

September 9, 2019

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VIA EMAIL TO PLANNING@CO.COOS.OR.US

Andrew Stamp
Land Use Hearings Officer
c/o Coos County Planning Department
225 N Adams St
Coquille, OR 97423

**Re: Jordan Cove Energy Project Land Use Applications
Coos County File No. REM-19-001 (HBCU-15-05/FP-15-09)
Applicant's First Submittal Responding to August 23 Order to Reopen Record**

Dear Mr. Stamp:

This office represents Jordan Cove Energy Project L.P. ("JCEP"), the applicant requesting approval of concurrent land use applications to construct a liquefied natural gas facility, export terminal, and related project components ("Project") in Coos County File No. REM-19-001 (HBCU-15-05/FP-15-09) ("Applications"). This letter and its two exhibits constitute JCEP's first open record submittal in response to the Hearings Officer's August 23, 2019 order re-opening the record to address the limited topic of JCEP's use of Coos Bay and potential impacts to other users of the Bay. Please consider this information before completing your recommended order for this matter.

- 1. Size and Scope of the Security Zone.** There will be a security zone of 500 yards around each Project liquefied natural gas ("LNG") carrier in Coos Bay. See Exhibit 2 at 8. Consistent with federal regulations, the scope of the security zone will be limited to "safeguard[ing] vessels, harbors, ports, and waterfront facilities from destruction, loss, or injury from sabotage or other subversive acts, accidents, or other causes of a similar nature." See Exhibit 2 at 5. Stated another way, the purpose of the security zone is not to interfere with traditional, non-threatening uses of the Bay. The implementation and application of the security zone is discussed in response to Items 6, 7, and 8 below.
- 2. Number of Trips.** Consistent with its representations to the Federal Energy Regulatory Commission and other federal agencies, JCEP anticipates that, at peak

production, approximately 110-120 LNG carriers will service the Project each year. See Exhibit 1 at 1-2. JCEP agrees that this figure is slightly higher than the figure discussed in the original proceedings; however, JCEP does not agree with the suggestion that this increase requires a formal modification to the Applications or a new application submittal. JCEP never formally proposed a specific number (or range) of vessel trips associated with the Project. See generally original narrative for the Applications. Neither the public trust doctrine nor any Oregon case law interpreting that doctrine requires a limitation of 100 vessels per year or precludes 120 vessels per year. Further, due to the advance notice provided of LNG carrier transits, the limited travel time in the Bay, the non-exclusive nature of security zones, and the fact that typical, non-threatening users of the Bay will be able to continue their activities notwithstanding the LNG carrier's passage, the impacts from an additional 10-20 vessels per year to users of the Bay will be minimal and will not "unreasonably interfere with public trust rights[.]" Additionally, JCEP's implementation of the Vessel Traffic Information Service will provide improved notice of all large vessel transits (not just those associated with the Project), which should, in turn, allow for more efficient planning and fewer surprises for all users of the Bay.

3. Tides. JCEP agrees that Coos Bay is characterized as having two high tides and two low tides each day, but the high tides are not always of the same height. See Exhibit 1 at 2. JCEP has calculated daily and seasonal tidal variations into its Project planning. *Id.* Based upon tidal patterns, JCEP anticipates that approximately 50-75% of the high tides in Coos Bay will permit a normal size, fully-loaded LNG carrier to safely transit the Bay while maintaining the required underkeel clearance. *Id.* If the tide is not high enough to allow a vessel to depart, it will remain at the terminal berth and will not interfere with other users of the Bay. *Id.*

4. Night Operations. JCEP is not willing to accept a condition requiring that a specific number or percentage of vessel trips occur at night because it would severely impact operations, it would not adequately allow for exceptions due to tides or weather conditions, and it may not be feasible in light of the United States Coast Guard ("USCG")'s role in overseeing LNG carrier traffic and related security zones. See Exhibit 1 at 3. However, after an initial period of daytime transits, night transit should generally be available and feasible. *Id.* Further, it is preferred because, among other things, there

is typically less traffic on the Bay, fewer winds, and less radio congestion. *Id.* For these reasons and as explained in the Project DEIS, it is reasonable to expect that night transits will be prioritized.

5. Transit Times Through the Estuary. As previously stated on the record, an LNG carrier will take about 90 minutes to travel from the Pilot station (two miles offshore) until it is inside the JCEP slip and access channel basin; it will likewise take 90 minutes outbound. See Exhibit 1 at 4. Each LNG vessel will spend additional time maneuvering and mooring/unmooring; however, these activities are occurring in JCEP's basin and outside of the Coos Bay channel, and as such, they will not cause interference with others users in the Bay. *Id.* State agency comments regarding the varying time periods appear to be aggregating the travel time with the maneuvering and mooring time periods when they are distinguishable from a public impacts perspective.

6. Case by Case Threat Assessment. Captain Frank Whipple of Amergent Techs, who has decades of experience with the USCG and over 46 years of experience establishing, enforcing, and creating the basis for regulated navigation areas, safety zones, and security zones around the country and who worked with the USCG and the State of Oregon to develop the security zone in this case, explained, step-by-step, how the threat assessment would work in practice. See Exhibit 2 at 9-12. These steps include: (1) information and observation; (2) education of the public; (3) pre-arrival checks; and (4) escorting the LNG carrier through the Bay. *Id.* Because the intent of the security zone is only to exclude subversive forces, "small recreational and fishing boats not perceived as a harm and [] not in the federal navigation channel would be allowed to remain where they are and continue with their activities as the LNG carrier passes through." *Id.* at 10.

7. Impacts to Kayakers. See response to Item 6, which also applies here. Additionally, Captain Whipple specifically noted that kayakers in general would not be deemed a threat to an LNG carrier unless they interfered with the carrier's passage:

"If a surfer or kayaker was to intentionally interfere with the transit of the LNG carrier, they would be subject to actions and penalties as stipulated in the regulations for violation of a security zone. If they were merely

Andrew Stamp
Coos County Land Use Hearings Officer
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paddling without stated intent to interfere with the passage of an LNG carrier, no action would be taken.”

See Exhibit 2 at 13. The Hearings Officer should rely upon this testimony to find that the Project will not “unreasonably interfere with public trust rights” of kayakers.

8. Impacts to Surfers. See responses to Items 6 and 7, which also apply here. The Hearings Officer should rely upon this testimony to find that the Project will not “unreasonably interfere with public trust rights” of surfers.

Based upon the attached evidence and the explanation in this letter, and subject to a condition limiting the number of annual LNG vessels serving the Project to 120, the Hearings Officer should find that the Project will not “unreasonably interfere with public trust rights” in Coos Bay.

I have asked staff to place a copy of this submittal into the official record for this file and to place a copy before you. JCEP reserves the right to submit additional argument and evidence in this matter consistent with ORS 197.763, and JCEP expressly does not waive its right to submit final written argument within seven days after the record closes to all other parties. Thank you for your careful review of this information.

Very truly yours,



Seth J. King

Encls.

cc: Jill Rolfe (via email) (w/encls.)
Steve Pfeiffer (via email) (w/encls.)
Client (via email) (w/encls.)

September 09, 2019

Seth King, Esq
Perkins Coie LLP
1120 N.W. Couch Street Tenth Floor
Portland, OR 97209-4128

Re: Nature and Scope of LNG Carrier Transits Report – Rajnish Kelkar, Marine Operations, Jordan Cove Energy Project

Dear Mr. King:

In order to provide my expertise on these questions, I have incorporated my knowledge, skill, expertise, education, qualifications, and 33 years of maritime experience.

I have used the following in preparing answers:

1. NOAA tidal predictions
2. Coos Bay ship transit records from the Coos Bay pilots

This letter responds to the Hearing Officer's request for more supporting information regarding the transit of LNG carriers through Coos Bay, Oregon. This request specifically responds to items 2, 3, 4, and 5 in the letter from the Hearings Officer to the Coos County Planning Department dated 23 August 2019 and reopening the record.

2. Number of Trips. The hearings officer is working of the assumption that the applicant is seeking approval for 100 tanker arrivals and 100 departures per year. The record reflects that the applicant has stated to FERC that there would be up to 120 trips per year, as that number is included in the DEIS. Exhibit 17, pp. 819 & 875 of 1120. The hearings officer recalls that the applicant previously stated that only 90 ships per year would use the facility. The hearings officer believes that the record is clear that the applicant has not asked to modify the CUP application to accommodate 120 port arrivals (*i.e.* 240 round "trips" in and out of the estuary), but this should be clarified, since the impacts to the community increase with greater numbers of vessels, and at some point, there is a tipping point where the impacts become significant enough to constitute a substantial interference.

Answer: The previously proposed LNG import terminal facility (in Docket Nos. CP13-483-000 and CP13-492-000), was an import terminal and the total number of LNG carriers that were expected to call at the terminal annually was about 90. These LNG carriers would be bringing LNG into Oregon for distribution throughout the Pacific Northwest.

The currently proposed LNG terminal (Docket Nos. CP17-494-000 and CP17-495-000) is an export terminal and can produce a maximum of 7.8 million metric tons per annum (MMTPA) of LNG. The number of LNG carriers that are estimated to be required to lift this capacity from the terminal is 110 to 120 vessels per year. These LNG carriers would be loading LNG produced at the LNG facility for shipment.

The number of ships is dependent upon the capacity of the LNG facility to produce LNG from methane gas and the size of the ships which are able to load LNG at the marine terminal. The smaller the LNG carriers,

the more ships are required to load the same amount of LNG produced. Since the beginning of the project engineering evaluations and studies have shown that due to the colder temperatures in Coos Bay, the production of LNG will be slightly higher than the first engineering systems proposed.

Even with the additional LNG carriers in the waterway, the total number of ships in the bay would still be below historic levels for deep-draft traffic to the Port. This increase in marine traffic combined with current deep-draft vessel traffic would be less than historic ship traffic through the Coos Bay channel. The number of calls at the Port of Coos Bay by deep-draft vessels has declined from more than 310 calls per year in the late 1980s to about 40 calls per year ten years ago and was only 52 vessels in 2016. Even with the maximum anticipated calls of an additional 120 vessels, the total traffic in Coos Bay will be close to half what it was in the 1980s. During this same time period, fishing and logging have declined in the area as well.

3. Tides. The record currently reflects the understanding that departures of fully loaded LNG tankers could only occur during high tide. Resource Report 8 at p. 29. Exhibit 50, Sub Exhibit 15, page 5 of 6. Conversely, arrivals of “empty” tankers may occur during low tide. *Id.* Some commentators have noted that Coos Bay experiences semi-diurnal tides, which is to say that there are two high and low tides each day. These commentators further note that there are height differences between the two high tides, and in fact, the differences may be several feet in height. These commentators’ question whether the LNG tankers can use *both* of the daily high tides and suggest that the tankers may be limited to using only the higher of these two tides. The hearings officer would appreciate further clarification of that issue by the applicant, as well as a discussion of whether the seasonal or other variations in tide heights (such as moon phase) factor into this analysis as well. If both of the daily high tides are available for tanker passage, then it helps the hearings officer conclude that the impact is lessened, esp. given the next topic.

Answer: The Hearings Officer is correct in that the Project has factored in the variations in tides in Coos Bay. The studies undertaken of the NOAA tide data demonstrate that most of the higher tides will allow the departure of fully loaded LNG carriers.

The current Coos Bay Port Channel is maintained to a controlled depth of 37 feet MLLW by the USACE. The tides of Coos Bay are of the mixed semi-diurnal type with paired highs and lows of unequal duration and amplitude. The typical tidal range for Coos Bay is approximately between +3.5 feet to +7.0 feet.

Therefore, at high tide, the typical minimum channel depth ranges from 40.5 to 44.0 feet MLLW. The USCG has authorized LNG carriers to transit the Coos Bay Port channel with a maximum fully loaded draft up to 11.9 m (39 feet), provided the vessel always maintains a minimum 10% Under Keel Clearance (UKC) during the transit. This means that the largest draft dimension LNG carrier that is authorized to transit the channel must do so at high tide with a minimum tide range of +5.9 feet when the minimum water depth in the channel is 42.9 feet MLLW.

For such a vessel, there could be departure delays as sometimes the high tide range does not reach +5.9 feet and the vessel would need to wait at the terminal berth to depart at the next suitable high tide cycle. This poses no increased impact on the waterway users and is a financial consideration and operating limitation for the project. Should a high tide occur which does not provide sufficient water depth, the LNG carrier will wait for the next period.

However, most of the LNG carriers that will call at our terminal will have a fully loaded draft that is less than 11.9 m, typically in the range of 11.0 to 11.5 m (36.0 to 37.7 ft) and will only need a tidal range of +2.6 feet to + 4.5 feet. These LNG carriers with a shallower fully loaded draft will experience less delay in making their outbound transits since they will be able to utilize both the high tides for departure with respect to meeting the UKC requirements. Based upon historical tidal records, approximately 50 -75% of the high

tides in Coos Bay will permit a normal size, fully-loaded LNG carrier to safely transit the Bay while maintaining the required underkeel clearance.

4. Night Operations. The hearings officer's military experience causes him to recognize the many advantages of night operations, as most of the Army's combat operations occur at night. The record reflects that LNG carrier transits will be prioritized during nighttime hours. Resource Report 8 at p. 29. Exhibit 50, Sub Exhibit 15, page 5 of 6. This greatly peaked the hearings officer's interest, because the testimony pertaining to crabbing, fishing, kayaking, and surfing, etc., focused on *daytime* use of the estuary. For example, Larry and Sylvia Mangan argue that for a "working family," crabbing must occur at a "reasonable hour," which they describe as "daylight, not too early or late in the day." Exhibit 36, at p.1. The record is devoid of information concerning the use of the estuary at night by night fishermen and crabbers. The hearings officer suspects that commercial fisherman probably do operate through the bay during nighttime hours, but the record seems to be silent on that point. The hearings officer would appreciate more information on that topic and would also like to know if the night applicant could accept a condition of approval requiring all or some portion of the LNG tanker trips to occur at night after the initial familiarization period. If the LNG operations can occur mostly or typically at night, it seems that the conflicts with crabbers and recreational uses are greatly reduced.

