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**BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION**

WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION,  
Complainant,

v.

PUGET SOUND PILOTS,  
Respondent.

DOCKET NO. TP-

**TESTIMONY OF  
ERIC VON BRANDENFELS  
PRESIDENT, PUGET SOUND PILOTS**

**NOVEMBER 19, 2019**

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## I. INTRODUCTION

**Q: Please state your name, position at Puget Sound Pilots and business address.**

**A:** My name is Eric vonBrandenfels and I am the President of the Puget Sound Pilots (“PSP”) since January, 2017. Our business address is 2003 Western Ave, Suite 200, Seattle, WA 98121.

**Q: Please identify the Puget Sound Pilots witnesses sponsoring testimony on behalf of the proponent and a brief summary of their testimony.**

**A:** In addition to me, the following parties will be offering testimony on behalf of PSP:

1. **George Quick.** Mr. Quick is Vice President of the International Organization of Master Mates and Pilots. Captain Quick will be offering testimony on the history of pilotage in the United States, the comparable job responsibilities of masters of vessels and pilots, the capabilities and risks of pilots navigating Puget Sound and other waters, the rationale behind public regulatory pilotage rate systems, pilot compensation and comparable pay standards, factors for state pilotage boards and utility commissions in considering pilotage compensation, pilotage recruitment factors, the PSP retirement program, and rationale for deferred compensation systems in national pilot organizations and the callback system adopted by PSP.
2. **Walter Tabler.** Mr. Tabler, of Tabler Consulting, is a former Washington Assistant Attorney General, and outside counsel to the Puget Sound Pilots. He was also the Executive Director of Puget Sound Pilots from 2003 to 2015. Mr. Tabler will offer testimony on the history, background, and historical workings of the Puget Sound Pilot retirement system; and the characteristics and comparators of the pension system; and the callback or compensation day

1 system in place in the Puget Sound pilotage district, and the historic treatment of  
2 callback days in rates at the Board of Pilotage Commissioners.

3 3. **Weldon Burton, CPA.** Mr. Burton is a certified public accountant who has  
4 appeared before the Commission in numerous transportation general rate and  
5 certificate cases over the last three decades. Mr. Burton is largely responsible  
6 for the compilation, format and organization of the PSP's workpapers in this  
7 rate case and the proposed tariffs submitted. He will testify regarding various  
8 results of operation, general ledger, and expense items relevant to the PSP tariff  
9 proposal.

10 4. **Jessica Norris.** Ms. Norris is a principal of Shannon & Associates and is the  
11 lead auditor for PSP's financial statements and the key party at Shannon &  
12 Associates annual review of the books and records of the Association. She has  
13 extensive knowledge on the revenues, operational costs, and expenses of the  
14 PSP.

15 5. **Steven Diess.** Mr. Diess is an actuary and principal of Independent Actuaries,  
16 Inc., and will testify as to the substance and actuarial viability of the Puget  
17 Sound Pilot deferred compensation/retirement program and will offer opinions  
18 as to the health of that program now and in the future.

19 6. **Dr. Sami Khajawa, PhD.** Dr. Khajawa is a Chief Economist with Cadmus and  
20 an adjunct Professor of Economics at Portland State University. He will offer  
21 expert testimony on the recommended methodology for establishing pilotage  
22 rates to be set by this Commission and will speak to vessel assignment and  
23 workload assessment issues impacting the determination of the recommended  
24 fulltime equivalent funding necessary for a stable pilotage system in Puget  
25 Sound.

- 1           7.     **Linda Styrk.** Ms. Styrk is Executive Director of PSP since 2015. She will  
2 describe the organization of the Association and explain the its financial  
3 reporting, including general and extraordinary expense items that underlie the  
4 rate case. Ms. Styrk will also describe the transportation expense study  
5 performed by PSP to support adjustments made in the workpapers and provide  
6 testimony regarding port charges.
- 7           8.     **Ivan Carlson.** Mr. Carlson is Vice President of Puget Sound Pilots and Tariff  
8 Committee Chair. He will testify about his job responsibilities as Vice  
9 President of the PSP. He also will speak to the board on arrival system  
10 developed in Puget Sound, and as part his description of that system will also  
11 focus on the operations, complications and implications of the callback system  
12 long in place and its role in preventing or mitigating vessel traffic delay. He  
13 will testify about the expense incurred by PSP and historically funded by the  
14 BPC as a result of the reliance on the callback system. Finally, he will offer  
15 testimony on comparable compensation in identified other pilotage districts.
- 16          9.     **Scott Coleman.** Mr. Coleman is an active licensed pilot, a member of the Puget  
17 Sound Pilots and a member of its Tariff Committee. Mr. Coleman will address  
18 the rigorous training and licensing requirements for pilots and the issues  
19 involved in recruiting and retaining licensed pilots for Puget Sound, as well as  
20 expenses incurred by PSP for mandatory training and continuing education.
- 21          10.    **Stephan Moreno.** Mr. Moreno is a licensed pilot and a former Board Member  
22 and current Rate Committee member of the Puget Sound Pilots. Mr. Moreno  
23 will speak about his experience in moving from a Southeast Alaska pilot  
24 position to one in Puget Sound, including the sacrifices and motivations for so  
25 doing, as well as the similar constraints and necessary dedication of other pilot

1 candidates in doing so. Finally, he will address particular items in the rate  
2 design and transition from the current BPC-published tariff format to PSP  
3 proposed tariff rate design, including and the benefits of clarity and  
4 simplification associated with the proposed format.

5 **Q: What is Puget Sound Pilots?**

6 **A:** PSP is a voluntary association of marine pilots licensed by the State of Washington to  
7 provide pilotage service in the Puget Sound district dedicated to the safe movement of  
8 ocean-going vessels in order to protect the Puget Sound's marine environment, the  
9 safety of people and property, and the overall economic security of the State of  
10 Washington. PSP was created in 1935 and serves as a centralized organization through  
11 which all state pilots in the Puget Sound provide pilotage service.

12 **Q: Has PSP authorized the filing of this rate case on its behalf?**

13 **A:** Yes, it has.

14 **Q: Will you please provide a brief description of your training and experience as a  
15 professional mariner?**

16 **A:** My maritime interests started in Quartermaster Harbor Vashon Island sailing a small  
17 boat. My professional career began as a summer job for a waterfront construction  
18 company on a tug. Around 1978, I began work on a wooden tug towing a pile driver  
19 and moving rock barges. I was drawn to the industry for the predictable day off for  
20 every day on schedule, and in 1982, I worked on a salvage vessel for Crowley Maritime  
21 where I was stationed on ocean and harbor tugs in Alaska and the Puget Sound. In  
22 1988, I attained my United States Coast Guard Master's License and went to work for  
23 Seacoast Towing Company, doing ship assists and towing or pushing barges between  
24 West Coast ports in the United States and Canada. Around that same time, I began the  
25 process to obtain a pilot endorsement to my USCG Master's license. I then took the

1 Washington state pilot's license test in 1991 and waited for an opening in the PSP pilot  
2 training program for several years. During that long wait, I went on an around-the-  
3 world trip observing pilots onboard vessels in a variety of other pilotage districts,  
4 visiting the Columbia River, San Francisco Bay, Long Beach Harbor, Hong Kong,  
5 Malaysia, Singapore, India, Hamburg, Germany, and Rotterdam, the Netherlands. In  
6 1995, I finally formally entered the Board of Pilotage Commissioners' training program  
7 and received my pilot's license about six months later. I have worked as a pilot in the  
8 Puget Sound ever since.

