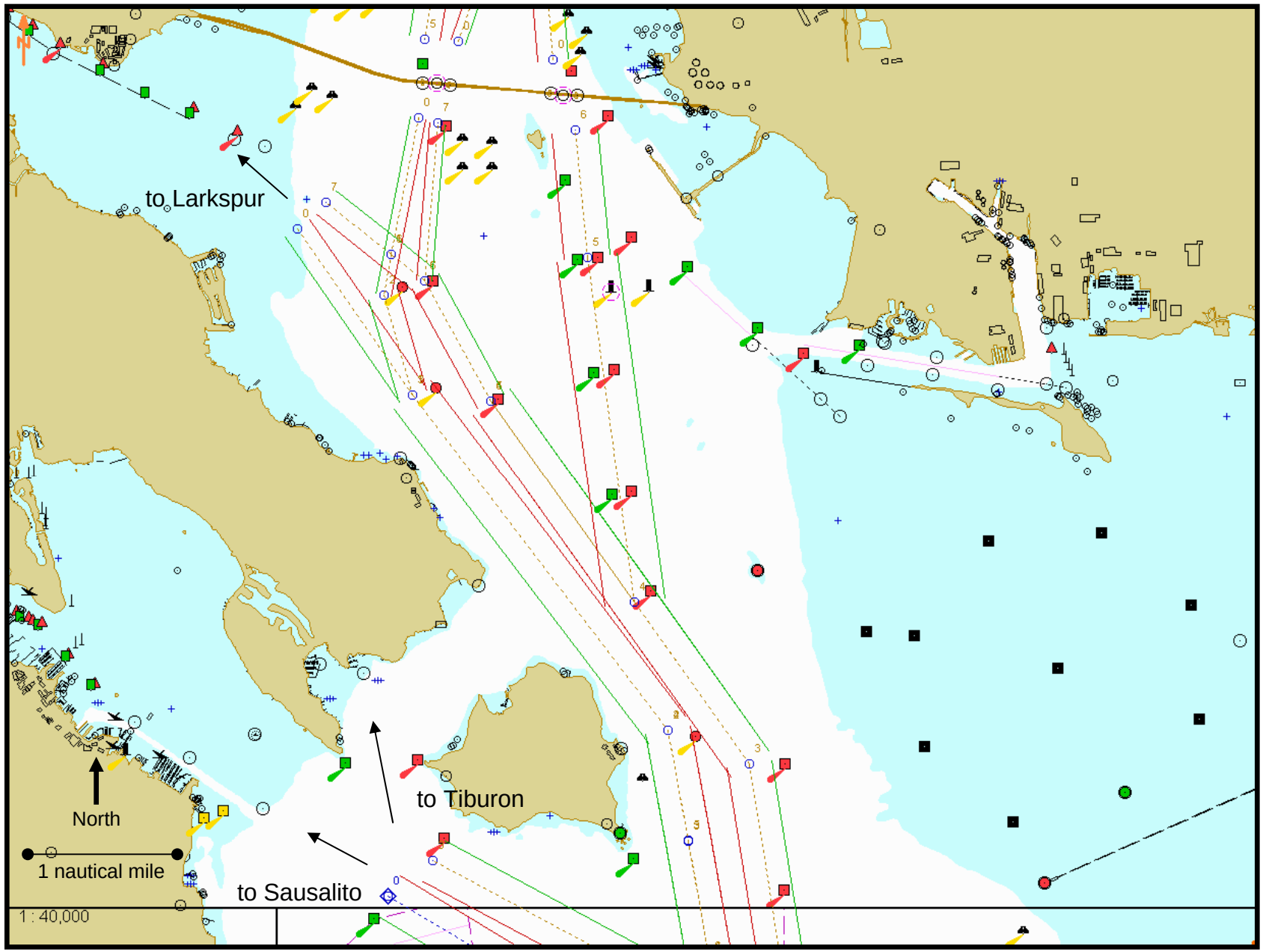
The following chart features are highlighted above.

- Route-line: Centerline of the ferry route.
- Cross-track Error: Left and right of route-line tolerance.
- Waypoints: Turns, route crossing points, and communications points.