Answer: Placing further restrictions upon the LNG carrier arrival and departure times by imposing a condition requiring that some portion of the LNG tanker trips may only occur at night would severely impact operations, would not adequately allow for exceptions due to weather or tidal conditions, and would complicate an already complex system worked out with the US Coast Guard regarding arrivals and departures of LNG carrier traffic. Therefore, the applicant is not willing to accept a condition of this type. However, as explained below, night transit is available, and for multiple reasons, is preferred.

As the federal agency overseeing ship safety in Coos Bay, the US Coast Guard will require extreme coordination for LNG carrier transit, including mandatory arrival and departure notices 96 hours in advance. The actual time and approval for transit are controlled 100% by the US Coast Guard. The Coast Guard has established that prior to any sailing of LNG carriers, a meeting between the Pilots, JCEP, Coos County Sheriffs, VTIS, Port of Coos Bay, and USCG will occur to ensure all the safety parameters are met.

The US Coast Guard initially thought that day light transits would be necessary at least in the beginning. The Coos Bay Pilots have simulated nighttime transits in the simulator. These transits have shown that it is fully reasonable to allow nighttime transits. This is primarily because the prevailing wind speed is generally lower at night which also reduces the sea conditions and there is typically much less recreational boating and fishing traffic in Coos Bay at that time. After seeing the ship simulations, the LNG carrier operating parameters, the assistance of the VTIS, use of electronic navigation tools, and tractor tugs, all have agreed that allowing day or night transits is perfectly suitable. Nighttime transits offer less traffic, less congestion, fewer wind conditions, less radio congestion, and sometimes better definition of the operating parameters required by the ships navigating crew.

It has been confirmed that once navigation safety stakeholders gain experience and familiarization with the transit, the USCG will then allow LNG carrier transits to occur on a 24-hour basis. The more limiting factors at that time will be tidal conditions which are being measured in real time by the NOAA PORTS system and wind conditions.

5. Transit Times through the Estuary. Transit time through the estuary by LNG tankers is estimated at 90 minutes. (Note: some of the time estimates in the record start at the Buoy "K," which is located some distance in the open ocean). Exh. 17, p. 85 of 1120 (DEIS at p. 2-14). However, the record reflects that an additional 90 minutes is needed to turn the LNG tanker into the park at the terminal booth.

Exh. 17, p. 85 of 1120 (DEIS at p. 2-14). Presumably, the Coast Guard Security zone would be in effect during that time as well. From this data, it appears that at a rate of 100 trips per year, the applicant will make roughly four (4) trips a week and each trip with creating a security zone that will be in effect for roughly three hours. This equals 12 hours a week, not six (6) hours as the applicant suggests. The hearing officer requests further clarification from the applicant on this topic so that we make sure we are being accurate in qualifying the impacts.

Answer: The actual moving security zone will last 90 minutes from the time an LNG carrier reaches the Pilot station (two miles offshore) until it is inside the JCEP slip and access channel basin; it will likewise be 90 minutes outbound. The project is planning up to 120 vessel calls per year which is 240 transits of the Coos Bay channel by either a loaded or empty LNG carrier. As explained below, there is additional maneuvering and mooring/unmooring time within the JCEP basin and outside of the existing Coos Bay channel. As has been stated, the US Coast Guard security zone is not an exclusion zone and persons and vessels will be allowed to remain in the bay during all transits.

The transit time from the existing pilot station (about two miles offshore) to the JCEP terminal basin is 90 minutes. Once near the basin, the LNG carrier will then swing around in the access channel to back into the slip and berth at the terminal. At this point, the LNG carrier is fully within the basin and poses no obstruction to any vessel traffic in the federal navigation channel (FNC), fishing, or recreational boating. The JCEP basin is completely outside the existing bay. Once in the basin, it will take the LNG carrier somewhere between 60-90 minutes to move the vessel alongside the dock at speeds of 1/10th of a knot and begin passing mooring lines to the dock mooring system. As the lines must be pulled ashore and made fast to mooring hooks, this is a time-consuming process.

After loading, at departure, we have again estimated about an hour for the vessel to make all lines fast to the escort tugs, unmoor from the dock and have the tugs pull the LNG carrier off the berth and into the access channel (again, all within the confines of the basin and outside the public area of the Bay).

The transit time from the JCEP terminal back to the pilot station, where the pilot will disembark is again the same 90 minutes.

The Coast Guard security zone of 500 yards around the vessel would be in effect during the transit to and back from the terminal while the LNG carrier is in the FNC. Once the vessel is in the slip, the vessel is out of the FNC and the security zone for the terminal which always remains in effect will apply. The security zone around the terminal, when there is no vessel at the terminal is 25 yards and when there is a vessel, it is 150 yards.

Hence the only period that has any impacts to other users of the channel is the total 3 hours (two 90-minute periods when the vessel is going in and out of the terminal) for each round-trip when the USCG security zone remains in effect around the transiting LNG carrier. The perception that the impact is double of that time period is erroneous.

Respectfully submitted,



Rajnish Kelkar

Rajnish Kelkar

Marine Manager

Jordan Cove LNG, a Pembina Company

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Rajnish M. Kelkar

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PROFESSIONAL SUMMARY

Experienced and accomplished international executive with maritime, operational, technical, HSSE, project and risk management expertise in high risk industries such as Oil / Gas / Energy and Marine Transportation with multi-site, multi-national organizations, environments and cultures.

PROFESSIONAL EXPERIENCE

Jordan Cove LNG Project – Pembina Pipelines Corp., Houston USA Sep 2016 to Present

JCLNG (<https://www.jordancovelng.com/>) is a proposed US\$ 10 billion project for constructing a 7.8 MMTPA LNG (~ 1 BCFPD of natural gas) liquefaction plant & export terminal located near Coos Bay, Oregon on the US West Coast, promoted by Calgary based Pembina Pipeline Corp. This Project is critical to meet a market-driven need to export the abundant natural gas supply in the US Rocky Mountains and Western Canada markets to meet the international demands and the growth of clean burning natural gas as a source of fuel for power generation, heating and in industry, particularly in the Far East and in Asia. Success of this project is crucial for improving the U.S. balance of trade, reducing the amount of coal-fired and oil-fired power generation currently being used in these markets to reduce global emission and increasing cleaner-burning energy supplies to these and other commercial and residential markets. This large-scale project would create over 6,000 jobs at peak construction and more than 200 permanent positions. Additionally, the Project would create over ~8,500 spin off jobs during construction and ~1,500 permanent spin-off jobs during operations. The Project would generate more than \$60 million per year in average property tax revenue to the counties and contribute an additional \$50 million dollars to Oregon in state taxes. The Project will revitalize the Port of Coos Bay, making it a major U.S. West Coast port.

Marine Manager

Sept 2016 to Present

This is a key role in this project and it requires working with all the local, National & international stakeholders, Governmental Agencies & Private organizations to achieve the safe and reliable navigation and transit of the LNG Carriers which is extremely crucial to support the export targets and meet the project's commercial objectives and make it successful. The Marine Manager provides critical Marine subject matter expertise and guidance in the Marine planning, development, project execution and assurance during permitting, Front End Engineering and Design (FEED), detailed engineering and construction activities throughout the various stages of development of the project. This position manages and directs remote teams, contactors, and influences internal and external stakeholders to solve complex marine issues and problems.

BG Group North America and Global LNG, Houston USA

Nov 2009 to Aug 2016

BG Group was a \$70 Billion major international exploration, oil and gas production and trading company. A world leader in natural gas active in more than 20 countries. Now part of the Royal Dutch Shell Group.

Director, Maritime HSSE – BG Technical, Houston

May 2013 to Aug 2016

Accountabilities: As the Functional Head of Maritime HSSE (Health, Safety, Security and Environment) and process safety disciplines, the main accountability was to provide leadership, SME input, advice and assurance to ensure international, local and company standards and guidelines were being adhered to in all maritime activity across BG Group globally. This role spanned over operations in 10 different BG locations, projects and countries and covered 150 different sites/assets including 30 LNG Carriers, 8 terminals, 15 oil and DP (dynamically positioned) Shuttle tankers, 100+ offshore vessels including LSVs (lightening support vessels) and marine elements of offshore units. Overall accountable for execution and assurance of Group HSSE strategy and tactics in the Maritime functional domain. Role was part of the Functional leadership team and reported to the VP/Head of Function in BG Group, with dotted line to the Global Head / SVP of Corporate HSSE.

Director, HSSE, AI & Risk – Global Shipping, Houston

Nov 2009 to May 2013

Accountabilities: Lead BG's Global LNG Shipping HSSE and Asset Integrity (AI) team as the functionally accountable person to safely deliver the Shipping business plan. Position reported to the Head of BG Global Shipping and supported the EVP of Global Energy Marketing and Shipping (GEMS) as a key part of the Global Shipping Leadership team. Managed the Health, Safety, Security, Environment, Asset Integrity / process safety, risk management, audit and compliance activity for all Global Shipping's deep-sea owned and chartered vessels including LNG Carriers, Oil tankers, DP Shuttle tankers, tugs, LNG terminals, ship-building and repair yards.

Teekay Corporation Ltd., Vancouver, Canada

1992 to 2009

One of the world's largest midstream energy transportation, storage & production companies with a diversified fleet of owned & chartered vessels, \$13 billion in assets and operations in more than 11 countries

Manager, Emergency Response & Legislation Compliance, HSEQ

2008 to 2009

Accountable for global emergency response strategy, plans, drills, standards, spill response / salvage contracts and for legislative monitoring and compliance strategy. Implemented US EPA regulatory requirements. Planned, executed NPREP oil spill response drill with regulators in Corpus Christi. Maintained contracts with OSROs & response plans for 150 sites and vessels. Reported to VP, HSEQ.

Manager, Maintenance Management Program & HSEQ Projects

2005 to 2008

Led HSEQ integration projects to implement ISPS, ISO 9000 / 14000 / 18000 HSSE management systems in newly acquired companies. Led a cross functional team to implement a fleet-wide innovative risk, reliability and condition monitoring program. Led risk assessments, Hazid/Hazop/FMEAs for new projects, LNG vessels with DFDE propulsion and reliquefaction plants. Accountable for HSSE risks, aspects database and follow up actions. Reported to VP, Technical Services.

Manager, Performance Projects, Fleet Performance Services

2001 to 2005

Set up and executed Teekay's first fleet-wide performance monitoring system with processes and tools to collect, analyze, interpret and report operating data & KPIs. Optimized the engines, vessel

maintenance intervals, speeds, cylinder oil & fuel consumption to reduce fleet operating costs. Set up the dry-docking performance review process for improved outcomes and savings.

Technical Superintendent and Project Specialist

1999 to 2001

Managed & delivered the successful implementation and end user training for a Computerized Planned Maintenance Management System, ISO 9001 & Safety Management System on a fleet of 28 ships.

EDUCATION

Merchant Marine Engineering Program, LBS College, Indian Maritime Univ. 1980 – 1984

- Academic credentials independently evaluated as equivalent to a **Bachelor of Science degree in Marine Engineering** from an accredited institution of higher education in the United States by Morningside and SpanTran Evaluations
- Lal Bahadur Shastri (LBS) College of Maritime Studies and the Marine Engineering Research Institute (MERI), Mumbai, India are part of the Indian Maritime University (IMU) (<http://www.imu.edu.in/>) (<https://imumumbaiport.ac.in/online/meriCampus.do>)

BA, Economics, KC College, University of Mumbai, India 1983 – 1986

- Awarded the Bachelor of Arts degree in Economics in 1986 with the highest passing grade (First Class)
- Master of Business Administration (MBA), Henley Business School, Oxfordshire – UK 2004
 - Published a Dissertation and Research Thesis
 - Published an 'Integrated Strategic Direction and Business Transformation' report

PROFESSIONAL QUALIFICATIONS, LICENSURE AND AFFILIATIONS

- Fellow of The Institute of Marine Engineering, Science & Technology (FIMarEST), UK (<https://www.imarest.org/>)
- Chartered Engineer (CEng), the Institution of Engineers, India
- Fellow of The Institution of Engineers, India (<https://www.ieindia.org/>)
- Member of the Institute of Chartered Shipbrokers, London (UK) (<https://www.ics.org.uk/>)
- Member of PIANC - Permanent International Commission for the Navigation Congresses
- Marine Engineer Officer – Class 1 Chief Engineer, unlimited horsepower international Merchant Maritime Credential by the Govt of India's Ministry of Transport, Directorate General of Shipping
- Merchant Maritime Credential, Chief Engineer - Commonwealth of Bahamas Maritime Authority
- Merchant Maritime Credential, Chief Engineer - Republic of Liberia, Bureau of Maritime Affairs
- Certified by Nippon Kaiji Kyokai (ClassNK - Japan) for survey and approval of machinery

SHIPBOARD OPERATIONAL EXPERIENCE

- Chief Engineer – Crude oil & product tankers, Teekay Midstream Services 1996 to 1999
- First Engineer – Crude oil & product tankers, Teekay Midstream Services 1992 to 1996
- 2nd Engineer – Crude oil & product tankers, Chevron Corporation 1989 to 1992
- Jr. Engr to 1st Engineer – Bulk Carriers, Larsen and Toubro Ltd. 1985 to 1989

ADDITIONAL TRAINING

- Managing Technical Professionals and Organizations – Executive training program at MIT Sloan School of Management, Boston, Massachusetts, 2007
- Vessel, Company and Facility Security Officer Certification, Houston, 2012
- OCIMF SIRE (Ship Inspector Reporting Program) inspector training – Crude oil and LNG tankers, London, 2015
- TapRoot© and Reason© Root cause and incident investigation training, Trinidad 2014
- Major Accident Hazards and risks training at Spadeadam UK, 2013
- ISPS Facility, Company and Vessel Security Officer training course, Houston, 2012
- Managing Projects - The BG Way, Houston, 2012
- Presentation skills and writing dynamics – BG Group training, Houston, 2012
- Performance through People – BG Group management training, Houston, 2011
- Business Discovery – BG Group training, Houston Nov 2010
- Personal Productivity, Sauder School of Business, UBC, Vancouver, 2009
- Process Hazard Analysis & Risk Assessment Leadership & software, Toronto, 2008
- Incident Investigation Training – Transportation Safety Board of Canada, 2008
- You're Speaking – But Are You Connecting? Presentation skills, Vancouver, 2007
- DNV's Modern Safety Management and Lead Auditor course, Vancouver, 2006
- LNG Training Course – Lloyds Register, Vancouver, 2005
- Crossing the line from “Operational Management” to “Strategic Leadership”, 2003
- Negotiations Skills and resolving conflict in the workplace, Vancouver, 2003



September 09, 2019

Seth King, Esq
Perkins Coie LLP
1120 N.W. Couch Street Tenth Floor
Portland, OR 97209-4128

**Re: Security Zone Expert Report – Captain Frank Whipple, USCG (retired)
Jordan Cove Energy Project**

Dear Mr. King:

In order to provide my expertise on these questions, I have incorporated my knowledge, skill, expertise, education, qualifications, and 45 years of experience. Additionally, I base my opinion on the following qualifications (complete resume is included as an attachment):

Education, Training, Licenses, Certificates, and Unique Qualifications:

Captain Whipple holds a Bachelors in Nautical Science from Cal State Vallejo (California Maritime Academy) and completed a one-year executive management program with Crowley Maritime Corporation. He holds an unlimited Mates license (navigation of ships of any gross tonnage upon any ocean) and has completed 64 technical schools and qualification courses. He is qualified in all 23 positions within a Captain of the Port and Officer in Charge Marine Inspection office. He served as Captain of the Port in both Galveston, Texas and Honolulu, Hawaii. Additionally, he served as the Pacific Areas, Chief of Marine Safety, Security, and Environmental Protection covering all COTP zones in the entire Pacific region.

