

Exh. SK-__X
Docket No. TP-190976
Witness: M. Sami
Khajawa, Ph.D.

BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND
TRANSPORTATION COMMISSION,

Complainant,

v.

PUGET SOUND PILOTS,

Respondent.

DOCKET TP-190976

**CROSS-EXHIBIT FOR
M. Sami Khajawa, Ph.D.**

PSP Response to PMSA DRs 122, 214, 215, 216, 217, 218, 220, 242, 334, 432, 434, 436, 438

August 7, 2020

Cross-Exhibit for M. Sami Khajawa, Ph.D.
Docket No. TP-190976

DATE PREPARED: March 3, 2020	WITNESS: Ivan Carlson
DOCKET: TP-190976	RESPONDER: Ivan Carlson
REQUESTER:	Puget Sound Pilots

DATA REQUEST NO. 122: Please state how much additional revenue distribution a pilot receives for a callback assignment in the year it was performed from 2015 to present.

RESPONSE TO DATA REQUEST NO. 122:

Each pilot's distribution is based upon the duty days during a given month, not based upon the number of assignments worked by an individual pilot. Thus, no pilot receives income tied directly to the performance of a callback job.

DATE PREPARED: March 18, 2020	WITNESS: Dr. Sami Khawaja, PhD
DOCKET: TP-190976	RESPONDER: Dr. Sami Khawaja, PhD
REQUESTER: PMSA	Puget Sound Pilots

PMSA DATA REQUEST NO. 214: Please provide the calculations and any documentation which establish the basis for the statement at Exh. SK-1T, p. 5, lines 22-23 that the “marginal benefit of adding a pilot, is increased safety, decreased callbacks, and decreased vessel delays,” including copies of any and all materials relied upon which demonstrate any of the following: a quantitative measure of the change in degree of safety associated with having an additional pilot licensee, a quantitative demonstration of the change in callback volumes as a function of an additional pilot licensee, and a quantitative demonstration of the change in the number of vessel delays as a function of an additional pilot licensee.

RESPONSE TO DATA REQUEST NO. 214:

My testimony relied on the NASA study to provide information regarding fatigue and safety. Table 4 in my testimony shows the quantitative demonstration in the number of days without callbacks as a function of additional pilots.

The Julia script, included in the file produced with label “PMSA DR 208-232 - Jobs_recalls_PugetSoundPilots.jl”, and bates number PSP_7270 bases its assumption about callback volumes on the idea that additional pilots on shift would displace callbacks because those pilots would be used instead of calling back pilots who are off shift. The analysis quantitatively calculates the magnitude of this reduction assuming an integer increase in number of pilots on shift at any time. The summary output included in included in a tab named “Added Pilots and Callbacks” in the file “PMSA DR 208-232 PilotAnalysis-110419_datarequest.xlsx” (bates number PSP_007271).

DATE PREPARED: March 18, 2020	WITNESS: Dr. Sami Khawaja, PhD
DOCKET: TP-190976	RESPONDER: Dr. Sami Khawaja, PhD
REQUESTER: PMSA	Puget Sound Pilots

PMSA DATA REQUEST NO. 215: Please provide the calculations and any documentation which establish the basis for the statement at Exh. SK-1T, p.5, lines 29-24 that there is a “marginal cost” to “assignments for pilots” equal to “the income of the added pilot,” including the quantitative value of such marginal cost and how the marginal cost is represented in the tariff, if at all.

RESPONSE TO DATA REQUEST NO. 215:

Objection. This data request is misleading in that the testimony referenced (assuming it intended to cite p. 5 lines 19 -25) does not discuss marginal costs to “assignments per pilot.” It discusses the marginal cost of additional pilots.

Subject to and without waiving the foregoing objections, Dr. Khawaja responds as follows:

The testimony states the marginal cost is the income of the added pilot. That is the only variable cost in the pilots cost of service. As such, the marginal cost of “adding a pilot” is the variable cost of this action which is solely the income of that pilot.

DATE PREPARED: March 18, 2020	WITNESS: Dr. Sami Khawaja, PhD
DOCKET: TP-190976	RESPONDER: Dr. Sami Khawaja, PhD
REQUESTER: PMSA	Puget Sound Pilots

PMSA DATA REQUEST NO. 216: Please provide (1) the calculations and any documentation which establish the basis for the statements at Exh. SK-1T, p. 6, lines 1-3 that “[c]allbacks occur when there is insufficient staffing of on-watch pilots” and that “[t]he purpose of these callbacks is to avoid ship delay”; and (2) copies of any records provided by PSP with respect to the formulation of these calculations and statements.