9 **Q: Before becoming President, did you have any other leadership roles in PSP?**

10 **A:** For about ten years I was a pilot boat manager coordinating employees with  
11 maintenance and boat haul out priorities as well as upgrading safety equipment  
12 involved with man overboard drills and procedures. While in that position, I was on a  
13 committee tasked with the rebuilding of the pilot station and the acquisition of the barge  
14 the boats there are moored alongside. Shortly thereafter, I was elected to PSP's Board  
15 of Directors ("BOD") on or around 2000 and have been on the BOD for about 18 of the  
16 last 19 years. I was elected to serve as Vice President and served in that capacity for  
17 several terms totaling about eight. Then, in 2016, in I was elected President and have  
18 served in that position since the beginning of 2017.

## 19 II. SUMMARY OF TESTIMONY

20 **Q: Can you please provide a brief summary of the purpose of your testimony in this**  
21 **proceeding?**

22 **A:** My testimony is offered on behalf of the Puget Sound Pilots in its first-ever rate filing  
23 with the Utilities and Transportation Commission to provide the Commission with an  
24 understanding of what piloting entails, including the nature of our jobs, how the Puget  
25 Sound Pilots Association operates to provide pilotage service and the ways that it

1 benefits the public, as well as to provide foundational information relevant to various  
2 components of this rate filing. Hopefully, with the information and that evidence  
3 supplied by others, the Commission will then have sufficient background in which to  
4 approve the PSP tariff proposed in this proceeding, which is badly needed due to the  
5 now years-long rate freeze implemented by the legislature and the fact that our tariff  
6 has not been adjusted since 2015.

### 7 III. PILOTING AND THE PUGET SOUND PILOTS

#### 8 A. Piloting in the Puget Sound

9 **Q: What is a marine pilot?**

10 **A:** A pilot is a professional mariner with highly specialized knowledge of particular  
11 harbors, rivers or waterways, whose job is to take the conduct of vessels operating in  
12 the local waters and safely those navigate those vessels to protect against the loss of  
13 lives, property and vessels, as well as to ensure the environment is protected.

14 **Q: What does “conduct of the vessel” mean?**

15 **A:** The person with conduct of the vessel is the person in command and responsible for its  
16 operation and navigation. When a pilot has the “conn,” as we call it, he or she is the  
17 person ultimately responsible for ensuring its safety. For pilots, that means we are the  
18 one ultimately responsible to ensure the vessel maneuvers through highly trafficked  
19 tidally-influenced waters, without colliding with another vessel, bridges, docks or other  
20 structures, and does not end up grounded in shallow waters.

21 **Q: Are there any liabilities a pilot faces when they take the conn of a vessel?**

22 **A:** Yes, although there are some limits to pilot liability to ship owners, every single time a  
23 pilot takes the conn of the vessel they are putting their license on the line. Any lapse in  
24 judgment could result in a major accident that can cause injuries, deaths, damage to or  
25 destruction of the vessel or docks, or a major oil spill. For example, I have read that the



1 pilot who had the conn when the Cosco Busan oil spill occurred in San Francisco Bay  
2 in 2007, was criminally convicted and sentenced to 10 months in prison under the  
3 Clean Water Act / Migratory Bird Protection Act and lost his entire career. I also  
4 understand pilots could also be liable for cleanup expenses under some environmental  
5 laws. The pilot is required to arrive onboard the vessel on time, and could be liable for  
6 chartering fees, costs of line handling gangs and tugboat hourly charges that can add up  
7 to tens of thousands of dollars if the pilot not on time for departure.

8 **Q: Are the responsibilities of a pilot like the captain of the ship?**

9 **A:** No. While the captain has the conn when the ship is outside of a port or pilotage  
10 district, they typically do not have the conn in local waters. While captains navigate  
11 ships all over the open oceans of the world, that does not require the same level of  
12 specialized ship handling skills and knowledge of the local waterways in which state  
13 pilots work. I like to think of it as the difference between a primary care physician and  
14 a surgeon. The primary care physician knows a lot about medicine, but when it comes  
15 to precise surgical procedure, you want someone who has spent considerable time  
16 specially training to perform that very specific job. Similarly, pilots spend years  
17 learning and training and must understand all of the intricacies of the local waters,  
18 including the influence of tides, local currents, wind, weather, and the invisible depths  
19 of the waters throughout the entire pilotage district. When it comes to safely moving  
20 these massive ships that provide the shipping companies economies of scale in and out  
21 of waterways that were not designed for them, it takes a pilot to perform the job.

22 **Q: Does the pilot's job differ from that of seagoing professional mariners in any other**  
23 **ways?**

24 **A:** Absolutely. Our work schedule is a great example of how different work is as a pilot.  
25 Most professional mariners, including those working on deep draft seafaring vessels,

1 tugs and ferries all work a regular watch schedule. While all professional mariners,  
2 including pilots, work a schedule that amounts to one-day-off for each day on duty, or  
3 “day for day” as we call it, during those days on duty, most professional mariners work  
4 a fairly regular watch rotation. They might work 12 hours and 12 hours off, or 4 hours  
5 on and 8 hours off. Pilots do not follow a similar watch schedule during our on-duty  
6 days. Because of the volatile nature of the numerous ships’ schedules that we work by,  
7 rested, on-duty pilots must be available to prepare for and travel to a vessel assignment  
8 as soon as they receive a call from dispatch. Those calls can come any time of day or  
9 night, and as a result, we work a highly variable and unpredictable work schedule.

10 **Q: Can you walk us through what it’s like to board an inbound ship and pilot it**  
11 **through the Puget Sound?**

12 **A:** Yes, ships enter the Puget Sound through the Strait of Juan de Fuca. Once they reach  
13 the boundary of the Puget Sound Pilotage District near Port Angeles, they must hire a  
14 pilot. For this reason, PSP owns and operates a pilot station in Port Angeles from  
15 which pilots are dispatched to meet inbound vessels. As the ship nears Port Angeles,  
16 the pilot will board one of our two pilot boats which will take the pilot about two miles  
17 out to meet the vessel for boarding.

18 **Q: How does the pilot board the vessel?**

19 **A:** Very carefully. During boarding, the ship will slow down and maintain about 10 knots  
20 and turn slightly to create a lee for the pilot boat to come alongside the ship on the side  
21 protected by the ship from some of the wind and ocean created waves and swell. This  
22 allows the pilot boat to pull up closely alongside the ship for the transfer of the pilot to  
23 the pilot ladder. Once the pilot boat is situated alongside the ship, the pilot makes a  
24 well-timed move to the pilot ladder and carefully climbs up to the ship’s gangway.