Summary:

Captain Whipple served as Captain of the Port in both Honolulu, Hawaii and Galveston, Texas. The Honolulu COTP zone encompasses the entire mid-Pacific region extending nearly 1000 miles in all directions from Honolulu including all of the islands and their individual ports. The Galveston COTP zone includes the majority of the area offshore Galveston, the intercoastal waterway, and the Houston Ship Channel up through Galveston Bay.

For over 46 years, he has worked in establishing, enforcing, and creating the basis for regulated navigation areas, safety zones and security zones around the entire United States.

He served 28 years as a regulatory compliance specialist with the US Coast Guard. During this, he was actively involved in assisting companies in complying with regulatory measures implemented for safety, security and environmental protection. Because of this, he has extensive experience in working with government agencies and waterway user groups. Over the past several years he has been involved in preparing safety and security assessments of major ports and

waterways. He uses and is familiar with a number of Risk Management Processes and is able to apply them to unique and challenging waterways. The impact on local communities, businesses and the environment are key factors in all of the assessments conducted.

Case Review:

In order to form my opinions on this issue, I have incorporated my knowledge, skill, experience, training, and education with a review of the following documents and materials:

1. Hearings Officer letter dated 23 August 2019
2. 33 Code of Federal Regulations (CFR) 165 Regulated Navigation Areas and Limited Access Areas;
3. US Coast Guard, COMDTINST M16000.11 (SERIES), Marine Safety Manual, Volume VI, Ports and Waterways Activities excerpt;
4. USCG District 13, flyer on approaching safety and security zones;
5. Amergent Techs memo dated 8 January 2016 regarding LNG carrier traffic in Coos Bay, Oregon.
6. KSEAS/Amergent Techs memo dated 25 January 2016 regarding response to exhibit 66 from Ms. Katy Eymann on USCG Security Zones.

Additionally, I am familiar with the Jordan Cove Energy Project plans and with the Coos Bay estuary, including its use for shipping and recreational purposes.

OPINION SUMMARY

I have been asked to give my professional opinion of the impact of the US Coast Guard establishing Security Zones in Coos Bay, Oregon for the purposes of the Jordan Cove Energy Project. Specifically, the Hearing Officer sent notice to the Coos County Planning Department reopening the record to obtain further clarification of the limited issue of the scope and effect of U.S. Coast Guard Security Zone on other boat traffic and recreational uses. This letter covers the establishment, enforcement, and impact on waterway users in Coos Bay and addresses Items 1, 6, 7, and 8 from the Hearings Officer's letter:

1. Size of the Security Zone. The hearings officer first needs to gain an understanding of the size and scope of the security zone. In this regard, Mr. Chuck Erickson of Power Hook and Tackle, LLC created a very helpful scaled map to show the size of the security zone in relation to the estuary. Exhibit 53. His scale model of the zone measures 1317 yards long by 1050 yards wide. As his map points point, the estuary is rarely, if ever, wider than 1000 yards in the vicinity where the LNG ships would use the estuary, and therefore, as a practical matter, the security zone covers the entire width of the estuary in most places. *See also* Exhibit 54 (State of Oregon DLCDC Staff

Comments on FERC DEIS, at p. 204). But where exactly does that leave things? The opponents seem to conclude that vessels will need to avoid the entire estuary from the mouth of the bay to the LNG tanker docking stations during LNG tanker passage. If that is indeed the case, then it seems like such a scenario presents a much stronger case for the conclusion that the LNG tankers “substantially interfere” with other navigation. If, however, the US Coast Guard will simply make other vessels move as far away from the channel to the banks (as much as reasonably practical considering the boat’s draft), then a substantial inference seems less likely.

6. Case by Case Threat Assessment. The hearings officer needs to know more about how the Coast Guard’s “case-by-case” assessment would work. The hearings officer realizes that the U.S. Coast Guard is probably loath to discuss operational security matters in any great detail, particularly to the extent that such discussions likely delve into classified information at some point. However, the current record is too vague to draw reasonable conclusions, especially in light of the fact that LUBA was unwilling to draw inferences from the Coast Guard’s statements made to case. It does seem likely that the U.S. Coast Guard and/or Amergent Techs could provide additional information without compromising operational security or divulging classified information. The hearing officer is simply looking for enough information so as to quantify and qualify the degree of impact the LNG tankers will cause to other boat traffic.

The record reflects that Captain Frank Whipple (USCG, ret.) of Amergent Techs reiterated that that the U.S. Coast Guard has ‘the power to allow vessels to transmit through the security zone when no threat is presented. These are all determined on a case by case basis * * * based on the safety of the vessel approaching the security zone and maintaining the security zone and maintaining the security of the LNG carriers.’ LUBA Rec. 3764. Again, that statement seems to tell any reasonable person familiar with military security operations that a threat assessment is going to be accomplished on the scene and that individual vessels will be evaluated based on criteria developed by the COTP.

LUBA stated that the Coast Guard makes no suggestion that it’s case-by-case evaluation would rely on a distinction between ‘known’ and ‘unknown’ vessels, and allow the former passage through the security zone without delay, although that may well be the case.” But what else could it reasonably mean? If the goal is to allow friendly vessels to pass and to prevent hostile vessels from harming LNG tankers, then obviously the COTP is going to need to develop a system for distinguishing between those types of vessels, and step one is that analysis is figuring out who uses the bay on a regular basis so one can identify and include these known travelers as a “non-threat” friendly asset.

Again, to the hearings officer and other persons with experience conducting military security operations, it is likely that any “case-by-case” threat evaluation would involve, at least in part, distinguishing between “known” and “unknown” vehicles and personnel. That is a universal concept in military security operations. Often this is done via personal recognition. In the Gulf War, coalition vehicles were marked with chevrons to assist aircraft in identification. Along those same lines, electronic Identification, friend or foe (IFF) technology using transponders is also used by the military to help identify friendly assets. In some cases, a

series of identifying cards or badges will be used, often in conjunction with other security measures such as passcodes, passwords, etc. Other criteria would undoubtedly factor into the threat assessment analysis, such as the size, type and carrying capacity of the approaching vessel, the speed and direction of the approaching vessel, etc., but vessel and/or personnel identification would be a primary one. Nonetheless, given LUBA's unwillingness to draw any inferences from the prior record as to how that case-by-case threat assessment evaluation would be accomplished, the hearings officer is unable to draw any firm conclusions based on the existing record.

7. Many commentators suggest that the U.S. Coast Guard security zone will exclude surfers and kayakers. This seems to be an unreasonable inference based on the record, but clarification is needed. For example, the hearings officer knows that the bomb that terrorists used on the USS Cole was a shaped charge containing hundreds of pounds of high explosive. A kayak could not be used as a delivery vehicle for such a payload intended to harm large ships, but it is unclear whether small vessels such as kayaks could be used for boarding purposes. It seems likely that the Coast Guard would accommodate kayakers in some manner, such as allowing them to hug the bank while the LNG tankers pass, but again, the record could be much more clear on this topic.

8. As for surfers, the law seems to be relatively clear that navigation takes priority over recreation, so long as recreation is not eliminated or substantially interfered with. *Weise v. Smith*, 3 Or 445, 449-50 (1869), the Oregon Supreme Court opined that "navigable" waterways are "public highways" which every person has "an undoubted right to use * * * for all legitimate purposes of trade and transportation." *Id.* at 450. It does not seem that surfers pose a security threat to LNG tankers, and therefore the Coast Guard is likely only going to exclude surfers from their traditional surfing locations to the extent necessary to prevent injury to the surfers themselves. Nonetheless, more discussion of this topic is needed, including better quantification of the number of surfers who use these waters.

CASE EVALUATION:

1. The hearings officer first needs to gain an understanding of the size and scope of the security zone.

Answer: Regulated Navigation Areas, including Safety and Security Zones, are created according to the US Coast Guard regulations in 33 CFR 165. Each zone is an administrative action by a Captain of the Port and must follow specific regulatory development procedures established by the federal government. These areas are not exclusion zones as can be seen by reviewing the enclosures (1) and (2), which are 33 CFR 165 and US Coast Guard Marine Safety Manual, Volume 4, Chapter 4, respectively.

The regulations clearly state "Each person and vessel in a security zone shall obey any direction or order of the Captain of the Port (COTP);" The regulations make reference to those persons or vessels inside of a security zone shall follow the directions or orders of the COTP. As I have

stated before, the COTP representative on-scene would only exclude those from the security zone that pose a threat to the LNG carrier or fail to follow the orders of the COTP. This would apply to any vessel that when asked to remain clear of the federal navigation channel of a passing LNG carrier refuses to move and places themselves in a hazardous situation.

The US Coast Guard policy in Enclosure (2), the Marine Safety Manual, Volume 4, clearly states the purpose of the security zone and goes on to stipulate that all persons in the zone must follow directions for their safety. The guidance clearly expects persons to be allowed in the security zone as long as they do not pose a threat to the LNG carrier.

“The purpose of a security zone is to safeguard vessels, harbors, ports, and waterfront facilities from destruction, loss, or injury from sabotage or other subversive acts, accidents, or other causes of a similar nature. Once a security zone is established, all persons and vessels within the zone are required to obey any direction or order issued by the COTP.”

Nationally, there are 116 safety zones in force, 99 security zones in force, and 78 miscellaneous regulated navigation areas and/or combined safety/security zones. There are zones in all COTP zones across the county. Each of these zones is managed in a similar fashion by the COTP or their designated representatives. Designated representatives can include subordinate Coast Guard personnel, Patrol Commanders, the port pilots, sheriff departments, local police, or other persons specifically identified in the regulatory process. Each zone published sets the policy for those desiring to remain within the zone by merely getting permission by the designated person. This is done routinely and in most of the existing security zones not only is it allowed but more information is provided including radio channels, telephone numbers, and other methods on complying with the security zone requirements. The security zone in Alaska even makes specific provisions for fishing vessels to access areas within the security zone without advance notice.

Once the Project received approval, the US Coast Guard will create a regulatory project to establish either safety or security zones. There are administrative procedures in place to obtain input from all local users regarding the establishment and enforcement of the security zones. The local community would be able to request specific input to this regulatory project as have all the other zones across the county. Specific language can be included to ensure consistent application of the enforcement policies.

It is clear in this guidance that persons and vessels are expected to be in the zones. The policy states that all persons and vessels within the zone are required to obey any direction or order issued by the COTP. This complements what is being stated regarding a security zone being a regulated navigation area and not an exclusion zone. With the hundreds of these zones in place already and very little is ever heard about them, the impact to waterway users is extremely limited and only when a person or vessel poses a potential for destruction, loss, or injury from

sabotage or subversive acts is present or when they chose to violate the direction from patrol boats for their own safety.

Another example is the attachment from the USCG District 13 waterways management office regarding security zones. This flyer has been used in passing out to the waterway users the guidance that persons and vessels can be in a security zone as long as it is authorized.

During the beginning of setting up the Jordan Cove Energy Project (2005-2009), we worked with the USCG, Coos County Sheriffs Department, and the Oregon Department of Energy who oversees the development and implementation of safety and security measures for the project. The group reviewed the existing security zones across the nation and determined that a 500-yard security zone would meet the needs of the USCG and Coos County Sheriff's office. This zone was unofficially published in the USCG original Waterway Suitability Report (WSR 01 July 2008) giving the agencies the necessary data to continue planning for the project and its impacts on the public. It also gave the project the requirement to plan for such security zones in enforcement and resources necessary. The security zones required were a 500-yard zone extending around the vessel but ending at the shoreline and stating that to enter the zone permission from the USCG was required.

The WSR went on to explain "The expectation that the COTP representative will work with the port pilots and patrol assets to control traffic and will allow vessels to transit the safety/security zone based on a case-by-case assessment conducted on scene. Escort resources will be used to contact and control vessel movements such that the LNG carrier is protected." This again demonstrates that it has been the intention of the US Coast Guard COTP to allow persons and vessels within the security zone and managed locally by on-scene forces. This would pose almost no impact on the boating or fishing community.

Additionally, there is a 150-yard security zone around the marine terminal when an LNG carrier is docked and a 25-yard security zone when the marine terminal is empty.

