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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
CAPTAIN GEORGE A. QUICK,
Vice President Master, Mates and Pilots Organization
ON BEHALF OF PUGET SOUND PILOTS**

NOVEMBER 19, 2019

TESTIMONY OF GEORGE A. QUICK, Exh. GQ-1T i

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GQ-2	Curriculum Vitae of George Quick	1
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I. IDENTIFICATION OF WITNESS

Q: Would you please state your name, and business address for the record?

A: My name is George A. Quick. My business address is 700 Maritime Boulevard, Suite B, Linthicum Heights, Maryland 21090-1941.

Q: By whom are you employed?

A: The International Organization of Masters, Mates and Pilots (“MM&P”).

Q: What is your position with MM&P?

A: I am a Vice President and head the pilot membership group of the organization. I was first elected to that position in 1982 and have continually served in that position up to the present time.

Q: As head of the pilot membership group, could you please tell us what your responsibilities are?

A: I chiefly monitor pilotage rates and state pilotage regulations in the various states across the nation. As a result of representing state pilots on a national level, I thus am familiar with the conditions and standards that prevail in pilotage throughout the United States including compensation, retirement programs and working conditions.

Q: Are you also in frequent communication with those pilot groups?

A: Yes, I receive feedback from the various pilot associations around the country as to the basic outlines of their compensation including particular pension plans or retirement programs and working conditions.

Q: Have you also prepared an exhibit which provides your curriculum vitae to the Commission?

A: Yes, attached at Exh. GQ-2 is my CV.

Q: Can you also briefly summarize for the Commission your educational and professional background?

1 **A:** Yes. I am a graduate of the United States Merchant Marine Academy with a degree in
2 Marine Transportation. I am also a graduate of the University of Baltimore Law School.
3 I hold a US Coast Guard license as Master and First Class Pilot and held a Maryland
4 Pilots State license from 1956 until 2000 when I was placed on the inactive list for
5 medical reasons. I previously sailed as a Deck Officer on passenger and cargo ships
6 before receiving my pilot license. I have experience as a pilot on thousands of different
7 ships in all categories and sizes from small tugs to the largest tanker, cargo and cruise
8 ship.

9 **Q: Have you also held positions with the State Association of Maryland Pilots?**

10 **A:** Yes, I served as president of the Association of Maryland Pilots from 1969 until 1984 in
11 which I had responsibility for administering a pilotage system with up to 92 pilots. I was
12 also Regional Vice President of the North Atlantic region of the American Pilots
13 Association for 12 years from 1974 until 1986. I have represented the International
14 Maritime Pilots' Association, the London-based Trade Association for pilots from
15 Europe, Asia, North America, South America, Australia at the International Maritime
16 Organization ("IMO") which is the United Nations organization that regulated
17 international shipping and did so from the late 1970's and early 1980's. From 1995 to
18 the present I have represented the International Transport Worker's Federation at the
19 IMO. I am also a member of the Maryland Bar Association and a proctor member of the
20 Maritime Law Association.

21
22 **II. PURPOSE OF TESTIMONY**

23 **Q: Based on your education, training and experience, would you consider yourself a**
24 **professional mariner and an expert in piloting?**

25 **A:** Yes I would.

1 **Q: Would you also consider yourself an expert in the regulation of shipping and**
2 **pilotage and the administration of state pilotage systems?**

3 **A:** Yes I would as well.

4 **Q: In preparation for your testimony at the Commission, what have you reviewed in**
5 **connection with this proceeding?**

6 **A:** I have reviewed the proposed tariff, various supporting workpaper documents filed by the
7 Puget Sound Pilots and assorted testimony of witnesses who are submitting prefiled
8 testimony with this filing.

9 **III. SHIPS' MASTERS/CAPTAINS AND STATE PILOTS AND COMPULSORY STATE**
10 **PILOTAGE**

11 **A. Differences between Ships/ Masters/Captains and State Pilots**

12 **Q: At the outset, do you believe that harbor pilots should be compensated at a higher**
13 **level than a captain or master of an ocean-going vessel and, based on your**
14 **experience, can you also provide any reasons or rationale for why pilot**
15 **compensation levels nationally exceed that of captains or masters?**

16 **A:** Yes, I most certainly do. Pilot compensation levels are based on the higher levels of
17 experience and professional skills that all pilots must possess, their self-employed status
18 and liability exposure, the substantial risk management responsibilities the pilots have
19 within the international marine transportation system and inherent physical dangers of
20 their work.

21 **Q: Actually, do you think it is a misnomer or otherwise a mistake to compare pilots to**
22 **masters?**

23 **A:** Yes, I do. Although many pilots begin their careers by attaining a master's license, they
24 have undergone an additional level of specialization and training along with a major
25 investment in time and money to enter the piloting ranks. A state licensed pilot must

1 have extensive experience and keen familiarity with local waters and the ability to board
2 and pilot any type of ship of any national origin, with wide differences in size, propulsion
3 systems, crew nationality, navigational equipment and language skills and crew
4 competency. In addition to accommodating these variables, a pilot must immediately
5 assess the capability of the ship, its crew and its equipment and cope with all the
6 variables to safely pilot the ship in transit through a high risk port environment often with
7 narrow channels, obstructions to navigation, currents and/or traffic. This skill requires a
8 broad range of experience not normally possessed by a master employed by a shipping
9 company on one type of ship, with a familiar crew and known equipment. As indicated,
10 a considerably higher level of experience and skill sets is needed and there is a greater
11 exposure to constant risk, both to the ship and the physical risk to boarding ships under
12 open sea conditions.