25 **Q: Are there any dangers associated with that transition to the pilot ladder?**

1 **A:** Yes. The transition to the pilot ladder is a risky endeavor. Pilots are trained to time  
2 that move when the pilot boat is at the peak of any swell to avoiding falling. If the pilot  
3 misses the timing, he or she could be smashed against the ship, or worse, fall into the  
4 water where they could be crushed between the vessels or pulled into the ship's  
5 propeller. There are similar risks when disembarking the ship to the pilot boat. Pilots  
6 who have misjudged this timing have fallen and suffered serious injuries or death.

7 **Q: Is the pilot ladder secure?**

8 **A:** It should be, but there is always a risk for the pilot when boarding. It is the ship's  
9 responsibility to provide a secure pilot ladder, which is essentially a rope ladder strung  
10 down the side of the ship. Pilots typically do not climb more than 15 to 30 feet to the  
11 gangway, and PSP provides pilots with training on how to properly climb the pilot  
12 ladder, but every year somewhere in the world a pilot is killed in an accident during  
13 boarding.

14 **Q: Once the pilot boards, what is your next step?**

15 **A:** After climbing the pilot ladder and gangway, the pilot is led to the bridge by one of the  
16 ship's crew members where we have the master/pilot-exchange ("MPX"). During the  
17 exchange, the pilot reviews a checklist of information needed about the ship so that the  
18 pilot can be sure the information he or she was given by dispatch about the ship is  
19 correct, a copy of which is being provided as Exh. EVB-2, including details of its draft,  
20 length, propulsion system and steering, destination, location of the ship's whistle, bow  
21 thruster capabilities, any Gyro error, locations and operability of engine or rudder  
22 indicators as well as limitations of any electronic navigation equipment radios or depth  
23 sounding equipment. The availability of crew for lookout and the ability of letting the  
24 anchor go if the vessel should lose power is also assessed. In preparation for assisting  
25 tugboat, working lines, bollards and chock tonnage ratings must also be confirmed for

1 crew and ship safety. We also confirm with the master that the mechanical and  
2 navigational equipment on the ship are in good working order, that the crew is  
3 positioned and ready, that there are no oil leaks and that the ship may proceed into the  
4 Puget Sound without known risks to safety or the environment. Once the exchange is  
5 complete, the Pilot takes the conn of the ship and is then responsible for giving  
6 direction to the ship's crew.

7 **Q: Do all of the crew members typically speak English?**

8 **A:** No. Actually, most of the ships we pilot are foreign-flagged vessels with foreign crew  
9 members. However, most maritime terminology is rooted in English. Nonetheless,  
10 because clear communication with crew is of critical importance to the safe navigation  
11 of the vessel, we always have to be vigilant to ensure the crew understands our  
12 commands and sometimes find it necessary to communicate through the ship's captain.

13 **Q: With foreign-flagged vessels entering the Puget Sound, are there ever any security**  
14 **concerns of which pilots need to be aware?**

15 **A:** Pilots are actually one of the first lines of defense for national security when it comes to  
16 ships entering the United States. We are expected to have total situational awareness,  
17 and if we detect anything suspicious when we enter the bridge, we are expected to alert  
18 the appropriate authorities.

19 **Q: Are you able to share any procedures you are expected to follow under those**  
20 **circumstances?**

21 **A:** No. For purposes of security, we are expected to maintain secrecy over the procedures  
22 that have been put in place by Homeland Security.

23 **Q: Do pilots use any specialized technology to perform their jobs?**

24 **A:** We do, actually. The primary instrument we use in performing our jobs is a Portable  
25 Pilot Unit, or "PPU." A PPU is a navigational tool with GPS tracking, and additional

1 sensors that provide the pilot a single reliable system to position the ship. Because we  
2 pilot ships of widely varying bridge technology, it's highly useful to us to have a PPU  
3 on every assignment.

4 **Q: How did pilots perform their jobs before PPUs existed?**

5 **A:** Pilots did, and still do, rely upon their knowledge of the local waters to judge wind  
6 conditions, distances, weather, current, and other factors to assess distances and the  
7 ship's position. In fact, while the use of a PPU is a great help, pilots would still be able  
8 to perform most jobs without the use of technology, if necessary. That said, we prefer  
9 to use a PPU whenever possible because it increases situational awareness and ships'  
10 positions accuracy, which is important when maneuvering huge vessels under difficult  
11 conditions.

12 **Q: Do the PPUs offer any additional utility to the pilots?**

13 **A:** They do. Our PPUs actually record information about each ship movement that can  
14 later be reviewed in playback mode with trainees as a training tool.

15 **Q: You mentioned that some ships have useful bridge technology. Do all ships rely  
16 upon the same technology systems?**

17 **A:** No, there is actually a fairly large variety of technologies used on the bridge.

18 **Q: Are pilots expected to understand how to use all of the various types technology  
19 available on the bridge?**

20 **A:** Pilots are trained to be thoroughly familiar with every piece of bridge technology and  
21 every type of propulsion system that will enter our pilotage district. We spend a  
22 considerable amount of training time to ensure that we are familiar with ever class of  
23 ship, every type of bridge technology and every propulsion system in order to move  
24 ships safely when they call upon the Puget Sound.  
25

1 **B. Puget Sound Pilotage District**

2 **Q: In PSP's financial statement, submitted as Exh. JN-04, there are operating**  
3 **expenses listed for Seattle and Port Angeles. Are those the only locations in which**  
4 **PSP operates?**

5 **A:** No. Puget Sound Pilots provide pilotage service any place within the entire Puget  
6 Sound Pilotage District for movement of all non-exempt vessels.

7 **Q: What is the Puget Sound Pilotage District?**

8 **A:** Loosely speaking, it's the entire area of intrastate waters of the Puget Sound and its  
9 connected waterways, Lake Union and Lake Washington. More specifically, it is  
10 defined in the Pilotage Act, RCW 88.16.050, to mean "all the waters of the state of  
11 Washington inside the international boundary line between the state of Washington, the  
12 United States and the province of British Columbia, Canada and east of one hundred  
13 twenty-three degrees twenty-four minutes west longitude."

14 **Q: Speaking more practically, where do Puget Sound Pilots provide pilotage service**  
15 **within the Puget Sound?**

16 **A:** There are 14 ports within the Puget Sound Pilotage District at which ships are likely to  
17 berth, including March Point/Anacortes, Bangor, Bellingham, Bremerton, Cherry Point,  
18 Dupont, Edmonds, Everett, Ferndale, Manchester, Mukilteo, Olympia, Point Wells,  
19 Port Gamble, Port Townsend/Indian Island, Seattle and Tacoma. There are also a  
20 number of anchorage zones and harbor areas where ships may anchor where pilotage  
21 service is necessary.

22 **Q: Do pilots provide service on Lake Union and Lake Washington as well?**

23 **A:** Yes.

24 **Q: Have you supplied a map that depicts the Puget Sound and some of its major**  
25 **ports?**

1 **A:** I have. It has been filed as Exh. EVB-3.

2 **Q: Does PSP use a pilot station as the centralized point for pilots to commence**  
3 **outbound assignments?**

4 **A:** No. Unlike inbound assignments, which all either originate at Port Angeles or British  
5 Columbia, outbound vessel movements can commence at any point within the Puget  
6 Sound. PSP will dispatch a pilot to move a vessel from any of the numerous  
7 anchorages in the Sound, or from any of the ports, which run as far south as Olympia  
8 and as far north as Ferndale and Cherry Point. Because of the huge geographical range  
9 we cover, there cannot be a central point from which pilots are dispatched to outbound  
10 assignments.

