

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,
Complainant,

v.

PUGET SOUND PILOTS,
Respondent.

DOCKET NO. TP-190976

**REBUTTAL TESTIMONY OF
IVAN CARLSON
VICE PRESIDENT, PUGET SOUND PILOTS**

JULY 13, 2020

TESTIMONY OF Ivan Carlson, Exh. IC-4T - i

Williams, Kastner & Gibbs PLLC
601 Union Street, Suite 4100
Seattle, Washington 98101-2380
(206) 628-6600

TABLE OF CONTENTS

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

I. IDENTIFICATION OF WITNESS 1

II. PURPOSE OF TESTIMONY 1

III. REBUTTAL OF DANNY KERMODE..... 1

IV. REBUTTAL OF Capt. MICHAEL MOORE..... 10

 A. The Number of Pilots 12

 B. Funding of Pilots Burning Callbacks Prior to Retirement..... 34

 C. Trends in Callbacks 36

 D. Sufficiency of Pilot Net Income to Attract Candidates 38

 E. Increased risks to pilots 40

 F. Competition for Waterborne Commerce 45

V. TESTIMONY OF SCOTT SEVALL..... 51

I. IDENTIFICATION OF WITNESS

Q: Will you please state your name and business address?

A: My name is Ivan Carlson and my business address is 2003 Western Ave, Suite 200, Seattle, WA 98121.

II. PURPOSE OF TESTIMONY

Q: Will you please describe what you are addressing through your testimony?

A: I am testifying in rebuttal to Mr. Kermode's recommendation regarding the treatment of the accumulated Callback liability in rates, as well a number of topics addressed by Capt. Moore on the subjects of the pension, the accumulated callback liability, the number of pilots, pilot workload, the sufficiency of pilot income, risks to pilot, and the protection of waterborne commerce. I am also providing a brief rebuttal to Scott Sevall's testimony on the topic of comparative pilot income.

III. REBUTTAL OF DANNY KERMODE

Q: Have you had an opportunity to review the prefiled testimony of Danny Kermode on the subject of Callback Days?

A: Yes I have.

Q: Do you have a response to his recommendation that the Commission not include in the revenue requirement any funding for pilots that are burning Callback Days prior to retirement?

A: Yes, I do. While I am not an accountant, and cannot respond to his comments about how accrual based accounting would have addressed PSP's Callback liability, I do know that there is a material burden on PSP when the only way to move ships on time is through the use of off-duty pilots. Since at least the 1980s, and likely earlier, PSP has been left with the choice of delaying ships or calling pilots back from their days off

1 to move ships. Mr. Kermode says it was the pilots' choice to staff to average, but that
2 is actually incorrect because PSP does not have control over the number of licenses
3 issued. Pilots have more than once sought to have the Board of Pilotage
4 Commissioners make major adjustments to anticipated pilot workloads in order to
5 reduce the reliance on Callbacks. Each such attempt over the years had only limited
6 success, likely because it would have meant licensing more pilots and with it,
7 corresponding tariff increases that accompany funding additional pilots. The long-term
8 result was that there were always fewer pilots than were needed to move and a heavy
9 reliance on Callbacks. The Callback system has become a substitute for proper and
10 prudent staffing levels.

11 **Q: Mr. Kermode claims that the callbacks are funded at the time the ship is moved by**
12 **a pilot. What is your response to that testimony?**

13 A: I think Mr. Kermode has done a great job of trying to understand pilotage and how
14 Callbacks work, but I think there may have been a disconnect because the way pilot
15 associations work is so different from other regulated public service companies. I say
16 that because the fundamental disagreement Mr. Kermode has with PSP on this issue is
17 really related to the way pilot associations operate. For just about as long as pilots have
18 worked together through pilot associations, the associations served to pool expenses
19 and income, and rely on a rotation system to dispatch pilots to assignments. To my
20 knowledge, PSP has used that model of pilotage as long as it has existed. Pooling
21 income means that each pilot who stands watch during his or her on-duty period is paid
22 the same regardless of the number of assignments that each happens to work during that
23 time. Even if some pilots work more assignments due to the pattern of ship arrivals or
24
25

1 their administrative duties, the system is fair because each pilot works the same number
2 of days on watch.

3 Importantly, when a pilot agrees to work an additional day to move a ship that would
4 otherwise be delayed awaiting an on-duty pilot, additional labor is expended because
5 the pilot will still work every day of his or her watch period, but there is no additional
6 income to the association or to the pilot. It is true that the ship pays for pilotage service
7 at the time it is rendered as Mr. Kermode states. But that is not *additional* income.

8 Had the ship simply been left to wait for an on-duty pilot, the ship would still have paid
9 the same amount of money, and each pilot's share of pooled income would remain the
10 same.

11 **Q: If the pilot's income would be the same whether they agree to accept an additional**
12 **job or not, how does PSP entice pilots to accept Callback jobs?**

13 A: As I discussed in my initial testimony, when a pilot works an additional day, they earn a
14 Compensatory Day/Callback Day they can use later to take a day off work.

15 **Q: Why doesn't PSP just pay the pilot a bonus or additional days' distribution to**
16 **incentivize working additional days?**

17 A: Again, this is a function of working in a pilot association. If a ship is delayed and an
18 on-duty pilot works that assignment, everyone earns the same net income. If instead, a
19 pilot works a Callback job and gets paid an additional amount for working it, all other
20 pilots get paid less for their work because their share of the pooled net income is
21 reduced by the amount paid to the pilot who worked a Callback even though there
22 wasn't actually additional revenue to pay that pilot. That would be unfair to the pilots
23 who dutifully performed their share of work.

1 **Q: If that is true, what is different about letting the pilot take off an additional duty**
2 **day at a later time?**

3 A: I don't think it really is different. When that pilot works one fewer day on watch
4 because they used or burned a Callback Day, that pilot essentially gets paid for one
5 more day than was actually worked. The compensation that could have been paid when
6 the Callback job was worked is simply deferred to a later time, but in either case there
7 is a cost to PSP because the pilot receives additional compensation for that day's work.

8 **Q: Can you elaborate on that concept in terms of how PSP calculates a pilot's share**
9 **of net income?**

10 A: Yes. In fact, this is a concept that Capt. Moore has also confused. When discussing
11 "duty days" in the context of PSP's financial statements and By-Laws in Exhibit MM-
12 01Tr, pages 50 – 51, Capt. Moore claims that each duty day is a day that a pilot is on
13 PSP's roster. That is not accurate. A duty day in the context of PSP's distribution is
14 either a day a PSP member stood watch, or a day that pilot earned off by standing
15 watch, either in the form of a day of respite (days off-watch) or an ETO (earned time
16 off) day. For each day a pilot stands watch or earns off, they receive one day of
17 distribution. Thus if no pilots worked Callbacks, every pilot would work the same
18 number of days on average each month and share equally in the net income of the
19 Association.

20 When a pilot works an additional day in the form of a Callback, that pilot could in
21 theory have earned one additional "duty day" for purposes of distribution. In that case
22 that pilot would receive more revenue than pilots who didn't work additional days. In
23 actual practice that additional day of distribution is deferred and paid out when the
24 Callback Day is taken or burned.

1 **Q: Does taking a Callback Day reduce other pilots' compensation?**

2 A: Yes. When a pilot uses a Callback Day, that pilot is taking an additional day off that he
3 or she was scheduled to work. Were there no earned Callback Day for that pilot to use
4 and he or she took the day off anyway, then the pilot would be entitled to two fewer
5 distribution duty days (the day worked and its corresponding earned day off), and
6 would earn less while the other pilots who worked every day in their watch period
7 earned more. Because the pilot's use of a Callback Day entitles her to one additional
8 day on distribution, that pilot instead receives an equal share while the other pilots are
9 paid the same distribution even though they worked more. Thus, whether there is
10 additional distribution to the pilot when a Callback is earned, or there is additional
11 compensation when the Callback Day is used, a cost in the form of decreased
12 distribution to the other pilots exists.

13 **Q: Why then, does PSP claim that there is no cost to using Callback Days throughout**
14 **a pilot's career as opposed to when a pilot burns all of their accumulated Callback**
15 **Days prior to retirement?**

16 A: As far as I can tell, that's actually sort an understatement. The cost to PSP is the same
17 whether the Callback Day is taken during the year or burned prior to retirement. The
18 difference is in the level of burden on the Association in *absorbing* that cost. When
19 they are spread out throughout the year they have a less noticeable impact, and because
20 pilots still earn the same share of net income that way, it isn't as easy to notice the
21 additional payment. But when a pilot remains on distribution for as much as two years
22 while burning the significant number of Callback Days due to the present pilot
23 shortage, it results in an obvious decrease in the income and increase in the workload of
24 other pilots.

1 **Q: Please explain why PSP did not include in its revenue requirement the funding**
2 **required to pay out all accumulated Callback Days that will be taken during the**
3 **year, rather than just those used by pilots burning prior to retirement?**

4 A: There are a couple of reasons. The main reason is that the cost to PSP of a pilot using a
5 Callback Day cannot be calculated until it is used. When Callback Days have no
6 expiration date, there is no way to know precisely when they will be taken.

7 We understand that we can't ask for funding for a rate year expense that is not known
8 and measurable, and the same principle applies to Callback Days taken somewhat
9 randomly throughout the year. However, when a pilot must retire due to the mandatory
10 retirement age or informs PSP they are going to retire and start burning Callback Days,
11 the cost is known and measurable at that point and can then be included in the revenue
12 requirement. So we requested funding only for days we know will be taken.

13 **Q: What is the other reason you only requested funding for the Callback Days being**
14 **burned?**

15 A: The other reason is that there is precedent for funding additional pilots burning
16 Callback Days at the Board of Pilotage Commissioners as a compromise that permitted
17 the BPC to license fewer pilots and keep the tariff lower as a result.

18 **Q: Are there any records that demonstrate pilots burning Comp Days prior to**
19 **retirement were funded by the BPC?**

20 A: Yes. The Memorandum of Understanding between Polar Tankers, Puget Sound Pilots
21 and the Puget Sound Steamship Operators Association (which later merged with
22 PMSA) executed in 2001, which was filed as Exhibit WT-02, specifically agreed to
23 funding additional pilots in the form of "Compensatory Duty Days." The BPC set tariff
24 rates based on that agreement from 2001 to 2005.

1 **Q: Did PMSA ever propose funding of pilots burning Comp Days after 2005?**

2 A: Yes. In 2006, both PSP and PMSA's tariff submissions to the BPC sought funding for
3 pilots burning Comp Days. PMSA's tariff submission specifically approved of funding
4 1.2 pilots burning Comp Days. I am including PMSA's tariff submissions as Exh. IC-5.

5 **Q: Did the BPC ever fund pilots burning Callback Days after 2005?**

6 A: There is no way to know. Starting in 2006, the BPC stopped acknowledging the specific
7 factors considered in establishing pilotage rates, another example of the unfortunate
8 "black box" Mr. Kermode alluded to in his response testimony.

9 **Q: Mr. Kermode also suggests that funding pilots burning Callback Days would
10 represent a double payment. What response do you have to that testimony?**

11 A: I believe he is mistaken. As I discussed earlier, there was never additional revenue
12 representing the additional work performed, nor were rates set in a way that would
13 permit additional compensation in anticipation of pilots' additional workloads.