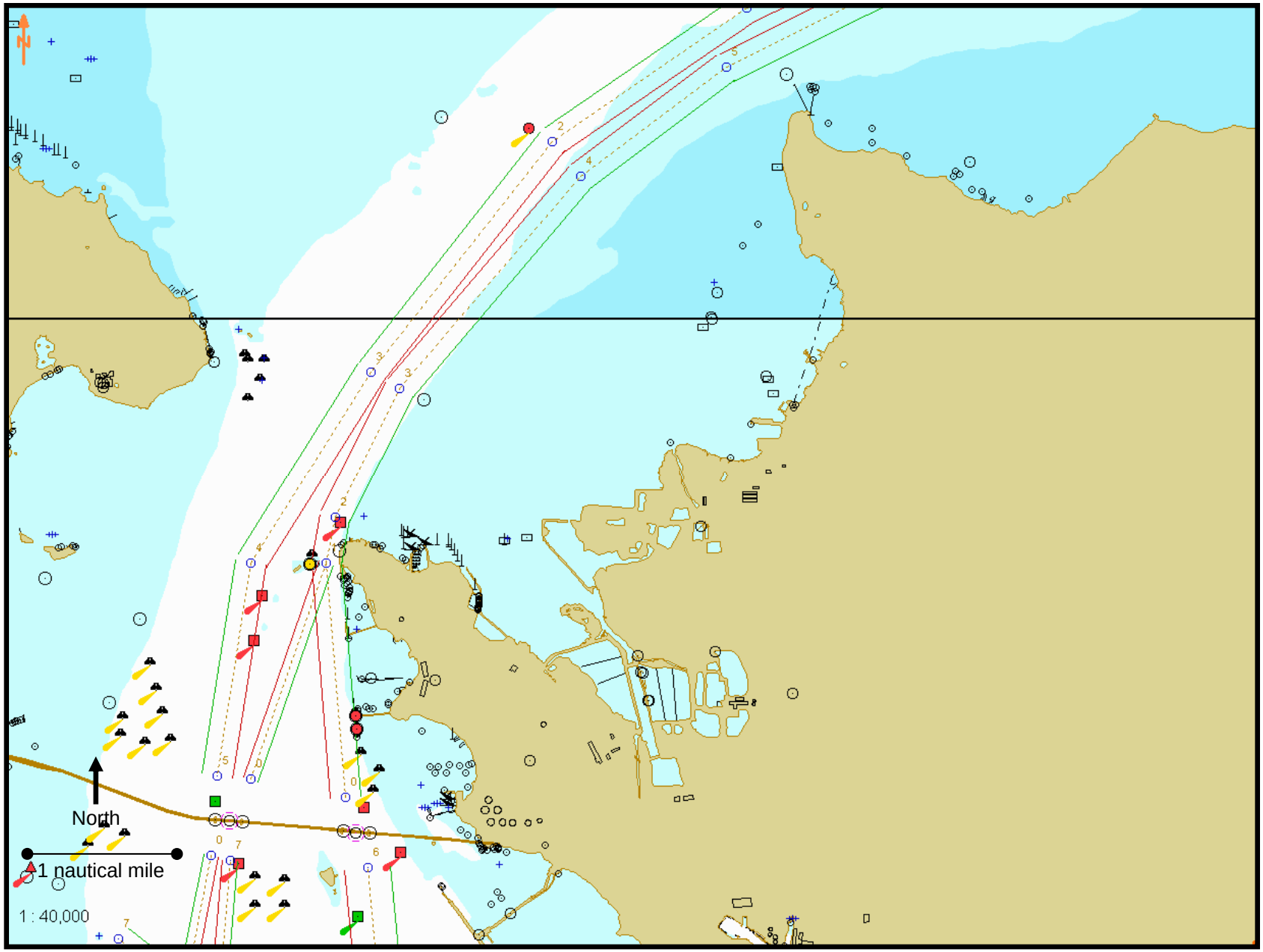
Central Bay and South San Francisco Bay