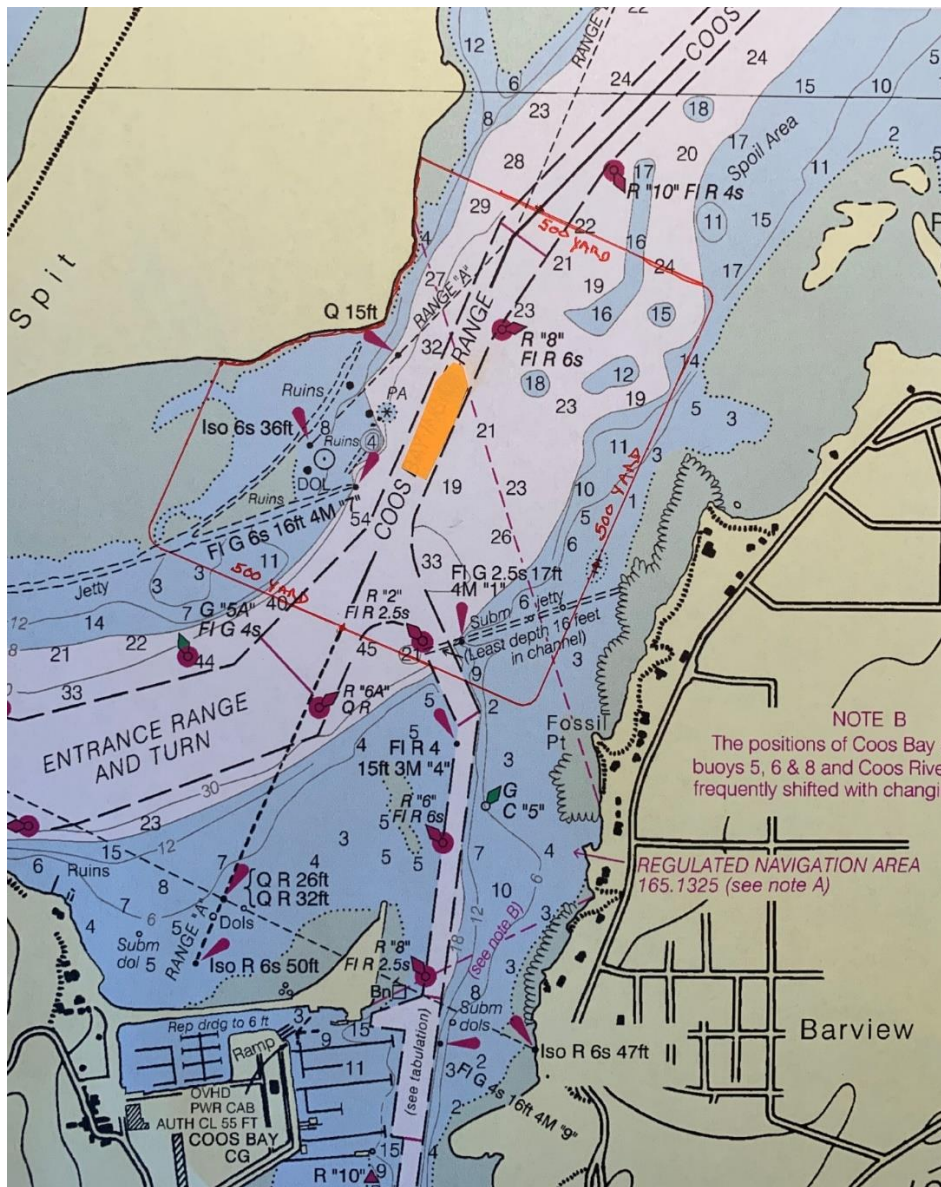
Due to the establishment of these security zones, the USCG required JCEP to provide resources to the local agencies for the enforcement of the security zones. The providing of resources is required by the Federal Energy Regulatory Commission (FERC) to assist local governments when an LNG project financially impacts the local community.

During meetings with the USCG, Coos County Sheriffs, and Oregon DOE regarding enforcement of the zones, it was clear that other vessel traffic needed to operate within the bay and not be negatively impacted by the security zone.

The below picture shows what a 500-yard security zone would be just north of the Charleston Harbor channel. The security zone outlined in red would move along the channel as the ship moves to end at the shoreline. The security zone is not an exclusion zone but a regulated navigation area. The LNG carrier is represented by the orange shape in the deep-water channel.

All other areas of the Coos Bay are open and free to normal traffic. When the zone moves close to a vessel in the bay, the Coos County Sheriffs or Coast Guard would determine if they needed to move or merely continue with their fishing or recreational boating. It is important to realize that the LNG carrier cannot operate anywhere outside the federal navigation channel or those outside areas where the water depth is sufficient for deep draft vessels. Even if this was not an LNG carrier, small boats are required by the maritime Rules of the Road to not hamper the movement of deep draft vessels in 33 CFR §83.09 Narrow channels (Rule 9) (b) A vessel of less than 20 meters in length or a sailing vessel shall not impede the passage of a vessel that can safely navigate only within a narrow channel or fairway.

(c) A vessel engaged in fishing shall not impede the passage of any other vessel navigating within a narrow channel or fairway.



A good example of a security zone within the same COTP zone would be in the Columbia River Safety and Security zone for large passenger vessels.

33 CFR §165.1318 Security and Safety Zone Regulations, Large Passenger Vessel Protection, Captain of the Port Columbia River Zone.

(c) *Security and safety zone.* There is established a large passenger vessel security and safety zone extending for a 500 yard radius around all large passenger vessels in the navigable waters of the United States, in Portland, OR at the Columbia River Bar "C" buoy and extending eastward on the Columbia River to Kennewick, WA and upriver through Lewiston, ID on the Snake River.

(d) *Compliance.* The large passenger vessel security and safety zone established by this section remains in effect around large passenger vessels at all times, whether the large passenger vessel is underway, anchored, or moored. Upon notice of enforcement by the Captain of the Port Columbia River, the Coast Guard will enforce the large passenger vessel security and safety zone in accordance with rules set out in this section. Upon notice of suspension of enforcement by the Captain of the Port Columbia River, all persons and vessels are authorized to enter, transit, and exit the large passenger vessel security and safety zone, consistent with the Navigation Rules.

(f) *Restrictions based on distance from large passenger vessel.* When within a large passenger vessel security and safety zone, all vessels shall operate at the minimum speed necessary to maintain a safe course and shall proceed as directed by the on-scene official patrol or large passenger vessel master. No vessel or person is allowed within 100 yards of a large passenger vessel that is underway or at anchor, unless authorized by the on-scene official patrol or large passenger vessel master.

(g) *Requesting authorization to operate within 100 yards of large passenger vessel.* To request authorization to operate within 100 yards of a large passenger vessel that is underway or at anchor, contact the on-scene official patrol or large passenger vessel master on VHF-FM channel 16 or 13.

This is a similar security zone of that proposed for Coos Bay of 500 yards. 500 yards on the rivers around Portland extend from bank to bank. Persons are allowed to remain within and pass through the security zone. In the Columbia River zone, there is specific language for requesting authorization to operate even within 100 yards of the large passenger vessel. A simple call to the on-scene official can give this permission.

A second example is the security zone for Humboldt Bay, CA. Humboldt Bay is a smaller harbor similar to Coos Bay. They have large vessels transiting very narrow federal channels and also have significant fishing and recreational boating communities.

33 CFR §165.1183 Security Zones; tankers, cruise ships, and High Value Assets, San Francisco Bay and Delta Ports, Monterey Bay and Humboldt Bay, California

(3) *Humboldt Bay.* All waters, extending from the surface to the sea floor, within 500 yards (457 meters) ahead, astern and extending along either side of a tanker, cruise ship, or HVA underway (100 yards when anchored or moored) within the Humboldt Bay area shoreward of a 4 nautical mile radius line drawn to the west of the Humboldt Bay Entrance Lighted Whistle Buoy HB (LLNR 8130) in position 40°46.25' N, 124°16.13' W.

(c) *Regulations.* (1) In accordance with the general regulations in §165.33 of this part, entry into or remaining in this zone is prohibited unless authorized by the Coast Guard Captain of the Port, San Francisco Bay, or a designated representative.

(2) Mariners requesting permission to transit through the security zone may request authorization to do so from the Patrol Commander (PATCOM). The PATCOM may be contacted on VHF-FM Channel 16.

Note that specific access through the security zone is allowed with a simple radio call. The zone is established to protect high value assets and nothing more.

6. The hearings officer needs to know more about how the Coast Guard's "case-by-case" assessment would work. The hearings officer realizes that the U.S. Coast Guard is probably loath to discuss operational security matters in any great detail, particularly to the extent that such discussions likely delve into classified information at some point. However, the current record is too vague to draw reasonable conclusions, especially in light of the fact that LUBA was unwilling to draw inferences from the Coast Guard's statements made to case.

Answer: Without discussing sensitive security information as the hearing officer notes, the case-by-case assessment is completed in several steps. I base this discussion upon my decades of experience with the US Coast Guard, my role as a COTP, my implementation of similar security zones, and my work with the US Coast Guard and the State of Oregon in developing the 500-yard zone in this particular case. During my work with the security zone work group, the actual on water surveillance capability and how the enforcement of the security zone would be conducted were discussed.

First information and observation: Every day of the year, law enforcement including Coos County Sheriff's, US Coast Guard (USCG) and local law enforcement participate in gathering information to circumvent actions that will cause harm to the public or infrastructure in their communities. The USCG publishes the security level to be used in each COTP zone. When a

security level is increased, more scrutiny will be taken of waterways to ensure the safety of the public and waterway users.

It is important to note that the USCG established security levels after September 11th (911) similar to the Department of Homeland Security's public notification system. The maritime element has been at the lowest levels ever since 911 and has not increased anywhere in the US. The maritime security levels remain at MARSEC level 3. This indicates that no information is available which would require the US Coast Guard to increase security levels or security measures. All the law enforcement agencies involved in the Portland fusion center are working together to determine if a threat is growing or likely to take place.

Second, the security zones are published broadly in order that all waterway users will know far in advance of their implementation. Ship arrival and departure dates are published as the vessel departs its discharge port in asia far in advance via the VTIS website. The USCG makes safety information broadcasts daily regarding the security zones. Additionally, an electronic sign board will be placed at the Charleston Marina channel advising of the security zone times. With the extensive publication of these zones, waterway users know to move out of the way of larger vessels entering harbors (including LNG carriers) and able to operate solely within the deep-water channel. When waterway users knowingly operate contrary to the normal practice, security patrols will be able to warn them in advance of the LNG carriers' arrival.

Third, prior to any ship arrival or departure, the waterway will be examined by on water assets and electronics to see if any unusual risk is present. This is a visual check by trained personnel along the transit route. If anything unusual is observed, on water assets would be used to confirm no risk to the LNG carrier. LNG carriers are large and heavy making small boats, surfboards, and kayaks no risk by themselves to the LNG carrier. The risk would be posed by subversive players intending to do harm to the LNG carrier.

Those on the waterway will be observed by the on-water patrols and if any action is necessary, they will be advised at that time. Should a waterway user be too close to the deep-water channel, they will have time to move away to a safer location. This is no different than operations today when a large bulk carrier (chip ship) is moving in the deep-water channel.

Since all small craft are not a risk to the LNG carrier due to its size and steel construction, the assessment would include an observation that vessels were engaged in activities such as fishing, clamming, sports, transiting, or a typical waterway user activity. Those not engaged in activities and suspiciously hanging out would be examined further. It would be the intent of the assessment to ensure that no one in the waterway has ill intent to cause damage to the LNG carrier. The on water assessment of small recreational and fishing boats not perceived as a harm and were not in the federal nevaigation channel would be allowed to remain where they are and continue with their activities as the LNG carrier passes through.

Fourth, the security patrol forces would move along with the LNG carrier and the moving security zone to ensure small boats remain outside the federal navigation channel and do not impact the safety of the LNG carrier transit.

During the transit, waterway users may call or speak with the on-water assets to seek permission to remain in the waterway during the transit. This may be done by VHF marine radio or via cellular phone. The USCG publishes these numbers in their advance notice of the zone. They will be visually seen by VTIS and the on water patrol resources on a shared common operational picture.

During the establishment of the security zone, there are other means that can be reviewed to allow access into the security zone without calling each time. The COTP clearly stated their intentions in publishing the WSR in 2008 to make these necessary arrangements.

The project has agreed to install a Vessel Traffic Information Service to support the passage of the LNG carriers and ensuring the waterway users and marine traffic are impacted as little as possible. The VTIS will publish as it departs its discharge port in asia far in advance the arrival and departure times for the waterway of deep draft vessels including LNG carriers. The arrival and departure times will include all deep draft ship and tug and barge traffic. This is currently not being done and will generally improve the waterway for users. The data will be posted to a website for everyone to know of the arrival and departure dates and times of ships. This will allow everyone to conduct advance planning for departure and arrival times into and through Coos Bay.

The VTIS will also be able to assist in conducting the case-by-case assessment. The VTIS will have direct access and control of the waterway surveillance system and as they observe and operate in the waterway every day, will be highly familiar with the daily traffic patterns, fishing events, seasonal fishing times, marine parades or regattas, and other activities on the bay. They will be able to receive calls and requests, should they be necessary, from all waterway users, requesting advance permission to be in the waterway. They will also be able to support the security zone On Scene Commander in advising of waterway users currently in the bay and not imposing an increased risk to the LNG carrier. They would also be able to advise the on-water assets if a user is moving in a direction which would create an impact on the LNG carrier. On water forces could then move to advise a boater to remain clear of the LNG carrier in the deep water channel.

Below is a picture example of a small boat operating within the security zone of a passenger vessel operating on San Diego Bay. It is important to note that no patrol vessels are observed intercepting the small boat or any other boat operating on San Diego's busy waterway.



§165.1108 Security Zones; Cruise Ships, Port of San Diego, California (b) *Location.* The following areas are security zones: All navigable waters, extending from the surface to the sea floor, within a 100-yard radius around any cruise ship that is located within the San Diego port area landward of the sea buoys bounding the Port of San Diego.

(c) *Regulations.* Under regulations in 33 CFR part 165, subpart D, a person or vessel may not enter into or remain in the security zones created by this section unless authorized by the Coast Guard Captain of the Port, San Diego (COTP) or a COTP designated representative. Persons desiring to transit these security zones may contact the COTP at telephone number (619) 278-7033 or on VHF-FM channel 16 (156.8 MHz) to seek permission to transit the area. If permission is granted, all persons and vessels must comply with the instructions of the Captain of the Port or his or her designated representative.

7. Many commentators suggest that the U.S. Coast Guard security zone will exclude surfers and kayakers. This seems to be an unreasonable inference based of the record, but clarification is needed. For example, the hearings officer knows that the bomb that terrorists used on the USS Cole was a shaped charge containing hundreds of pounds of high explosive. A kayak could not be used as a delivery vehicle for such a payload intended to harm large ships, but it is unclear whether small vessels such as kayakers could be used for boarding purposes. It seems likely that the Coast Guard would accommodate kayakers in some manner, such as allowing them to hug the

bank while the LNG tankers pass, but again, the record could be much more clear on this topic.

