	Ext	n. IC-1T
Witness:	Ivan	Carlson

		witness. Ivan Carison
1		
2		
3		
4		
5	BEFORE THE WASHINGTON UTILITIES AND T	RANSPORTATION COMMISSION
6		CKET NO. TP-
7		
8	Complainant, v.	
9		
10	Respondent.	
11		
12		
13	TESTIMONY OF	7
14	IVAN CARLSON	1
15	VICE PRESIDENT, PUGET SC	OUND PILOTS
16		
17		10
18	NOVEMBER 18, 20	119
19		
20		
21		
22		
23		
24		
25		
	TESTIMONY OF Ivan Carlson, Exh. IC-1T - i	Williams, Kastner & Gibbs PLLC 601 Union Street, Suite 4100 Seattle, Washington 98101-2380 (206) 628-6600
	6989750.1	

TABLE OF CONTENTS

I.	IDENTIFICATION OF WITNESS
II.	PURPOSE OF TESTIMONY
III.	BOARD-ON-ARRIVAL SERVICE
IV.	CALLBACK DAYS
V.	PILOT STAFFING AND WORKLOAD
VI.	PILOT INCOME

EXHIBIT LIST		
Exhibit No.	Description	Page Referenced
IC-2	Calculations of Pilots Burning Callback Days	12
IC-3	Pilot Income Summary	17

TESTIMONY OF Ivan Carlson, Exh. IC-1T - ii

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

6989750.1

1		I. IDENTIFICATION OF WITNESS
2	Q:	Will you please state your name and business address?
3	A:	My name is Ivan Carlson and my business address is 2003 Western Ave, Suite 200,
4		Seattle, WA 98121.
5	Q:	What is your affiliation with Puget Sound Pilots?
6	A:	I am a pilot licensed in the Puget Sound Pilotage District since 2006 and am also
7		currently the Vice President of PSP.
8	Q:	As Vice President, what are some of your duties to PSP?
9	A:	Officially, as Vice President, ("VP") I serve as the second-in-command to the
10		President, Eric vonBrandenfels, and act in his place if he is absent for illness, out of
11		town, or on authorized leave by PSP's Board of Directors.
12	Q:	Does being the VP require that you spend much time in the office performing
13		executive or administrative work?
14	A:	The role of VP is a huge responsibility for PSP that over time has evolved into a full-
15		time job. As I mentioned, I fulfill the duties of the President when he is unavailable.
16		That alone requires that I work in the office on a regular basis because the President
17		spends a significant amount of time out of the office in safety meetings, working with
18		industry partners and interfacing with the Board of Pilotage Commissioners on a host of
19		issues and working on legislative issues with our group. In addition to filling that role,
20		I also serve on the Board of Directors and a number of PSP's committees. Through our
21		Board and Committee work, I spend a substantial amount of my time compiling and
22		analyzing data to work on our tariff design and operational issues and to assist with
23		presentations to the BPC regarding pilot licensing. I also work closely with the
24		Executive Director and PSP's in-house accountant in developing, implementing and
25		fine-tuning PSP's annual budget. I also track and monitor anticipated pilot retirements
	1	

TESTIMONY OF Ivan Carlson, Exh. IC-1T - 1

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

and PSP Callback Day liability. I further work with PSP's committees to establish piloting best practices, dispatch and ordering policies, and with consultants and accountants to ensure that pilots can continue to safely and efficiently move ships in the Puget Sound.

Q: Can you also describe your experience as a professional mariner?