14 **Q: How could rates be set in a way to ensure there is compensation at the time the
15 additional work is performed?**

16 A: I believe that topic is covered by Dr. Khawaja and will not repeat his discussion here,
17 but I agree with his premise that determining the on-watch workload a pilot can work
18 and funding each Full Time Equivalent (FTE) as one pilot would finally result in
19 additional pay for the additional work each Callback represents.

20 **Q: Under Dr. Khawaja's revenue requirement methodology, would there be any cost
21 to PSP in funding a Callback either at the time it was worked or through a
22 deferred distribution?**

23 A: Again, I am not an accountant nor am I an economist but I believe there would be no
24 cost to PSP at that point. If there is additional funding in the revenue requirement in
25

1 anticipation of that Callback, paying the pilot for an additional day's work does not
2 reduce the income earned by other pilots. Every pilot would earn their DNI by working
3 the jobs expected of them during their on-duty period, and additional compensation
4 would be earned for the pilot's additional day's work..

5 **Q: Have you undertaken any efforts to evaluate the current Callback Day**
6 **accumulation to help demonstrate whether additional Callback funding actually**
7 **existed?**

8 A: Yes I have. We examined the average on-watch workload of pilots relative to the
9 Maximum Safe Assignment Level used by the BPC (now called the Target Assignment
10 Level) from 1995 to 2019. That information is included in Exh IC-27. It shows that a
11 significant portion of pilot's workload has long been performed while off-duty. Yet we
12 know the BPC never funded FTE workloads to ensure that additional work pilots
13 performed was compensated in the revenue requirement. In fact, the only additional
14 funding ever earmarked to compensate that additional work was in the form of funding
15 for pilots burning Callback Days prior to retirement. Thus we strongly dispute that
16 there is any double payment, and continue to seek funding for the historic accumulation
17 of Callback Days.

18 **Q: Based on your analysis of Callback Days, have you determined the percentage of**
19 **accumulated Callback Days that are ever actually "Burned" and thus would**
20 **require funding in the revenue requirement?**

21 A: Yes, actually. Looking at the average from 1995 to 2019, there are only 4.7% of the
22 total accumulation of Callback Days burned each year.

23 **Q: Is it correct then, that PSP is only seeking funding for approximately 4.7% of the**
24 **accumulated Callback liability each year?**

1 A: Yes, that is correct.

2 **Q: Mr. Kermode also states that PSP has not asked for recovery of any Callback**
3 **Days in the revenue requirement. Do you agree?**

4 Q: No. They were included in the revenue requirement.

5 **Q: How again does PSP propose that funding take place?**

6 A: The Callback Days that have been accumulated up to the date new rates would be
7 effective would continue to be funded as they were at the BPC. We added a known and
8 measurable number of additional pilots, representing those burning Callback Days prior
9 to retirement, to the revenue requirement calculation. See Exh. IC-2 for the calculation
10 of the number of additional pilots.

11 **Q: Would this funding apply to future Callback Days as well?**

12 A: Assuming the Commission approves funding of FTE pilots based upon their on-duty
13 workload, rather than their historic average workload, to ensure that there is present
14 funding for the off-watch work performed, those Callback Days would be classified one
15 way and all Callback Days earned after the effective date of the tariff would be treated
16 differently. To explain, we can call the old Callback Days "Class A," and all
17 Callbacks worked from the effective date of the tariff forward "Class B." Class A
18 Callbacks would be funded when they are burned. Class B Callbacks would not.

19 **Q: What is your reaction to Mr. Kermode's recommendation that no portion of the**
20 **Callback Day liability be funded?**

21 A: I am extremely disappointed that he takes that position. Pilots have put in herculean
22 efforts to move ships on time on time and on the ship's schedule throughout the years,
23 while sacrificing their family lives and time off at times to get the job done. That was
24 never required of them, and it was done reluctantly at times, but it was done

25

1 nonetheless because of the bargain struck. Pilots would put in more work than was
2 required, keeping rates lower for the shipping companies, and the limited reward for
3 that work would come in the form of funding when they burned Callback days prior to
4 retirement. If that funding never comes, it could become very difficult to convince
5 pilots to put in that extra work.

6 **IV. REBUTTAL OF CAPT. MICHAEL MOORE**

7 **Q: Have you had an opportunity to review the prefiled testimony of PMSA witness**
8 **Michael Moore?**

9 **A:** Yes, I have.

10 **Q: What are your overall impressions of his testimony?**

11 **A:** Put simply, through Capt. Moore's testimony, PMSA appears to want its members to
12 pay less for more work. While everyone would like to pay less and get more, PMSA's
13 positions do not treat historically funded expenses, agreements, or pilotage customary
14 work schedule with any due regard whatsoever. For example, PMSA wants to defund
15 the pension, claiming that pilots' individual retirement accounts, social security and
16 other income sources are more than enough. These are unreasonable arguments that he
17 has made more than once before. But he now claims that pension expenses should not
18 be funded because PMSA did not sign the pension agreement and is not a party to it. If
19 the shipper's express agreement to directly pay an expense were the only standard of
20 reasonableness, PMSA might have a point, but that is not the case. Moreover, he
21 plainly ignores the fact that historic funding of the pension, including an increase in its
22 benefits, were approved by the Puget Sound Steamship Operator's Association in 2001.
23 Capt. Moore was hired as the PSSOA Executive Director in 2002, and the PSSOA
24 signed off on tariff filings at the BPC that funded the pension in 2002 through 2004. In
25

1 2005, after PMSA and PSSOA merged, Capt. Moore signed PMSA's joint tariff filing
2 with PSP that continued to fund the pension. That long-term liability to PSP now
3 exists, as does the annual expense. For PMSA to now ask that the tariff not fund the
4 pension is outrageous and flies in the face of the floor speech given by the sponsor of
5 the very bill that moved the pilotage ratesetting authority to the Commission. ~~Senator~~
6 ~~and then~~ Then House Transportation Committee Chair Judy Clibborn, stood up in
7 support of the bill and explained that the legislature wanted the Commission to set rates
8 to ensure that PSP's pension would be funded.

9 **Q: And what is your reaction now to this apparent about-face by PMSA?**

10 A: PMSA also now argues against funding Callbacks when a pilot burns them prior to
11 retirement. Yet both Polar Tankers (then ARCO Marine) and PMSA supported funding
12 them when the BPC relied upon a clear ratesetting methodology up to and through
13 2005. Ever since the BPC stopped explicitly stating the basis of its ratesetting decisions,
14 PMSA has largely argued against licensing additional pilots at the Board of Pilotage
15 Commissioners because additional pilots require additional tariff funding. Now that an
16 unreasonably high number of Callback Days accumulated due to the chronic shortage
17 and overworking of pilots, PMSA asks this Commission to leave PSP holding the bag
18 on the accumulated liability. This treatment of PSP's expenses by PMSA is simply
19 arbitrary, unfair and unreasonable.

20 **Q: Did you have any other general comments about Capt. Moore's testimony?**

21 A: Yes, but primarily to keep my rebuttal testimony as brief as possible considering the
22 length and scope of his testimony, let me just say we dispute many of the concepts,
23 analyses and descriptions made by Capt. Moore throughout his testimony, but will not
24 address them all or in any level of detail. For example, although there are flaws in
25

1 many of Capt. Moore's calculations, "revenue per assignment" is not a concept that has
2 ever had an accepted basis in establishing pilotage rates and need not be addressed in
3 detail. In my experience, BPC Commissioners seemed most interested in knowing how
4 much pilots would earn. There is even a BPC rule, WAC 363-116-175, which requires
5 tariff submissions to the BPC to endeavor to fund the number of pilots. However, I
6 don't think it's necessary to respond fully to his analysis relating to that metric and its
7 shortcomings in this new setting. Similarly, we dispute the accuracy of many of Capt.
8 Moore's discussions of the correlations between various metrics, but rather than spend
9 time on these red herrings, I will attempt to focus on those points that we believe will
10 help the Commission adjudicate PSP's proposed tariff.

11 **A. The Number of Pilots**

12 **Q: Commencing on page 37 at line 3 of Exh. MM-1Tr, Capt. Moore discusses his**
13 **opinions of PSP's past requests to the Board of Pilotage Commissioners to change**
14 **the number of authorized pilots licenses. Do you have any comments on Capt.**
15 **Moore's opinions there?**

16 A: I do. I think Capt. Moore misunderstands what PSP is requesting in this proceeding.
17 His testimony relates to determinations by the Board of Pilotage Commissioners
18 regarding the number of authorized pilot licenses, which is not the same issue raised by
19 PSP in this proceeding.

20 **Q: What is different about what PSP is requesting in this proceeding?**

21 A: We understand that the UTC does not have authority to determine the number of
22 licensed pilots authorized and therefore are not requesting that the Commission
23 somehow adjust the number of actual pilots in any way. What we are requesting is that
24
25

1 the Commission establish a revenue requirement based on an FTE workload calculation
2 and a projected number of assignments offered by Dr. Khawaja.

3 **Q: Are there any reasons in your view that those two calculations should be treated**
4 **differently?**

5 A: Yes. For one, historically, the minimum number of pilots needed to safely move
6 vessels were all that were licensed by the Board of Pilotage Commissioners. That
7 standard clearly facilitated the problem of pilots having to work so many Callbacks.
8 While using minimal pilot staffing may have had its justifications such as the reduction
9 of the total cost of pilot benefits, it also meant that there were frequently an inadequate
10 number of on-duty pilots to move ships during above-average days. We believe that
11 the simplest way to address the difference between the number of actual pilots and the
12 number of pilots needed to move ships while on-duty is to fund FTE pilots rather than
13 actual pilots.

14 **Q: Do Capt. Moore's critiques fairly characterize PSP's requests to the BPC**
15 **regarding the number of licensed pilots?**

16 A: No. First, there is nothing inconsistent about requesting additional pilots under changed
17 circumstances. Sorely needed fatigue management rules were adopted by the BPC in
18 2018, so of course the request in 2019 would be different from the request in 2015.
19 Beyond that there are some statements Capt. Moore makes that lack context and create
20 a misleading impression of what actually happened in 2015. He claims that PSP
21 requested a decrease in working pilots down to 52 in 2015, a year with 7,795
22 assignments. The request was actually for 53 pilots, not 52. He also did not mention
23 that in 2014 there had been a drop in the number of assignments from 2013, and that the
24 trend was then expected to continue into 2015. Also conveniently omitted was that the
25

1 request was made in February of that year, before PSP had any clue that there would a
2 large number of assignments related to Shell Oil's Alaska drilling project in the fall,
3 raising the total assignments to 7,795 by year end.. Thus, there is no basis to Capt.
4 Moore's claim that that the request to decrease pilots was in any way based on 7,795
5 assignments. The reality is that an unexpected surge of assignments simply raised the
6 workload.

7 **Q: Capt. Moore next discusses various points about the workload of pilots from 2005**
8 **to 2019 commencing on page 37. What is your general responses to his testimony**
9 **regarding pilot workload?**

10 A: Capt. Moore appears to suggest that the current tariff generates sufficient revenue based
11 solely on the fact that if there were fewer pilots each would work a greater number of
12 assignments and thereby earn more net income. Overall, however, his analysis is
13 characteristically superficial and doesn't demonstrate why fewer FTE pilots are needed
14 to move ships. In fact, much of his discussion on historic workload peaks and the range
15 of pilot assignments ignores the total workload of pilots. A deeper understanding of the
16 work pilots perform demonstrates that Capt. Moore's testimony is generally unhelpful.