RESPONSE TO DATA REQUEST NO. 216:

Response to subpart (1): there are no documents responsive to this request. We did not assess the pilot dispatch; PSP reported to me that callbacks occur when there is insufficient staffing of on-watch pilots and the purpose of callbacks is to avoid ship delays.

Response to subpart (2): there are no documents responsive to this request.

Our testimony relied on the NASA study to provide information regarding fatigue and safety and the relationship of assignments (including callbacks) and fatigue.

DATE PREPARED: March 18, 2020	WITNESS: Dr. Sami Khawaja, PhD
DOCKET: TP-190976	RESPONDER: Dr. Sami Khawaja, PhD
REQUESTER: PMSA	Puget Sound Pilots

PMSA DATA REQUEST NO. 217: Please provide the calculations and any documentation which establish the basis for the statement at Exh. SK-1T, p. 6, lines 3-5 that “[c]allbacks ... may create situations of pilot fatigue.”

RESPONSE TO DATA REQUEST NO. 217:

My testimony relied on the NASA study to provide information regarding fatigue and safety and the relationship of assignments (including callbacks) and fatigue.

DATE PREPARED: March 18, 2020	WITNESS: Dr. Sami Khawaja, PhD
DOCKET: TP-190976	Ivan Carlson
REQUESTER: PMSA	RESPONDER: Dr. Sami Khawaja, PhD
	Ivan Carlson
	Puget Sound Pilots

PMSA DATA REQUEST NO. 218: Please provide the calculations and any documentation which establish the basis for the statement at Exh. SK-1T, p. 6, lines 5-7 that a callback “trend implicates the need for additional licensed pilots in order to avoid the unpredictable expansion of the callback calculation accrual” and please specify in detail the exact formula used to identify, measure, and analyze the “callback calculation accrual.”

RESPONSE TO DATA REQUEST NO. 218:

There are no calculations responsive to this request. The testimony was based upon the increased number of callbacks that result when there are insufficient pilots to avoid reliance on callbacks. There is discussion of this trend in the NASA fatigue study and PSP has reported that that net Callback Days have increased in recent years.

DATE PREPARED: March 18, 2020	WITNESS: Dr. Sami Khawaja, PhD
DOCKET: TP-190976	RESPONDER: Dr. Sami Khawaja, PhD
REQUESTER: PMSA	Puget Sound Pilots

PMSA DATA REQUEST NO. 220: Please provide a copy of “the data set cleaned by NASA” which was the “primary basis of [the] analysis” as referenced at Exh. SK-1T, p. 6, lines 10-11.

RESPONSE TO DATA REQUEST NO. 220:

That information is included in the spreadsheet produced with file “PMSA DR 208-232 PilotAnalysis-110419_datarequest.xlsx”, bates number PSP_007271. See tab “workload and recalls.”

DATE PREPARED: March 18, 2020	WITNESS: Weldon Burton
DOCKET: TP-190976	RESPONDER: Weldon Burton
REQUESTER: PMSA	Puget Sound Pilots

PMSA DATA REQUEST NO. 242: Please document how “callback days” and “callback liabilities” are compensated or expensed or are or are not included in the PSP pro forma statements at Exhs. WTB-03, WTB-04, and WTB-05.

RESPONSE TO DATA REQUEST NO. 242:

Objection. This question convolutes the previous testimony on this subject and responses to other related data requests.

Subject to and without waiving the foregoing objections, PSP responds as follows:

Callback Days are not expensed. Although they represent a cost to PSP, they are compensated as any other duty day.

DATE PREPARED: April 3, 2020	WITNESS: Jessica Norris
DOCKET: TP-190976	RESPONDER: Jessica Norris
REQUESTER: PMSA	Puget Sound Pilots

PMSA DATA REQUEST NO. 334: Regarding Exh. JN-05, p. 6, please provide documentation of the number of pilots on the working pilot roster for this 12 month period using the same approach as is taken in the audited annual financials for 2018 (Exh. JN-04).

RESPONSE TO DATA REQUEST NO. 334

PSP objects to producing documentation of every action taken by the auditor. Cumulatively, such requests are unreasonably burdensome and are unlikely to discover probative evidence. When such requests are not otherwise objectionable, or where PSP will respond despite its objection, a narrative response may be given.