A: Yes. I actually began my maritime career in 1979, as a member of the Seafarers International Union, shipping off the board on a variety of offshore deep draft vessels sailing worldwide including tankers, passenger vessels, container ships, roll-on roll-off vessels ("ro/ros"), bulk ships and even a military preposition ships. I started as a dishwasher, or "pantryman," and eventually earned my first deck officer's license, which was an unlimited Third Mate's license, any waters. In 1987, I went to work for the Washington State Ferries ("WSF"), and earning my Master's License from the U.S. Coast Guard and began working as a Master for the WSF in 1995. I then eventually obtained my pilot's endorsement for the entire Puget Sound around 2002. After taking and passing the Board of Pilotage Commissioners' pilot exam in 2005, I entered the training program a month later, that same year. I received my state pilot's license for the Puget Sound in 2006 and have been piloting in the Puget Sound since then.

II. PURPOSE OF TESTIMONY

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

Q: I am testifying to assist the Commission in understanding PSP's "Board-on-Arrival" A: system and the organizational systems, including our watch schedule, required for it to function properly. I am also testifying to support PSP's proposed rate proposal through an explanation of the callback system, utilized upon by PSP and industry to move vessels via incentivizing off-duty pilots to perform assignments. I will also be addressing PSP's current unfunded Callback Day liability accrual that results from the

TESTIMONY OF Ivan Carlson, Exh. IC-1T - 2

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

industry's historic insistence upon use of off-duty pilots rather than supporting staffing to appropriate levels to permit pilots to work primarily while on-duty. I have also performed some research on comparable pilot income in other pilotage districts and intend to present testimony on the publicly available information I obtained in that process for the Commission's consideration.

III. BOARD-ON-ARRIVAL SERVICE

Will you please describe for the Commission what PSP's Board-on-Arrival Service is?

A: Board-on-Arrival is the name we use to describe the system by which PSP aspires to dispatch a pilot to every vessel requiring one at the exact time that the pilot is requested to commence a vessel movement.

Q: Does Board-on-Arrival service apply to all vessel movements or just arrivals?
A: Although the name suggests our model applies only to arrivals, PSP provides service on the ship's schedule for all vessel movements, including arrivals, departures and shifts.

Q: Can you describe generally how PSP aspires to provide Board-on-Arrival service?
A: Providing Board-on-Arrival service is a monumental task that requires constant proactive management of PSP's assets to ensure that we have pilots available in the places they are needed at the time they are needed. There are a number of components to that active management that are required to move vessels on time. The most important component of providing Board-on-Arrival service is having an adequate number of pilots licensed in the pilotage district so that PSP can dispatch a rested pilot when requested by the ship operator. We also engage our dispatchers to constantly monitor expected jobs and pilot availability in order to ensure we will have sufficient pilots available at the times for which the shipping agents order a pilot. Keeping ships

TESTIMONY OF Ivan Carlson, Exh. IC-1T - 3

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

6989750.1 6989750.1

Q:

moving on time also requires that we reposition pilots to and from the pilot station in Port Angeles to match demand wherever it may be.

Q: With such a large pilotage district, how does PSP know when and where pilots will be needed?

A: Although the vessel's schedule determines the timing of vessel movement, PSP relies upon an ordering system that gives PSP advance notice of the need for pilotage service and our dispatchers use that information to try to make sure there are adequate pilots available to move the ships at the times for which pilots are requested.

9 ||Q:

1

2

3

4

5

6

7

8

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

Are those order times fairly reliable?

A: Not at all. Although we ask shipping agents to give advance notice of the ship's arrival or departure time, those times are changed constantly. We actually checked the number of order time changes that occurred within 36 hours of an assignment in 2018 and found a total of 12,080 order time changes for 7,324 assignments. Anecdotally, I am aware of instances where vessels have changed their order time multiple times in a day.

Q: What impact does that kind of unpredictability have on the pilots' ability to provide Board-on-Arrival service?

A: It makes the dispatcher's jobs very difficult, and occasionally means we may not have a rested pilot when the vessel finally needs one. That has especially been true in the past few years when we have had an insufficient number of pilots licensed relative to our workload. It also ties up the system and reduces the ability to use each pilot's available time for moving ships in an efficient manner.

Q: Can you provide an example of how order time changes reduce efficiency?