13 **Q: With respect to risk management, what responsibilities do the pilots have which**
14 **bear on their compensation levels?**

15 **A:** Pilots take charge of ships during the most hazardous part of the voyage when it is most
16 vulnerable to casualties from groundings or collisions. In contrast to masters of large
17 ocean-going ships, pilots have the close quarters and heavy traffic environment for ship
18 handling and the requisite skills necessary to operate in confined harbors and their
19 approaches such as the Blair Waterway in the Port of Tacoma. Moreover, the behemoth
20 ships being built today exacerbate the narrow geographic confines of existing ports that
21 were designed for much smaller ships. Thus, pilots work in a very intense, pressure-
22 filled environment where success or failure can have immediate consequences and which
23 can potentially result in casualties with corresponding serious environmental damage,
24 damage to their ship, other vessels, port facilities or obstruction of access to shipping
25

1 channels and lanes which directly affect the flow of shipping and overall commerce into
2 and out of the port.

3 **Q: Is this a high level of responsibility in your opinion?**

4 **A:** Few professions carry the combined degree of responsibility for life, property and/or for
5 the protection of the environment as does the marine pilot.

6 **Q: Can you list some differences that exist between the self-employed professional
7 status of the PSP pilot and a salaried employee status of a captain or master that
8 you believe should be reflected in pilot compensation?**

9 **A:** A ship's master is an employee of the shipping line with a total compensation package
10 which includes salary and fringe benefits of say, \$300,000 per year.

11 **Q: Are there other distinctions you would mention in terms of supporting higher
12 compensation for pilots as opposed to sea captains, tug boat operators, ships'
13 masters, etc?**

14 **A:** Yes. Pilots are not wage earners on a salary. Although subject to strict regulation by the
15 state and federal governments, they are self-employed with an investment in the
16 supporting infrastructure required to maintain the pilotage system with all the attendant
17 risks and liabilities that flow from that status. A pilot thus has all the entrepreneurial
18 risks of a small business owner. In contrast, a master of a ship does not have the same
19 resource investment or exposure to fluctuations in shipping volumes which directly
20 impact their earnings. A master of a ship also does not have exposure to legal liability
21 that could financially devastate a pilot in the event of an accident. While a pilot is
22 primarily responsible for the navigation, direction and control of the movement of the
23 ship, he or she is not an employee or agent of the ship or its owner and therefore is not
24 covered by the ship's insurance. Thus in the event of an accident, a pilot is considered a
25 third party to the contract for insurance and lacks basic insurance coverage. Past

1 experience has shown that the costs of insurance coverage for the individual risks
2 assumed by a pilot are extraordinarily high which cannot be absorbed by the shipowner.

3 **Q: Are there other risks to which pilots are exposed justifying their compensation in**
4 **your view?**

5 **A:** Yes. A pilot's job involves constant significant physical danger, for instance, boarding or
6 disembarking a large vessel, often under adverse weather conditions in the open sea.
7 Also, constantly disembarking pilot boats with a hazardous climb up a rope ladder to the
8 safety of the ship while the ship is underway can often be an intimidating feat. Pilots,
9 literally, put their lives on the line to service the ships they pilot. For example, at the Port
10 Angeles Pilot Station, boarding and disembarking the pilot vessels going out to the large
11 ships to be piloted by state pilots/PSP members is coordinated and accomplished by
12 small pilot vessels in the open sea such as the Strait of Juan de Fuca.

13 **Q: Do you have recent information as to the gravity of such hazards nationally?**

14 **A:** Sadly, yes. A pilot in Texas was fatally injured this past winter while boarding a vessel
15 at the dock when the gangway collapsed while he was boarding. He was 65, on the cusp
16 of retirement and the third most senior pilot of the Aransas-Corpus Christi Pilot
17 Association. See attached Exh. GQ-3. Indeed, over my tenure with the Maryland Pilots
18 Association during a time in which 70-90 pilots have been active in the ranks, I know
19 personally of three Maryland pilots who suffered fatal accidents on the job.

20 **Q: Have you noted any change in cargo types handled by ports and, in turn, state-**
21 **licensed pilots over the years you have been a pilot and an officer with the MM&P**
22 **organization?**

23 **A:** Most definitely, yes. The quantity and types of cargoes that move by ship have increased
24 dramatically in both the capacity of the tankers and the variable nature of the often
25 flammable and toxic cargoes. Additionally, the schedules required to be kept by modern

1 vessels exacerbate pressure on all parties to move ships and cargoes under conditions that
2 test the limits of safety. The contemporary pilot is thus expected to handle significantly
3 larger ships, often loaded with dangerous and/or combustible cargoes, under commercial
4 pressures to reduce margins of safety in a political environment with no tolerance for any
5 maritime casualties which could harm the environment. This is the current “pressure
6 cooker” in which state licensed pilots operate.

7 **Q: Do you see increased fatigue management focus flowing out of this circumstance?**

8 **A:** Absolutely. Enhancing and expanding opportunities for increased rest are essential and,
9 in my view, regulators should recognize this increased vital need in their safety and
10 economic decision-making.

11 **Q: What is the widely accepted relationship between the compensation of a pilot in a**
12 **state regulated pilot system and the captain or master employed by say, an ocean-**
13 **going vessel?**

14 **A:** PSP pilots, for example, have the necessary education, training and experience levels and
15 hold masters licenses that qualify them to serve as masters of ships of any tonnage.
16 When the above-enumerated factors are considered by Boards or Commissions
17 throughout the United States familiar with the circumstances, it is typical that pilotage
18 rates and charges produce pilot compensation levels well in excess of a master’s
19 compensation. On the basis of my knowledge and belief, the vast majority of state
20 regulated pilots in the United States work under pilotage rates and charges that generate
21 individual pilot compensation levels substantially above the compensation received by
22 masters of large ocean-going ships.