17 **Q: On page 38 39, Capt. Moore observes that pilots handled a significantly higher**
18 **workload in 2005 to 2008 than they do now. What is your response to his use of**
19 **those years to discuss peak pilot workloads?**

20 A: Because he is ordinarily a safety-oriented person, I am quite surprised that Capt. Moore
21 implies that those years are demonstrative of acceptable or safe workloads for 2020 and
22 beyond. Moreover, his discussion of those years treats them as if they were just any
23 other year, which is interesting because he is well aware that in those years there was a
24
25

1 severe pilot shortage. In fact, at the time, Capt. Moore well understood they
2 represented an anomaly and were unhelpful in determining the number of pilots.

3 **Q: Is there any evidence of Capt. Moore's acknowledgement?**

4 A: Yes. The "Joint Presentation of PSP and PMSA/Polar on the Target Number of Pilots
5 to be set under WAC 363-116-065" filed with the BPC in October 2006, which Capt.
6 Moore signed, stated: "[f]or all of 2005 and thus far into 2006, Puget Sound has
7 experienced a pilot shortage as a result of increases in assignments and, until July of
8 this year, a declining number of pilots. This has required a higher assignment load and
9 call back usage along with some pilot availability delays. Pilot availability was further
10 aggravated by pilot health issues. As a result, the job data from these two years is
11 skewed and does not provide the reliable base of data that should be available to all
12 parties if the board is to examine workload level in detail." Exh. IC-7.

13 **Q: For what reason was that period of time recognized to be one of a "severe pilot
14 shortage"?**

15 A: There were a number of vessel delays at the time due to a number of pilot retirements
16 and the inability to license new pilots quickly enough to replace them.

17 **Q: Did the BPC also acknowledge there to be a severe pilot shortage?**

18 A: Yes, in fact the BPC issued an emergency declaration in August 2005. After receiving
19 comments from a variety of people, including Capt. Moore, who supported the
20 expediting of the pilotage examination in order to minimize shipping delays, the Board
21 of Pilotage Commissioners issued the emergency declaration and accelerated the next
22 pilotage exam in order to license new pilots as quickly as possible. I am including the
23 BPC minutes for August meeting at which the Emergency Declaration was adopted as
24 Exh. IC-8.

1 **Q: Are there any records to demonstrate how many delays were occurring in that**
2 **time period?**

3 A: PSP records on the number of delays in that time period are somewhat sparse, but we
4 were able to locate references in the BPC minutes for September 2005, and March and
5 April 2006, which I am including as Exh. IC-89(a)-(c). These reflect that there were 9
6 vessels delayed for 16 total hours awaiting a rested pilot in August 2005, and in March
7 and April 2006 there were 35 hours of vessel delays and 33 hours of delays,
8 respectively. No other delays were documented in BPC minutes in 2005 or 2006.

9 **Q: How do the number and hours of delay during the severe pilot shortage compare**
10 **to the vessel delays due to the lack of rested pilots in 2018 and 2019?**

11 A: We have had a significantly higher number of delays in 2018 and 2019 than are
12 documented in 2005 and 2006. In 2018 there were 71 delays for a total of 257 hours.
13 In 2019 there were 99 delays for a total of 273.6 hours. Comparing month-to-month, in
14 August 2018 there were 23 vessels delayed awaiting a rested pilot for a total of 99
15 hours, which is 14 more delays and 83 more hours than in August 2005. March 2019
16 had 5 vessel delays for a total of 5 hours and April 2019 had 4 delays for a total of 17.5
17 hours.

18 **Q: Were pilots working an increased number of Callbacks to keep ships moving**
19 **during the severe pilot shortage that the BPC was so concerned about?**

20 A: Yes. In fact, pilots worked far more Callbacks in the period of 2005 to 2008 than we
21 did in years before or immediately after. Based on PSP's records, the following are the
22 annual number of assignments, Callbacks, and average number of pilots for the years
23 2002– 2010:
24
25

Year	Assignments	Callbacks	Total Pilots
2002	7241	283	52.6
2003	7338	443	50.5
2004	7604	494	50.8
2005	8260	852	50.9
2006	8372	1033	52.8
2007	8315	967	53.7
2008	8173	670	54.2
2009	7669	340	55.6
2010	7339	165	55.4

1
2
3
4
5
6
7 **Q: How do the number of Callbacks that were worked by PSP during the BPC's**
8 **declared pilot shortage emergency compare to the number of Callbacks being**
9 **worked now?**

10 **A:** There were far more Callbacks worked in 2018 and 2019 than were worked during
11 2005 to 2008. I am including the same data points for 2018 and 2019 for comparison:

Year	Assignments	Callbacks	Total Pilots
2018	7325	1384	50.3
2019	7000	1377	49.9

12
13
14
15 As you can see, not only were the total number of Callbacks greater than during the
16 period of time the BPC had declared to be a pilot shortage emergency, the percentage of
17 all assignments that had to be performed by an off-duty pilot were also higher in 2018
18 and 2019 than during 2005 to 2008.

19 **Q: Have there been any changes to PSP's watch schedule since 2005?**

20 **A:** Yes. We currently work three additional duty days that were not part of our work
21 schedule in 2005. When cruise ship traffic started increasing we added what we call
22 Peak Period Work ("PPW") days to the watch schedule. These are three additional
23 days each pilot works on days with cruise ship traffic to alleviate the number of
24 Callbacks required during traffic peaks. PSP initially provided "PPW payback" by
25

1 which use of PPW days during peaks was offset by three additional days off during
2 winter months. However, we subsequently eliminated PPW payback.

3 **Q: Are you saying there are more duty days each pilot works now than in 2005, but**
4 **pilots are working even more Callbacks?**

5 A: Yes.

6 **Q: What significance does it then have that there are still significant vessel delays in**
7 **2018 and 2019?**

8 A: It shows that PSP has been operating in severe pilot shortage for the past two years.

9 **Q: On page 47 44 of Exhibit MM-01Tr, Capt. Moore claims that pilots work uneven**
10 **workloads based on the number of assignments performed by different pilots.**
11 **Does that testimony take into consideration the number of days each pilot spends**
12 **in rotation?**

13 A: No, he doesn't recognize the watch schedule at all in his discussion of pilot
14 assignments.

15 **Q: What importance does the watch schedule have to pilots' work?**

16 A: As I believe I explained in my discussion of Mr. Kermode's recommendation on
17 funding Callback liability, the watch schedule is the pilots' work schedule. When a
18 pilot is on-duty, also known as "on watch" or "in rotation", he or she is working and is
19 on-call 24/7 and will have unknown variations between night assignments or day
20 assignments throughout their watch period. Even if the pilot has not received a vessel
21 assignment from dispatch, it is not as if that is time off. The pilot must be available
22 from home to be dispatched to anywhere in the entire Puget Sound pilotage district, or
23 at the Pilot Station on standby, and must be able to obtain the necessary rest whether
24 during the day or at night in order to be rested for an assignment. With constantly
25

1 changing ship schedules and surges during certain times of day, that call can come at
2 any time. Thus, every single one of our 181 duty days per year is a 24 hour work day.
3 When pilots are off-duty, that is supposed to be our own time; the time in which we can
4 spend time with our families and rest. That is not time during which pilots should be
5 mandated to accept assignments as Capt. Moore suggests.

6 **Q: When you use the term “on-duty,” how is that different from “on-watch”?**

7 A: These terms have the same meaning in the context of pilots’ work schedules. The term
8 “in rotation” is another synonym for “on watch.”

9 **Q: Do you have any idea then why Capt. Moore uses PSP’s By-Laws and Financial**
10 **Statement to redefine “on duty” as every day of the year in Exhibit MM-01Tr, p.**
11 **54—5550-51?**

12 A: I can’t speak for Capt. Moore’s intentions in using a term that has nothing to do with
13 the days pilots are scheduled to work. I assume he actually understood that none of
14 PSP’s references to a pilot being “on-duty” in prefiled testimony had anything to do
15 with the definition in PSP’s By-laws, which is used solely to calculate a pilot’s share of
16 net income.

17 **Q: Why do you make that assumption?**

18 A: PMSA used the word “duty” or “duty period” repeatedly in data requests to PSP when
19 asking about the number of pilots available to move ships during the on-duty period of
20 their watch schedule. If he really believed that pilots are on-duty 365 days a year, what
21 would have been the point of any of those data requests?

22 **Q: Do you have any examples of where PMSA used those terms in their data**
23 **requests?**

1 A: There are quite a few. For example, PMSA seeks information relating to on-duty pilots
2 in PMSA Data Requests No. 32, 82, 84, 86, 88, 90, 93, 96, 102, 111, 115, and 124,
3 which I am including as Exh. IC-10. We also pointed out how pilots on-duty and off-
4 duty are treated in our Operating Rules in response to PMSA Data Request No. 83,
5 which I am including as Exh. IC-11, so he had to have known that the definition used in
6 PSP's By-laws addressed an issue completely unrelated to scheduled work days.

7 **Q: What is the effect of Capt. Moore's use of the term "duty day" as defined in PSP's**
8 **By-laws when assessing the percentage of duty days a pilot performs an revenue-**
9 **generating assignment?**

10 A: It has the effect of distorting and in fact minimizing pilot workload by determining the
11 percentage of days a pilot is assigned to a vessel move from a much larger number of
12 days. When defining "duty days" in the way Capt. Moore does, there are 365 duty days
13 in a year (leap-years excluded, of course). But that is not the number of days pilot are
14 scheduled to work. Our long-standing watch schedule results in an average of 181 days
15 in a year that pilots are scheduled to work or are "on duty."

16 **Q: On p. 44, lines 17-21, Capt. Moore claims that the watch schedule is inefficient and**
17 **results in an outcome which allows most pilots to be flexible and maximize their**
18 **time not working. What is your response to that comment?**

19 A: The watch schedule is actually quite inflexible. I mentioned above that pilot
20 associations pool expenses and revenue, and work a watch schedule. While on-watch,
21 we work in a strict rotation system, whereby the first rested pilot is dispatched to the
22 next job as it becomes available. With few exceptions, when it is the pilot's turn to be
23 dispatched, he or she must accept an assignment or face a financial penalty from the
24 association.

1 **Q: Beyond tradition, is there any legal reason pilot associations operate that way?**

2 A: Yes. The U.S. Supreme Court determined that neither the association nor its member
3 pilots are liable for the acts of an individual pilot when we work through a pilot
4 association and dispatch pilots on a strict rotation system. *Guy v. Donald*, 203 US 399,
5 27 S Ct 63, 51 L Ed 245 (1906). Pilot associations have long conformed to that model
6 as a result.

7 **Q: If you work the same number of days and follow a rotation system, then why do**
8 **some pilots work more assignments than others?**

9 A: The primary difference is that pilots who worked more assignments accepted more
10 Callbacks. Other pilots, like me, have fewer vessel assignments because of our
11 administrative duties to PSP or to the BPC. If I am assigned to be working in the office
12 all day, I can't also move a ship without first obtaining rest.