A: Yes. Order time changes impact efficiency most dramatically for outbound assignments heading to the pilot station in Port Angeles. To maximize efficiency, it is ideal if the dispatchers can put a pilot on an outbound assignment that will reach Port

TESTIMONY OF Ivan Carlson, Exh. IC-1T - 4

Williams, Kastner & Gibbs PLLC 601 Union Street, Suite 4100 Seattle, Washington 98101-2380 (206) 628-6600 Angeles at a time that permits the pilot to obtain his or her mandatory rest and then immediately board an arriving ship for an inbound assignment. When outbound ships push back their order times, that pilot may not be able to attain the necessary rest in time to take the inbound assignment at its scheduled time. When that happens, the dispatchers will reposition a pilot to the pilot station, and the first pilot may not have another assignment for some time after that inbound assignment.

||Q:

Do the pilots work scheduled shifts?

A: Pilots serve on an on-call basis 24 hours a day for a period of 15 days. During the 15th day, "change day," a different group of pilots activates for duty, and then, following the completion of any vessel assignments the pilots receive before the dispatch cut-off time, the pilots who were on-duty receive 13 days off-duty. We call the off-duty period "respite." Pilots also receive time off called "Earned Time Off" that is built into our watch calendar. Our time on-duty periods are not conventional work shifts because the pilots must be on call and available to pilot at any time of day or night during their on-duty period.

Q: Are there any limitations on how many assignments a pilot may work during their on-duty period?

A: The ability of pilots to take assignments is limited by statutory rest rules, BPC rest regulations, and PSP operating policies when on-duty. Until this year, pilots were statutorily required to take a seven-hour rest period following an assignment of seven or more hours, but adhered to more vigorous rest requirements at the suggestion of fatigue management experts starting in 2015. This year, the legislature mandated a10-hour rest period following an assignment, and imposed a maximum limit of 13 hours when performing multiple-harbor shifts. We are also prohibited by statute from working more than three consecutive night assignments.

TESTIMONY OF Ivan Carlson, Exh. IC-1T - 5

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

1

2

Q: How much notice does a pilot receive of an assignment?

A: Pilots are constantly watching the dispatch board to see what assignment they might receive based on the existing orders. However, due to the constant order time changes, that only provides a good guess. The amount of actual notice pilots receive varies by the job's location. At the pilot station, pilots receive very little official notice of their assignment since they have no travel time to reach the pilot boat. Other assignments require pilots to travel, and so we give each pilot time to prepare and travel to ship in time for their "order time," which is the time at which the pilot is needed to commence or continue a vessel movement.

Q: What method does PSP use to determine how much advance notice to provide the pilot for each assignment?

- A: Because we have a geographically huge pilotage district to cover with an array of locations at which pilotage service is required, we developed a system using Seattle as the hub. Pilots are each permitted two hours to prepare and an allotment of time to travel to the assignment location that we determined based on average commuting time to that location from our headquarters.
- $|_7 || \mathbf{Q}$:

Do all of the pilots live in Seattle?

A: No. Historically, pilots have lived all around the Puget Sound, including the Western Puget Sound, which is important for providing services in times of bad weather that can interfere with ground transportation. This also means that we need accurate order times and sufficient notice from the ship operators to permit pilots enough time to reach an assignment anywhere in our district.

Q: Are there any situations where there aren't enough rested pilots who are on-duty to meet the order time for each ship?

TESTIMONY OF Ivan Carlson, Exh. IC-1T - 6

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

A: Unfortunately, that happens all the time, especially now when we are severely understaffed.

Q: What happens if there are too few rested pilots for the number of ships that request a pilot?

A: At that point we have two options. Either the ship will be delayed while waiting for the next available on-duty pilot to move it, incurring significant expense in my understanding, or PSP can call off-duty pilots seeking one who is willing to be called back to take an additional job. Because we believe we are obligated to provide efficient and timely service, meaning we move ships on time and without delays if at all possible, we frequently find it necessary to call pilots to perform callback jobs. If we are unable to find a pilot who will take a callback job, or if there are no rested pilots available at all, the vessel will be delayed waiting for a pilot.