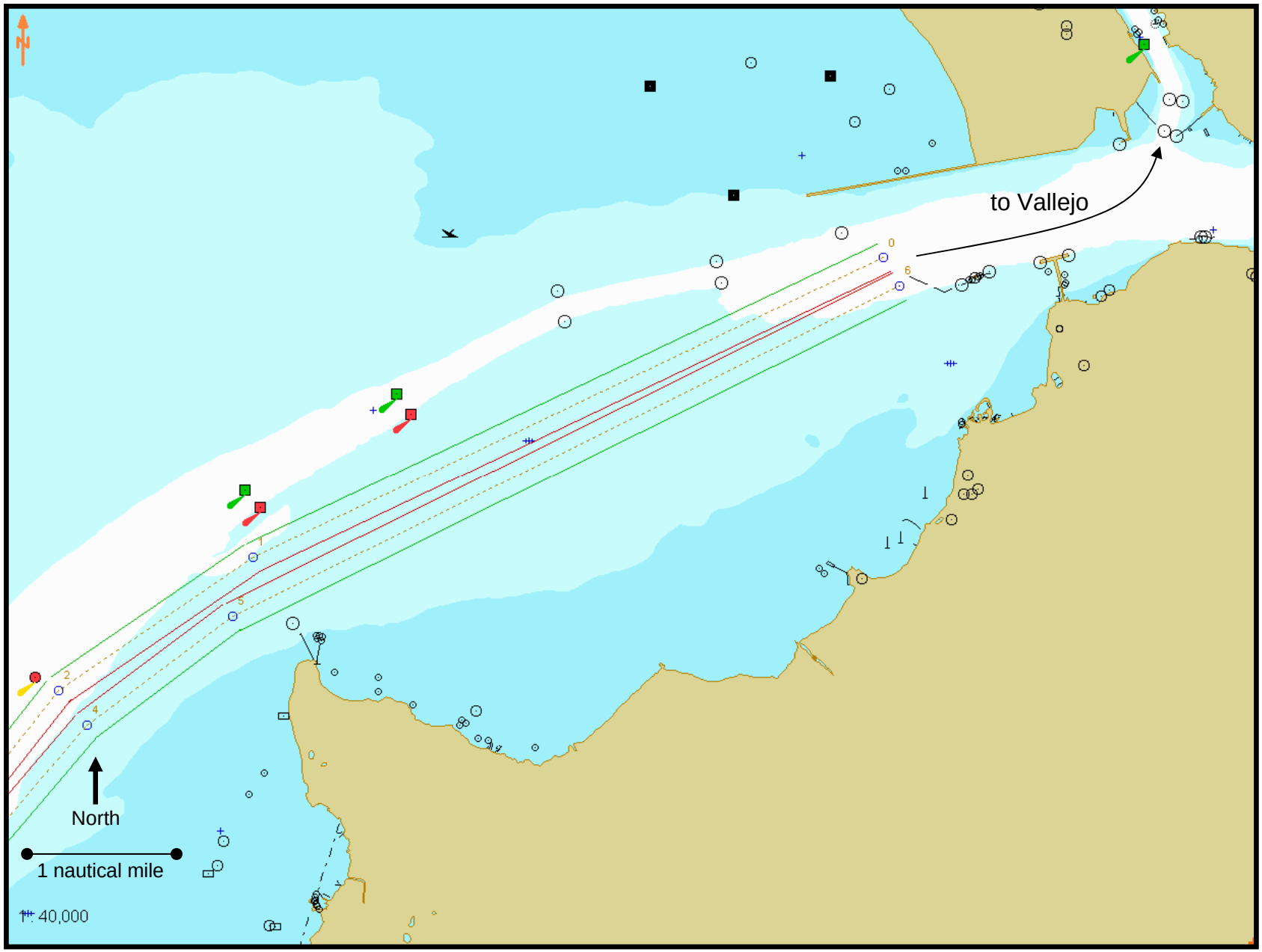
North Channel and Southampton Shoal Channel