11 **Q: Do ships calling on ports in Washington ever make calls on ports in British**  
12 **Columbia?**

13 **A:** Yes. In fact, it is not uncommon for ships that call on ports in the Puget Sound to also  
14 call on the Port of Vancouver.

15 **Q: Are Puget Sound pilots authorized to pilot in Canada?**

16 **A:** There is actually a treaty between the United States and Canada that addresses piloting  
17 of vessels that cross the international boundary between the U.S. and Canada in the  
18 Puget Sound. In the international boundary zone, as the vessel crosses into Canada, a  
19 Canadian pilot will take the conn from the Puget Sound Pilot who then remains on  
20 board until it arrives at the Canadian berth.

21 **Q: If the ship is departing from Canada, where does the Puget Sound pilot board the**  
22 **vessel?**

23 **A:** Most frequently, the Puget Sound Pilot is requested to travel to B.C. and board the ship  
24 before it departs. There are no places convenient to the ship from which a pilot can  
25 board via a launch or pilot boat during the transit, so rather than detour the vessel for

1 the pilot's ease, the pilot first travels to B.C. and remains on board the vessel until he or  
2 she takes the conn at the international boundary for the convenience of the ship.

3 **C. Operating as a pilot association**

4 **Q: Why do pilots in the Puget Sound operate as part of a pilot association?**

5 **A:** In my understanding, pilot associations have existed nearly as long as there have been  
6 pilots. Pilots are independent contractors, but it takes a lot of work to operate and  
7 administer the business of being a pilot. Under the umbrella of an existing association,  
8 it makes the job of a new pilot much easier to simply join PSP and let the association  
9 run all the business aspects of being a pilot.

10 **Q: Does the industry benefit from the provision of pilotage service through a pilot  
11 association as well?**

12 **A:** Without an association to provide organization through centralized dispatch and billing,  
13 it would be problematic for vessels to find a pilot in many of the locations in which  
14 pilots are needed because pilots would otherwise be free to cherry-pick the most  
15 frequented harbors and ignore those with less or infrequent vessel traffic. By providing  
16 operations through a single centralized dispatch system that covers the entire pilotage  
17 district, vessels are able to request service via a single contact point, and the association  
18 then works diligently to ensure that a pilot will be available when requested. Operating  
19 through an association also increases efficiencies by reducing duplicative staffing,  
20 equipment, infrastructure and other expenses that would need to be incurred by each  
21 pilot separately. This again, saves expense, increases efficiency and enhances the  
22 convenience of shipping customers, who receive invoices from a single service provider  
23 rather than numerous individual pilots.

24 **Q: What is the role of the President of PSP?**



1 **A:** The President is the Chief Executive Officer of the Association and its primary  
2 spokesperson. It is a full-time position and is a single pilot who serves in an executive  
3 role on a full-time basis. As the spokesperson for the Association, the President also  
4 has a wide-ranging set of responsibilities both to PSP and in the larger maritime  
5 community in the Pacific Northwest region, including British Columbia, and with  
6 respect to marine pilots, nationally.

7 **Q: Does the President of PSP also have safety oversight and safety liaison**  
8 **responsibilities for the organization?**

9 **A:** Yes, additionally, the President represents the pilots in meetings with the US Coast  
10 Guard on a variety of subjects related to safety and national security protocols. He or  
11 she is an acting member of the USCG's Area Maritime Security Committee which  
12 meets regularly to strengthen relationships that promote port security and resilience in  
13 the case of emergency conditions. Pilots are considered a "force multiplier" as the first  
14 eyes onboard most inbound foreign vessels; pilots make risk assessments and  
15 coordinate USCG boarding teams if an underway inspection is deemed necessary.  
16 Pilots are involved with planning for unusual ships and military out loads in local ports  
17 in situations where planning for security and special communications with the Vessel  
18 Traffic Service is required. The President also works with the Captain of the Port on  
19 tribal outreach for continuous improvement of safety and communications.  
20 Additionally, the President works with other members of the maritime community in  
21 order to promote safety within the regions' waterways. One way in which that is  
22 accomplished is through the President's daily technical support to commercial shippers  
23 who require tide and current computations for safe windows of arrival and departure  
24 from local docks and anchorages. The establishment of time windows ensures safe  
25 passage in confined waters where strong currents and minimal under keel clearance are

1 factors that must be calculated for safe navigation. Furthermore, the President provides  
2 information, tide and current and pilot fatigue mitigation windows that conform with  
3 the guidelines for pilotage service customers for tug ordering and escorting  
4 requirements that align with the pilots' best practices and harbor safety standards.

5 **Q: Are there other responsibilities as President you would note?**

6 **A:** Yes. Due to the physical configuration and constraints of the Puget Sound Port  
7 terminals and waterways, it is the President's responsibility to analyze and facilitate the  
8 arrival of new ultra large container vessels ("ULCV") and ultra large cruise ships  
9 ("ULCS"), which require specialized analysis for navigational strategies guidelines for  
10 tug deployments are developed in order to mitigate ship speed and cross wind surges so  
11 that vessels may safely navigate to the berth. This includes matching tug bollard pull  
12 and rendering winch equipment requirements developed with pilots in a local full  
13 motion ships bridge simulator training center, where the environmental conditions are  
14 replicated and envelopes for cross wind conditions as well as port congestion and  
15 reduced visibility to assist in creating a go/no-go decision matrix. This is accomplished  
16 with representatives including captains from the shipping concerns in considering the  
17 larger ULCV compatibility with the port facilities in our Harbors. In addition, the  
18 President conducts other educational and safety-related outreach in support of the Puget  
19 Sound Pilotage District, including outreach to the boating community and yacht clubs  
20 in order to teach boaters of the dangers of shipping in the shared waterways we all  
21 navigate.

22 **Q: What are some of the other various duties of the PSP President?**

23 **A:** The President serves as the designated representative of the pilots' organization in  
24 Olympia by educating legislators and staff on the workings of pilotage in Puget Sound  
25 as well as the measures taken to mitigate the risk that large ships pose and ensure

1 against the loss of lives, loss of or damage to port infrastructure and vessels, and to  
2 protect the marine environment.

3 **Q: In the various capacities of the President you have described, is the role of the PSP**  
4 **Vice President important in performing your job?**

5 **A:** Absolutely, the Presidency of the PSP could not successfully function without the  
6 duties, both traditional and unanticipated, fulfilled by the Vice President. The Vice  
7 President is actually in the office as much as the President. As Ivan Carlson, the current  
8 Vice President, explains in his testimony, the financial and administrative oversight  
9 functions fall initially on the Vice President and that role has expanded in the past few  
10 years as regulatory and legislative actions have consumed more and more of the PSP  
11 President's time and focus. The Vice President's job duties also have mushroomed in  
12 areas such as fatigue management protocols, dispatch oversight, tariff and rate design,  
13 budget development, financial reporting and other time-consuming association  
14 operational issues.