13

Q:

1

2

3

4

5

6

7

8

9

10

11

12

14

15

16

17

18

20

21

22

23

24

25

Are delays a common occurrence?

A: Delays awaiting pilots have not been common historically because of our heavy reliance on callbacks. In fact, in recent years, PSP completed over 99.9 % of vessel movements on time. Unfortunately, starting in 2018, we have had an insufficient number of active working pilots due to a variety of circumstances and were simply unable to match our previous success rate of moving ships at their requested order time.

19

Q:

What caused the pilot shortage?

A: There are multiple causes of the current pilot shortage. The first is the result of setting the number of pilots at too low a level, so that we must either delay ships or work during our time off as an inherent function of PSP dispatch practices. The second is the result of a confluence of factors, including a greater mandatory rest period that was needed to address fatigue, a maximum 13-hour time limit on working multiple

TESTIMONY OF Ivan Carlson, Exh. IC-1T - 7

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

1		consecutive harbor shifts, trainees who were unable to complete the training program,	
2		and pilots who became medically unfit for duty and were unable to move ships.	
3	Q:	If there were fewer pilots who were medically unfit for duty during 2018, would	
4		that have helped to avoid delays?	
5	A:	It might have had some impact, but considering the dangers of our work and the	
6		mandatory retirement age of 70, it is a fairly common occurrence that pilots suffer	
7		injuries and health issues that cause them to be unfit for duty, either temporarily or	
8		permanently. The staffing level should take that into consideration and ensure that we	
9		have sufficient pilots even when one or two are unfit to work.	
10	Q:	How many times in 2018 were ships delayed awaiting an available rested pilot?	
11	A:	In 2018 we had 70 delays.	
12	Q:	Have delays continued in 2019?	
13	A:	Yes. We are still seeing a significant number of delays. Through September 30, 2019,	
14		we were already up to 72 vessel movements delayed due to the lack of a rested and	
15		available pilot.	
16	Q:	What impact does the pilot shortage have on the ability of pilots to move ships?	
17	A:	The primary issue is that it increases PSP reliance on callbacks. If we were properly	
18		staffed, callbacks would only occur a small percentage of days in the year. Instead, it	
19		seems like our dispatchers are having to beg pilots to take jobs on their respite in order	
20		to avoid or limit delays.	
21		IV. CALLBACK DAYS	
22	Q:	Are pilots mandated to work when off-duty?	
23	A:	No. When we are off-duty, that is supposed to be our time off to recover from the	
24		cumulative fatigue caused by the highly irregular schedule we work. We do schedule	
25		some meetings, trainings and other work responsibilities during our time off to reduce	
	TEST	CIMONY OF Ivan Carlson, Exh. IC-1T - 8 Williams, Kastner & Gibbs PLLC 601 Union Street Suite 4100	

601 Union Street, Suite 4100 Seattle, Washington 98101-2380 (206) 628-6600

6989750.1 6989750.1

the impacts on dispatch of having on-duty pilots unavailable to take vessel assignments. Those meetings are coordinated in advance to provide a predictable schedule and ensure they do not interfere with pilots' recuperation and rest. To the contrary, taking vessel assignments while off-duty creates a huge disruption of a pilot's off-duty period and contribute to fatigue.

Q: How does working a callback job disrupt a pilot's off-duty time?