23 **Q: Could you please recap or otherwise list some of the distinctions between a pilot and**
24 **master of a ship?**

1 **A:** Yes. While they may have started on the same career path, the pilot has taken a major
2 step beyond that of a master with a longer period of additional training and experience.
3 The skills, risks and working conditions of a ship's captain and that of a pilot are
4 considerably different:

- 5 • A pilot must have a wider range of technical skills because of the variety of sizes
6 and operational/handling characteristics of the vessels he handles.
- 7 • A pilot assumes more physical risks because of the boarding and disembarking of
8 the vessels in good and bad weather.
- 9 • A pilot is constantly placed in stressful situations because handling vessels in, out
10 and around a port is often the trickiest and riskiest situation a vessel encounters.
- 11 • A ship's master is an employee of the ship's owner, a pilot is a fee for service
12 professional who assumes the entrepreneurial risks and rewards of a fluctuating demand
13 for his services and must continually improve his skills through training and train deputy
14 pilots.
- 15 • Pilots must adapt to changing circumstances on each ship movement. Variations
16 on the size of ships; propulsion systems; navigation equipment; experience and
17 communication skills (language) of crew; known or unexpected mechanical failures;
18 weather events, and unexpected traffic complications make each ship handling unique.
- 19 • A pilot's working environment can cause high levels of stress. An Australian
20 study revealed that pilots excreted high levels of adrenaline while providing pilotage
21 services (sometimes taking up to two days to return to normal levels) and that pulse rates
22 increased to over 160. Such conditions can obviously take their physical toll.

23 **Q: What specifically does the pilot undertake with regard to the control and navigation**
24 **of the ship's movement?**
25

1 **A:** The pilot gives the directions controlling the ship's movement and it is the master who
2 may advise the pilot as to the capabilities of the ship or its equipment or crew. If a
3 master of the vessel was actually giving the directions only with the pilot's occasional
4 advice, the ship, by definition, would not be under uniform pilotage law and would not
5 therefore be in conformance with those local compulsory pilotage laws.

6 **Q: Why is this distinction relevant?**

7 **A:** The distinction is important because if the pilot were merely an advisor whose directions
8 could be accepted or rejected at will, he or she could not fill their role as an independent
9 arbiter of acceptable navigational risk. While it is understood that a master can displace a
10 pilot for cause and never relinquishes complete responsibility for the safety of the ship,
11 that does not amount to unbridled discretion to substitute their judgment for that of the
12 pilot or relieve the pilot at will. The safety of a ship is a shared responsibility between a
13 master and a pilot. In other words, there is a system of checks and balances in the
14 management of risk in pilotage. The master has the power to command the crew, but the
15 ship can only be moved in State waters under the authority of the pilot to direct and
16 control its movement. There has to be mutual agreement between the master and pilot as
17 to the acceptability of risk that serves the larger interest of maritime safety.

18 **B. Rationale behind Public Pilotage Regulatory Systems**

19 **Q: Could you please describe in your own words the purpose of compulsory pilotage
20 regulations?**

21 **A:** Yes. Washington, as in almost every other coastal state in the United States and most
22 other major ports in the world, has a regulated compulsory pilotage system that legally
23 requires foreign-flagged vessels to be navigated under the direction and control of locally
24 licensed pilots who are accountable to local and state authorities for the safe operation of
25 the ship and are familiar with the territorial waters of the port state. The purpose of such

1 legislation is ultimately to protect shipping, port infrastructure, the general public and the
2 marine environment from the consequences of maritime accidents which can occur when
3 large ocean-going ships are maneuvering in the tight confines of harbor areas and in the
4 vicinity of environmentally sensitive areas.

5 **Q: Are there adverse consequences from accidents in such circumstances?**

6 **A:** Obviously, yes. A maritime accident can have catastrophic consequences for the port,
7 the public and the environment as illustrated by the Exxon Valdez and Costa Concordia
8 accidents.

9 **Q: Are there any patterns or consistencies to compulsory pilotage?**

10 **A:** Yes. Historically compulsory pilotage has been and continues to be the primary port
11 safety system in every maritime nation. Colonial legislatures even had pilotage laws in
12 effect prior to the United States becoming a nation. In the First Congress, lawmakers
13 acted to leave pilotage under the control of the states where it remains today. A pilotage
14 licensing regulation for control of entry into the field is directed toward the safety of
15 shipping and the port territory as well as for the regulation of the individual pilot.

16 **Q: Is there a public interest factor in this equation?**

17 **A:** Absolutely. The nature of pilotage as a public port safety system is critical and involves
18 the premise that the pilot is not on board to serve the ship owner's interests as defined by
19 shoreside management or to be otherwise handled and manipulated at their discretion.
20 Instead, the compulsory pilotage system is absolutely predicated upon the pilot being
21 obligated as a condition of licensing in serving the public interest and public safety which
22 is a pilot's overriding obligation and concern.

1 **IV. PILOT COMPENSATION, COMPARABILITY AND STANDARDS**

2 **Q: In your many years with the MMP and as a liaison with the various state pilots**
3 **associations, have you become familiar with pilot compensation levels, the criteria**
4 **used by ratesetting bodies and the comparability and distinctions therein?**

5 **A:** Yes.

6 **Q: Are you generally familiar with ratesetting processes in other coastal states?**

7 **A:** Yes. In almost all states pilotage rates are established by State Pilotage Boards or the
8 Public Utilities Commissions. The Boards or PUCs are exercising legislative authority
9 delegated to them to set rates, usually in reference to statutory guidelines establishing
10 parameters upon which the rates are set.