Answer: The ability to continue operating within the security area applies to all vessels and all watercraft equally. Surfers and kayaks as stated by the hearing officer pose no threat to an LNG carrier because the LNG carriers' sides are generally very high (around 50 feet) and are not suitable from on the water boarding platforms.

In my extensive experience with the US Coast Guard and knowledge of how similar security zones have been implemented, smaller watercraft would be allowed to continue to operate without interference from the LNG carrier security zone as long as they remained clear of the path of the carrier for their own safety purposes. If a surfer or kayaker was to intentionally interfere with the transit of the LNG carrier, they would be subject to actions and penalties as stipulated in the regulations for violation of a security zone. If they were merely paddling without stated intent to interfere with the passage of an LNG carrier, no action would be taken.

8. As for surfers, the law seems to be relatively clear that navigation takes priority over recreation, so long as recreation is not eliminated or substantially interfered with. *Weise v. Smith*, 3 Or 445, 449-50 (1869), the Oregon Supreme Court opined that “navigable” waterways are “public highways” which every person has “an undoubted right to use * * * for all legitimate purposes of trade and transportation.” *Id.* at 450. It does not seem that surfers pose a security threat to LNG tankers, and therefore the Coast Guard is likely only going to exclude surfers from their traditional surfing locations to the extent necessary to prevent injury to the surfers themselves. Nonetheless, more discussion of this topic is needed, including better quantification of the number of surfers who use these waters.

Answer: The ability to continue operating within the security area applies to all vessels and all watercraft equally. Surfers, as stated above by the hearing officer, pose no threat to an LNG carrier. Surfers who are engaging in their sport may be operating within the security zone and would be noted by the on-water security forces prior to an LNG carrier transit. As stated above, as long as the surfers were not attempting to access the LNG carrier and placing themselves at risk, no actions would be taken. During the actual transit, the location of the surfing would be observed to ensure no one was moving towards the LNG carrier.

I hope the above clarifies the application of the future US Coast Guard security zone in Coos Bay. There are several key components of this review that are worthy of restating:

1. Security zones are regulated navigation areas which allow persons and vessels to remain inside the zone as long as they do not pose a threat to the asset and follow COTP or on scene security personnel directions.

2. Security zones are not exclusion zones as shown in the regulations, the USCG Marine Safety Manual policy guide for the establishment of zones, and the example zones currently in effect which were provided.
3. Waterway users, regardless of type, will be able to remain or pass through the security zone as long as they do not pose a threat to the LNG carrier. Small craft, by themselves, do not pose a risk to LNG carriers.
4. LNG carriers transiting Coos Bay will be similar to the existing deep draft vessels transiting the bay. The primary difference is the security zone and waterway users being required to follow any directions given to them by the security boats. The directions given will generally be in regard to staying clear of the deep-water Coos Bay federal navigation channel. As the area around the LNG carrier will be a security zone (a regulated navigation area), the US Coast Guard has greater authority to ensure vessels stay clear of the channel during the transit. This is in addition to the Rules of the Road which require smaller vessels to not impede the transit of larger vessels which must remain within the deep-water channel.

Respectfully submitted,



Captain Frank Whipple

Encl: (1) 33 CFR 165; Regulated Navigation Areas and Limited Access Areas
(2) USCG Marine Safety Manual, Volume 4, Chapter 4 establishing Regulated Navigation Areas;
(3) Appendix CC - U.S. Security Zone comparison (2007)
(4) Captain Whipple Qualifications

Attachment: USCG District 13 flyer on entering security zones

Encl: (1) PART 165—REGULATED NAVIGATION AREAS AND LIMITED ACCESS AREAS

§165.30 Security zones.

(a) A security zone is an area of land, water, or land and water which is so designated by the Captain of the Port or District Commander for such time as is necessary to prevent damage or injury to any vessel or waterfront facility, to safeguard ports, harbors, territories, or waters of the United States or to secure the observance of the rights and obligations of the United States.

(b) The purpose of a security zone is to safeguard from destruction, loss, or injury from sabotage or other subversive acts, accidents, or other causes of a similar nature:

- (1) Vessels,
- (2) Harbors,
- (3) Ports, and
- (4) Waterfront facilities:

in the United States and all territory and water, continental or insular, that is subject to the jurisdiction of the United States.

§165.33 General regulations.

Unless otherwise provided in the special regulations in Subpart F of this part:

(a) No person or vessel may enter or remain in a security zone without the permission of the Captain of the Port;

(b) Each person and vessel in a security zone shall obey any direction or order of the Captain of the Port;

(c) The Captain of the Port may take possession and control of any vessel in the security zone;

(d) The Captain of the Port may remove any person, vessel, article, or thing from a security zone;

(e) No person may board, or take or place any article or thing on board, any vessel in a security zone without the permission of the Captain of the Port; and

(f) No person may take or place any article or thing upon any waterfront facility in a security zone without the permission of the Captain of the Port.

Encl (2): USCG Marine Safety Manual excerpt on Regulated Navigation Areas

USCG Marine Safety Manual, Volume 4, Chapter 4

J. Limited Access Areas (LAAs).

1. General. The Coast Guard may, when safety, security or other national interests dictate, establish certain LAAs to control access to, and movement within, areas under its jurisdiction. The Coast Guard also has the authority to implement several control mechanisms in the navigable waters of the U.S. and adjacent shore areas under the PWSA (33 USC 1221 et seq.) and the Anchorage Grounds Act (33 USC 471). Certain offshore controls may be established under the OCSLA (43 USC 1331 et seq.) and the DWPA (33 USC 1501 et seq.). These controls may apply in varying degrees to persons, vehicles, vessels, and objects within these areas. The intent of this part is to discuss the establishing, purpose, major features, and application of each type of limited access area, i.e., Safety Zones, Security Zones, and Regulated Navigation Areas (RNAs). Regulations applicable to Safety Zones, Security Zones, and RNAs are codified in 33 CFR Part 165.

2. Establishment.

a. All limited access areas (LAAs) can only be established by rulemaking. The issuance of such rules may also require analysis of their effects under laws such as NEPA and the CZMA as discussed in paragraph 1.A.5. Guidance on preparing local LAA regulations is found in Preparation and Publication of Field Regulations; COMDTINST M16704.2 Series. Under the Administrative Procedures Act (APA), 5 USC 552, rulemaking normally includes opportunity for "notice and comment", i.e., publication of a Notice of Proposed Rulemaking (NPRM) with a comment period and a 30 day period between publication of the final rule and its effective date. Only when specifically excepted by the APA, or when "good cause" exists, may a rule be exempt from these requirements. Temporary LAAs which are established under emergency situations meet the requirements for what constitutes "good cause" and are exempt from the notice and comment requirements of the APA. However, LAAs established for major marine events or other situations where there is advance knowledge of the need for the regulations do not meet this exception.

b. Most situations requiring a LAA arise with little advance warning. As a result, it is not uncommon for the regulation to be terminated before it can be published in the Federal Register. However, publication is still necessary. Publication of the establishment of a LAA in the Federal Register provides "constructive legal notice" to the public and the maritime community of their establishment. Until a final rule is published in the Federal Register, it can be enforced only against those who have actual knowledge of the regulation.

c. Temporary LAAs issued in response to an unanticipated event are usually issued as final rules, and are effective immediately. Each final rule must specify an effective date. Temporary rules must also include the termination date. When the need exists, LAAs of indefinite duration may

also be issued in this manner. In all cases, establishment of a new area, whether permanent or temporary, should be published in the Federal Register as soon as practicable following its implementation.

d. Prior to the signing of a final rule by the COTP, or the district commander, these LAAs do not exist and therefore cannot be enforced. If the alternate COTP is signing in place of the COTP, he/she must sign the final rule as "acting COTP." The final rule must be signed on or before the date the area is to become effective (i.e., an area cannot be established "after, the fact"). Commandant (G-LRA) has provided district legal staffs with formats for Federal Register documents for establishing LAAs.

e. Under 33 CFR 165.5(b), any person may request that a COTP, or the district commander, establish a LAA. The information required for the request is listed in the regulations.

3. Notification.

a. General. Prior to publication in the Federal Register, a final rule can only be enforced against those having "actual notice" of the rule. The Administrative Procedures Act provides that "except to the extent that the person has actual and timely notice of the terms thereof, a person may not in any manner be required to resort to, or be adversely affected by, a matter required to be published in the Federal Register and not so published" (see 5 USC 552(a)). Consequently, if the establishment of a limited access area has not been published in the Federal Register, a person is not bound to recognize it unless that person has actual notice.

b. Actual Notice. Because the emergency nature of many LAAs often precludes publication in the Federal Register before the zones go into effect, and because broader dissemination of the rule is often desirable, the COTP, or the district commander, should use all means available to notify any interested parties. This includes giving notice to any parties affected. Such notification normally includes the physical boundaries of the area, the reasons for the establishment of the area, its estimated duration, and the method for obtaining authorization to enter the area. Rules establishing limited access areas must still be published in the Federal Register (see COMDTINST M16704.2 Series).

c. Dissemination Of The Rulemaking.

(1) Copies Of the Signed Rulemaking Document. The rulemaking document may be reproduced and handed out as a leaflet. This technique is relatively easy, since the command must produce the document for Federal Register publication and the document includes all of the necessary information. The leaflet should also include other information that might be of interest or value to the recipient (such as penalties, appeal procedures, enforcement agencies, etc.).

(2) Notice To Mariners. Whether published or broadcast, a Broadcast Notice to Mariners is one means of getting information to such persons as tugboat operators, masters of inbound vessels, etc.

(3) Newspapers/Radio/Television Releases. These are ways of reaching members of the maritime public not attainable through other methods (such as recreational boaters). The principal drawback is that the Coast Guard has no control over whether or not a release is published or broadcast, or how it is edited and delivered, nor can we know if a release was received. Prior contact with local media members can be extremely helpful in this regard.

(4) Unit Newsletter. The unit newsletter is a vehicle for widespread notice of regulations having local impact. The newsletter mailing list should cover all of the "interested parties" referred to in the PWSA.

4. Safety Zones.

a. Introduction. A safety zone is a water area, shore area, or water and shore area to which, for safety or environmental protection purposes, access is limited. Safety zones may be established by the district commander, or the COTP, in U.S. ports and waterways, under the authority of the PWSA and 33 CFR 165, for the protection of vessels, structures, waterways, and shore areas. In a safety zone, access is limited to persons, vehicles, vessels or objects authorized by the COTP. It may be described by fixed limits, or it may be a zone around a vessel in motion (see 33 CFR 165.20). For example, a safety zone may be established as follows:

(1) Around a damaged or burning vessel, to facilitate access for fire or rescue units and to protect uninvolved persons and vessels;

(2) To limit vessel access to an area in which spill removal operations are underway;

(3) For a long period of time, to safeguard a vessel grounded or sunk in or near a navigable channel, or to keep vessels off an uncharted shoal before marking or dredging; or

(4) To limit access to shoreside areas suffering from explosions or fires.

b. Purpose. Most safety zones are established in response to some emergency situation and are temporary in nature. However, it may become necessary to establish safety zones for indefinite periods. For example, a permanent safety zone may be established around the water and shore area of a high- risk waterfront facility. Entry into a safety zone is prohibited unless authorized by the COTP or district commander. Each person in a safety zone is required to obey any lawful order of the COTP or district commander, or their representatives. Failure to do so may result in civil or criminal sanctions under 33 USC 1232.

c. Discretion Of The COTP. To promote safety and protect the environment, the COTP may limit access to, and control activities within, the zone. Those vessels which are given permission to enter the area may be required to meet certain conditions specified by the COTP before access is granted. Nevertheless, the primary purpose of the zone is to limit access. Where a COTP primarily desires to control vessel operations in the zone, a more appropriate tool for this purpose is the establishment of a Regulated Navigation Area (RNA).

5. Security Zones.

a. Introduction. Security zones are designated areas of land, water, or land and water established for such time as is necessary to prevent damage or injury to any vessel or waterfront facility; to safeguard ports, harbors, or waters of the United States; or to secure the obligations of the U.S. Security zones may be established by the COTP, or the district commander, under the authority of 50 USC 191 and 33 CFR 6.04-6. Security zones are primarily used for national security interests rather than strictly for safety considerations.

b. Purpose. The purpose of a security zone is to safeguard vessels, harbors, ports, and waterfront facilities from destruction, loss, or injury from sabotage or other subversive acts, accidents, or other causes of a similar nature. Once a security zone is established, all persons and vessels within the zone are required to obey any direction or order issued by the COTP. Within the zone, the COTP may control the access and movement of all vessels, persons, and vehicles (including their removal) and may take control and possession of any vessel. Violations of the zone are subject to criminal penalties only.

6. Regulated Navigation Areas (RNAs).

a. Purpose. A Regulated Navigation Area (RNA) is a water area within a defined boundary for which regulations for vessels navigating within the area have been established by the district commander under the authority of the PWSA and 33 CFR 165.11. It is an area that requires control of vessel operations to preserve the safety of the adjacent waterfront structures, to ensure safe transit of vessels, or to protect the marine environment. For example, an RNA may be established to provide for safety of navigation when conditions require higher standards of control than that provided by the Navigation Rules. In such a case, the rules for the RNA may be designed to permit permanent passive traffic management; vessels may be required to comply with specific criteria in order to enter or transit the area. An RNA may also be established for other purposes. For example, an RNA could be used in an environmentally sensitive area to limit activities which would create an unusually high risk of harm (e.g., to prohibit oil transfer operations while the vessel is anchored).

b. Distinctions. An RNA should be distinguished from a COTP Order issued under the authority of 33 CFR 160. The primary difference is that an RNA is established by regulation, whereas the COTP order is not. An "order" is the appropriate means to control individual vessel movement when the hazard is an immediate one caused by an explosion, grounding, attempted blockade, or large oil spill. However, to be enforceable, actual knowledge of the order must be established. Where a hazardous condition exists that requires control of a number of vessels, the establishment of an RNA or safety zone is appropriate. RNAs may be established only by the district commander, and not by COTPs. RNAs are typically established when extensive vessel controls are needed over an extended period of time. Whenever possible, the normal rulemaking process of notice and comment is followed for the establishment of RNAs (see COMDTINST M16704.2 Series). However, RNAs may also be established as immediate emergency measures to respond to emerging, unanticipated events. As in the case of a temporary safety zone, a



temporary RNA may, in emergency circumstances, be made effective immediately (i.e., on the same date that the regulation is signed).