A: Answering that question starts with understanding that a pilot's time between assignments when on-duty time is really not their own. He or she cannot make appointments, plan social outings, or even accomplish most basic household chores due to being on call 24/7. As a consequence of these scheduling constraints, pilots plan appointments, time with family and friends, outings and chores around the house during our 13 days of respite. If a pilot is asked to take a callback, that pilot must also ensure they obtain proper rest before the job starts, then travel to the job (including possible reposition to the pilot station), move the vessel and then return home. Many callback jobs are at night, so the need for sufficient rest in the day preceding the job necessitates personal plans be sacrificed in order to provide the necessary rest interval before accepting the job. In addition to the mandatory rest periods now of 10 hours, the average callback is 13 hours of preparation, travel and time on the bridge. Thus, accepting a single callback will disrupt a pilot's rest cycle by almost one complete day which effectively can reduce your respite period by two days due to the need to rest before acceptance of the callback job as described. When the demand for callbacks is high, as it has been in recent years, these chronic interruptions can be exhausting and interfere with a pilot's ability to have any semblance of a normal family life even during our respite. As I mentioned, callback jobs also interfere with our ability to recharge after our on-duty period thereby increasing cumulative fatigue.

TESTIMONY OF Ivan Carlson, Exh. IC-1T - 9

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

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

18

19

20

21

22

23

24

25

A:

Q: How then does PSP incentivize pilots to take callback jobs?

As long as I have been a member of PSP, we have used a system that awards pilots who take callback jobs with additional days off-duty we historically called "Compensatory Days." Because the abbreviated name, "Comp Days" has been frequently confused as being a "compensation day," we now refer to them as "Callback Days."

Q: How do Callback Days provide incentive to take callback jobs?

A: Each pilot who earns a Callback Day is entitled to use that day during an on-duty period to take additional off-duty time. They can also be accumulated so that pilots can take time off when they are needed due to fatigue, a family emergency, in times of poor health, or in order to take a vacation outside of their scheduled Earned Time Off period. Due to the chronic number of callbacks, some pilots accumulate them in great enough numbers that they can essentially retire early (before our mandatory retirement age of 70) by using all of their cumulative Callback Days over an extended interval in every duty period until their accumulated days are exhausted. We refer to that practice, pilots stopping ship movements and using all of their accured Callback Days prior to retirement, as "Burning Callback Days."

17 **Q**:

Do Callbacks Days create any liability for PSP?

A: They do. Every pilot who uses a Callback Day is owed distribution from PSP revenues even though they are unavailable to move vessels. This increases the workload on remaining pilots while incrementally diminishing their earnings during the time the Callback Days are being used or Burned.

Q: If Callback Days can be accumulated, are there any limitations on the number of Callback Days that can be accumulated on PSP's books?

A: Not presently. We have modified our operating rule on accumulating Callback Days over the years in order to ensure we can increase pilot availability to meet vessel traffic

TESTIMONY OF Ivan Carlson, Exh. IC-1T - 10

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

1		demands. At one point, we implemented a cap on how many new Callback Days could	
2	be banked by each individual pilot at 60 days, requiring all excess Callback Days		
3		earned to be used within one year of their being earned (with grandfathering allowed	
4		for days prior to the institution of the prior cap). However, when we started to	
5		experience ship delays due to a pilot shortage in 2018, we were faced with either further	
6		delaying ships at a huge cost to the shipping industry, or removing the Callback Day	
7		cap to encourage pilots to take callbacks. We elected to remove the cap, but it has	
8		greatly increased PSP's Callback Day liability to prevent cascading vessel delays.	
9	Q:	If there are sufficient pilots in the future to move ships on time without reliance on	
10		large numbers of callback jobs, will PSP be able to reinstate the cap?	
11	A:	I hope so. For now, we are so understaffed that if we did anything to reinstate the cap	
12		there would likely be immediate increases in the number of ships delayed while waiting	
13		for a rested pilot.	
14	Q:	How many Callback Jobs are on PSP's books as of the end of 2018?	
15	A:	At the end of 2018, PSP had 3,143 Callback Days on our books.	
16	Q:	Has that number increased in 2019?	
17	A:	Yes. It has continued to increase dramatically. As of September 30, 2019, we had	
18		3,493 Callback Days on the books, reflecting the chronic shortage of rested pilots.	
19	Q: Is it possible to quantify or otherwise estimate the number of Callback Days that		
20		are Burned in a year?	
21	A:	In some ways. We can confirm the minimum number of Callback Days that will be	
22		Burned based on the pilot's mandatory retirement age of 70. We also ask pilots to let	
23		us know if and when they plan to burn Callback Days prior to retirement.	
24		Unfortunately, some pilots are uncertain or unable to give us a clear indication of when	
25			
	TESTIMONY OF Ivan Carlson, Exh. IC-1T - 11 Williams, Kastner & Gibbs PLLC 601 Union Street, Suite 4100 Seattle, Washington 98101-2380 (206) 628-6600		
	6989750.1 6989750.1		