13 **Q: Does Capt. Moore offer any other testimony that you believe distorted his analysis**
14 **of pilot workloads?**

15 A: Yes, Capt. Moore's testimony about Bridge Hours similarly minimizes the number of
16 hours pilots work.

17 **Q: What are Bridge Hours?**

18 A: Bridge Hours are a measure of the amount of time a pilot spends aboard a vessel while
19 completing an assignment.

20 **Q: Are Bridge Hours a fair assessment the amount of time a pilot spends performing**
21 **vessel assignments when it comes to assessing pilot workloads of Puget Sound**
22 **Pilots?**

23 A: Not at all.

24 **Q: Why is that?**

1 A: Due to the size of the Puget Sound pilotage district, the distances pilots must travel to
2 and from assignments consumes a significant portion of time. Pilots also need time to
3 prepare for an assignment after receiving a call from dispatch. Both of those aspects
4 are requisite to pilot assignments, but neither are factored into Bridge Hours.

5 **Q: Does the Board of Pilotage Commissioners recognize preparation and travel time**
6 **as part of an assignment?**

7 A: Yes it does. The BPC's Policy Statement adopted on April 16, 2015, defines an
8 "Assignment" and provides further "For purposes of work allocation, an assignment is
9 considered to commence when a pilot is assigned a vessel and concludes upon the
10 pilot's arrival at the pilot station on an outbound assignment or upon the completion of
11 travel for an inbound assignment (or upon Cancellation). I am including the BPC
12 Policy Statement as Exh. IC-12.

13 **Q: If PMSA's suggestion that only Bridge Time should be considered in a pilot's**
14 **workload, would a pilot always be able to obtain his or her mandatory rest**
15 **between assignments?**

16 A: Absolutely not. The mandatory rest rules require a 10 hour rest period with an
17 opportunity for 8 hours of uninterrupted sleep. Under Capt. Moore's Bridge Time
18 metric, a pilot would have only two total hours during that rest period to exit the ship,
19 travel home, obtain rest and eat, and then after obtaining some rest, prepare and travel
20 to their next assignment.

21 **Q: What is the actual number of hours that pilots work during the average**
22 **assignment?**

23 A: The average assignment time in 2019 was 9.2 hours, which includes time spent on
24 assignments that ultimately cancelled.

1 **Q: Are there any problems then, with Capt. Moore's claim in Exhibit MM-01Tr p.**
2 **4340, line 25 to page 44, line 2 lines 15 – 17 that pilots work only 699 hours per**
3 **year and do not work 672.25 hours out of each month?**

4 A: Yes. First, Capt. Moore's distorted, cherry-picked Bridge Hours suggest pilots spend
5 less time moving ships than we actually do. Additionally, Capt. Moore's average
6 number of hours per month literally include 24 hours per day for every day of the
7 month. He seems to suggest that pilots should be available to work 24 hours a day for
8 every day of the month. We obviously have to obtain rest, we have a watch schedule,
9 and we use a rotation system, so pilots are not available to work 730.5 hours a month in
10 the first place.

11 **Q: Are there any other components of pilots' work not addressed by Capt. Moore?**

12 A: There are quite a few, in fact. Assignment time is only one component of the work
13 pilots perform. We actually have quite a few other work responsibilities. There are
14 two pilots who serve as Commissioners at the Board of Pilotage Commissioners with
15 responsibilities to the Board, there are pilots who serve on BPC committees, as well as
16 meetings that pilots attend throughout the year. Pilots must also spend time performing
17 training, upgrade trips, drug testing, and repos. Bridge Hours do not include any of
18 these time intervals that all have an impact on pilot workload.

19 **Q: What type of meetings do pilots attend?**

20 A: There is an array of meetings, which can be grouped into three categories: (1) safety
21 and environment, (2) Board of Pilotage Commissioners, and (3) meetings to serve the
22 administrative functions and continued operations of PSP.

23 **Q: Please supply some examples.**

1 A: Past safety and environmental meetings have included the SRKW Task Force meeting
2 regarding Orcas, the AMSC meeting on emergency and disaster preparation, meetings
3 with the Army Corp of Engineers on waterway issues, Harbor Safety Committee
4 meetings, Safe Practices Committee meetings, and others. More recently, PSP
5 members have participated in meetings related to personal protection during the
6 ongoing COVID-19 pandemic in order to ensure that pilots remain healthy so that ships
7 carrying vital cargo can continue to move.

8 BPC meetings include trainee orientation, regular meetings, assisting the BPC develop
9 exams and with implementation, Exam Committee meetings, Fatigue Management
10 Committee Meetings, Safety Committee Meetings, simulator evaluations, and TEC
11 Committee meetings, among others.

12 PSP meetings include monthly board meetings, which are scheduled on our “change
13 day” to minimize impacts on pilot availability), as well as general membership
14 meetings and meetings for a number of PSP committees (our Tariff Committee and
15 Work Rules Committee, Reference manual Committee, to name a few).

16 **Q: Do pilots attend these meetings both during their watch period and during their
17 time off?**

18 A: Yes, we do. Many meetings pilots attend are not scheduled by PSP, thus outside of our
19 control, and the pilots whose presence is needed will attend regardless of whether the
20 meeting occurs while the pilot is in rotation or out of rotation. The same can be true of
21 pilot training/continuing education, though training is generally scheduled at times
22 when pilots are off watch and outside of peak season.

23 **Q: Has the BPC recognized those time intervals in any way in the context of
24 establishing the number of authorized pilot licenses?**

1 A: I believe it does. The rule setting forth the factors the Board considers in setting the
2 number of pilots, WAC 363-116-065, includes assignment preparation, administrative
3 responsibilities, continuing education and training, as well as surface transportation and
4 travel time consumed in pilots getting to and from assignments. These factors were
5 considered in 2010 when the Board of Pilotage Commissioners last established a Target
6 Assignment Level, and when PSP asked for a reduction in the Target Assignment
7 Level, the Board voted in July 2019 to have its Fatigue Management Committee
8 (“FMC”) study total pilot workload and make recommendations based on that study.

9 **Q: Capt. Moore claims that at that same meeting the BPC “reaffirmed in July 2019**
10 **that the Target Assignment Level is 145.” Is that accurate?**

11 A: No. I think what he meant to say is that a motion to lower the TAL to 127 failed after
12 the BPC had already voted unanimously to have its Fatigue Management Committee
13 look at the definition of an assignment, target assignment level and workload, taking
14 into consideration the remaining recommendations from fatigue management experts,
15 Dr. Charles Czeisler and Dr. Erin Flynn-Evans. Exh. IC-13, p. 11.

16 **Q: Is there any reason to believe the BPC was no longer using 145 as a target**
17 **workload for pilots at that point?**

18 A: I believe so. The BPC approved 56 pilots at a time when there had been roughly 7,100
19 assignments in the previous 12 months. If there actually were 56 pilots performing
20 7,100 assignments, that would work out to 126 assignments per pilot.

21 **Q: What do you believe is the relevance of Capt. Moore’s exclusion of other factors**
22 **like repos, meetings and training in his discussion of pilot workload?**

1 A: Again, it shows that his analysis is far from complete. How can anyone reach
2 conclusions about whether pilots have a greater capacity for handling assignments if
3 you don't consider all of the work each pilot performs?

4 **Q: Have you performed any of your own analyses on total pilot work to assist the**
5 **Commission in understanding pilots' actual workloads?**

6 A: Yes. I analyzed PSP's job history data for 2018 and 2019 to analyze the annual
7 workload performed by pilots who worked the entire year. My analysis looked at the
8 total assignment time pilots spend moving ships, as well as the time spent in meetings,
9 repositioning, training and on standby at the pilot station. A summary of that analysis
10 is being filed as Exh. IC-14.

11 **Q: Did you include the President or Vice President in your analysis and summary?**

12 A: No. Our dispatch system does not track the days or hours spent by the President and
13 does not accurately track the administrative hours spent by the Vice President and there
14 is no way to accurately reconstruct that time.

15 **Q: Did your analysis confirm Capt. Moore's testimony that pilots averaged only 699**
16 **hours of bridge time in 2019?**

17 A: No. When excluding pilots who worked only part of the year, the average total bridge
18 time per pilot in 2019 was 786 and the median was 776.

19 **Q: Did you calculate assignment time using the BPC's definition of "Assignment"?**

20 A: Yes, the average of total assignment time, as well as a breakdown of that time spent by
21 pilots during their watch period and the time spent performing Callbacks is shown in
22 the table below:
23
24
25

Average Assignment Time By Year	2018	2019
On-Watch Assignment Time	1145:38	1141:14
Off-Watch Assignment Time	299:19	278:46
Total Assignment Time Per Pilot	1444:58	1420:00

1
2
3
4 **Q: What percentage of the average total assignment time do the average Bridge**
5 **Hours represent?**

6 A: For 2019, Bridge Hours accounted for just 55% of total assignment time.

7 **Q: Please summarize the other work periods performed by pilots.**

8 A: As I mentioned earlier, the primary groupings of pilot work are meetings, trainings,
9 repos and standby time at the Pilot Station. For 2018 and 2019, the total average time
10 spent by a pilot in each of those categories is reflected in the table below:

Average Time Per Pilot	2018	2019
Total Assignment Time	1444:58	1420:00
Total Repositioning Time	158:49	139:42
Total Meeting Time	69:29	64:43
Total Training Time	78:27	37:38
Total Pilot Station Standby Time	851:26	940:43
Total Work Time Per Pilot	2603:09	2602:48

11
12
13
14
15
16 **Q: What percentage of the total work time do the Bridge Hours Represent?**

17 A: Bridge Hours represent just 30% of the total time spent by pilots in 2018 and 2019.

18 **Q: Did you also analyze the number of hours spent by pilots working while off-duty?**

19 A: I did. In order to give the Commission a better understanding of the amount of work
20 pilot performs while in their watch period, I broke out the time spent by pilots into their
21 on-watch period and off-watch period. That breakdown is shown in the following
22 table:

Average Time Per Pilot	2018		2019	
	On-Watch	Off-Watch	On-Watch	Off-Watch
Assignment Time	1145:38	299:19	1141:14	278:46
Repositioning Time	118:35	40:13	115:21	24:21
Meeting Time	46:01	23:27	37:50	26:53
Training Time	43:14	35:12	16:25	21:12
Pilot Station Standby	785:32	65:53	863:58	76:45
Total	2139:02	464:07	2174:50	427:58

1
2
3
4
5 **Q: Based on this breakdown of pilots' on-duty work, should the Commission be able**
6 **to reach any conclusions regarding the amount of work performed by pilots**
7 **during their watch periods?**

8 A: One conclusion they should be able to reach is pilots spend an inordinate amount of
9 time working. During their 181 days on-duty, Pilots were engaged in their duties as a
10 pilot an average of 11.8 hours per day in 2018, and 12 hours a day in 2019. Not
11 including time spent performing Callbacks, pilots also spend a significant number of
12 off-duty hours attending meetings and training.