11 **Q: Can you elaborate on those guidelines for ratesetting?**

12 **A:** Yes. The guidelines generally contain common provisions, although the verbiage varies,
13 for comparable compensation for comparable work in comparable ports which, for
14 example, Louisiana expressly provides¹.

15 **Q: In addition to the Louisiana example, do you have any other references that you**
16 **think might be relevant to this Commission on ratesetting standards?**

17 **A:** Yes. I attach the San Francisco rate guidelines from the California statute which is quite
18 specific on criteria to be considered. Incorporated as Exh. GQ-4, is that pertinent section
19 from the Harbors Navigation Code of the California annotated statutes for the
20 Commission's reference.

21 **Q: Have you reviewed the new statutory guidelines for ratesetting in Washington?**
22
23
24

25 ¹ La. R.S. 34:1122(B)(1): "...for average annual compensation for state ship pilot, in comparison to regulated rate ship pilotage in other United states ports."

1 **A:** Yes I have and I see that the legislature directed the Commission to set “just, fair,
2 reasonable and sufficient” rates but did not codify numerous other criteria, leaving that to
3 the judgment of the Commission.

4 **Q: Recognizing that inherent discretion, based on your decades of familiarity with
5 coastal states pilotage ratesetting processes and standards, would you offer any
6 guidance to this Commission in reviewing the PSP’s rate proposal?**

7 **A:** Yes, in part because part of my job responsibilities of the Masters, Mates and Pilots
8 organization to monitor comparable pilot compensation levels, I study these criteria and
9 am quite familiar with the various factors impacting the setting of local pilotage rates
10 nationally.

11 **Q: Can you please describe some of those criteria or elements.**

12 **A:** Yes, either by statute, rule or order, Pilotage Boards and PUCs often consider the length,
13 draft, dimensions and tonnage of the vessels to be piloted, the difficulty and
14 inconvenience of the particular pilotage service and the specific navigation environment
15 and the skill and additional expertise necessary to render the service, the piloting time
16 required for transit, the time required to be on call at a pilot station, the on-call time and
17 the intervals in which pilots are required to be away from home and the attendant
18 expenses to maintain the pilotage system and pilot pension and medical benefits.

19 **Q: During your substantial time in the industry have you noticed any trends in terms
20 of the bases for or emphasis of ratemaking in establishing pilotage fees?**

21 **A:** Yes. In the past, pilotage fees were largely based on the draft of the ship which was
22 originally a fair indicator of the vessel’s potential earning capacity or productivity. The
23 deeper the ship was loaded in the water was an indication of earning capacity or
24 productivity. However, in the mid-twentieth century, shipbuilding technology had
25 advanced to the point that ships being built were five times or more the tonnage of

1 existing ships, yet with little increase in their draft. It thus became apparent that draft
2 alone no longer fairly represented a ship's potential earning capacity or productivity.
3 And, each new large ship replaced five or more conventional ships, eroding the inherent
4 rate design necessary to support the pilotage system. By the mid-1970's, boards or
5 commissions regulating pilotage began shifting rate design to gross tonnage as a better
6 indicator of productivity for the purpose of distributing the costs of maintaining the
7 pilotage system over the user base.

8 **Q: Could you elaborate, please, on the basis of assessment of charges of vessels based**
9 **on the vessel's potential earning capacity/productivity?**

10 **A:** Yes, the practice of assessing charges on the ships' potential earning capacity or
11 productivity is based on the recognition that pilotage is an essential port service that
12 exists to protect not just the ship under pilotage, but other ships, port facilities and
13 infrastructure, the public and the marine environment as has been described above. Thus
14 pilotage is not just a service to the individual ship but to the public at large. It is in the
15 public interest and also a benefit to very large ships to have a pilot aboard all ships large
16 or small that may be a navigational threat to the larger sized vessels as well to the port
17 facilities. Basing pilotage charges on tonnage as a measure of productivity brings the
18 smaller, lower tonnage ship with lower earning potential into the pilot system at a charge
19 proportionate to or commensurate with their ability to pay. This serves as an equitable
20 distribution of the costs of maintaining the pilotage system over the users and in my
21 opinion is fair, just and reasonable.

22 **Q: Can you contrast that in terms of economies of scale?**

23 **A:** Yes. Very high tonnage ships are built to take advantage of economies of scale in order
24 to reduce the underlying unit cost of cargo carried and to increase profitability. While
25 that is beneficial to the shipowner, the profitability that comes from the economies of

1 scale places even greater responsibility on the pilot and challenges his or her professional
2 skills by increasing the risk of handling such large ships in restricted channels. Once
3 again, the heightened responsibility and skill level that enhances economies of scale and
4 profitability should be recognized in rates and pilot compensation.

5 **Q: Can you elaborate a bit more on the trends of rate design as factors for pilot rate**
6 **setting?**

7 **A:** Yes. As indicated, as ship design and ship size increased dramatically with little increase
8 in the draft of vessels, it became apparent that draft no longer represented productivity
9 and pilotage authorities throughout the US and worldwide have generally shifted to either
10 gross tonnage or other underlying unit cost formulae that measure the cubic volume of a
11 ship as the basis for pilotage charges. For instance, it is noteworthy that gross tonnage is
12 not a measure of weight but a measurement of cubic volume with a hundred cubic feet
13 equivalent to one gross ton. The current tonnage measurement rules that are the basis of
14 PSP rates as adopted by the Board of Pilotage Commissioners became effective for all
15 ships in 1994 and were adopted for the very purpose of determining a ship's carrying
16 capacity for productivity for the function of calculating various port costs and charges,
17 including pilotage.