Subject to and without waiving the foregoing objection, PSP and Ms. Norris respond as follows:

PMSA DATA REQUEST NO: 334			
WORKING PILOT ROSTER FOR TEST YEAR			
Total Duty Days	18,051		
Days in a Year	365		
Working Pilot Roster	49.5	*	
<i>*rounded to nearest tenth</i>			

DATE PREPARED: August 3, 2020	WITNESS: Dr. Sami Khawaja
DOCKET: TP-190976	RESPONDER: Puget Sound Pilots
REQUESTER: PMSA	

TESTIMONY OF DR. SAMI KHAWAJA

DATA REQUEST NO. 432: With respect to your testimony regarding callback compensation that “there is no premium component to the compensation” and revenues “should provide additional compensation for Callbacks” (Exh. SK-3T at 3:3-6) and that “[c]allbacks should be above and beyond base compensation” (Exh. SK-3T 10:18-19), admit that as you understand it, pilots are currently compensated for callbacks under current rates but are compensated without a premium in the tariff and without additional compensation beyond base compensation in the tariff.

RESPONSE TO NO. 432:

Objection. This request mischaracterizes the testimony; PSP did not propose a premium component to the tariff, only additional compensation for additional work. Additionally, there is no stated rationale behind the current rates; the BPC established tariff rates in a “black box.”

Subject to and without waiving the foregoing objection, Dr. Khawaja responds as follows:

Denied. Based upon the methodology I have recommended, the revenue requirement would consider Callbacks and fund the additional work they represent. There is no evidence that the “black box” of tariff ratesetting relied upon by the Board of Pilotage Commissioners funded Callbacks in the revenue requirement at the time they are worked.

DATE PREPARED: August 3, 2020 DOCKET: TP-190976 REQUESTER: PMSA	WITNESS: Dr. Sami Khawaja RESPONDER: Puget Sound Pilots
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DATA REQUEST NO. 434: Please annotate and label all data points in the figure title “% Change” for the time period January 14, 2004 to June 18, 2020 (Exh. SK-3T at 7:3-9).

RESPONSE TO NO. 434:

Objection. PSP is not required to create exhibits in response to discovery requests. See WAC 480-07-400(1)(a)(iii). Subject to and without waiving the foregoing objection, Dr. Khawaja responds as follows:



DATE PREPARED: August 3, 2020	WITNESS: Dr. Sami Khawaja
DOCKET: TP-190976	RESPONDER: Puget Sound Pilots
REQUESTER: PMSA	

DATA REQUEST NO. 436: Please provide documentation supporting your assertion that under the UTC Staff recommendation that pilots would “have earned Staff’s \$400k compensation, but they had to work numerous Callbacks for free to get it” (Exh. SK-3T at 11:17-18).

RESPONSE TO NO. 436:

The testimony was based upon the difference in the number of assignments a pilot would be required to work to earn \$400k under the assignment level proposed by Staff, which does not acknowledge that Callbacks represent additional labor above a pilot’s on-watch workload, and the FTE pilot’s workload that I calculated. For further elaboration, see page 11 of my rebuttal testimony.

PUGET SOUND PILOTS' RESPONSE TO PMSA DATA REQUEST 416-438

DATE PREPARED: August 3, 2020 DOCKET: TP-190976 REQUESTER: PMSA	WITNESS: Dr. Sami Khawaja RESPONDER: Puget Sound Pilots
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DATA REQUEST NO. 438: Regarding your comment that “pilot compensation for labor performed is the equivalent of return on investment. Just as is the case in other industries, in order to attract that investment, the return must be sufficient” (Exh. SK-3T at 12:3-5), please (a) identify what formula you have recommended that would include a rate of return in the Revenue Requirement, (b) cite with specificity where you have quantified the rate of return required in the Puget Sound Pilotage district, and (c) describe this quantification.

RESPONSE TO NO. 438:

Objection. This request mischaracterizes the testimony of Dr. Khawaja. Subject to and without waiving the foregoing objection, Dr. Khawaja responds as follows:

Response to subpart (a):

My testimony did not recommend a rate of return based upon a quantifiable formula. My testimony made an analogy rather than the direct application of a specific rate of return. Pilot income is a return on their investment of labor as the Cross Answering Testimony of Danny Kermode generally describes.

Response to subpart (b):

Not applicable

Response to subpart (c):

Not applicable