13 **Q: In the context of workload and pilot net income, Capt. Moore also discusses a**
14 **range of incomes pilots could have theoretically earned, commencing on p. 4644 of**
15 **Exhibit MM-01Tr. Are you familiar with that testimony?**

16 A: Yes.

17 **Q: There, Capt. Moore discusses the range of assignments performed by Puget Sound**
18 **Pilots and suggested that pilots each have the capacity to safely work 222**
19 **assignments per year. Do you have any comments on that suggestion?**

20 A: I do. First, it is impossible to understand the workload capacity of pilots by cherry-
21 picking the results. While it is true a pilot worked 222 assignments in 2018, that
22 particular pilot was not involved in administrative functions of PSP or assisting the
23 BPC in 2018, had only 5 hours of continuing education or training, and 63 of those
24 assignments were Callbacks.

1 **Q: Did the pilots with fewest assignments in 2018 identified by Capt. Moore have**
2 **significant other work responsibilities?**

3 A: Yes, they did. Capt. Moore's exhibits demonstrate that he included both the PSP Vice
4 President and one of the BPC Commissioners in that calculation. We both have
5 significant responsibilities as pilots that do not involve moving ships. I also examined
6 the workloads of the other two pilots Capt. Moore included and found they were also
7 engaged in extensive administrative work, including but not limited to assisting the
8 BPC with pilotage exams, working with PSP's Reference Manual Committee to
9 establish least depth in waterways for all waterways in Puget Sound, trainee orientation,
10 trainings and other work responsibilities. As a result, they spent a significant number of
11 hours that are completely discounted by Capt. Moore's analysis. Those hours are
12 reflected in the table below:

2018	Assign. Time	Meet. Time	Train. Time	Repo Time	Pilot Station Standby	Total Work Time
Pilot 1 - On Watch	966:25	21:08	350:03	156:00	617:25	2111:01
Pilot 1 - Off Watch	143:56	9:45	20:49	51:00	32:35	258:05
Total	1110:21	30:53	370:52	207:00	650:00	2369:06
Pilot 2 - On Watch	882:19	24:15	329:29	204:30	499:09	1939:42
Pilot 2 - Off Watch	378:58	9:00	0:00	48:00	45:47	481:45
Total	1261:17	33:15	329:29	252:30	544:56	2421:27
2019	Assign. Time	Meet. Time	Train. Time	Repo Time	Pilot Station Standby	Total Work Time
Pilot 1 - On Watch	1224:21	3:00	43:08	114:00	789:24	2173:53
Pilot 1 - Off Watch	167:45	0:00	48:52	33:30	29:59	280:06
Total	1392:06	3:00	92:00	147:30	819:23	2453:59

Pilot 2 - On Watch	1163:46	9:55	0:00	101:55	718:51	1994:27
Pilot 2 - Off Watch	335:24	5:46	0:00	54:00	77:03	472:13
Total	1499:10	15:41	0:00	155:55	795:54	2466:40

1
2
3
4 **Q: How do the total workloads of those pilots compare to the average workload of the**
5 **other pilots you studied?**

6 A: Neither were much below the mean or median total workload of other pilots. As
7 indicated in my testimony above, the average for all pilots in 2018 and 2019 was 2603
8 hours. Both of these pilots were within 10% of the average total workload for pilots in
9 both 2018 and 2019.

10 **Q: Do you agree with Capt. Moore’s statements that “there is also a harder-working**
11 **segment of the pilotage corps that steps up to do more than their allotted share of**
12 **work.” while “others are allowed to sit back, get paid, and watch others do large**
13 **portions of the work...” MM-1Tr, p. 64 – 65.**

14 A: No, and I find that rather disparaging statement demonstrates a complete
15 misunderstanding of pilots’ overall workload. Some pilots have fewer obligations than
16 others outside of moving vessels and accept more Callbacks when off-watch, but the
17 notion that pilots are sitting back and doing nothing while watching others work is way
18 off base.

19 **Q: On page 47 of Exhibit MM-1Tr, Capt. Moore states that all of 2018’s 7,324**
20 **assignments could have been performed if PSP actually had only 33 pilots.**

21 **Q: Could 33 pilots have actually completed the workload required of all pilots in**
22 **2018?**

23 A: That would be literally impossible.

24 **Q: How do you know?**

A: It only takes a very simple analysis to make that determination. Using the data I compiled for the pilots who worked the full 12 months of 2018, I totaled their assignment time reposition time and pilot station standby time and divided the totals by 33 to get the average total hours per pilot that would have been worked to complete the workload with 33 pilots. The result demonstrates it would be physically impossible for 33 pilots to complete the workload of PSP.

Total Time Per Task	2018	2019	Formula
Assignment Time (Tot. Hrs.)	110214:24 57,798:40	104077:56 52,415:44	
Repositions (Tot. Hrs.)	11531:00 6,352:46	10982:30 5,178:14	
Pilot Stat. Standby (Tot. Hrs.)	68817:44 34,057:39	65453:53 34,760:05	
Total	57168940:00 98,209:05	55159176:40 92,354:03	
Average if 33 Pilots	5774:38 2,976:01	5470:07 2,798:36	<i>Total ÷ 33</i>
Aver. Per Duty Day Per 33 Pilots	31:54 16:26	30:13 15:27	<i>Average ÷ 181</i>
Hours Per Day Working 24/7/365	15:49 8:09	14:59 7:40	<i>Average ÷ 365</i>

Q: Are you saying that if just 33 pilots did the workload of those pilots who worked the entire year, each would have to work 15 8 hours every single day for 365 days a year?

A: No. It would actually be more work than that. This excludes meetings and training, some of which would be redundant with fewer pilots and therefore can't be neatly averaged. But that it is an estimate of the minimum level of work that would be required to cover the ship moves with 33 only pilots.

1 **Q: If there had been only 33 pilots in 2018, would there be any additional vessel**
2 **delays?**

3 A: I believe the number of additional delays that would occur would be alarmingly high.

4 **Q: Are you able to quantify the additional delays that would occur?**

5 A: Not precisely, but we can determine how many vessel movements, repositions (repos),
6 upgrade tips, meetings and trainings occurred each day and we know how about how
7 many pilots would stand watch most days if there were only 33 pilots. Using the
8 number of watch-standing pilots it should be fairly easy to determine that 33 is not an
9 adequate number of pilots.

10 **Q: Will you explain how many pilots would stand watch at one time if there were only**
11 **33 licensed pilots?**

12 A: Of course. PSP divides all of its members into 11 watch groups, with close to the same
13 number of pilots in each group. Thus, if there were 33 pilots, there would likely be
14 about 3 pilots in each watch group. At any one time (other than change days) we have
15 four watch groups on duty. Therefore, if there were only 33 pilots, there would be only
16 12 pilots on duty, except on change day when there would be twice that number.

17 **Q: If there were only 12 pilots on-watch at a time, would there be a sufficient number**
18 **of pilots to move ships on an average day?**

19 A: No. For example, in 2018 there was an average of 20 assignments per day. In 2019,
20 there were just over 19 assignments per day on average. If there were only 12 pilots on
21 watch, on average the dispatchers would need to find 7-8 pilots to volunteer to come
22 back from their time off every day.

23 **Q: But do vessel assignments occur in averages?**
24
25

1 A: No. They come in surges or waves, both in terms of the days on which they occur, and
2 the times of day at which vessels arrive.

3 **Q: Based on actual vessel assignments, can you quantify the number of days on which**
4 **12 on-watch pilots would be inadequate to cover the number of assignments?**

5 A: Yes. In the same year discussed by Capt. Moore, 2018, there were 337 days with 13 or
6 more assignments, so assuming every pilot was rested and healthy, there were only 28
7 days in the year that the 12 on-duty pilots could conceivably have covered all
8 assignments (assuming all are rested following their previous assignment).

9 **Q: Are vessel assignments the only pilot work that would impact PSP's capacity to**
10 **cover vessel assignments?**

11 A: No, as I addressed above, pilots have other significant work responsibilities beyond
12 revenue-generating assignments.

13 **Q: If you include all work performed by pilots, what is the average number of tasks**
14 **per day?**

15 A: When NASA and San Jose State University Research Foundation performed a pilot
16 fatigue study for PSP based on 2018 data, which I am including as Exh. IC-15, they
17 studied total pilot workload. After consolidating multiple harbor shifts performed by a
18 single pilot into one assignment, they calculated the average number of work shifts
19 performed each day at 25.3. Exh. IC-15, p. 20.

20 **Q: What were the minimum and maximum number of work tasks in one day that**
21 **NASA found?**

22 A: NASA reported that there were a minimum of 8 work tasks, and a maximum of 47
23 work tasks.

1 **Q: If PSP had 47 work tasks on a single day, with only 33 pilots licensed, would it be**
2 **possible to move all of the ships without delays?**

3 A: Even if all 33 pilots were “on duty” it would not even be close. If there were only 33
4 pilots, a significant number of them would have mandatory rest periods on the day with
5 47 work tasks making them unavailable for duty until rest was obtained. In that
6 scenario I would expect a significant number of delays.

7 **Q: Is there a convenient way for the Commission to better understand the erratic**
8 **peaks and total workload of pilots that demonstrate why PSP could never operate**
9 **with just 33 pilots?**

10 A: Yes, the NASA fatigue report includes discussions of the PSP’s workload, including a
11 histogram showing the daily work peaks that occurred in 2018.

12 **B. Funding of Pilots Burning Callbacks Prior to Retirement**

13 **Q: Did you have an opportunity to review Capt. Moore’s testimony regarding the**
14 **funding of Callbacks?**

15 A: Yes, I did.

16 **Q: Do you have any general responses to Capt. Moore’s claim that permitting a pilot**
17 **to receive a Callback Day in exchange for working a day while off duty is illogical?**

18 A: Yes. While his positions and statements are generally difficult to follow, he seems to
19 suggest that Callbacks are a fiction because he believes that pilots are required by law
20 to work every day of the year so long as mandatory rest requirements have been met. I
21 disagree that pilots are compelled to accept assignments when off duty, and there is a
22 very good reason why pilots receive an additional day off (the Callback Day) in
23 exchange for working an extra day.

24 **Q: What leads you to that impression of his testimony?**
25

1 A: A couple of things. First, in Exhibit MM-1Tr on page 62-63, he states “Whether PSP
2 agrees with the number of pilot licenses which are granted by the State of Washington
3 or not, so long as there are no violations of the fatigue rest rule limitations on the pilots’
4 collective ability to provide services to vessels, pilots are compelled to provide such
5 service.” Second, in order to better understand his testimony on the subject, PSP asked
6 through a data request (PSP Data Request No. 176) if it was PMSA’s contention that
7 compulsory pilotage required individual pilots to accept assignments when they are out
8 of rotation or “off watch.” Capt. Moore provided a response, which I am including as
9 Exh. IC-16 that is quite long, but concludes “Therefore, no, it is not the condition of
10 compulsory pilotage which compels any pilot to work on or off of an efficient or
11 inefficient watchstanding schedule, but depending upon the adequacy of the
12 watchstanding schedule and management of pilot availability, a pilot may be compelled
13 to work off-watch.”

14 **Q: Have pilots in Washington been historically compelled to accept assignments while**
15 **off watch?**

16 A: No.

17 **Q: Are there any BPC rules of which you are aware that require pilots to accept**
18 **assignments when off-duty?**

19 A: No.

20 **Q: How long has Puget Sound Pilots relied upon a watch schedule?**

21 A: In my understanding, PSP has had a watch schedule as long as pilotage has existed in
22 Washington.

23 **Q: In your knowledge, has PSP or the BPC ever required pilots to come back to work**
24 **while off-watch to accept additional assignments?**

1 A: No. It has always been a system that requires the dispatchers to find pilots willing to
2 come back from their time off.