18 **Q: Are there other maxims involved, in your opinion, in pilotage rate design?**

19 **A:** Yes. Each ship should pay its fair share of supporting a harbor safety system that
20 protects all ships, the port facilities and the public in proportion to its size as measured by
21 gross tonnage. Size reflects both productivity from economies of scale and exposure to
22 risk with size necessarily also reducing the pilot's margin for error in very narrow,
23 restricted harbors.

24 **Q: Are there any other examples you could cite to criteria in states for establishing**
25 **pilot compensation?**

1 **A:** Yes. In Florida for instance, the statute directs the Pilotage Review Board to consider the
2 prevailing compensation of comparable maritime professionals and recognize that in
3 order to attract and hold the best and most qualified individuals as pilots, the overall
4 compensation attributable to pilots should be equal to or greater than that available to
5 such comparable professionals in maritime employment. The Florida Pilot Rate Review
6 Board previously determined that the only comparable maritime professionals were pilots
7 in other ports and shipmasters.² Ship master's compensation thus served as a minimum
8 floor for comparison purposes in small ports with limits on the size of ships that can be
9 handled or very low traffic levels with pilots underemployed.

10 **Q: Is pilot compensation as set by pilotage boards and state commissions naturally a**
11 **static process?**

12 **A:** No. It should be recognized that because pilots are fee for service professionals with
13 fluctuating income dependent on a number of variables such as the capability of the port
14 to handle large deep draft ships, the mix of ship sizes, traffic levels, capital and operating
15 expense and availability or unavailability of pilots in any port for duty at any particular
16 point in time, income will clearly diverge, year in and year out, from a range.

17 **Q: Are you saying there consequently is no exactitude in this process for establishing**
18 **pilotage rates nationally?**

19 **A:** No. I am not saying there is no precision. I am saying for ratesetting purposes, some
20 assumptions need to be made to arrive at an annual income level but that in making those
21 assumptions it should be understood that actual income under normal circumstances will
22 generally vary in the rate year in a range of between 5 and 10% of the estimated income
23 due to the noted variables.

24
25 _____
² See Report of the Investigative Committee, Application for Change of Pilotage Rates at Port Everglades, 2001.

1 **Q: In your role with the MMP as head of the pilot membership group, have you come**
2 **up with any estimate of an average income for most pilots, at least those involved in**
3 **deep draft ports such as Puget Sound?**

4 **A:** Yes. Currently I would say that income ranges nationally in the area of \$550,000 to
5 \$600,000 per year. Obviously there are some pilots and groups above and below that
6 range but it currently represents the center of gravity of pilot income.

7 **Q: In your experience do state pilotage districts unilaterally publish annual pilot**
8 **income information?**

9 **A:** No.

10 **Q: Then, in surveying pilotage compensation, what do you believe is the most objective**
11 **indicator of various state pilotage boards and Utility Commissions decisions with**
12 **respect to pilot compensation?**

13 **A:** Generally orders or decisions coming out of those bodies and/or public records requests
14 that would result in their disclosure.

15 **Q: And to your knowledge, has PSP as a rate proponent here submitted public records**
16 **requests in pertinent jurisdictions to obtain that information?**

17 **A:** Yes, although I was not involved in that process and PSP witnesses are addressing that, I
18 understand, in their direct testimony.

19 **Q: With that income range noted, are there any other external factors that would affect**
20 **the precision of ratesetting for pilot income in your view?**

21 **A:** Yes. The last point I would make on comparability and ratesetting factors is that
22 “estimating income” does not in any way imply a **guaranteed** income. In marine
23 pilotage rates, there is always a substantial risk that any one of the assumed values in the
24 rate year may turn out to be off the mark. For instance, there could be unanticipated
25 expenses for repairs, maintenance, replacements of boats or equipment and supporting

1 infrastructure that will directly affect expenses and lower estimated pilot income
2 accordingly.

3 **Q: Are there other factors affecting precision of ratemaking in your experience?**

4 **A:** Yes. Estimated vessel assignments used in the projection may, for instance, be overly
5 optimistic in a global market that is currently depressing global trade. The risk of those
6 traffic levels/vessel assignments not being attained are thus borne by the pilots in a
7 prospective reduction of their net income. Moreover, the profile of ships calling in the
8 Puget Sound area could change. For instance, if a shipping company decides to lay up
9 their larger ships in a period of recession or economic decline as cargo volumes diminish
10 and at least temporarily replaces them with smaller ships with higher load factors this
11 could reduce vessel assignment numbers. Once again, a reduction in the size of ships
12 calling in the ports is a risk that will directly affect projected pilot projected net income.

13 **Q: Can pilots and their pilot organization though not react to a downturn in the
14 economy?**

15 **A:** Actually, a pilot service has quite limited means to offset the consequences of a downturn
16 in vessel assignments. Because port safety infrastructure systems require pilots and boat
17 crews to remain on station and be available 24/7, 365 days a year regardless of
18 assignment levels and regardless of generated revenue, as a result, fixed expenses
19 continue even as traffic levels and corresponding pilotage revenues decline. This
20 obviously has the effect of a downward leveraging and disproportionate lowering of pilot
21 income as traffic and revenue decline.

22 **Q: Is this type of factor something which pilot ratesetting bodies are familiar with?**

23 **A:** Yes. Obviously in a public ratesetting environment, a reduction in volume would
24 normally justify a prospective increase in rates if fixed costs are required to be amortized
25 over a smaller rate base for any material period of time.