15 **Q: Does the President also work to promote careers in the maritime industry?**

16 **A:** Work force development and recruitment for the maritime industry is also a priority for  
17 the President. He or she presents at community outreach events and schools to raise  
18 awareness of careers in the maritime industry, with an emphasis on inspiring interest  
19 from underrepresented groups. Needless to say, the President's day-to-day  
20 responsibilities include providing internal leadership to pilots within the membership  
21 and working with all executive director and Board of Directors in executing our shared  
22 mission with a Board of Pilotage Commissioners. This encompasses managing the  
23 office employees in Seattle and Port Angeles. The President is also actively involved in  
24 the management of the pilot boats, pilot station, staying on the forefront of pilot  
25

1 technology, pilot training and continuing education, and new ship training/feasibility  
2 research and analysis.

3 **Q: Does the President also move ships?**

4 **A:** As I mentioned, the job of the President is full-time, although the President will accept  
5 ship assignments when demand is high in order to avoid shipping delays awaiting an  
6 available pilot. I have also helped out on occasion when the situational administrative  
7 demands of the pilots have required that other pilots perform office meeting work rather  
8 than vessel movements. In addition, the President and Vice President actively consult  
9 on vessel coverage issues when peak demand warrants and the Vice President  
10 particularly has accepted scores of vessel assignments over the past year to keep ships  
11 moving.

12 **Q: What are some of the other shared responsibilities of the President and Vice  
13 President?**

14 **A:** The 24-hour, seven day a week piloting scenario requires constant attention to details  
15 pertaining to ship movements and to regional guidelines that keep ships from going  
16 aground, vital conveyance of information where experienced local piloting is required.  
17 Pilots on ships need support readily available in real time, to answer questions about  
18 waterway obstructions or delays in the ships' departure and the fluctuating impacts  
19 upon RCW rest rules. Interactions between vessels departing and arriving and tug use  
20 after normal business hours is a very common occurrence. The obligation to service of  
21 the Association and maritime community is simply too much for one individual to  
22 sustain while also conducting associated tasks and meetings that are a requirement of  
23 the PSP presidency. The VP position shares the burden of the 24-hour service as well  
24 as provides invaluable input in resolving issues and completing projects related to  
25 analytical data demands and management of the piloting business. Recently that has

1 also included political outreach and education of stakeholders involved with decision-  
2 making about rules for tug escorts of loaded tankers which was delegated to the Board  
3 of Pilotage Commissioners this past legislative session in SB 5578. This shoreside  
4 workload is constant, critical and, requires the experience of a well-seasoned,  
5 experienced Puget Sound Pilot, and is simply too much for one person to perform  
6 alone.

#### 7 IV. COMPARABLE PILOTAGE DISTRICTS

8 **Q: Does PSP's tariff filing seek an increase in the distributive net income to pilots**  
9 **over the current tariff?**

10 **A:** Yes, it does.

11 **Q: What is the basis of that request?**

12 **A:** We are asking that the tariff be set at a level that permits Puget Sound Pilots to earn  
13 income comparable to what state pilots earn in other comparable districts.

14 **Q: By the way, is pilot income information available for all other state pilot**  
15 **associations?**

16 **A:** No. In fact, for a variety of reasons, very few state pilot groups' income is publicly  
17 available information.

18 **Q: Which state pilots' income information is actually publicly available?**

19 **A:** Puget Sound Pilots' pay information is publicly available, as is that of the San  
20 Francisco Bar Pilots in California. The net income of the Columbia River Pilots and  
21 Columbia River Bar Pilots, in Oregon, recently became more transparent and is  
22 available. But the only other state pilot groups whose net income is publicly available  
23 and supported by financial information are the Louisiana pilot groups, the Crescent  
24 River Port Pilots Association ("Crescent River"), Associated Branch for the Port of  
25 New Orleans ("Associated Branch"), New Orleans Baton Rouge Pilot Association

1 (“NOBRA”), and the Lake Charles Pilots, and the Port Everglades Pilots. We also  
2 recently located a recent court record providing information regarding an Aransas-  
3 Corpus Christi Pilot’s annual income.

4 **Q: Are you personally supplying testimony about what pilots earn in other districts?**

5 **A:** No. That testimony is being supplied by Capt. Carlson, who has studied the publicly  
6 available state pilot income information as well as the court record providing  
7 information regarding the Aransas-Corpus Christi pilot.

8 **Q: Then in what respect will your testimony support the request that Puget Sound  
9 Pilots distributable net income be set comparably to that of the other publicly  
10 available state pilot groups?**

11 **A:** I am actually offering testimony on the navigational realities in these other districts to  
12 assist the Commission in understanding the operational and geographic characteristics  
13 of the various pilotage districts and their comparability to the Puget Sound. Ivan  
14 Carlson, is then offering evidence of the pilot income in each of these comparable  
15 pilotage districts.

16 **Q: Do you have personal knowledge of the geography and pilotage realities in each of  
17 the pilotage districts for which net income is publicly available?**

18 **A:** Yes, I do. Both previous to my time as a pilot and since I received my state license to  
19 pilot in the Puget Sound Pilotage District, I have had opportunities to ride vessels in  
20 numerous other pilotage districts, including each of those in which comparable pilot  
21 income is publicly available. I have also had a number of conversations with pilots and  
22 association officers in those districts which assist in understanding of the similarities  
23 and differences between the pilotage districts. My testimony will describe aspects of  
24 those other pilotage districts to aid the Commission in understanding the similarities  
25 and differences in pilot districts and the complexities of their jobs.

1 **A. California - San Francisco Bar Pilots**

2 **Q: Is there a west-coast state pilotage district that is most comparable to the Puget**  
3 **Sound?**

4 **A:** Yes. In my view, the state pilotage district most comparable to the Puget Sound is the  
5 San Francisco Bay area.

6 **Q: In what ways is the San Francisco Bay area comparable to the Puget Sound?**

7 **A:** As I discussed earlier, the Puget Sound Bay area is a large pilotage district, with  
8 multiple harbors, bays, ports and waterways. With the exception of San Francisco, all  
9 other state pilotage districts on the United States West Coast are relatively small, or  
10 consist primarily of river pilotage routes. While each of those pilotage waters have their  
11 challenges and unique risks that also require skilled pilots, there are simply fewer ports  
12 and waterways for which the pilots must become local experts. In that way, the San  
13 Francisco pilots, who serve multiple bays, ports, and rivers are the most comparable to  
14 the Puget Sound Pilots.

15 **Q: In what area do the San Francisco pilots operate?**

16 **A:** The San Francisco Bar Pilots (“SFBP”) are responsible for ships transiting the waters  
17 eastward from the precautionary area surrounding “buoy SF,” including San Francisco  
18 Bay, San Pablo Bay, and Suisun Bay, the Sacramento River and San Joaquin River, as  
19 well as the waters of Monterey Bay.

20 **Q: What types of routes do pilots handle there?**

21 **A:** SFBP handles just about every type of route a pilot could be expected to handle,  
22 including open ocean, bar crossings, bays, sloughs and an extensive river system.