3 **C. Trends in Callbacks**

4 **Q: Next, I would like to ask you some questions about Capt. Moore's discussion of**
5 **Callback trends.**

6 **Q: Capt. Moore claims that there is no reduction in Callbacks when pilots are added**
7 **(MM-1Tr p. 66). Is that logical?**

8 A: No. Callbacks increase as the workload per pilot increases because pilots have a finite
9 capacity for on-duty work based upon the watch schedule and rest rules. If the number
10 of assignments increases while the number of pilots remains stable, the workload per
11 pilot increases, and results in increased Callbacks. If the number of assignments
12 remains stable while pilots are added, the workload per pilot decreases and Callbacks
13 are reduced. The only way Callbacks would not decrease when pilots are added is if
14 the number of assignments also increases.

15 **Q: Do you agree that Callbacks as a percentage of all assignments have grown over**
16 **time?**

17 A: Yes, and it is true that they have grown even when assignments have decreased. But
18 Capt. Moore didn't attempt to explain why that might be the case.

19 **Q: Are there any possible explanations for an increase in Callbacks as a percentage of**
20 **assignments that Capt. Moore left out of that discussion?**

21 A: Yes. There are at least a couple. One relates to the pilot shortage under which we've
22 been operating since the beginning of 2018. That shortage increased the workload on
23 pilots. The other is connected to changes in rest rules, which naturally limit on-watch
24 pilot workloads. Capt. Moore's Figure BB actually seems to highlight that connection.

1 As he mentioned later, in 2015 PSP adopted new fatigue management policies.
2 Additional more stringent rest rules were adopted by the BPC in 2018. As you can see
3 in his chart, which I am including here, increases in Callbacks correspond to the
4 adoption of those rest rules:

Year	Total Assignments	Total Callbacks	Callbacks as % of Assignments
2010	7,338	165	2.2%
2011	7,619	341	4.5%
2012	7,769	527	6.8%
2013	7,819	664	8.5%
2014	7,616	398	5.2%
2015	7,795	863	11.1%
2016	7,661	998	13.0%
2017	7,249	899	12.4%
2018	7,324	1384	18.9%
2019	6,993	1377	19.7%

5
6
7
8
9
10
11
12 **Q: But Capt. Moore claims that rest rules had no significant impact on the conditions**
13 **of pilotage. MM-1Tr, p. 90. If that is true, why would Callbacks increase when**
14 **rest rules were adopted?**

15 **A:** I'm not sure how Capt. Moore defines significant, but the impact of the new rest rules
16 appears significant to me. The NASA fatigue study compiled information regarding the
17 number of assignments before which pilots had fewer than 10 hours' rest in the 12-
18 month period before the new rest rules were adopted by BPC policy in 2018. I don't
19 have the precise number, but the chart on page 34 of Exh. IC-15 demonstrates that at
20 least 750 work periods would be affected. Out of the 7,369 work periods in that 12-
21 month period, I believe 10% constitutes a significant number of jobs that would be
22 impacted by the change.

23 **Q: Capt. Moore also claimed that the limit on multiple harbor shifts is not a**
24 **significant change. MM-1Tr, p. 90. Do you agree?**

1 A: No. The 13-hour limit on multiple harbor shifts was a brand new rule rather than an
2 extension of an existing rest period. Prior to the new maximum hour limit for harbor
3 shifts, there were times when the rest rules permitted pilots to perform 3-5 harbor shifts
4 over the course of a 24-hour period, with limited rest between assignments. We all now
5 know that level of workload is unsafe. The maximum period during which pilots can
6 perform multiple harbor shifts without a 10 hour rest period is now 13 hours.

7 **Q: What was the effect of that limitation?**

8 A: Prior to the new rule, dispatchers could dispatch the next pilot in rotation to a single
9 harbor to cover most or all of ordered harbor shifts that day. Now, the dispatchers have
10 to estimate the total duration over which the shifts will occur, and if the time will
11 exceed 13 hours, multiple pilots must be dispatched to cover the same harbor.

12 **D. Sufficiency of Pilot Net Income to Attract Candidates**

13 **Q: Capt. Moore also supplied statements in support of his claim that the net income**
14 **of pilots is sufficient to attract well-qualified pilot candidates. Do you have any**
15 **general responses to that testimony?**

16 A: Yes, I do. One concern I have in Capt. Moore's view is that he seems to suggest that
17 the income currently earned is sufficient because *past* pilot exams have yielded enough
18 candidates to keep the training pipeline full. We believe that if the DNI per FTE pilot is
19 not set based on a comparison to pilots in other state pilotage districts, we will lose
20 candidates now and in the future, like already happened with two candidates opting to
21 train in San Francisco rather than the Puget Sound.

22 **Q: Are there any specific statements he made to which you would like to respond?**
23
24
25

1 A: Yes. Capt. Moore claims that there is currently the largest queue of potential pilot
2 trainees than ever before. He left out that the BPC held the pilotage exam twice as
3 frequently as ever before as well.

4 **Q: Do you have any comments about the experience and background of candidates**
5 **taking the exam discussed by Capt. Moore?**

6 A: I do. While it is true that the candidates come from a wide range of sea service
7 experiences, his discussion of the background of those candidates was less than
8 accurate. For example, he seems to suggest that Washington State Ferry Captains have
9 the same experience as state pilots based on holding a federal pilotage endorsement. I
10 was a WSF Captain before obtaining my pilot's license and can tell you that handling a
11 ferry is not analogous to navigating a confined waterway with a container ship. The
12 knowledge base and experience and skill required to become a state pilot is a big step
13 up from serving as a ferry captain. And as a result, 43% of the ferry Captains that
14 entered the state pilot training program since 2008 failed to complete it and receive a
15 state pilot's license.

16 **Q: Do you agree with Capt. Moore that the fact Alaskan pilots left their pilotage**
17 **district to join PSP suggests that it is the most attractive pilotage district in the**
18 **US? MM-1Tr, p. 75.**

19 A: No. Interestingly, not a single Alaskan pilot has taken the pilotage exam in an attempt
20 to become a Puget Sound pilot since 2008, when it appeared the BPC would finally
21 fund pilots at a level comparable to other districts by increasing the tariff by 24% in
22 2006, 5% in 2007 and then 4% in 2008.

1 **E. Increased risks to pilots**

2 **Q: Capt. Moore states there are no significant or material changes in the inherent**
3 **risks associated with either the provision of pilotage or the safety afforded pilots in**
4 **the Puget Sound from 2015 to Present. MM-1Tr, p. 79. Is that a fair description?**

5 A: No. Capt. Moore discussed later in his testimony the impacts on the economy of the
6 COVID-19 pandemic. The ongoing pandemic illustrates two significant risks to pilots.

7 **Q: What has been PSP's experience since the outbreak some months after your**
8 **original filing?**

9 A: Well, like everyone, it has been a totally new phenomenon to daily confront from a
10 public health and safety, operational and economic standpoint.

11 **Q: Can you briefly describe your members' experience from a public health and**
12 **safety, operational perspective?**

13 A: Yes, first I should note we understand nationally to date from the American Pilot
14 Association that a total of 10 state licensed pilots have been diagnosed with COVID 19
15 since the outbreak.

16 **Q: And as concerns PSP, what has been your experience with respect to risk**
17 **management of the contagion?**

18 A: Our first actual exposure to that risk was February 3, 2020 with a ship arriving to the
19 Puget Sound from the Far East with a visibly sick crew member with symptoms that
20 could not then be diagnosed as COVID-19 since there was no testing available. In that
21 instance, the Captain of the Port ordered the vessel into Port Angeles to anchor. The
22 PSP pilot taking the vessel to anchor donned a full protective suit and PPE (personal
23 protective equipment) and maneuvered the vessel from the bridge wing.

1 **Q: And what was his reaction?**

2 A: He was not comfortable doing this but he knew that without him maneuvering the
3 vessel to anchor the disease might spread aboard the vessel and conceivably to the
4 adjoining community.

5 **Q: Has PSP's administration been actively involved since the outbreak in working**
6 **with pilots and third parties to address containment, safety protocols, operational**
7 **impacts and other general risks posed by the virus?**

8 A: Absolutely. The president of Puget Sound Pilots has worked tirelessly, through
9 conference calls, Zoom meetings and individual calls with the Coast Guard, County
10 health officials, the Governor's office, the Washington State Board of Pilotage
11 Commissioners and the pilots in developing precautions that pilots should take upon
12 boarding foreign-flagged and other vessels. Although this is not an exhaustive list of
13 some of the precautions that still exist today, examples of steps taken were:

- 14 1. providing PPE to pilots which were initially in extremely short supply, particularly
15 N-95 masks,
- 16 2. instructing pilots to always wear PPE while performing the tasks of piloting, while
17 on board pilot boats and while standing by at the Port Angeles pilot station awaiting
18 their next assignment, and
- 19 3. requiring pilots to pass the attached declaration of health prior to boarding a ship.
20 See Exh. IC-17. In addition, six pilots have removed themselves from rotation as a
21 precaution in this interval due to COVID 19 related symptoms.

22 **Q. And has PSP as an organization adopted a detailed, formal protocol that sets forth**
23 **all the new requirements in protecting against the spread of COVID 19?**

24 A. Yes, and it is here attached as Exh. IC-18 and as you can tell it is quite detailed and
25 specific and hopefully anticipates many of the operational variations that the pandemic
has presented.

1 **Q: What generally has been the reaction of your membership to COVID-19?**

2 A: The risk of catching COVID-19 on a vessel or at the Port Angeles pilot station because
3 of members congregating is real. Pilots are concerned about it and are diligent in
4 following all recommended precautions to avoid contracting the disease and/or
5 spreading it to their families or the seafarers with whom they work.

6 **Q: What other risk has the pandemic highlighted?**

7 A: The risk of economic downturn on the incomes of pilots operating in a pilot association.
8 If ships do not arrive, there is no risk to the shipping industry in terms of pilotage fees.
9 If ships do not use pilotage services, they simply do not pay. But pilotage in
10 Washington State, including PSP's capital infrastructure and expenses, and the exam
11 and training program of the Board of Pilotage Commissioners, are all built to support
12 long-term shipping trends. If the BPC continues to license new pilots, as we believe is
13 fully necessary for the long term viability and success of pilotage in the state, PSP will
14 continue to accept those pilots as members. Nonetheless, pilots accept all of the risk
15 when shipping activity declines rapidly, as it has during this once-in-a-lifetime event,
16 suffering significant decreases in income as a result.