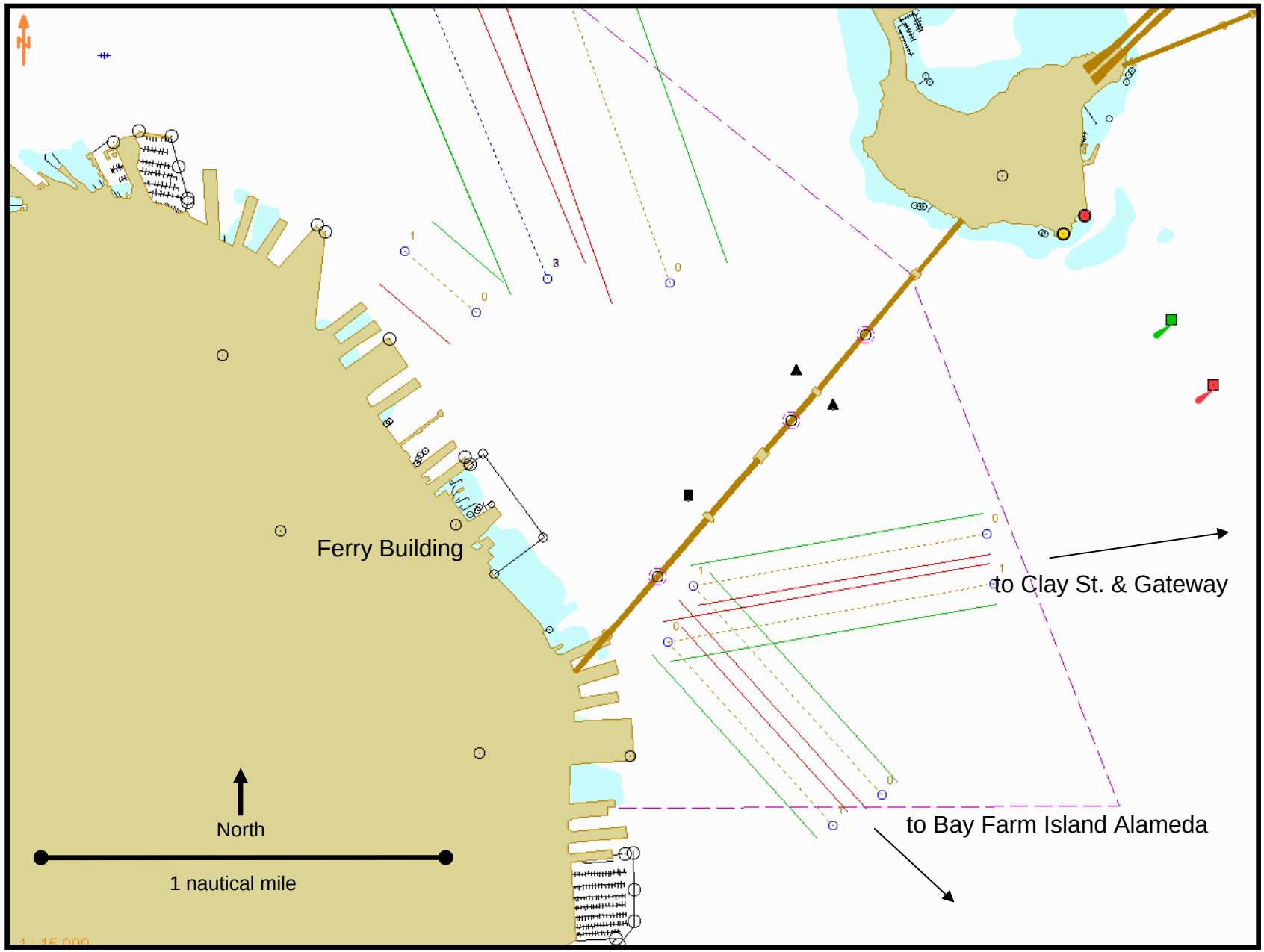
San Pablo Strait Channel



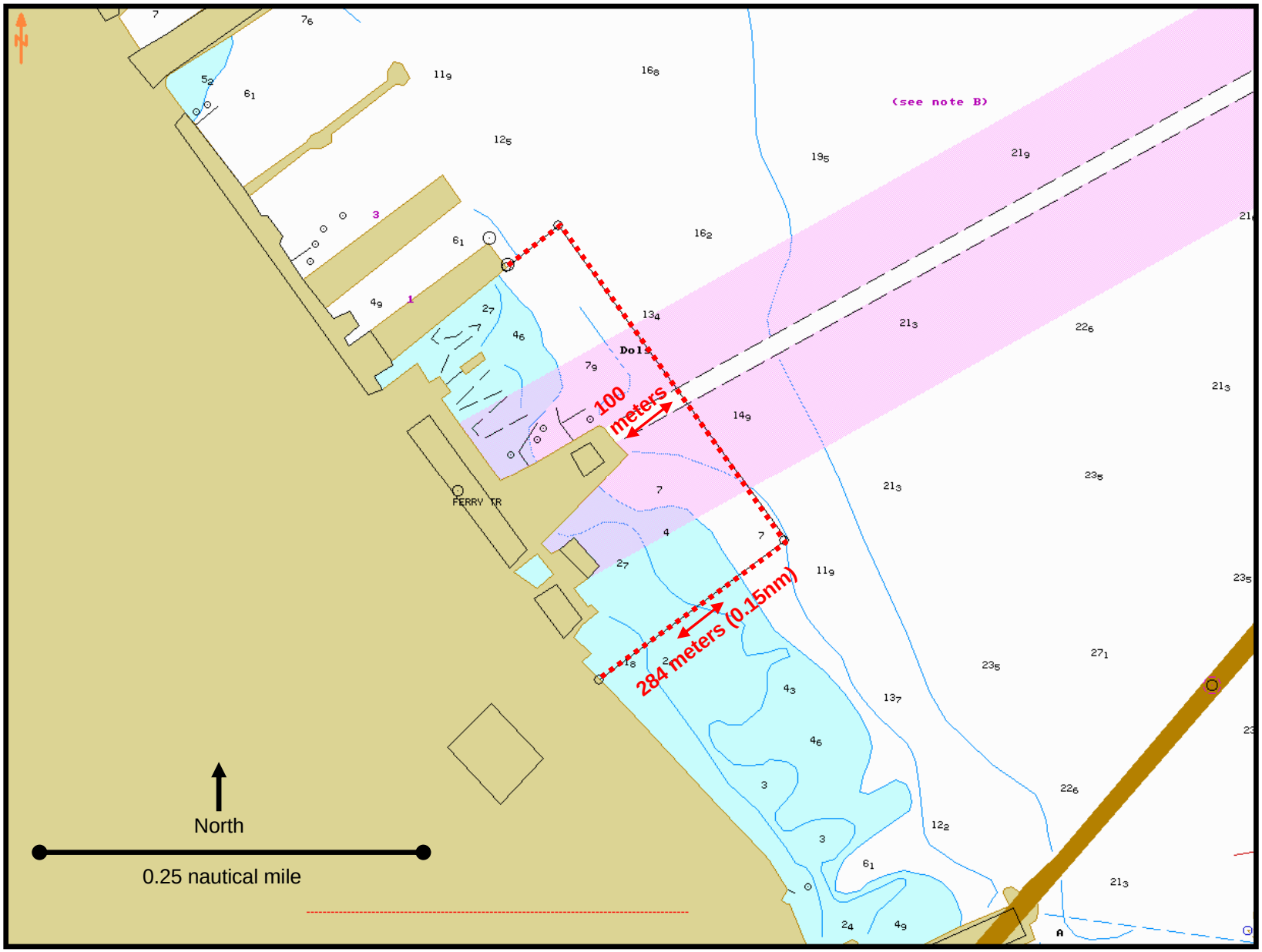
San Pablo Bay and Mare Island Strait



Ferry Building Approach/Departure Zone



Ferry Building Maneuvering Area



Source and Contact Information

Diagrams are screen print files from vector-based electronic nautical charts (ENCs).