23 **Q: Are there any differences in the types of assignments handled in the San Francisco**  
24 **Bay area versus the Puget Sound?**

1 **A:** The primary difference is that PSP does not handle assignments in the open ocean.  
2 There are also differences in the lengths of assignments, which assignments in the  
3 Puget Sound are generally longer in length and duration.

4 **Q: Does the SFBP have navigational issues comparable to what PSP confronts?**

5 **A:** Yes. They have to perform some difficult transit planning including calculations for  
6 Under Keel Clearance (“UKC”) and complex traffic and yet also have a number of  
7 bridges they must be able to clear. They also deal with cross-currents and wind that can  
8 create challenging navigational circumstances. They also have narrow waterways in  
9 which to turn vessels and shallow anchorages in which we share in common as well.

10 **Q: Does PSP face similar issues?**

11 **A:** Yes, the cross winds and cross current approaches to the narrow waterways require very  
12 similar dynamic ship handling skills, with tug actions and forces applied, all directed by  
13 pilots in a very coordinated maneuver, often times requiring a maximum 60 ton bollard  
14 ton pull or push from the tugs to execute the maneuver safely.

15 **Q: Are you offering an exhibit depicting a comparison between the size of San  
16 Francisco pilotage district and the Puget Sound?**

17 **A:** Yes. A to-scale map that depicts the relative sizes of the Puget Sound pilotage district  
18 with the pilotage district served by SFBP (as well as other districts) has been filed as  
19 Exh. EVB-4.

20 **Q: Is San Francisco also a competitor to Puget Sound for attracting pilot candidates?**

21 **A:** Yes, it definitely is.

22 **Q: Are there any recent examples of pilot candidates choosing one district over  
23 another in your knowledge?**

24 **A:** Actually, there were two candidates in the last year or so who had declared for the  
25 Puget Sound pilotage district when they took the Board of Pilotage Commissioners



1 exam who recently decided to enter the training program in San Francisco rather than  
2 the Puget Sound.

3 **Q: What factors do you believe matter to these qualified candidates in selecting a**  
4 **pilotage district in which to pursue a license and pilot career?**

5 **A:** There are a number of factors that matter to a candidate. The most important factor  
6 appears to be total compensation, including distributive net income, benefits and a  
7 retirement pension. There are other important factors as well, such as the expected  
8 workload and work schedule.

9 **B. Oregon – Columbia River Pilots**

10 **Q: Are you familiar with the Columbia and Willamette River pilotage ground?**

11 **A:** Yes, I am.

12 **Q: What is the basis of your familiarity of that district?**

13 **A:** As I mentioned earlier, during the time that I was waiting to enter the Washington  
14 BPC's training program, I travelled around the world observing pilots, including on the  
15 Columbia River.

16 **Q: Where on the Columbia River does that district start?**

17 **A:** The Columbia River is served by two pilot groups, the Columbia River Bar Pilots and  
18 the Columbia River Pilots ("COLRIP"). The Columbia River Bar Pilots provide  
19 pilotage from the open ocean through the Columbia River bar, to a point just east of  
20 Astoria, Oregon near the Port of Astoria, which is a few miles from the mouth of the  
21 river. From there, COLRIP provides pilotage service on the Columbia River to river  
22 ports along the Columbia River, and the Port of Portland on the Willamette River.

23 **Q: Do you know the length of transit from the Port of Astoria to the Port of Portland?**

24 **A:** I understand that from where the COLRIP pilots board ships near Astoria the transit to  
25 Portland is about 85 miles upriver.

1 **Q: Are the types of ship handling techniques and maneuvers required of the**  
2 **Columbia River Pilots similar to those used by Puget Sound pilots?**

3 **A:** The Columbia River Pilots are primarily river pilots, which mean that there are specific  
4 dangers of the waters they pilot that are unique to the Columbia River.

5 **Q: Do the COLRIP pilots deal with any challenging circumstances?**

6 **A:** Piloting on the Columbia River can be challenging. Pilots there have a number of  
7 issues to address in ship handling, including bank cushion and bank suction, shallow  
8 and narrow waters, visibility issues, and current. The COLRIP pilots deal with smaller  
9 ships, however. Another challenge in piloting there is that Vessel Traffic Service  
10 (“VTS”), which operates much like air traffic control for ships, does not operate on the  
11 Columbia River. This means vessel traffic is not as thoroughly managed as it is in the  
12 Puget Sound.

13 **Q: Are there similar circumstances that pilots encounter on the Puget Sound?**

14 **A:** Yes, although not to the same extent. There are a number of narrow waterways that  
15 PSP must navigate, including the Duwamish River and the Blair Waterway, each of  
16 which can present similar concerns.

17 **Q: What types of vessels do the COLRIP pilots handle?**

18 **A:** Due to the shallow depth of the Columbia River, it is difficult for deep draft vessels to  
19 navigate their way to the Port of Portland. Thus, the majority of ships handled by  
20 COLRIP are bulkers and car carriers, and the articulated tug and Barges used for  
21 transportation of oil. All of these ships we routinely handle in Puget Sound. They thus  
22 do not have the newer, behemoth 14,000 TEU UCLVs to deal with that our pilots  
23 navigate all the time which also directly impacts that group’s overall revenue-  
24 generating capacity.

25 **Q: Is that mix of vessel traffic similar at all to the ships handled by PSP?**

1 **A:** At PSP, we do handle bulkers and car carriers of similar sizes, but we also handle a  
2 significant number of larger ships, including cargo container ships and cruise ships.  
3 The ULCV present challenges in the confined and congested waterways. The Alaska  
4 crude oil tankers we handle involve the use of tethered escort tugs to mitigate the risk of  
5 oil spills in the occurrence of a loss ships engine or rudder failure. This takes specific  
6 training and practice to become proficient at the various emergency maneuvers to avoid  
7 a grounding in the waters of the Puget Sound or the San Juan Islands as we transit with  
8 the large oil tankers.

9 **Q: Have you submitted an exhibit that compares the relative size of the Columbia  
10 River pilotage district with the Puget Sound?**

11 **A:** I have. In addition to San Francisco Bay and the Puget Sound, Exh. EVB-4 also depicts  
12 the Columbia River, including its bar.

13 **C. Oregon - Columbia River Bar Pilots**

14 **Q: Are you also familiar then with the Columbia River Bar pilotage ground?**

15 **A:** Yes.

16 **Q: Could you please describe the Columbia River Bar pilotage ground?**

17 **A:** Yes. As I mentioned, the Columbia River Bar pilotage ground extends from the Pacific  
18 Ocean to a point near Astoria, Oregon. Because those ships are handled by two  
19 different groups, the Columbia River Bar Pilots handle only the move from the open  
20 ocean until Astoria, and then hand the conn of the vessel over to a COLRIP pilot.

21 **Q: Is that a relatively small pilotage ground?**

22 **A:** Yes, it is. The Columbia River Bar pilots board vessels just outside of the bar where  
23 the river meets the Pacific Ocean to a point immediately east of Astoria, a total distance  
24 of less than 20 miles.