Encl (3) U.S. Security Zone comparison (2019)

JCEP has been asked several times about the security zone being discussed for Coos Bay and its comparison to other security zones across the country. The chart below gives the exact wording of the security zones in effect at other LNG terminals where LNG carriers transit.

Security zones are used to regulate traffic near areas or ships with higher risk. The zone size is based upon many aspects including waterway type, amount of traffic, type of traffic, waterway user impact, and the risk present. The zones are not the same dimensions in almost all cases.

There is no standard security zone dimension.

Security Zone Dimensions and Impacts across the United States				
Location of the existing security zone	Description of Zone	Waterway Impacts	Transit Impacts	Comments
Sector Boston, Boston Harbor	<p>Safety and Security Zone; Liquefied Natural Gas Carrier Transits and Anchorage Operations, Boston, Massachusetts</p> <p>Authorized representative means a Coast Guard commissioned, warrant, or petty officer or a Federal, State, or local law enforcement officer designated by or assisting the Captain of the Port (COTP) Boston. Authorized representative means a Coast Guard commissioned, warrant, or petty officer or a Federal, State, or local law enforcement officer designated by or assisting the Captain of the Port (COTP) Boston.</p> <p>(1) Vessels underway. All navigable waters of the United States within the Captain of the Port</p>	Imposes traffic restrictions over an area of 3 miles along the transit route and 500 yards on each side.	Imposes traffic restrictions over an area two miles ahead and one mile behind each LNG carrier.	<p>The security zone established for Boston is due to the increased threat by locating the terminal in the downtown area. The LNG transit consists of a long passage through areas congested with housing, roadways making travel easier, multiple bridges, federal buildings, Boston Logan airport and the entire downtown population.</p> <p>This security zone authorizes the COTP to allow passing and entry through the zone. It even describes who can be an authorized representative.</p>

	<p>(COTP) Boston zone, as defined in 33 CFR 3.05-10, two miles ahead and one mile astern, and 500 yards on each side of any liquefied natural gas carrier (LNGC) vessel while underway.</p> <p>(2) Vessels anchored in the Broad Sound. All waters within a 500-yard radius of any anchored LNGC vessel located in the waters of Broad Sound.</p> <p>(3) Vessels moored at the Distrigas LNG facility. All waters within a 400-yard radius of any LNGC vessel moored at the Distrigas LNG facility in Everett, MA.</p> <p>(c) Regulations. (1) In accordance with the general regulations in Sec. 165.23 and Sec. 165.33 of this part, entry into or movement within these zones is prohibited unless authorized by the Captain of the Port Boston, or his/her authorized representative.</p> <p>(2) No person or vessel may enter the waters within the boundaries of the safety and security zones described in paragraph (b) of this section unless previously authorized by the COTP Boston, or his/her authorized</p>			
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	<p>representative. However, LNGCs and support vessels, as defined in 33 CFR 148.5, operating in the vicinity of NEGDWP are authorized to enter and move within such zones in the normal course of their operations following the requirements set forth in 33 CFR 150.340 and 150.345, respectively.</p> <p>(3) All vessels operating within the safety and security zones described in paragraph (b) of this section must comply with the instructions of the COTP or his/her authorized representative.</p>			
<p>Sector Savannah, Savannah River</p>	<p>§ 165.756 Regulated Navigation Area; Savannah River, Georgia. (a) Regulated Navigation Area (RNA). The Savannah River between Fort Jackson (32°04.93' N, 081°02.19' W) and the Savannah River Channel Entrance Sea Buoy is a regulated navigation area when an LNG tankship in excess of heel is transiting the area or moored at the LNG facility. (c) Applicability. This section applies to all vessels operating within the RNA, including naval and other public vessels, except vessels that are engaged in the following operations:</p>	<p>Imposes a 2 mile area around all LNG vessels in transit only for vessels over 1600 tons. All vessels under 1600 tons shall keep clear of transiting ships.</p> <p>This zone only impacts large vessels during the transit. Smaller recreational and fishing vessels are allowed to transit past the LNG carriers while outside the ship channel.</p>	<p>Vessels of less than 1600 gross tons shall not approach within 70 yards of an LNG carrier.</p> <p>Vessels over 1600 tons must comply with tug assist requirements due to the close proximity of the channel.</p>	<p>The security zone established for the Savannah River, Elba Island facility reflects a level of security zone based on vessel operation and location. The largest difference is the requirement for passing vessels to have tug assistance due to the terminals location on an exposed river.</p> <p>Vessels less than 1600 tons are to keep clear of transiting vessels. Vessels under 1600 tons would equate to a vessel of approximately 200 feet in length. When these vessels are operating past a moored LNG carrier, they are allowed to within 70 yards (210 feet).</p>

	<p>(1) Law enforcement, security, or search and rescue;</p> <p>(2) Servicing aids to navigation;</p> <p>(3) Surveying, maintenance, or improvement of waters in the RNA; or</p> <p>(4) Actively engaged in escort, maneuvering, or support duties for an LNG tankship.</p> <p>(d) Regulations—(1) Requirements for vessel operations while a LNG tankship, carrying LNG in excess of heel, is underway within the RNA. (i) Except for a vessel that is moored at a marina, wharf, or pier, and remains moored, no vessel 1,600 gross tons or greater may come within two nautical miles of a LNG tankship, carrying LNG in excess of heel, which is underway within the Savannah River shipping channel without the permission of the Captain of the Port (COTP). (ii) All vessels less than 1,600 gross tons shall keep clear of transiting LNG tankships. (iii) The owner, master, or operator of a vessel carrying liquefied natural gas (LNG) shall:</p> <p>(A) Comply with the notice requirements of 33 CFR part 160. The COTP may delay the vessel's entry into the RNA to accommodate other commercial traffic.</p>			<p>This security zone authorizes the COTP to allow passing and entry through the zone.</p>
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	<p>(B) Obtain permission from the COTP before commencing the transit into the RNA.</p> <p>(C) Not enter or get underway within the RNA if visibility during the transit is not sufficient to safely navigate the channel, and/or wind speed is, or is expected to be, greater than 25 knots.</p> <p>(f) Enforcement. Violations of this section should be reported to the Captain of the Port, Savannah, at (912) 652-4353. In accordance with the general regulations in § 165.13 of this part, no person may cause or authorize the operation of a vessel in the regulated navigation area contrary to the provisions of this section. Dated: January 5, 2007.</p>			
<p>Sector Houston, Calcasieu River</p>	<p>(a) Location. (1) The following areas are designated as fixed security zones.</p> <ul style="list-style-type: none"> (i) Trunkline LNG basin. (ii) Cameron LNG basin. (iii) PPG Industries basin. <p>(2) The following areas are moving security zones: All waters within the Captain of the Port, Port Arthur zone commencing at U.S. territorial waters and extending channel edge to channel edge on the Calcasieu Channel and shoreline to shoreline on the Calcasieu River, 2 miles ahead and 1 mile</p>	<p>Imposes traffic restrictions over a three mile long zone shoreline to shoreline to all vessels.</p> <p>There is extremely low impact to deep draft traffic as the waterway is a one way only channel for deep draft ships.</p>	<p>Imposes restrictions in the dredged channel area surrounding the facility whether or not a ship is alongside.</p> <p>There could be impact to recreational and fishing vessels as the security zone goes from side to side. Allowing permission to other users reduces the impact.</p>	<p>This moving security zone is established in an area where one-way traffic is already imposed due to the large size of vessels entering and departing.</p>

	<p>astern of certain designated vessels while in transit. Meeting, crossing or overtaking situations are not permitted within the security zone unless specifically authorized by the Captain of the Port. Coast Guard patrol assets will be on scene with flashing blue lights energized when the moving security zones are in effect.</p> <p>(3) Other persons or vessels requiring entry into security zones described in this section must request permission from the Captain of the Port, Port Arthur or designated representatives.</p> <p>(4) To request permission as required by these regulations, contact Marine Safety Unit Lake Charles at (337) 491-7800 or the on scene patrol vessel.</p> <p>(5) All persons and vessels within a security zone described in this section must comply with the instructions of the Captain of the Port, Port Arthur, designated on-scene U.S. Coast Guard patrol personnel or other designated representatives. On-scene U.S. Coast Guard patrol personnel include commissioned, warrant, and petty officers of the U.S. Coast Guard. Designated</p>			
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	<p>representatives include federal, state, local and municipal law enforcement agencies.</p> <p>(c) Informational broadcasts: The Captain of the Port, Port Arthur will inform the public when moving security zones have been established around vessels via Broadcast Notices to Mariners and written notice provided by escort vessels.</p>			
Sector Portland	<p>§165.1318 Security and Safety Zone Regulations, Large Passenger Vessel Protection, Portland, OR Captain of the Port Zone</p> <p>(a) Notice of enforcement or suspension of enforcement. The large passenger vessel security and safety zone established by this section will be enforced only upon notice by the Captain of the Port Columbia River. Captain of the Port Columbia River will cause notice of the enforcement of the large passenger vessel security and safety zone to be made by all appropriate means to effect the widest publicity among the affected segments of the public including publication in the Federal Register as practicable, in accordance with 33 CFR 165.7(a). Such means of</p>	<p>Establishes a 500 yard security zone around passenger vessels.</p> <p>This zone allows other traffic considered safe to transit in the Columbia River waters and still provides security vessels the needed boundary.</p>	<p>Establishes a 500 yard security zone around passenger vessels.</p> <p>This zone impacts all vessels transiting the area but allows local commanders or vessel Masters to allow passing the zone.</p>	<p>The security zone established for the Columbia River Large Passenger Vessels uses a smaller area than other LNG security zones.</p> <p>The establishment of a security zone allows control of vessels within the regulated navigation area. In fact, it specifically allows vessels to a 100 yard radius.</p>

	<p>notification may also include but are not limited to, Broadcast Notice to Mariners or Local Notice to Mariners. The Captain of the Port Columbia River will issue a Broadcast Notice to Mariners and Local Notice to Mariners notifying the public when enforcement of the large passenger vessel security and safety zone is suspended.</p> <p>Large passenger vessel security and safety zone is a regulated area of water, established by this section, surrounding large passenger vessels for a 500 yard radius that is necessary to provide for the security and safety of these vessels.</p> <p>(c) Security and safety zone. There is established a large passenger vessel security and safety zone extending for a 500 yard radius around all large passenger vessels in the navigable waters of the United States, in Portland, OR at the Columbia River Bar “C” buoy and extending eastward on the Columbia River to Kennewick, WA and upriver through Lewiston, ID on the Snake River.</p>			
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<p>Sector Alaska</p>	<p>Security Zones: Liquefied Natural Gas Tanker Transits and Operations at Phillips Petroleum LNG Pier, Cook Inlet, AK.</p> <p>(a) Location. The following areas are established as security zones during the specified conditions:</p> <p>(1) All navigable waters within a 1000-yard radius of the Liquefied Natural Gas (LNG) tankers during their inbound and outbound transits through Cook Inlet, Alaska between the Phillips Petroleum LNG Pier, 60°40'43" N and 151°24'10" W, and the Homer Pilot Station at 59°34'86" N and 151°25'74" W. On the inbound transit, this security zone remains in effect until the tanker is alongside the Phillips Petroleum LNG Pier, 60°40'43" N and 151°24'10" W.</p> <p>(2) All navigable waters within a 1000-yard radius of the Liquefied Natural Gas tankers while they are moored at Phillips Petroleum LNG Pier, 60°40'43" N and 151°24'10" W.</p> <p>(A) The owner of the vessel has previously requested approval from the Captain of the Port representative, Marine Safety Detachment</p>	<p>This provides a limited impact on the waterway due to the size of the area.</p> <p>Provisions are made to exclude other vessels using the Nikiski marine docks and making advanced notice of arrivals and fishing vessels.</p>	<p>Transit impacts are very limited in this remote area of Alaska.</p>	<p>Establishes a 1000 yard (3000 foot) moving security zone and fixed security zone alongside the dock when they are moored.</p> <p>The COTP has made specific provisions for reducing the impact on local operators.</p>
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	<p>Kenai, Alaska, to fish in the security zone and</p> <p>(B) Has provided the Captain of the Port representative, Marine Safety Detachment Kenai, Alaska current information about the vessel, including:</p> <p>(1) The name and/or the official number, if documented, or state number, if numbered by a state issuing authority;</p> <p>(2) A brief description of the vessel, including length, color, and type of vessel;</p> <p>(3) The name, Social Security number, current address, and telephone number of the vessel's master, operator or person in charge; and</p> <p>(4) Upon request, information on the vessel's crew.</p> <p>(C) A vessel owner or operator is required to submit the information one time but shall provide the Captain of the Port representative updated information when any part of it changes.</p> <p>(D) The Captain of the Port must approve a vessel's request prior to being allowed into the security zone at the</p>			
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	<p>Phillips Petroleum LNG Pier.</p> <p>(E) The vessel is operated in compliance with any specific orders issued to the vessel by the Captain of the Port or other regulations controlling the operation of vessels within the security zone that may be in effect.</p> <p>(2) All persons and vessels shall comply with the instructions of the Captain of the Port representative or the designated on-scene patrol personnel. These personnel are comprised of commissioned, warrant, and petty officers of the Coast Guard. Upon being hailed by a U. S. Coast Guard vessel by siren, radio, flashing light, or other means, the operator of a vessel shall proceed as directed.</p> <p>(3) The Marine Safety Detachment Kenai, Alaska will notify the maritime community of these security zones by publishing a Local Notice to Mariners and via a bimonthly marine Broadcast Notice to Mariners.</p>			
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Encl: (4) Captain Whipple Qualifications**Education, Training, Licenses, Certificates, and Unique Qualifications:**

Captain Whipple holds a Bachelors in Nautical Science from Cal State Vallejo (California Maritime Academy) and completed a one-year executive management program with Crowley Maritime Corporation. He holds an unlimited Mates license (navigation) and has completed 64 technical schools and qualification courses. He is qualified in all 23 positions within a Captain of the Port and Officer in Charge Marine Inspection office. He served as Captain of the Port in both Galveston, Texas and Honolulu, Hawaii.