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For more information contact:

Scott Humphrey
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Investigations into Causes of and Response to Cosco Busan Oil Spill

May 8, 2008 Update

Linda Scourtis, BCDC

State Government Inquiries

State Board of Pilot Commissioners

1. Through the Incident Review Committee (IRC), the Board investigates actions on the part of the pilot that may have contributed to the incident. The board will work with the HSC work group as it also considers lessons learned from the incident.

Update: Hearing before administrative law judge is scheduled to begin September 2, 2008. The pilot's license will remain suspended until an outcome is determined.

Executive Director: Capt. Pat Moloney, 415.397-2253

2. Established a standing Navigation Technology Committee. The purpose is "to investigate the different types of navigation systems generally found on ships calling on the San Francisco Bay Area and the sufficiency of pilot training in the use of such systems; to evaluate lap top computers, GPS units and other portable electronic chart systems that can be brought aboard ships by pilots to assist in navigation…The committee shall establish a dialogue with the Harbor Safety Committee and its cognizant subcommittees in the exchange of relevant information."

Capt. Bruce Horton will serve as liaison to the BOPC for interim reports.

Timeline: Preliminary report June 1

Governor's State Investigation into causes of and response to the oil spill

The Governor has directed OSPR, in coordination with the Governor's Office of Emergency Services and the Department of Fish and Game, to review procedures and identify areas for improvement including prevention, preparation, response, notification, and cleanup; assess natural resource damage and the associated economic impact to fishermen, small businesses and state and local economies; assess environmental damage to water and beaches; identify the best ways to return the environment to its natural state.

Update: SF Harbor Safety Committee forwarded findings of PORTS work group to OSPR Feb 1, 2008. HSC reports containing Tug Escorts, Prevention through People and Navigation Work Group recommendations submitted to OSPR March 19 and 20.

Ferry Operations Work Group recommendations are scheduled for a vote by the HSC May 8, 2008, as are further recommendations by the Navigation Work Group. The Tug Escort group will meet May 16 to develop recommendations regarding transit in low visibility by tugs and barges.

California State Legislature

State Assembly special hearing on spill response held in Emeryville November 15, 2007. State Senate Joint Informational Hearing of Natural Resources and Governmental Organization subcommittees held a special hearing November 30, 2007, on the state response to the spill.

The following bills related to navigational issues that may be of interest to the Harbor Safety Committee have been introduced in the State Legislature in response to the Cosco Busan spill:

AB 2032, **Hancock**, would amend Section 8670.3 of the Government Code (OSPRA) to revise the definition of "tank ship" to include self-propelled vessels that carry oil in a single tank with a capacity greater than 50,000 gallons; and amend Sections 46012 and 46028 of the Revenue and Taxation Code to increase the amount designated to be maintained in the Oil Spill Response Trust Fund from $109,750,000 to $200,000,000, of which $100,000,000 shall be retained as cash and an equal amount accessible in the form of financial security to be adjusted annually for inflation.

AB 2441, **Lieber**, would amend Section 8670.17.2 of the Government Code (OSPRA) to require the OSPR Administrator to adopt regulations governing tug escorts for vessels carrying hazardous materials in state waters. *The HSC Tug Escorts Work Group is working with Baykeeper to refine the list of hazardous cargoes to those that call SF Bay in large quantities.*

The OSPR Technical Advisory Committee has established a subcommittee to review and provide analysis of legislation proposed at the state level in response to the Cosco Busan incident. The SF HSC Chair is a member of this group.

Federal Government Inquires

National Transportation Safety Board (NTSB)

Will consider equipment and navigation systems as well as human error in looking into the cause of the accident: the performance of the master, pilot and crew, as well as the operation and maintenance of equipment and navigation systems. A second focus of the NTSB investigation is on the response to the spill.

Public hearing held April 8-9, 2008. Report expected Fall 2008.

U.S. Coast Guard: Incident Specific Preparedness Review (ISPR)

Will evaluate the effectiveness of the Coast Guard's oil spill response and communications efforts, as well as the overall preparedness system. The following are the investigating agencies: San Francisco, OSPR, Pacific States-British Columbia Oil Spill Task Force, Baykeeper, PMSA, NOAA and the USCG.