25 **Q: How does the difficulty of ship handling there compare to the Puget Sound?**

1 **A:** From my perspective, every pilotage district has its own unique challenges that make  
2 the job equally dangerous and difficult to perform. Despite the small size of their  
3 pilotage district, the Columbia River Bar pilots face ocean swells, wind-driven seas and  
4 maximum ebb currents. During fishing season, the bar can be congested with sport  
5 fishing vessels, although with reduced salmon harvests, that issue is sporadic. One of  
6 the bigger issues there can be horsepower, with some of the deep-draft vessels  
7 struggling to hold ground during maximum current. There can also be visibility issues,  
8 which coupled with a 600-foot-wide channel, can be a real problem. The river can also  
9 get congested with ships at anchor at times, which adds a level of difficulty in  
10 navigating the waterway.

11 **Q: Are there any ports or berths in addition to the anchorage within that pilotage**  
12 **district?**

13 **A:** Yes. There is a port at Astoria. However, most of the vessel traffic through that district  
14 is destined upriver.

15 **Q: Are ships passing through the Columbia River Bar charged by each pilot group**  
16 **for a transit from the Pacific Ocean?**

17 **A:** Yes, the pilots invoice the ship for their services separately, meaning a vessel will  
18 receive a minimum of two invoices, one from each pilotage association, for each transit.

19 **D. Louisiana - Associated Branch for the Port of New Orleans**

20 **Q: Who are the Associated Branch for the Port of New Orleans (“Associated**  
21 **Branch”) pilots?**

22 **A:** There are three state pilot groups that handle ships on the Mississippi River in  
23 Louisiana, each handling a different length of the Mississippi River. The Associated  
24 Branch pilots are bar pilots, handling the transit from the Gulf of Mexico to Pilottown,  
25 a pilot station 25 statute miles inland from the mouth of the Mississippi.

1 **Q: Does the Associated Branch pilots' pilotage district include any ports?**

2 **A:** No, but there are a few anchorages.

3 **Q: What is the average transit like for Associated Branch?**

4 **A:** Because only about a small number of their assignments go to anchor, the  
5 overwhelming majority of Associated Branch pilots' transits are 25 statutory miles  
6 from the Gulf of Mexico to Pilottown, where they hand off the vessel to a Crescent  
7 River Port Pilot's Association pilot. These transits take about 2.5 hours upstream, and  
8 about 1.5 hours downstream, depending on current.

9 **Q: Are there any challenging conditions that the Associated Branch pilots face?**

10 **A:** Yes. The most challenging conditions they face are weather, including seasonal fog  
11 that reduces visibility, and sea conditions due to the unprotected waters in which they  
12 board vessels. Once they enter the Mississippi River, they must also deal with current  
13 that can be as high as 6-7 knots. Traffic congestion on the Mississippi can also be a  
14 concern. In order to reduce passing of vessels in narrow dredged water channel south  
15 of Pilottown, the ships must be sequenced carefully. Those dredges are somewhat  
16 unique to the Associated Branch pilotage district, as there is persistent dredging to  
17 maintain 47-foot depths and they require reduced speeds when passing. Extensive oil  
18 rig support vessels also transit the area, congesting vessel traffic lanes.

19 **Q: What types of vessels are handled by the Associated Branch pilots?**

20 **A:** The vessels that call on ports of the Mississippi include container ships, bulkers, cruise  
21 ships, chemical tankers and heavy lift ships.

22 **Q: What are the largest vessels piloted in the district?**

23 **A:** There are some large cruise ships and cargo containers, with the largest I understand to  
24 be in the range of 9,000 TEUs (twenty-foot equivalent units).

25 **Q: Do the Associated Branch pilots rely on a pilot station to meet pilotage demands?**

1 **A:** Yes, they do. In fact, Associated Branch maintains two pilot stations, including the  
2 Southwest Pass station, located at the most southern point of the Mississippi River, and  
3 another at Venice, which is about 10 miles upriver from Pilottown.

4 **E. Louisiana - Crescent River Port Pilots Association**

5 **Q: Where along the Mississippi River is the pilotage district served by the Crescent**  
6 **River Port Pilots Association (“Crescent River”)?**

7 **A:** The Crescent River pilots handle the next segment of the Mississippi River upstream  
8 from Associated Branch. Crescent River’s pilotage district extends from Pilottown,  
9 near the Mississippi River delta, to mile 105.3 near the Huey P. Long Bridge in New  
10 Orleans.

11 **Q: Does that mean vessel transits there can be over 100 miles long?**

12 **A:** Yes. I understand that vessel movements in the district can be short, such as a shift  
13 from anchor to berth, but that most commonly, assignments will transit the distance  
14 from Pilottown to Algiers Point, New Orleans, a distance of about 92 miles.

15 **Q: Will you please provide a description of the geography of that pilotage district?**

16 **A:** Of course. The Crescent River pilots serve a long and winding stretch of the  
17 Mississippi River, that runs from Pilottown, where they maintain a pilot station, to just  
18 north of New Orleans. Although there are no harbors along the Mississippi, the river  
19 sees heavy vessel traffic with several major ports, including the Port of New Orleans  
20 and the Port of Plaquemines, which run throughout their pilotage district. There are  
21 also a number of chemical and refining facilities along the river that Crescent River  
22 serves.

23 **Q: What types of ships frequent the Mississippi River in that district?**  
24  
25

1 **A:** Like the Puget Sound, the Mississippi sees a wide variety of ships, including cruise  
2 ships, bulk cargo ships, chemical tankers, oil tankers, container ships and heavy lift  
3 ships.

4 **Q: What are the largest ships that can navigate the Mississippi River through that**  
5 **district?**

6 **A:** In my understanding, again, there are some large cruise ships and container ships that  
7 border 9,000 TEUs at the upper end of the range.

8 **Q: Are there any unique dangers or difficulties associated with piloting that stretch of**  
9 **the river?**

10 **A:** Absolutely. One of the most significant challenges a pilot navigating those waters faces  
11 is the high level of vessel traffic, with extensive tug, barge, and ship traffic present,  
12 which requires a high level of situational awareness on the part of the pilot. Vessels  
13 meet and overtake each other at various speeds in a river with currents as high as 7  
14 knots. As a result, navigation requires extensive coordination to ensure that vessels  
15 overtaking and meeting do so at appropriate locations that allow for safe passage (i.e.,  
16 not in an extreme bend or river shoaling area). Additionally, the river's height  
17 constantly changes and can create high currents that at times limit upstream ship  
18 movements to daytime hours only.

19 **Q: How does the work performed by pilots in Crescent River compare to PSP?**

20 **A:** The jobs performed by the Crescent River pilots are somewhat similar in duration to  
21 that of PSP, with relatively long transits (6 to 7.5 hours) and a wide variety of ship  
22 classes handled. The Crescent river pilots work includes the docking and unmooring of  
23 the vessel with the use of tugs also the shifting to and from docks to anchorages that  
24 require maneuvering the ship in a very congested narrow river with currents that can  
25 exceed 7 knots with limited under keel clearances. Our pilotage waters are less

1 confined than on the Mississippi River and there is often more separation from  
2 commercial traffic due to the VTS (vessel traffic system lanes) but the proliferation of  
3 fishing vessels and pleasure craft here creates a similar requirement of vigilance to  
4 avoid risk of collisions. The Duwamish River can at time have strong currents (not  
5 often 7 Knots) and is very confined with a narrow (150') railroad bridge where pilots  
6 are required to back the ships up the length of the river (2 miles). The narrow and  
7 confined waterways in our district often require backing ships up our waterways for  
8 many miles, which requires skill and coordination of the tugs and ships controls. This  
9 is a difference between our district and that of many others.