17 **Q: How much of a decrease in income have pilots experienced from the pandemic?**

18 A: The short term revenue and net income drop has been significant. The following table
19 reflects the decrease in (unaudited) gross revenue over three periods: 1) in the past 12
20 months compared to the prior 12 months; 2) Year-to-date 2020 compared to the same
21 period in 2019, and comparing May and June 2019 to May and June 2020:

Period	Revenue	Decrease
12 Months Ending June 30, 2019	\$34,109,935.67	
12 Months Ending June 30, 2020	\$30,078,376.82	(\$4,031,558.85)
		-11.82%
Jan 1 - June 30, 2019	\$16,363,401.53	

22 TESTIMONY OF IVAN CARLSON, Exh. IC-4T - 42

Williams, Kastner & Gibbs PLLC
601 Union Street, Suite 4100
Seattle, Washington 98101-2380
(206) 628-6600

Jan 1 - June 30, 2020	\$12,749,761.95	(\$3,613,639.58)
		-22.08%
May 2019	\$3,158,964.59	
May 2020	\$2,083,291.59	(\$1,075,673.00)
		-34.05%
June 2019	\$3,307,325.94	
June 2020	\$1,848,423.82	(\$1,458,902.12)
		-44.11%

1
2
3
4
5
6 **Q: How much net income decline have pilots experienced in those same periods?**

7 **A:** The change in net income is reflected below:

Period	Revenue	Decrease
12 Months Ending June 30, 2019	\$400,835.72	
12 Months Ending June 30, 2020	\$292,829.44	(\$108,006.28)
		-26.95%
Jan 1 - June 30, 2019	\$189,310.34	
Jan 1 - June 30, 2020	\$108,050.12	(\$81,260.22)
		-42.92%
May 2019	\$38,388.76	
May 2020	\$19,307.33	(\$19,081.43)
		-49.71%
June 2019	\$44,060.85	
June 2020	\$17,372.65	(\$26,688.20)
		-60.57%

8
9
10
11
12
13
14
15
16
17 **Q: Capt. Moore suggests that such a downturn is occurring for the shipping industry,**
18 **and that pilotage rates should not be increased in during this time of uncertainty.**
19 **Do you have a response to that implication?**

20 **A:** Yes, I do. As indicated, the downturn in the economy is already affecting PSP. Should
21 the economic recovery fail to reach the assignment level projected last November, the
22 risk will be entirely on Puget Sound Pilots.

23 **Q: Do you think that upheaval in shipping companies' profits should have any effect**
24 **on rates?**

1 A: No. PMSA has long taken the position that relationship between pilotage and the
2 shipping industry is not one of profit sharing when times are good. See Exh. IC-19, p.
3 9. The same should be true when times are bad.

4 **Q: Did you also happen to read Mr. Moore's testimony broadly surveying relative**
5 **pilot risks including the hazards of ladder use by pilots while boarding?**

6 A: Yes and I thought it was intentionally directed at minimizing the concerns we
7 expressed in our direct testimony that pilots confront which is unfortunate.

8 **Q: While Captain Moore again suggests that risks have not increased since 2015 and**
9 **indeed, at least implied that they have been reduced, what is your response?**

10 A: I don't know where he draws some of his conclusions and he provides no empirical
11 data to support his generalized statement about risk mitigation over the past five years.
12 In addition to the obvious dangers in shipping and close quarters on vessels and
13 wheelhouses posed by the pandemic, he also fails to acknowledge the recent fatality
14 accident described in Exh. GQ-03 and does not acknowledge or is apparently unaware
15 of a ladder failure incident in Port Angeles on April 16, 2018. There, while on the pilot
16 ladder, the pilot felt it start to break but fortunately the pilot was only a couple of rungs
17 up the ladder and was able to hop back onto the pilot boat as the ladder collapsed.

18 **Q: Do you have any illustration of that ladder incident?**

19 A: Yes. Attached at Exh. IC-20 is a photographic image of the pilot ladder taken at the
20 time.

21 **Q: What would have happened in your view if the pilot had continued up that**
22 **ladder?**

23 A: Had the pilot been further up the ladder or in the process of climbing further up he
24 would have either fallen onto the pilot boat or into the water. In either circumstance,
25

1 this incident is extremely concerning and should illustrate the occupational risks daily
2 faced by pilots.

3 **Q: Have there been any other incidents that are left out of Capt. Moore's discussion**
4 **of pilot ladder-related risks?**

5 A: Yes, Capt. Moore limited his discussion of risks to pilots to the period starting in 2015.
6 But that conveniently excludes a serious incident that occurred in September 2014
7 involving a Puget Sound Pilot. The pilot was climbing a pilot ladder to board a tanker
8 when a large magnet, which was a component of the pilot ladder, became disconnected
9 and fell directly onto his head. As a result of the defective pilot ladder, he suffered a
10 concussion that ended his career. Due to his injury he was never able to return to work.
11 Exh. IC-21.

12 **F. Competition for Waterborne Commerce**

13 **Q: Have you also had an opportunity to review Capt. Moore's testimony regarding**
14 **the consideration of competition for waterborne commerce in setting pilotage rates**
15 **commencing on page 114 of Exh. MM-1Tr?**

16 A: Yes, I have.

17 **Q: What is your general response to Capt. Moore's assertion that the Seaports have**
18 **made it clear they are sensitive to excessive pilotage costs?**

19 A: I'm not sure I understand what difference it should make that ports have expressed
20 sensitivity to pilotage rates. But it is interesting that the Port of Seattle and Tacoma
21 charge terminal tariff moorage rates that are significantly higher than other west coast
22 ports, and have raised their own terminal tariff rates since 2015 while PSP has had no
23 rate increase in that time. See Exh. IC-22.

1 **Q: And what response do you have to his statements regarding the comparison of**
2 **Puget Sound Pilotage rates to other ports? MM-1Tr, p. 123 – 124.**

3 A: Once again, I believe Capt. Moore's explanation is incomplete. For one, his
4 comparison didn't rely upon PSP's proposed tariff rates. He also used the Port of Long
5 Beach to compare pilotage rates, which is not surprising. The Port of Long Beach is
6 one of the smallest pilotage districts in the nation. Long Beach pilots each handle
7 multiple fairly short assignments (generally between one and two hours) each day that
8 are not terribly different in length than a single harbor shift for a Puget Sound pilot.
9 Thus, it is no surprise that their rates are much lower.

10 **Q: If PMSA had wanted to offer a true comparison of pilotage rates in the context of**
11 **port competition, what do you believe would believe would offer a fair**
12 **comparison?**

13 A: Any fair comparison should have relied upon PSP's proposed tariff rates, and it should
14 have compared total charge, charge per hour and charge per mile.

15 **Q: Would it make a difference had the Port of Long Beach compared to PSP's**
16 **proposed rates?**

17 A: Yes, it would. Capt. Moore claims that the chart was based on a 13,000 TEU Container
18 ship, but even with PSP's revenue requirement increase, its rate design would reduce
19 the total charge to a 13,000 TEU Container ship.

20 **Q: Why do rates per hour and mile make a difference?**

21 A: The value of a pilot's service in a comparison of charges cannot be fully understood
22 without making an effort to compare the charges for equal services.
23
24
25

1 **Q: Has PSP created a comparison to demonstrate how its proposed tariff rates**
2 **actually compares to the total pilotage charges paid by shipping companies to call**
3 **on other ports?**

4 A: Yes. We created comparisons for a number of vessels to show the total charge, the per
5 hour-charge, and the per-mile charge. Those are included in Exh. IC-23.

6 **Q: How did you select the vessels to compare?**

7 A: We selected a variety of vessels of the type and size that actually call on the ports
8 compared, including a 13,000 TEU Container ship of the type compared by the Long
9 Beach pilots in PMSA's chart. We also selected a car carrier, a tanker and different
10 sizes of bulkers to demonstrate how pilotage rates compare in the ports those vessels (or
11 vessels of similar dimensions) might actually call.

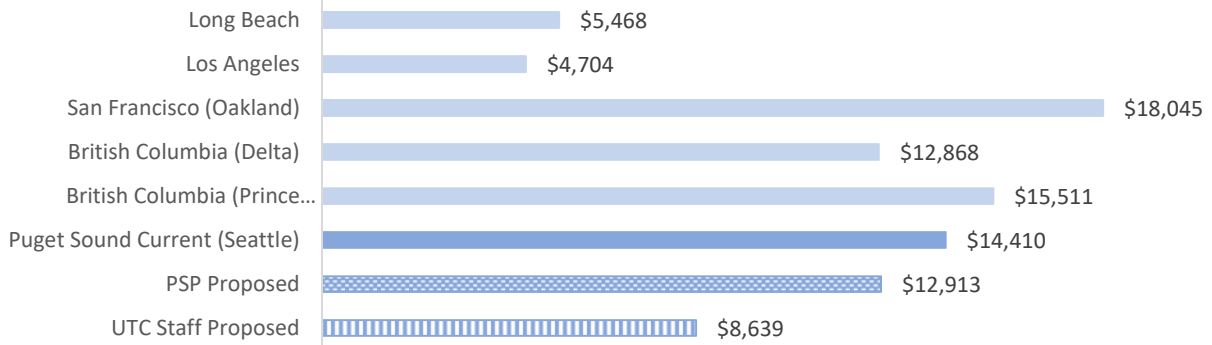
12 **Q: Under PSP's tariff proposal, how would the total charge for a 13,000 TEU**
13 **Container ship compare?**

14 A: For a 13,000 TEU Container ship, we selected the New York Express, which has called
15 on Seattle in the past. This chart reflects the total paid for the same size and class of
16 ship in a variety of West Coast ports, along with what it paid under the current tariff
17 and what it would pay under PSP's proposed tariff and the UTC Staff proposed tariff.
18 As you can see, under PSP's proposed year 1 tariff the vessel would actually see a
19 decreased total charge when calling on Seattle.
20
21
22
23
24
25

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

Tariff Comparison - Total Charges

Container: NEW YORK EXPRESS (142,295 GT)

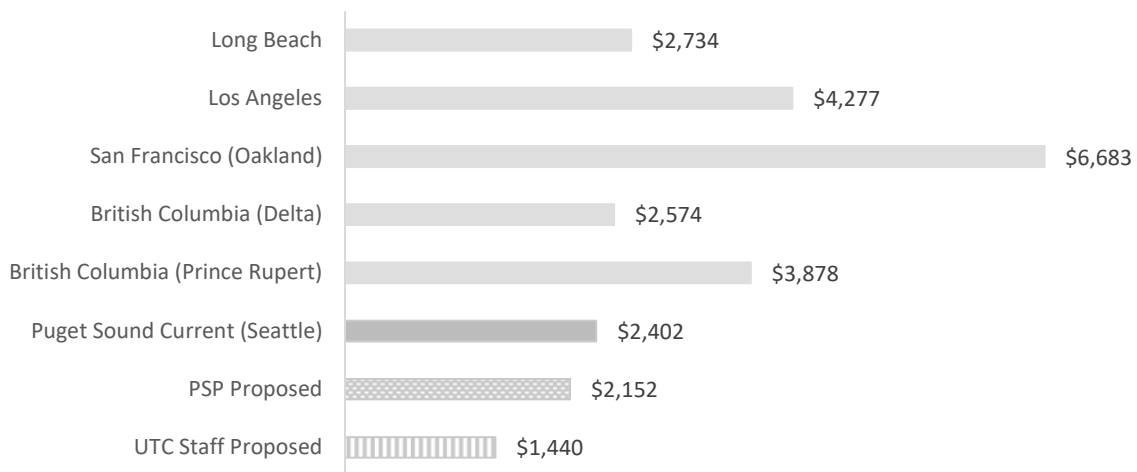


Q: You mentioned that the Long Beach pilots handle much shorter assignments. How much would the charge to the New York Express compare on a per-hour basis?

A: Those comparisons are reflected in the following charts, which demonstrate that considering the distance and time over which pilotage service is rendered in the Puget Sound, the proposed rates actually a significant value compared to the service provided in Long Beach and other ports.