they will begin to burn Callback Days prior to their retirement, so while there are more 1 Callback Days being Burned, they are more difficult to anticipate. 2 **Q**: Do you have an estimate of how many Callback Days will be Burned in 2019? 3 I do. In 2019 alone, eight pilots will have Burned a total of 368 Callback Days, A: 4 entitling them to 724 days of distribution. 5 **Q**: Have you attempted to quantify the number of Callback Days that will be Burned 6 at a minimum in 2020? 7 During the calendar year 2020, a minimum of five pilots will burn a total of 539 A: 8 Callback Days, entitling them to 1078 days of distribution. All but one of those pilots 9 will be age 70 when they either complete the Burning of Callback Days or begin 10 Burning them and again all of those Burning Callback Days receive a regular monthly 11 distribution. There will likely be additional pilots who elect to start Burning Callback 12 Days during 2020, because there are frequently pilots who retire early, but those are not 13 yet possible to accurately predict. 14 Have you quantified the number of pilots those 1078 days of distribution **Q**: 15 represent? 16 Yes. 1078 days of distribution is the equivalent of 2.95 pilots Burning Callback Days A: 17 during 2020. The calculation of that figure is also included in Exh. IC-2. 18 **Q**: Is PSP asking the Commission to fund in rates those pilots Burning Callback Days 19 during 2020? 20 Yes. I believe Walt Tabler will be addressing the historic funding of pilots Burning A: 21 Callback Days by the BPC, and we are requesting that the UTC continue that practice 22 until all of the Callback Days accumulated at the time of this filing have been 23 exhausted. 24 **Q**: Will PSP be treating Callback Days differently following this filing? 25 Williams, Kastner & Gibbs PLLC TESTIMONY OF Ivan Carlson, Exh. IC-1T - 12

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

A: I believe so. Historically, as a result of an agreement between PSP and an industry trade group, the Puget Sound Steamship Operators Association ("PSSOA"), pilots Burning Callback Days were funded by the BPC in rates. Since that time, once the agreement terminated around 2005, PSP rate proposals have always included pilots Burning Callback Days as an expense, but because of chronic understaffing, we never received appropriate funding from the BPC for the full workload pilots were performing. In other words, we worked during our time off without any increase in funding for the difference between the number of pilots licensed and the much higher number of pilots needed. I understand we are requesting that the Commission fund Full Time Equivalent pilots to ensure we have the funding for the workload we perform despite our acute understaffing. If the Commission approves this request, there would be no reason to request additional funding for Callback Days accruing after the new rates go into effect. Again, we are requesting the Commission continue to fund all Callback Days that accrued prior to implementation of revised rates in the same manner previously authorized by the BPC. V. PILOT STAFFING AND WORKLOAD **Q**: Do either pilot retirements or pilots Burning Callback Days have any impact on pilot workloads?

A: Both have an impact on our overall workload, but those impacts can differ depending on the circumstances.

Q: In what ways do retiring pilots impact pilot workloads?