Summary:

Captain Whipple served as Captain of the Port in both Honolulu, Hawaii and Galveston, Texas. The Honolulu COTP zone encompasses the entire mid-Pacific region extending nearly 1000 miles in all directions from Honolulu including all of the islands and their individual ports. The Galveston COTP zone includes the majority of the area offshore Galveston, the intercoastal waterway, and the Houston Ship Channel up through Galveston Bay. Additionally, he served as the Pacific Areas, Chief of Marine Safety, Security, and Environmental Protection covering all COTP zones in the entire Pacific.

For over 46 years, have worked in establishing, enforcing, and creating the basis for regulated navigation areas, safety zones and security zones around the entire United States. Created and enforced the first safety zone which was contested in Texas to protect turtles using what is called a Turtle Excluder Device (TED's). The commercial fishing community was opposed to these devices due to the potential for loss of catch. Ultimately, TED's have been required in all fishing systems where turtles and other marine life can be caught as by-catch to the fisheries.

He served 28 years as a regulatory compliance specialist with the US Coast Guard. During this, he was actively involved in assisting companies in complying with regulatory measures implemented for safety, security and environmental protection. Because of this, he has extensive experience in working with government agencies and waterway user groups. Over the past several years he has been involved in preparing safety and security assessments of major ports and waterways. He uses and is familiar with a number of Risk Management Processes and is able to apply them to unique and challenging waterways. The impact on local communities, businesses and the environment are key factors in all of the assessments conducted.

Captain Whipple has established and enforced the application of safety and security zones in numerous ports around the United States. During these events, he was responsible for the actions of all US Coast Guard and local law enforcement in the proper application of the zone, advising the public of its existence, authorizing persons and vessels to transit into and through the zones, and ensuring security patrols worked closely with our port partners to ensure minimum impact to waterway users. He has also had to take legal action against persons violating the zone by not following the directions of on scene personnel.

Captain Whipple has been conducting navigation and waterway assessments for projects involving LNG carriers, mooring operations, conducting simulator trials for new berths and determining whether specific waterways can handle the types of ships expected. He oversaw two offshore moorings in Hawaii and six offshore moorings along the California coast during his Coast Guard career. He has consulted on a proposed oil terminal for the Port of Los Angeles, a proposed offshore mooring in Alaska, a proposed LNG terminal in Hawaii, multiple LNG terminals in the Gulf of Mexico, and two LNG projects in Maine. He conducted assessments for the procurement and installation of Vessel Traffic Systems (VTS) in Casa Blanca and Safi, Morocco and Coos Bay, Oregon.

Captain Whipple assists companies and governments in preparing for crisis management situations and teaching emergency response, oil & chemical response and Incident Management. He was formerly head of the U.S. Coast Guard's Pacific Region headquarters, Maritime Safety, Security and Environmental Response Division and has extensive experience in emergency response, oil, and chemical cleanup, and responding to major incidents. Captain Whipple commanded two of the Coast Guard's elite emergency response units in responding to crisis situations; the Atlantic Strike Team and a forward deployed Port Security Unit. During the period 1991-1994 he served as instructor, moderator and director of the Preparedness for Response and Exercise Program (PREP) exercises for the northeast region and the Great Lakes.

The Atlantic Strike Team is one of three United States teams that deploy worldwide in response to spills and chemical disasters. He was responsible for the training and qualification of the entire team to support Coast Guard, Environmental Protection Agency and US military On Scene Coordinators. This assignment gave him extensive experience in supporting those charged with responding to leaks and spills as well as sharing his extensive experience in spill cleanup, response technologies, ship construction/stability, and specific response equipment.

The Port Security Unit is a forward deployed unit providing port security protection to designated high value targets. The team of 136 personnel is equipped with four high speed boats with three (3) 50 caliber machine guns for port security protection and a full capability for self-sustainment in a port including galley, port security network system, defensive capability for the shore based unit, and ground support for the team.

Captain Whipple was dispatched to Yemen following the attacks on the USS Cole and M/V Limburg by Lloyds of London. He along with five team members conducted a security assessment of all Yemen ports to prevent future attacks on shipping. The assessment included recommendations to the ports and to shipping in proper actions to prevent future attacks.

Captain Whipple spent two years in Algeria conducting security assessments in their 11 ports which included LNG terminals, passenger ship terminals, freight ship terminals, and commercial fishing terminals. This two year period culminated in the preparation of security plans and a coordinated visit by US Coast Guard personnel to ensure the government of Algeria was following international protocol for securing their ports and shipping to threats.

While in the USCG, he was chosen as the United States Team Leader for special crisis emergency response operations in the United States, Saudi Arabia, Mozambique, Chile, and Canada. He led the training for the Algerian government and port personnel from 11 different ports in emergency response and the Incident Command System.

PROFESSIONAL QUALIFICATIONS

- Hull Inspector
- Machinery Inspector (steam and motor)
- Drydock Inspector
- Barge Inspector
- Passenger Vessel Inspector
- Tank Ship Inspector
- Small Passenger Vessels
- Foreign Freight Vessel Examiner
- Foreign Tank Vessel Examiner (LOC Inspector)
- Foreign Chemical Tank Examiner
- Foreign Gas Carrier Examiner
- Offshore Supply Vessel Inspector
- Mobile Offshore Drilling Unit Inspector
- Federal On Scene Coordinator (FOOSC) Representative
- Facility Inspector
- Casualty Investigator
- Harbor Safety Officer
- Pollution Investigator
- Suspension and Revocation Investigator
- Response Member
- Response Officer
- Response Technician
- Response Supervisor
- Tug boat auditor

QUALIFIED INSTRUCTOR

- Auditing – USCG (in service)
- Facility Security Officer – MARAD/USCG
- Vessel/Company Security Officer – USCG
- Train the Trainer – California Maritime Academy/USCG
- Incident Command (ICS 400)
- Response Management
- Crisis Management

PROFESSIONAL ORGANIZATIONS

- ◆ Society of Port Engineers, Los Angeles/Long Beach, Past President
- ◆ ASIS member
- ◆ Member, DNV Pacific Technical Committee, 00-01

- ◆ Member, Regional Response Teams 1, 3, 5, and 9 from 91-94
- ◆ Chairman, Regional Response Team IX, 99-01
- ◆ Hawaii Operational Safety Team, 97-99; Founder, organizer, and chair.
- ◆ Executive Director, Port Readiness Committee, San Francisco 85-87
- ◆ Co-chair AWO-Coast Guard Pacific Committee, 99-01

Key Projects

- Security consultant to the Port of San Diego. Prepared all the security plans for three marine terminals in the port.
- Designed the VTS and port surveillance systems for Casablanca and Safi, Morocco under a USTDA grant program.
- Port of Los Angeles (POLA) Cruise Terminal Security, World Cruise Terminal. Providing the terminal security assessment, mitigation measure recommendations and upgrades for the cruise terminal at the Port of Los Angeles.
- Security Grant Writing and Technical Support, City of Los Angeles, Harbor Department, CA. Provided continued support to the POLA in security grants, security review and recommendations and supporting the AMSC. Includes the POLA/POLB Risk Mitigation Plan and the Trade Resumption and Resiliency Plan.
- Trade Resumption and Resiliency Plan (TRRP), Emergency Planning Contract, City of Los Angeles, Harbor Department (Port of Los Angeles-POLA). Provide Emergency Planning assistance to the nations' largest and busiest port complex and the U.S.'s second largest city. As part of this contract assisted developing the port complex's TRRP for spring 2008 to 2011.
- Port Recovery Plan, Port of Los Angeles (POLA) Emergency Planning Contract. Provide Emergency Planning assistance to the nations' largest and busiest port complex and the U.S.'s second largest city. Assisted in developing the ports recovery plan. This all hazards plan development focusing on internal POLA relationships during recovery process.
- Port of Long Beach Shelter in Place Plan. Provided port expertise in reviewing and recommending actions and training necessary to conduct evacuation and sheltering to the many various port elements.
- Jordan Cove Energy Project. Provided maritime consulting regarding the regulatory measures for transiting LNG carriers. Provided security assessment and mitigation solutions to a proposed LNG project on the West Coast. For over fourteen years, have worked with federal, state and local agencies in developing emergency response criteria, emergency plans, and other risk reduction measures including the installation of a private VTS system. Developed the security measures for the facility and have worked with lead engineering group in the design and operation of the security features. Led the Emergency Response Planning Group. Additionally, have guided the ship simulations for the past eight years.
- Domestic LNG projects. Performed Waterway Suitability Assessments (risk assessments), security audits, prepared security plans and serves as a key advisor to project development teams in meeting the domestic security requirements. Have performed these services on the East Coast, Gulf Coast, West Coast, Alaska, and Hawaii projects. Also in these projects

developed emergency planning criteria and plans to satisfy FERC, PHMSA, and USCG requirements.

- Maine Ports. Performed security audits, prepared security plans and serves as a key advisor to facility operators in meeting the international and domestic security requirements. Conducted field security assessments of government offices, buildings, facilities and operations for ports.
- Compliance with 33 CFR 105, Maritime Security; Has supported numerous marine terminal operators comply with the security requirements under USCG scrutiny. Worked in all West Coast ports, Gulf of Mexico ports, Great Lakes ports, East Coast ports, Alaskan, and Hawaiian ports. Assisted in conducting requisite risk assessments, preparing security plans, and proper implementation of security measures.
- Compliance with 33 CFR 104, Vessel Security; Has supported numerous ship owners and operators comply with the security requirements under USCG scrutiny. Worked with LNG carriers, tankships, barges, tug boats, inspected passenger vessels, and cargo ships. Assisted in conducting requisite risk assessments, preparing security plans, and proper implementation of security measures.

Other Relevant Work Experience

- Northeast Maritime Institute, Senior Vice President, International Ship and Port Security Division. Responsible for assisting governments and companies comply with post 9-11 security standards. Conducted all the risk assessments and security plans for eleven ports in Algeria including LNG ports, tankship ports, general cargo ports, and fishing ports.
- Hudson Marine Management Services, Senior Vice President for International Sales and Business Development. Assisted the sister company HudsonTrident Maritime Security Services in developing a worldwide security firm with offices around the world. Conducted the security assessment of all Yemen ports after the USS Cole and M/V Lindberg attacks.
- Hudson Marine Management Services, Vice President Pacific Region. Responsible for the company's business processes in the Pacific Region including security assessments, developing security plans, security equipment identification and design and reducing vulnerabilities.

Other USCG Experience

- Captain Whipple served 28 years in the U.S. Coast Guard and most recently served as:
- 1999-2001: Area Program Director for all maritime safety and environmental response actions from Singapore to Alaska and to the Mexican border. Managed the resources and results of four regional offices and 10 field offices. He resolved a 15-year deadlock between 19 governmental agencies over the proper response to oil spills. Established regional focus on issues to avoid the "One size fits all" national perspective
- 1996-1999: Captain of the Port, Honolulu, Commander Coast Guard Forces in the mid-Pacific region, including Hawaii and Pacific territories. Managed field unit with 100

employees having responsibility for 16 major ports with 35,000 commercial port calls per year by vessels of all nationalities.

- 1995-1996: Commanding Officer, Port Security Unit. Leader of the 136-person special tactical force providing high level defense services to high value commercial and military assets worldwide. Recommended and performed a national evaluation of the unit's needs and assessment of capabilities.
- 1994-1995: District Manager, Marine Safety Compliance Division. Directed the resources and successful results of three field offices covering California, Arizona, and Nevada. Workgroup of 10 commercial and 14 CG units eliminated long-standing controversy over commercial reporting of casualties.
- 1991-1994: Commanding Officer, Atlantic Strike Team. Leader of the 35-person special tactical force in responding to disasters around the world. Deploying in under 4 hours to support crisis operations in any environment on the planet including the poles and equatorial sites.
- 1973-1987 Ship inspector/surveyor. Resident shipyard inspector in five major West Coast shipyards. Conducted shipyard periods and inspections in Singapore, Philippines, and China.

Work History/Experience:

Amergent Techs LLC, President, 2004-Present

Northeast Maritime Institute, Senior VP, 2003-2005

Hudson Marine Management Services, Senior VP, 2001-2003

US Coast Guard, 1973-2001

Specialty Courses Attended:

1. Practical Fire Fighting	14 JAN 71	Navy San Francisco
2. Damage Control School	15 MAR 72	Navy San Francisco
3. Nuclear, Biological, and Chemical Warfare	20 OCT 72	Navy, San Francisco
4. First Aid to the Injured	11 DEC 72	Calif. Maritime Academy
5. Basic Radar Course	05 JAN 73	MARAD, San Francisco
6. Merchant Marine Safety, Inspection/Investigation	09 NOV 73	CG Yorktown, VA
7. Officer Indoctrination	24 AUG 73	CG Yorktown, VA
8. Nondestructive Inspection of Materials	05 APR 74	Army, Watertown, MA
9. Fiberglass Reinforced Plastic Material & Inspection	15 OCT 74	Brooklyn, NY
10. Military Justice in the Navy	04 OCT 75	CG Institute
11. Welding Metallurgy	24 MAR 76	Aerojet, Placentia, CA
12. Boat Accident Investigation Methods	30 APR 76	Huntsville, AL
13. Coast Guard Law Enforcement	15 SEP 76	CG Institute
14. Coast Guard Search and Rescue	24 JAN 77	CG Institute
15. School of Offshore Operations	01 JUL 77	U of Texas, Kilgore
16. Crane Inspection and Testing	15 OCT 77	Unit Crane, WI
17. Offshore Marine Inspector School-Offshore Drilling	14 OCT 78	University of SW, LA
18. Lifesaving and Water Survival Offshore	11 OCT 78	La Fayette, LA
19. Recognition of Occupational Health Hazards	07 NOV 80	USC, Los Angeles, CA