Update: An initial report was released January 28, 2008, which concentrated on the first two weeks of response to the spill (http://uscg.mil/foia/CoscoBuscan/CoscoBusanISPRFinal.pdf.). The final report will expand on some Phase I focus issues and add some that extend beyond the first two weeks of the incident. *Chair: Rear Admiral Carlton Moore, Ret.*

Report on initial two weeks' response released January 28, 2008; final report due May 2008

Congressional Inquiry

Special Senate briefing with the USCG spill response was held in Washington, D.C., November 14, 2007. Special hearing on the Coast Guard spill response held by the House Subcommittee on Coast Guard and Maritime Transportation in San Francisco November 19, 2007. The congressional panel focused on a number of issues, including what caused the ship to hit the bridge, whether there were adequate communications and equipment on board, and why there were delays in reporting the spill and its severity.

Further inquiry into preparation for and response to the spill was conducted by Department of Homeland Security Inspector General. The report of the IG's review of the U.S. Coast Guard's response to the allision, dated April 9, 2008: http://www.dhs.gov/xoig/assets/mgmtrpts/OIG_08-38_Apr08.pdf.

Federal legislation to upgrade VTS technology, require pilots to carry their own navigational laptop computers while piloting a vessel, and to raise liability limits for cargo ship owners to cover cleanup costs and damages proposed in the Senate late 2007.

S. 2430, Boxer/Feinstein (“Maritime Emergency Prevention Act of 2007”), would authorize the VTS to command the pilot of a vessel to modify the speed or direction of a vessel in an emergency or hazardous conditions as determined by the VTS director. Also would require a federally licensed pilot to carry and use a laptop computer equipped with a navigation system where determined by the pilotage authority that a computer is practical and necessary.

The HSC voted on March 13, 2008 to accept the Prevention through People Work Group’s recommendation that no additional authority is required of the Coast Guard to regulate shipping and control vessel movements, recognizing that the best skills for maneuvering a vessel originate from onboard the vessel itself, and not from the Vessel Traffic Service. Transmitted to OSPR March 20.

Additionally, the HSC Navigation Work Group will review a Board of Pilot Commissioners study, due in June, of navigation systems and make a recommendation to the HSC.

S. 2699, Lautenberg/Boxer (“Oil Spill Prevention Act of 2008”), would require new vessels (contracted for construction after the date of enactment of the Act or delivered after August 1, 2010), with an aggregate capacity of 600 cubic meters or more of fuel oil to have double hulls, oil fuel being defined as “oil used as fuel in connection with the propulsion and auxiliary machinery of the vessel in which such oil is carried.”

S. 2841, **Feinstein** (“Marine Emergency Protocol and Hull Requirement Act of 2008”), would amend the Oil Pollution Act of 1990 to require new cargo ships over 5,000 gross tons to have a double hull protecting their fuel tanks by 2010, and existing ships to be retrofitted by 2024. The bill also would direct the Coast Guard to assume direct authority of all vessels during adverse conditions, or "enhanced danger" situations, such as an act of war or terrorism, low visibility, or after a large oil spill or hazardous materials discharge.

H.R. 5428, Tauscher (“Vessel Navigation and Safety Improvement Act”), would direct the Coast Guard to issue regulations requiring pilots of certain vessels to carry and utilize a portable electronic device that is equipped for navigational purposes and capable of connection to AIS.

As stated above, the HSC Navigation Work Group will work with the Pilot Commissioners on this issue. No recommendation to date.

Other Organizations

San Francisco Bar Pilots

The San Francisco Bar Pilots internal review of its policies and procedures as well as of the Harbor Safety Committee Safety Plan will produce recommendations to improve shipping safety. The pilots will work with the HSC work group to inform our efforts.

Update: The HSC included in its March 19, 2008, report to OSPR, “Guidelines for Navigating in Reduced Visibility” developed primarily by the Bar Pilots and Coast Guard. The Guidelines apply to specific “Critical Maneuvering Areas” in the Bay.

Capt Pete McIssac: 415.362-5436