10 **F. New Orleans Baton Rouge**

11 **Q: Relative to the other two pilotage districts on the Mississippi River, where is the**  
12 **district served by NOBRA?**

13 **A:** NOBRA pilots serve the stretch of the Mississippi from Algiers Point in New Orleans  
14 to Baton Rouge, river mile 88 to mile 238.

15 **Q: Can you briefly describe that pilotage district for the Commission?**

16 **A:** NOBRA traverses a particularly long stretch of the river, with a large number of berths  
17 along the river serving a wide variety of industries similar to that of the Crescent River  
18 pilots. Because their districts serve the same river and many of the same ships which  
19 are handed off from Crescent River pilots to NOBRA pilots in New Orleans, they also  
20 face many of the same challenges in navigating the river, including currents, heavy  
21 vessel traffic, sharp turns in the river and operating in a narrow, confined channel.  
22 There are also quite a few bridges over the Mississippi in the NOBRA pilotage district,  
23 which require vertical clearance calculations and separation from large tugs pushing  
24 multiple barges that must be communicated with well in advance of bridges and large  
25 turns in the river for safe passage arrangements.



1 **Q: What are the primary concerns in navigating around bridges?**

2 **A:** The allision with the bridge or its supports are of the highest concern; contact with the  
3 bridge can lead to loss of life or damage rendering it unusable. Using a local example,  
4 in one incident involving a Captain Neslund some decades ago, damage caused to the  
5 Spokane Street Bridge in Seattle rendered it unusable for surface traffic for  
6 approximately the next six years, seriously inconveniencing West Seattle residents and  
7 waterfront businesses with the bridge remaining in its upright position until its  
8 demolition in 1988. The speed of the ship and the timing of transiting a bridge opening  
9 is also very important as there can be very little room for error due to the confines of  
10 the span. Clear passage is required, so the meeting of opposing traffic must be  
11 managed and avoided.

12 **Q: Are there any short transits handled by NOBRA pilots?**

13 **A:** Yes. Because the berths served by NOBRA pilots are extensive along the river, their  
14 assignments run the gamut from two to three hours at the short end, to a nine-hour job  
15 that includes three hours of preparation and travel for the pilot, the maximum job being  
16 much closer to the average PSP assignment.

17 **Q: By the way, if a vessel enters into the Mississippi River from the gulf and proceeds  
18 as far north as district served by NOBRA, does the vessel receive a single invoice?**

19 **A:** No. The vessel would actually receive three separate charges and three individual  
20 invoices, one from each of the three referenced Louisiana pilotage districts on the  
21 Mississippi River.

22 **G. Louisiana – Lake Charles**

23 **Q: Are you familiar with the Lake Charles Pilots?**

24 **A:** Yes, I am. The Lake Charles pilots handle ships entering the Calcasieu Ship Channel,  
25 which runs from the Gulf of Mexico to the Port of Lake Charles and Terminal District.

1 **Q: How does the mix of assignments compare for the Lake Charles Pilots to PSP?**

2 A: Unlike PSP, which handles a huge mix of vessels in all ports within the Puget Sound,  
3 Lake Charles Pilots typically handle tankers and bulkers, boarding in the Gulf and  
4 transiting the Calcasieu Ship Channel to one of the multiple refineries or the Port of  
5 Lake Charles and the Terminal District, at the extreme. The primary industries in that  
6 region are refining and chemical plants, with ships carrying refined products, including  
7 gasoline, jet fuel, LNG, and diesel, and other chemicals.

8 **Q: Do Lake Charles Pilots face any adverse conditions unique to that pilotage  
9 district?**

10 A: While not necessarily unique to Lake Charles, the pilots there board ships in the Gulf of  
11 Mexico, as far as 30 miles out to sea, and face winds, swells and other weather  
12 conditions that can cause weather conditions to be hazardous when boarding. Although  
13 relatively straight, the dredged ship channel itself is fairly narrow at just 400 feet of  
14 breadth, and is somewhat shallow, with just 40 feet of dredged depth. There are also  
15 currents, bridges spanning the ship channel, and a considerable number of pleasure  
16 boaters, adding to the challenge of safely maneuvering ships between the Gulf and the  
17 numerous terminals. Moreover, the LNG ships are challenging due to the large sail  
18 area of the ships making them difficult in cross wind conditions.

19 **H. Port Everglades Pilots Association**

20 **Q. What is the Port Everglades Pilots Association?**

21 A: The Port Everglades Pilots Association (“Port Everglades”) is an association of state  
22 pilots that primarily provide pilotage service in Port Everglades, Florida although I  
23 understand there is another small nearby port (Port Dania) also served by the Port  
24 Everglades pilots.

25 **Q. Will you please describe Port Everglades for the Commission?**

1 **A:** Port Everglades is a small harbor in southeast Florida near Fort Lauderdale. It is a  
2 deepwater port, which makes it accessible to large ships, but with few berths in the  
3 district and a relatively short distance from the harbor entrance to berth. As a result of  
4 its small size, most transits there are very short in duration (about two hours of total  
5 time spent per vessel movement).

6 **Q. What types of ships do the Port Everglades pilots handle?**

7 **A:** In my understanding, most of the vessel traffic there consists of cruise ships. They also  
8 handle tankers, ro/ros, container ships and barges to a lesser extent.

9 **Q. Are the vessels handled there similar to those piloted by PSP?**

10 **A:** Yes. Despite its small size, the depth of the port permits entry by larger deep draft  
11 container ships and cruise ships like those handled by PSP.

12 **Q. With such short assignments in deep water, are there any particular challenges the  
13 pilots face?**

14 **A:** There are. While Port Everglades is small, pilots must still board ships there in the  
15 open ocean and then navigate them into the small harbor. At the port's entrance, there  
16 can be strong cross currents, (as high as five knots) that run at a right angle to the  
17 channel, requiring the use of tugs to control the ship. There are also cross winds within  
18 the port that can cause difficulty maneuvering the large cruise ships that call there due  
19 to large sail areas, (the large ships' side profile catches the wind) requiring dynamic  
20 ship handling within a confined space, immediate reaction to wind gusts, decisive and  
21 bold applications of power to mitigate the affects of the forces of the wind. Because the  
22 cruise terminals are close to the harbor entrance, once the ships are guided into the  
23 harbor and beyond the outer channel, there is a relatively small turning basin in which  
24 pilots must perform difficult turns to bring the large cruise ships into the berth safely.  
25 Weather can also create challenges in the port, including inland rains that can increase

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ebb currents in the outer channel and turn basin. Heavy swells outside of the harbor and wind-driven currents can also create difficulty when entering the main channel. A large amount of intercostal waterway traffic only compounds the challenges of a safe passage.

**Q: Does that conclude your overall testimony at the present time?**

**A:** Yes it does.