A: First, there is one less pilot available to move vessels until a new pilot can be licensed. More significantly, however, is that newly licensed pilots are prohibited by BPC regulation from moving certain types of vessels. I believe Scott Coleman is addressing the license levels and upgrade system in greater detail. Nonetheless, those license

TESTIMONY OF Ivan Carlson, Exh. IC-1T - 13

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

restrictions limit the size and class of ships that new pilots can move during a five-year period while they upgrade their license through a BPC program. Conversely, senior pilots typically hold an unlimited license and can take any assignment that comes up on our dispatch board. Thus, it is impossible to immediately replace the workload handled by a retiring pilot by licensing a new pilot.

Q: Do pilots Burning Callback Days also impact pilot workloads?

A: Yes. There are two situations in which pilots Burning Callback Days can impact workload. The first is synonymous to retirement in that some pilots who are Burning Callback Days will tender their license to the BPC. That permits a new pilot to be licensed (assuming a trainee is ready to be licensed). The second situation exists when a pilot elects to hold their license while Burning Callback Days. In that case, there may not be an opening for a new pilot to be licensed by the BPC. That occurrence has the effect of consolidating the workload among all other licensed active pilots until the pilot Burning Callback Days retires.

Q: Have fatigue management rules created any impacts on pilot workloads or Callback Days?

A: I believe they have. Based on the recommendations of fatigue management experts, PSP voluntarily adopted and implemented some fatigue management policies in 2015. Those policies required pilots to obtain eight hours of rest following the completion of any assignment excluding harbor shifts, and limited the number of consecutive night assignments to three. When we implemented those policies, it also had a limiting effect on the number of assignments each pilot could take during their on-duty period. The result was an increasing reliance on callback jobs to move ships on time. When the Board of Pilotage Commissioners adopted new rest policies in October 2018, including a 10-hour rest policy and a 13-hour limit on the number of hours spent working

TESTIMONY OF Ivan Carlson, Exh. IC-1T - 14

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

multiple harbor shifts, (which were later adopted as a statute by the legislature), we experienced a similar effect.

Q: After the implementation of the new rest policy and passage of the statute, did PSP do anything to mitigate the increased number of callbacks required to move vessels on time?

A: Yes. There are actually a number of things we did. First, we moved the Board of Pilotage Commissioners to increase the number of licensed pilots. However, when that was requested, the BPC indicated that it needed additional data and analyses of the impacts of the rest policies. In order to accommodate that request, PSP sought the assistance of fatigue experts who could evaluate the impact of rest rules on the number of pilots needed. We ultimately partnered with a research team that had performed a pilot fatigue study in San Francisco, the National Aeronautics and Space Administration ("NASA") and San Jose State University Research Foundation, to provide that analysis.

Q: Did you then ask the BPC to increase the number of licensed pilots?

A: We did.

Q: What was the request that PSP made to the BPC?

A: We initially asked that the BPC increase the number of licensed pilots to 63 and set our workload at 118 assignments per pilot. That request was based on the Puget Sound Pilot Fatigue Study report produced by NASA following its analysis of vessel assignment data for 2018 and its projections of the impact on our workload of new fatigue management rules and recommended fatigue countermeasures. When the number of assignments fell during the 12-month period ending in June 30, 2019 to 7,101 assignments compared to 7,334 during the 2018 period analyzed by NASA, we reduced the request to 61 pilots.

TESTIMONY OF Ivan Carlson, Exh. IC-1T - 15

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

A:

Q: Did the PMSA take a position on PSP's request for more pilots?

Yes. For its part, PMSA countered that with a recommendation however, that the BPC take no action and maintain the number of Puget Sound pilots licenses authorized at 52.

Q: Did the BPC take any action on the request of either PSP or PMSA?

A: Yes. The final decision in July, 2019 by the BPC was to increase the number of available pilot licenses from 52 to 56.

Q: If there were 56 pilots licensed today, would PSP continue to rely on off-duty pilots to work Callbacks?