1 **Q: Is PSP currently factoring in the prospect of economic decline in the rate year?**

2 **A:** No. My understanding is that PSP is not quantifying such consideration in the present
3 case as it is not “known and measurable,” despite facing the very real prospect that
4 shipping volume and the rate base will correspondingly decline with, for example, the
5 dark cloud on international trade and tariff wars looming forebodingly. And that just
6 constitutes yet another element of business risk that the self-employed pilotage corps
7 assumes.

8 **V. PSP PILOT RECRUITMENT FACTORS**

9 **Q: Can you please elaborate on the importance of recruitment to attracting sufficient**
10 **number of pilots in this locale?**

11 **A:** Yes. Pilot associations primarily attract applicants from among the most qualified
12 captains and officers in the maritime industry. Unfortunately, however, there are not that
13 many qualified mariners available to fill all national pilot positions due to the decreasing
14 size of the US Merchant Flag Fleet over the past decades and a corresponding lack of
15 seagoing positions available to gain the necessary experience. Because there are 24
16 coastal states and well over 50 pilot associations, the total number of the applicants on all
17 pilot applicant lists can be deceiving because many applicants are on multiple lists.

18 **Q: Where is the typical pilot applicant coming from?**

19 **A:** Applicants are typically drawn from a mobile national pool of younger captains and
20 officers interested in becoming pilots who routinely apply for any openings that they are
21 aware of throughout the nation. Actually, because of my position at MM&P, many of
22 these candidates might initially contact me for information on potential openings and I
23 try to provide them a comprehensive list of various pilot associations’ current openings.

24 **Q: Can you please elaborate on the importance of recruitment to attracting sufficient**
25 **number of pilots in this location?**

1 **A:** Yes. As noted, in a nationwide recruitment pool for pilot applicants, the best qualified
2 and most desirable candidates will naturally compete for the openings in the pilot
3 associations that have the highest income and best working conditions. While location,
4 climate, cost of living, personal preferences as to lifestyle and other subjective factors
5 will invariably play a part, the compensation package offered is always the major factor
6 in my experience. Recall also that becoming a fully qualified pilot, regardless of the past
7 experience or license held by the candidate, also requires a lengthy period of time at a
8 substantially reduced income level for training and rigorous testing in order to ever
9 receive a state pilot license.

10 **Q: How does this, in your view, translate into eventual pilot compensation?**

11 **A:** The ultimate income of a fully qualified pilot must also compensate for the years of lost
12 income while training to become a pilot.

13 **Q: What has been the recent experience in Washington?**

14 **A:** I understand that for approximately the last decade and a half the applicant pool has been
15 dwindling, but Captain Von Brandenfels will be addressing that with more specificity in
16 his testimony.

17 **Q: Are there other factors impacting ratesetting for pilotage income that you would
18 allude to?**

19 **A:** Yes. One very material factor is recruitment, as described above, and ensuring that there
20 are adequately trained, prospective pilots attracted to the local pilot profession
21 particularly now when so many baby boomer pilots are or will soon retire. PSP has a
22 mandatory retirement age of 70. Most pilots actually retire some years before 70 for a
23 variety of reasons. The PSP, in conjunction with the Board of Pilot Commissioners, must
24 continue to attract “the best and the brightest” pilot applicants and, of course, one of the
25 most obvious inducements to make the sacrifices necessary as a prerequisite to qualify,

1 train and pass all necessary examinations to licensing is compensation. Imbalances in the
2 same or materially lower pilot compensation levels in one jurisdiction can
3 unquestionably reduce local pilot ranks by encouraging locally-trained pilots to migrate
4 to areas sometimes paying tens and hundreds of thousands of dollars more annually.

5 VI. PILOT RETIREMENT PROGRAM

6 **Q: Have you, in your experience at the MM&P and as the liaison with state pilotage**
7 **organizations nationally, come to understand or otherwise analyze various**
8 **retirement programs offered by state pilot associations?**

9 **A:** Yes.

10 **Q: Can you give us some generalized background on deferred compensation programs**
11 **for pilots?**

12 **A:** Certainly. The existence of pilot associations and the regulation thereof, as noted, have
13 existed in the United States since colonial times. As a consequence, the organizational
14 structure of pilot associations and their legal framework have evolved over centuries
15 which means they often don't conform to the most modern business models. The
16 overwhelming majority of pilot associations in the United States were created long before
17 there were ERISA and related federal regulations involving the maintenance and
18 preservation of retirement/pension plans.

19 **Q: Would you note other trends in the history of pilot plans?**

20 **A:** Yes. In the 19th and early 20th centuries, tax exempt, funded defined contribution pension
21 plans were unheard of and it was a normal practice to pay pensions from current revenue
22 or as individual set-aside of after-tax dollars for retirement. The ERISA laws were
23 essentially enacted in the mid-1970's and implementing regulations funding pension
24 plans to be established with tax-sheltered dollars are relatively new in the context of pilot
25

1 association existence. When ERISA and funded pension plans came into existence, most
2 pilot associations already had long established retirement programs based on a
3 distribution of income to retired pilots from current association revenue. A pilot
4 association shifting from a program based on a distribution from current revenue to an
5 ERISA-qualified funded plan would also incur tax recognition and funding of past
6 service credits that make the cost of such a change prohibitively expensive. In addition,
7 in most cases, the cost to the association of funding future benefits versus continuing to
8 fund retirements from current revenue (essentially a “pay-as-you-go” plan) were about
9 the same.

10 **Q: Is this pay-as-you-go plan of current revenue funding retirement benefits in effect in**
11 **Washington for the PSP?**

12 **A:** Yes, and for very valid defensible economic reasons, pilot associations nationally have
13 tended to remain with programs very similar to the Puget Sound Pilots’ retirement
14 program.