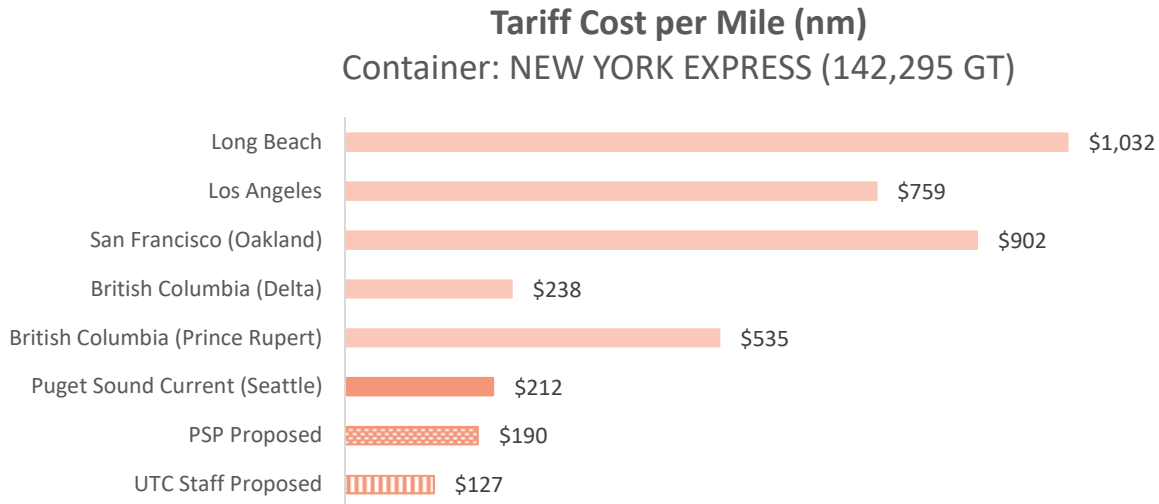
Tariff Cost per Hour (Proposed)

Container: NEW YORK EXPRESS (142,295 GT)



1 **Q: How does the charge to Seattle compare when comparing on a per-mile basis?**

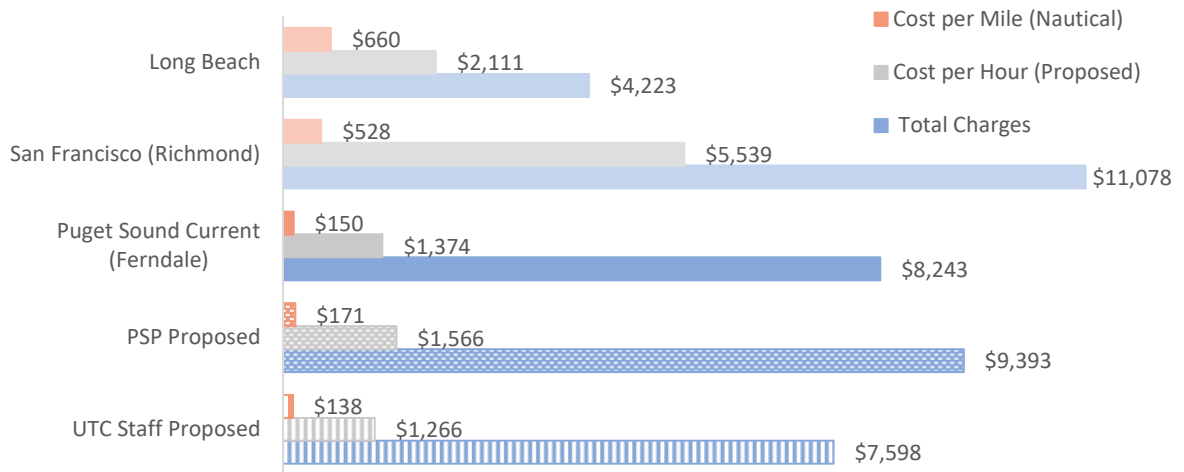
2 A: Considering the much further distance a vessel must be piloted to reach Seattle from the
3 Strait of Juan de Fuca compared to transits in other pilotage districts that move 13,000
4 TEU container ships, the charge per mile under PSP's proposed tariff is significantly
5 lower.



14
15 **Q: How do the pilotage fees compare among pilotage districts for other classes of**
16 **vessels?**

17 A: For most vessels classes, PSP's proposed tariff rates compare very favorably by any
18 metric of comparison. For example, the Polar Discovery, a tanker transiting to Ferndale
19 would pay a greater total charge in San Francisco (Richmond), and continues to see a
20 great value in the charge per mile and per hour when compared to all other ports.

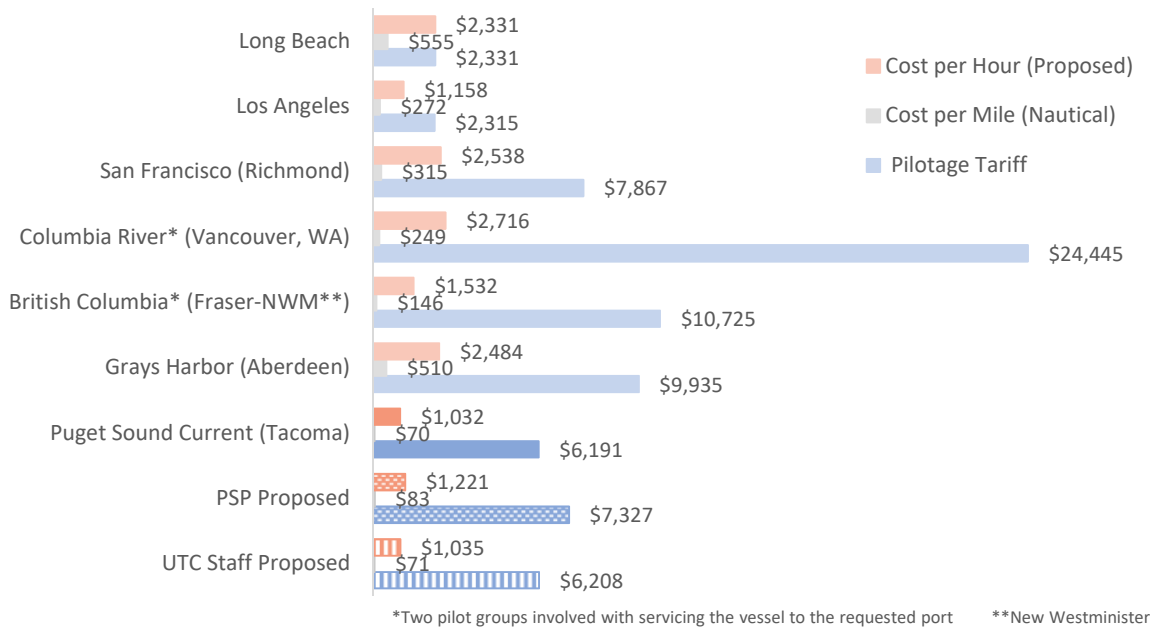
Tariff Cost Comparison - Tanker: POLAR DISCOVERY (85,387 GT)



Q: How would a Car Carrier compare?

A: The Apollon Leader, a car carrier of the same size and class that calls on ports along the West Coast would be charged more to reach every other West Coast Port outside of those in Los Angeles and Long Beach:

Tariff Cost Comparison - RoRo: APOLLON LEADER (60,213 GT)



1 **Q: Are there other vessels compared in your exhibit?**

2 A: Yes. We included a variety of vessels to compare our proposed rates to other ports.

3 **Q: What do you believe these charts demonstrate?**

4 A: I believe that to the extent the competition for waterborne commerce is in any way
5 relevant to establishing pilotage rates, they demonstrate that if PSP's proposed tariff is
6 approved, the ports in the Puget Sound will continue to be in a competitive position for
7 waterborne commerce. I also believe they demonstrate that the current tariff is
8 insufficient in relationship to other West Coast pilotage districts.

9 **V. TESTIMONY OF SCOTT SEVALL**

10 **Q: Have you also reviewed the testimony of Scott Sevall in Exhibit SS-1T?**

11 A: I have reviewed it, yes.

12 **Q: Do you have any response to his opinion that none of the pilot districts whose income
13 information you supplied are comparable?**

14 A: Yes, I do. First, Mr. Sevall admitted he does not have a basis for his opinion. He testified
15 that he was unable to verify whether the districts have similar conditions, features, or
16 variables. That does not mean they are not comparable. Furthermore, when we asked
17 through data requests which "conditions, features or variables" Staff contends are
18 relevant to such a comparison in PSP Data Request No. 5 (Exh. IC-24) Mr. Sevall
19 responded "Staff has not taken a position on whether and what conditions are relevant
20 for comparison purposes. Instead, Staff testified that PSP did not provide testimony or
21 exhibits from which Staff could conclude that the "conditions, features or variables" of
22 the other districts are comparable to those of the Puget Sound pilotage district."

23 **Q: Do you disagree with his opinion?**

1 A: I disagree with it. The pilotage districts whose income information we submitted were
2 each pilotage districts in which pilotage service is supplied through a pilot association of
3 state-licensed pilots. State-licensed pilots must go through a rigorous training and
4 examination process to become licensed. Additionally, by providing pilotage service
5 through an association, each pilot accepts some level of risk of not being compensated or
6 suffering reduced compensation when shipping traffic reduces like we are currently
7 experiencing. Some harbors receive service through port-employed pilots like Los
8 Angeles and Grays Harbor, and those pilots face very little risk during an economic
9 downturn. We did not include those pilotage groups for that very reason despite the fact
10 that those pilots are very well compensated for their work.

11 Mr. Sevall dismisses the comparison to other pilotage districts because the waterways
12 and unique challenges are different in each district. What he's missing is that it is
13 precisely those differences that make pilotage such a vital and valuable service. Pilots
14 serve as experts in the challenges presented in the pilotage district on board each ship to
15 safely navigate the ship to and from its berth without injury to life, property and the
16 environment. The only major differences between the different districts are the number
17 of pilots that are required to complete the work required of them, and the individual
18 workloads performed by their pilots.

19 **Q: How does the workload performed by PSP compare to the workload performed in**
20 **other districts?**

21 A: I believe that due to the high number of Callbacks performed by PSP we have much
22 higher workloads than pilots in those other districts, but I will leave the details of that
23 rebuttal discussion to Capt. Quick.

1 **Q: Do you agree that the data you supplied cannot be relied upon unless Mr. Sevall**
2 **could audit the pilotage districts?**

3 A: Not at all. Staff sought the information underlying my testimony in data requests and we
4 supplied both audited and reviewed financial statements for each of the districts that had
5 been submitted by the pilot associations to their regulators. So that the Commission
6 understands and has an opportunity to review the sources of that information, I am
7 supplying them as Exh. IC-25(a) through (p).

8 **Q: In creating Exhibit IC-3, were there any adjustments made to the net income to**
9 **plots reflected in those financial statements?**

10 A: Yes. We made adjustments to present a fair comparison that were explained in my initial
11 testimony.

12 **Q: Are there any exhibits that demonstrate the adjustments you made to present a fair**
13 **comparison of net income?**

14 A: Yes. Those adjustments were made in Exh. IC-26 (a) through (h).

15 **Q: Does this conclude your testimony?**

16 A: Yes it does.