A: Yes, we would. Vessel traffic frequently comes in unpredictable surges or peaks. One day we can have just 15 vessel assignments, while another day we have more than 30. The surges can also be one of timing, with 20 or more vessels assignments close in time to each other, taking all on-duty pilots off the dispatch board for as much as 24 hours during their assignments and subsequent mandatory request period. This leaves far fewer on-duty pilots available to work the following day. Thus, we believe we need even more pilots than the BPC authorized in order to limit the number of Callbacks we perform.

Q: How many pilots are licensed for the Puget Sound pilotage district right now?
A: As of October 31, 2019, there were 50 pilots, including the President. However, three of them are Burning Callback Days prior to retirement, leaving us 47 pilots including the President as of that date.

Q: Do you have any idea of how long it will be before PSP is able to increase the number of licensed pilots to the 56 level recently enacted by the BPC?

A: Unfortunately, as a result of uncertainty about when pilots will retire and whether trainees will successfully complete the training program, it is not possible to provide an accurate prediction. However, the training program is presently at its maximum

TESTIMONY OF Ivan Carlson, Exh. IC-1T - 16

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

capacity and the BPC is licensing new pilots as quickly as it can. Based on our analysis of the current trainees and expected retirements, we are projecting to exceed 50 licensed pilots by the end of 2020, and hope to have more than 52 by the end of 2021 and on a steady upward trajectory thereafter.

VI. PILOT INCOME

Q: Have you performed any research into what state pilots are paid in other comparable pilotage districts?

A: Yes, I have.

Q: What have you found to demonstrate what state pilots are paid in those districts?

A: I found that there are only so many state pilot groups whose income per pilot is publicly available.

Q: Which groups were those?

- A: The only publicly available groups are the San Francisco Bar Pilots, Columbia River
 Pilots, Columbia River Bar Pilots, Crescent River Port Pilots Association, Associated
 Branch for the Port of New Orleans ("Associated Branch"), New Orleans Baton Rouge
 Association ("NOBRA"), Lake Charles Pilots, and Port Everglades Pilots.
- **Q:** Were you able to find any information about other pilot groups nonetheless?
- A: Yes. We discovered that an Aransas-Corpus Christi pilot's income information became publicly available through a publicly available court record.

Q: Have you prepared an exhibit that summarizes the pilot income in each of those districts?

- **A:** Yes, I have. It is supplied as Exh. IC-3.
 - Q: In presenting the pilot income presented in Exh. IC-3, did you make any adjustments to their net income to reach a level that is comparable to PSP's net income calculation?

TESTIMONY OF Ivan Carlson, Exh. IC-1T - 17

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

A: Yes, I did. For each group that had an available financial statement, we examined their benefits and added the expense of those benefits to the net income where PSP does not receive the same benefits or subtracted them from income if the other pilot group did not receive benefits PSP does receive.

||Q:

Which groups did you adjust?

A: For San Francisco, we reduced their income by the cost of PSP's medical benefits to reach a comparable income level. For COLRIP and the Columbia River Bar Pilots, we added back the value of their sick leave, which is a benefit PSP does not receive. I made no other adjustments to the income information.

Q: Is PSP making a request to the Commission for a net income level based on the information that you found regarding pilot income in other pilotage districts?

A: Yes. First, I would note that Capt. Quick is testifying that the national pilot income level is between \$550,000 to \$600,000. Additionally, the average pilot income for all publicly available port and river pilot groups, as shown in Exh. IC-3 is \$557,694. We found that the average of pilot income for all available pilot groups, including the port and river pilots, as well as the bar (only) pilots, is \$541,204. Because of the size of the overall increase required by a request that would result if we were to set our distributive net income ("DNI") level at as high as \$541,204, we are instead requesting a more conservative DNI of \$500,000 per full time equivalent.

Q: Does this conclude your testimony?

A: Yes it does.

TESTIMONY OF Ivan Carlson, Exh. IC-1T - 18

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