15 **Q: Despite the extraordinary costs associated with changing systems, do you see any**
16 **advantage to the PSP shifting to a funded plan?**

17 **A:** About the only one I can see is that an individual pilot would then have his or her own
18 identifiable fund for their account in an earmarked distribution from current revenue.
19 The individual pilot here has no vesting or earmarking of a fund in his or her benefit. He
20 or she only has future expectation based on the continued existence of the future revenue
21 stream to the association generated by current rates and that they will successfully reach
22 retirement age.

23 **Q: Do you see any additional drawbacks with the current design of the pension**
24 **program?**

1 **A:** Well, the uncertainty of a future benefit raises concerns that attributing any present value
2 to an uncertain future benefit has aspects of allocation of phantom income to the pilots in
3 the ratesetting process that could never materialize.

4 **Q: Do other pilot organizations in the United States maintain unfunded retirement**
5 **programs similar to Washington?**

6 **A:** Absolutely. For accounting purposes, the payments to retired pilots are either treated as
7 an operating expense against gross revenue or as a distribution to retired pilots from net
8 revenue. The end result is the same. The common feature with these programs is that
9 retirement benefits are paid on top to retired pilots and/or their surviving spouse out of
10 current revenue prior to any distribution of net revenue to active working pilots. Many of
11 these programs pay a benefit based on a share earned by an active pilot. Others define
12 benefits by reference to average past earnings or some other benchmark. Some have cost
13 of living provisions that increase payments over time and others do not.

14 **Q: Can you provide a list of the retirements paid from current revenues in other states**
15 **or ports to the best of your researched knowledge or familiarity and information on**
16 **vesting for comparison purposes?**

17 **A:** Yes.
18 Maryland 40% share after 25 years
19 New York 50% share after 25 years
20 New Jersey 50% share after 25 years
21 Pennsylvania 1% share per year of service, 40% max
22 Delaware 1% share per year of service, 40% max
23 Charleston 33.3% share after 25 years
Savannah 66.6% share after 25 years
Louisiana 1.66% share per year of service, 50% max
Washington 1.5% per year of service, no max³

24 ³ The Washington plan referenced here is to Puget Sound Pilots. Grays Harbor pilots receive benefits of 2% per
25 year of service and a cost of living adjustment annually. Puget Sound Pilots, under their plan, do not receive 1.5%
of an active pilot share, instead their 1.5% is based on income received from the last three years of service before
retirement. PSP's program has no cost of living adjustment feature.

San Francisco 1.84% per year of service

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3 **Q: Why are these characteristics of deferred compensation for pilots programs so**
4 **prevalent?**

5 **A:** Well first, the offering of retirement programs is always an essential part of the overall
6 compensation package offered to maritime employees. While pensions differ from
7 industry to industry, in the maritime field, they continue to be an important part of the
8 compensation package offered by employers. This is likely the result of the realization
9 that a career spent at sea contains stressors above and beyond the average job, i.e., it is
10 physically demanding and mentally stressful wherein risk of life and property is always
11 present. This is also very true of pilots. The possibility of disability is always ever
12 present in the minds of pilots and life is just more hazardous in general in this line of
13 employment. In recognition of this reality, most pilotage boards understand that to
14 maintain a competitive stature, pilotage associations must offer retirement programs
15 equivalent to those found in the overall maritime industry.

16 **Q: Do you see any other benefit of these retirement programs?**

17 **A:** Yes. I believe these programs are prevalent also because most pilotage ratesetting boards
18 recognize the benefits of being served by pilots that are thoroughly experienced in local
19 conditions and committed to assignment to a port or jurisdiction. Thus, this not only aids
20 in recruitment but also promotes public safety by reducing retirement plan shopping in
21 the pilots' retirement calculus which might result in an absence of licensed, trained pilots
22 in a jurisdiction. It also encourages voluntary retirement before the physical or mental
23 demands of the job literally or figuratively force the pilot to retire.

24 **Q: Can you put the PSP retirement plan in any other context?**
25

1 **A:** Yes. For instance with the Masters, Mates and Pilots employer funded retirement plan, a
2 benefit of two percent per year of service with eligibility for retirement after 20 years of
3 service at age 55 is offered. That plan is supported by contributions at the level of 17%
4 of overall wage costs. Retirement costs are thus a major component of labor costs in the
5 organization and the maritime industry as a whole and obviously are becoming more so
6 in the national economy as well.

7 **Q: Based on your knowledge of national pilot retirement plans, contribution type and**
8 **vesting features, how would you characterize the PSP retirement program?**

9 **A:** It is most definitely well within the range of norms in the pilotage industry, except for the
10 fact that the PSP plan has no cost of living adjustment feature.

11 **Q: Do you feel that the unfunded liability dimension of the PSP program makes it**
12 **imprudent?**

13 **A:** No, I actually don't. Clearly the "pay-as-you-go" feature is essentially what the federal
14 social security system is and also, like social security, does not involve the investment of
15 any reserve funds by a third party fiduciary who of course could stumble in those
16 investments and drastically reduce the eventual share for the retired pilot. Having present
17 day workers fund the retirement of past pilots also enhances the overall cohesiveness of
18 the organization which is highlighted not only within the PSP by its uniform annual
19 distribution to all active pilots, but in its "pay-it-back" commitment to past pilots who
20 have contributed to the legacy of the current-day pilot corps. While calculation of future
21 unfunded liability may appear concerning, it should be recognized it is not a vested
22 obligation and paid over a long time period in which the annual rate is not unmanageable.