20. Hazardous Chemical Training	18 SEP 81	CG Yorktown, VA
21. Chemical Response-Union Carbide response team	13 NOV 81	Texas A&M University
22. Chemical Response-Union Carbide response team	22 OCT 82	Brownsville, TX
23. Gulf Strike Team Spill Response Training	17 DEC 82	San Juan, PR
24. Shipboard Bulk Petroleum Operations Training	09 MAR 84	CA Maritime Academy
25. Marine Transportation Management	21 SEP 84	Crowley Maritime
26. Boiler Operation and Maintenance	29 MAR 85	St. Louis, MO
27. Marine Engineering for USCG Inspectors	12 DEC 85	CA Maritime Academy
28. National Institute for Trial Advocacy	29 JAN 86	UC Berkley
29. Human Resource Development	04 MAR 86	San Francisco, CA
30. Criminal Justice Course-Terrorism	04 APR 86	CSTI, San Luis Obispo
31. Key Asset Protection Program Course	19 SEP 86	USAF, Dallas, TX
32. Coastal Defense Management Course	06 OCT 86	CG Alameda, CA
33. Readiness Planners Course	29 SEP 87	CG Yorktown, VA
34. Marine Safety Executive Officer Course	28 APR 89	CG Yorktown, VA
35. Civilian Personnel Management	22 SEP 89	CG, Virginia Beach, VA
36. Performance Management System	01 MAR 91	New Orleans, LA
37. Oil Spill Control Course	05 APR 91	Texas A&M University
38. Marine Emergency Management	11 OCT 91	Cornwall, Canada
39. Treatment Technologies for Superfund Sites	06 DEC 91	EPA, Cincinnati, OH
40. ODI, The Quality Advantage	12 FEB 92	San Francisco, CA
41. AST Chemical Response Course	26 JUN 92	Fort Dix, NJ
42. Oil Dispersant Application Technologies	09 OCT 92	American Petroleum Instit
43. Air Monitoring Course	21 AUG 93	EPA, Ripley, WV
44. Oil Spill Dispersant Use	09 SEP 93	University of Texas
45. Port Security Unit Training	27 OCT 95	Camp Perry, OH
46. On-Scene Coordinators Course/Media Relations	20 MAR 96	Honolulu, HI
47. Commanding Officers Course	23 MAY 96	CG Yorktown, VA
48. Oil Spill Dispersant Decision-Making	02 OCT 96	Concord, CA
49. Steven Covey – 7 Habits of Highly Effective People	11 NOV 96	Honolulu, HI
50. Incident Command System-Crisis Management I-300	05 JUN 97	Honolulu, HI
51. Oil Spill Surveillance Training	30 SEP 97	Honolulu, HI
52. Responsible Empowerment Management Course	03 FEB 98	Honolulu, HI
53. NIIMS I-300	03 MAR 99	Alameda, CA
53. On Ship Security Assessors Course	11 MAR 03	Long Beach, CA
54. West Coast Spill Response School	8 June 2006	California Maritime
55. FSO/VSO/CSO Security Course	15Aug 2006	California Maritime
56. Military, 1 st Responder, LE security course	8 Aug 2007	M-PACT/CMA
57. Military, 1 st Responder, LE security instructor course	10 Aug 2007	M-PACT/CMA
58. Instructor Training	8 Aug 2007	California Maritime
59. Train the Trainer Instruction	8 Aug 2007	California Maritime
60. Infrastructure Protection	19 Sep 2008	DHS
61. AWO Auditing Course	11 Mar 2010	Arlington, VA
62. Project Management	16 Jan 2012	Geo Mason University
63. ITAR	20 Jan 2012	Raytheon
64. TVIB Auditing Course	08 Aug 2013	Houston, TX

Major Casualty Response Experience:

Sodium Chloride Spill: Assisted owner in responding to the spill after the barge carrying the product sank offshore California in 2014.

Molasses Spill: Served as lead investigator for the molasses spill in Honolulu Harbor. The spill released over 250,000 gallons of molasses into Honolulu Harbor, September 2013.

Da Tang 18: Served as Incident Commander for the discharge of bunker fuel oil from a ship at anchor in Long Beach Harbor. Oil spread across Long Beach Harbor causing potentially disastrous results from port closure.

Deepwater Horizon: Served as a logistics coordinator and assigned highly qualified team members to the BP High Interest Technology Team (HITT). The team evaluated the 50,000 ideas submitted to BP for responding to one of the largest maritime spills.

Cosco Busan: Served as a logistics supervisor for a team of 12 conducting claims processing and inspections. Cosco Busan hit the Oakland Bay bridge spilling 58,000 gallons of black oil.

Chovie Clipper: Served as Site Manager for response company spill involving a fishing vessel off the California coast. The vessel had suffered a casualty and had overturned.

New Amity Spill: Served as Incident Commander for the 22 Sept. 2001, the M/V New Amity, a tanker vessel, was holed and an estimated 36,600 gallons of oil was released.

M/V Ince Express: Served as Federal On Scene Coordinator for the bulk carrier M/V INCE EXPRESS taking on water as a result of cracks or hull fractures in the starboard and port bow. The vessel was off the south shore of Wake Island in the vicinity of the entrance to the port.

Chevron Hawaii Pipeline Spill: Served as FOSC for 40K gallon spill into sensitive wetlands, Pearl Harbor, HI. Pipeline wastage caused a leak in a remote area to spill into Pearl Harbor with ensuring 4-month cleanup operation.

Nine grounded leaking ships removed from harbor reefs: Served as Federal On Scene Coordinator (FOSC) and developed and implemented an action plan to completely remove oil spilling from 9 ships grounded on reefs in American Samoa. Conducted environmental assessment and cost assessment of various technologies.

Container Barge Fires, Chesapeake Bay: As part of a strike team deployment, assisted COTP Hampton Roads properly respond to two container barges fires underway. At different times, two barges caught fire while transiting the Chesapeake Bay. Deployed fire fighting helicopters from the National Guard to douse the fire with copious amounts of water.

M/V Santa Clara chemical spill: Lead field responder to 4 arsenic trioxide containers lost off New Jersey coast falling off a container ship. Developed and utilized mine hunting helicopters to cover a vast area of the Atlantic Ocean conducting bottom sonar mapping capability.

T/V Katina P major spill, Mozambique: Led multi-agency team to assist the government of Mozambique to respond to entire tank ship loss and spill of heavy fuel oil (one of worlds 10 largest oil spills). The team included USCG, EPA, NOAA, and environmental contractors.

US Government Advisor to Saudia Arabia Sent as the US delegation head (USCG, EPA, NOAA) during the response to the oil spills after the Gulf Wars. Some 42 million barrels of oil were spilled when rebels used explosives on pipelines, wells, and offshore pipelines. This is the largest oil spill response in world history.

IMO Advisor to Chilean Government: Sent to Chile as IMO advisor to respond to four containers containing Arsenic lost in 2000 foot water depth. Containers successfully recovered using plan developed.

T/V Exxon Valdez: Assisted during US Navy assignment with Navy ships to serve as berthing and support vessels.

T/V Exxon Houston grounding, Honolulu: Directed field activities to ship grounding off Barbers Point, HI using Navy salvage equipment while attached as Liaison Officer to US Navy, Third Fleet.

T/V Mega Borg, explosion and fire: Deputy On-Scene Coordinator for a ship explosion and 4 million gallon oil spill, 60 miles offshore Galveston, TX.

Apex oil barge spill: Deputy On-Scene Coordinator for a 700,000 gal spill from a barge inside Galveston Bay.

T/V Puerto Rican explosion and fire: Lead field surveyor in conducting damage assessment to the tankers hull after the explosion outside San Francisco. Forebody of the ship was eventually brought into the bay for unloading.

T/V Texaco Belgium reef grounding, Puerto Rico: On Scene Coordinator representative for grounding and successful unloading of the product allowing refloating of the vessel without any loss of oil cargo or fuel.

T/V Sansinena explosion and fire: First responder to the incident. Led field investigation into the cause of the casualty

T/V Neptune Dorado: Senior advisor to USCG management in regards to a substandard tankship arriving into U. S. waters and criminal charges being filed by the Department of Justice.

T/V Sybas Singapore: Captain of the Port for a ship arriving into U. S. waters with crew payment problems, no COFR or response plan, and no money. Directed ships from US territorial waters until suitable arrangement were made to settle claims.

S/S Empire Knight: OSC representative in determining the amount and location of a reported load of mercury in a ship sunk offshore Portland, ME. The ship contained explosives, copper cables, and mercury and had sunk during a heavy storm in 100 feet of water.

EPA major cases: While serving as Commanding Officer of the Atlantic Strike Team, responded to approximately 45 major EPA cases per year including radiation releases, high explosive incidents, pipeline leaks, ship groundings, underwater salvage cases, and aircraft and train accidents.

Assisted EPA OSC in removing houses built with radioactive material from an old processing facility.

Assisted EPA OSC in the identification of asbestos contamination in housing tract and high school track. The material was left over and obtained by building contractor.

Assisted EPA OSC in removing the excessive explosive product from US military contractors site. The contractor had been storing explosive material which was off specification and could not be used in military supply chains. The contractor had no means of removing the material.

Assisted EPA OSC in complete take over of a marine transfer terminal in New York Harbor after they found oil contamination in ground water. The terminal included operating boilers, tank farm, piping, and marine terminal.

Assisted EPA OSC in taking over of drug lab with high explosive chemicals. Made level A entries and performed containment and removal of all chemicals found on site.

Member of six different Regional Response Teams during the period 1991-2001. Assisted each RRT in developing policies, understanding response issues and bringing field issues to the appropriate agencies.

Served as Co-chair of RRT 9 during the period of 1999-2001. RRT developed a dispersant plan for use in federal waters offshore of California.

Coauthor of Shoreline Protection Manual a nationally recognized manual of the risk management approach to cleaning shorelines with different technologies.

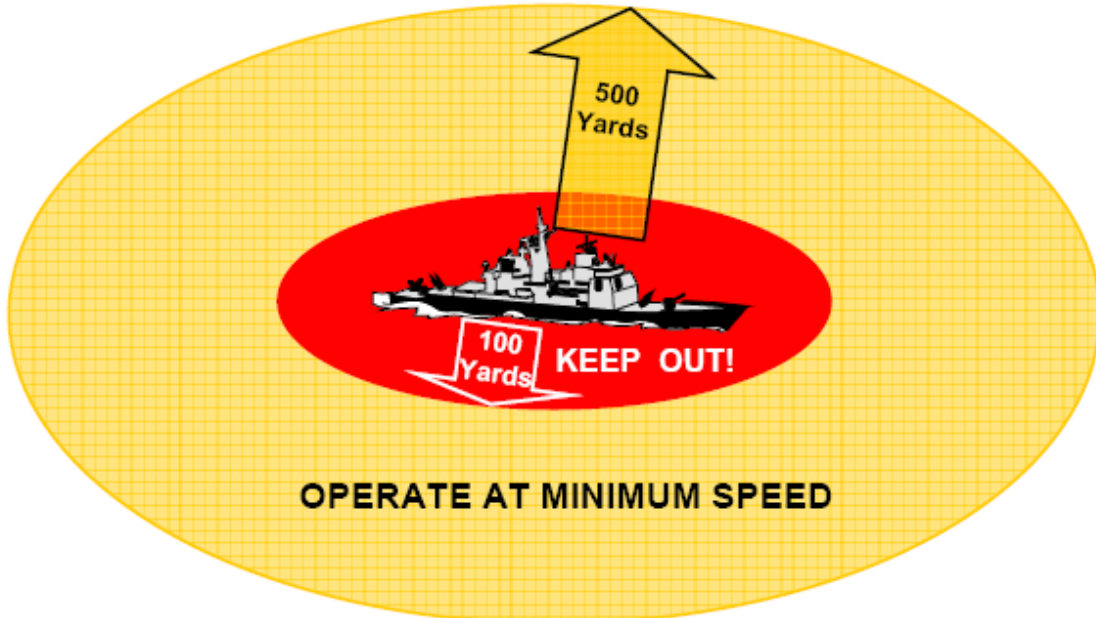
Coauthor of Mechanical Protection Guidelines a nationally recognized manual of the use of booms and other technologies in responding to oil spills.

Maritime Safety Consultant

My training, knowledge, and experience in maritime policy and practices have been enhanced by my years working as a consultant. As a maritime safety consultant, I have become increasingly involved in the formulation of corporate, state, and federal maritime policies, procedures and regulations. I have written security, safety and operation manuals for several companies.

WARNING!

Do not approach within 100 yards of any U.S. naval vessel. If you need to pass within 100 yards of a U.S. naval vessel in order to ensure a safe passage in accordance with the Navigation Rules, you must contact the U.S. naval vessel or the Coast Guard escort vessel on VHF-FM channel 16.



You must operate at minimum speed within 500 yards of any U.S. naval vessel and proceed as directed by the Commanding Officer or the official patrol.

Violations of the Naval Vessel Protection Zone are a felony offense, punishable by up to 6 years in prison and/or up to \$250,000 in fines

PROTECTION AND SECURITY ZONES

Naval Vessel Protection Zone 33 CFR 1321

Do not approach within 100 yards of any U.S. Naval Vessel. Within 500 yards of operation of the U.S. Naval Vessel you must transit at minimum safe operating speed. If you need to pass within 100 yards of a U.S. Naval Vessel, in order to ensure a safe passage and in accordance with the Navigation Rules, you must contact the U.S. Naval Vessel or the Coast Guard escort vessel on VHF-FM channel 16. Vessels 20 meters or greater in length should seek permission from the COTP or a Designated Representative at least 4 hours in advance. Vessel less than 20 meters in length should seek permission at least 1 hour in advance. VTS Puget Sound may be reached on VHF-FM channel 14

Tank Ship Security Zones 33 CFR 1313

Do not approach within 100 yards of any Tank Ship. No vessel or person is allowed within 100 yards of a tank ship, unless authorized by the on-scene official patrol or tank ship master. If you need to pass within 100 yards of a Tank ship, in order to ensure a safe passage and in accordance with the Navigation Rules, you must contact the Tank Ship on VHF-FM channel 16. When within a tank ship security zone all vessels shall operate at the minimum speed necessary to maintain a safe course and shall proceed as directed by the on-scene official patrol or tank ship master.

Large Passenger Protection Zone 33 CFR 1317

When within a large passenger vessel security and safety zone all vessels must operate at the minimum speed necessary to maintain a safe course and must proceed as directed by the on-scene official patrol or large passenger vessel master. No vessel or person is allowed within 100 yards of a large passenger vessel that is underway or at anchor, unless authorized by the on-scene official patrol or large passenger vessel master. No vessel or person is allowed within 25 yards of a large passenger vessel that is moored.