23 **Q: Did you find any other justification or recognition of the importance of the PSP**
24 **retirement program and its established funding in tariff rates?**
25

1 **A:** Yes, in RCW 81.116.020(4), the Washington Legislature expressly indicated that as an
2 element of the Puget Sound district tariff, the commission “may consider pilot retirement
3 expenses incurred in the prior year in the Puget Sound pilotage district.” I have also
4 reviewed some of the legislative history of the legislation and understand the former
5 House Transportation Chair, in floor remarks supporting the bill, called out the
6 importance of continued pilot retirement funding.

7
8 **VII. PILOT STAFFING LEVELS/PSP EXPERIENCE**

9 **Q: In your role at MM&P do you also look at pilotage organization staffing levels in
10 order to respond to industry demand?**

11 **A:** Yes. Vessel traffic and calculations about impact on staffing levels are always relevant
12 to analysis of pilotage rates.

13 **Q: Is measurement of pilot workload by actual bridge time on duty an accurate
14 indicator of pilot workload?**

15 **A:** No. Measuring pilot workload by actual bridge time in control of the ship is the most
16 restrictive measurement of pilot workload possible. It needs to be recognized that for
17 each hour of actual bridge time, there is at least an additional hour spent on support
18 services such as recent regulations requiring pilot pre-passage planning, transportation to
19 and from assignments, standby at a pilot station, training, administrative duties and other
20 various task-related activities all necessary for an efficient and reliable pilotage service.
21 This list of time on tasks does not even take into account the new state-mandated,
22 extended rest intervals which will also increase pressure on the current pilot complement
23 to fulfill vessel assignments.

24 **Q: In addition to the scheduling of jobs on a 24-hour basis, are there also patterns
25 regarding staffing of pilots in order to meet vessel demand?**

1 **A:** Absolutely. Unfortunately for all, vessel traffic is not consistent. Ships do not arrive and
2 depart spaced out at regular, average intervals. They arrive randomly with peak periods
3 of activity requiring a necessary surge capability in pilot staffing. For instance, during
4 the summer cruise season in Seattle from May to October, there is excess demand for
5 pilots. Additionally, vessels do not enter Puget Sound on routine schedules and there can
6 be occasions where there is a large influx of ships inbound or outbound followed by
7 periods of reduced shipping volumes. None of this adds certainty to scheduling and the
8 necessity for highly functioning dispatch communications and constant availability of
9 pilots at all hours of the day and night to service all locations in the Puget Sound is
10 apparent.

11 **Q: Does this have an impact on overall demand for pilots?**

12 **A:** Yes. In order to avoid shipping delays, PSP must maintain a sufficient number of on-
13 duty pilots to meet all demands. It is my understanding that until 2018, Puget Sound
14 pilots were able to meet all demands with only a small amount of shipping delays.
15 However, with a chronically insufficient numbers of pilots, as well as pilots electing
16 early retirement or taking medical leaves, particularly during the summer cruise season,
17 delays to ships have recently occurred.

18 **Q: How do the Puget Sound Pilots from your knowledge address those delays?**

19 **A:** With the current number of active pilots at the 49/50 level, the only way the pilots have
20 been able to meet demand and avoid excessive delays is to callback pilots who are on
21 their off duty time to handle the volume of ships in Puget Sound.

22 **Q: How does this system function?**

23 **A:** Other witnesses will expand upon the callback system and what its fiscal impacts are, but
24 from my perspective, the PSP callback system is effectively a banked overtime program
25

1 which allows a pilot who is called back during his or her needed recuperative rest off-
2 duty time to earn a compensating day off for having answered a callback service request.

3 **Q: What do you know about the duty requirements quantitatively for 2018?**

4 **A:** It is my understanding that the average workload in 2018 per Puget Sound pilot was
5 2,661 hours for the year for 182 on-duty days. Of those 2,661 hours per pilot, there was
6 an average 885 hours spent at the Port Angeles pilot station awaiting assignment.
7 Whether that is counted or not, which I believe it should be, it is clear that irregular work
8 hours and graveyard shifts required for all pilots is not the normal workweek or on-duty
9 requirements of the average American worker in 2019.

10 **Q: Are there any other perspectives in your view on the implications of staffing levels**
11 **at present?**

12 **A:** Yes. While pilots nationally typically staff to peak demand to avoid shipping delays,
13 here the pilots have settled on staffing to average vessel traffic movements. Nationally,
14 pilot groups staff to peak demand to avoid ship delay because if staffing is based on
15 average traffic movements, there would be considerably more vessel delays which
16 actually cost the shipping industry more than adding additional pilots presently in rates.

17 **Q: What has been the circumstance in the Puget Sound based on your review of**
18 **staffing and trends therein?**

19 **A:** Rather than staffing to the peaks or simply delaying vessels apparently as part of an
20 agreement with the industry historically, PSP has staffed to average demand but then
21 relied on the comp day system described above that requires calling in off-duty pilots to
22 provide the necessary additional capacity during peak periods.

23 **Q: Do you see any flaws or drawbacks to such a system?**

24 **A:** Yes. That system unfairly asks PSP to accept liability for the comp days (funding them
25 only when they are utilized) rather than shifting the present-day cost of full pilot staffing

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to present-day users in industry with the only other alternative being delay of vessels which does not aid industry, pilots or the public interest. It also can result in an ever ballooning aggregate number of incurred callback days that needs to be worked off the books which is exacerbated by a pilot shortage and now, expansion of mandatory rest periods. In addition it reduces the aggregate off-duty time of call-back pilots that is designed to provide necessary recuperative rest after a grueling 24/7 on duty period.

Q: Does this conclude your testimony for now?

A: Yes.