

**BEFORE THE WASHINGTON  
UTILITIES AND TRANSPORTATION COMMISSION**

**WASHINGTON UTILITIES AND  
TRANSPORTATION COMMISSION,  
Complainant,**

**v.**

**PUGET SOUND PILOTS,  
Respondent.**

**Docket TP-220513**

**REBUTTAL TESTIMONY OF  
CHARLES A. CZEISLER  
ON BEHALF OF PUGET SOUND PILOTS**

**MARCH 3, 2023**

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3 **I. IDENTIFICATION OF WITNESS**

4 **Q: Please state your name and position.**

5 A: My name is Dr. Charles A. Czeisler. I am Director of the Division of Sleep Medicine at  
6 the Harvard Medical School and Chief of the Division of Sleep and Circadian Disorders in the  
7 Departments of Medicine and Neurology and Director of the Sleep Matters Initiative, both at  
8 Brigham and Women's Hospital in Boston, Massachusetts.

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10 **II. PURPOSE OF TESTIMONY**

11 **Q: What is the purpose of your testimony?**

12 A: My testimony is offered to rebut the position of the PMSA through Captain Michael  
13 Moore that my original testimony has no relevance to the issues in this general rate proceeding  
14 before the Washington Utilities and Transportation Commission. To the contrary, my testimony  
15 has direct bearing on the efficacy of the multiple efficiency measures implemented by the Puget  
16 Sound Pilots in 2021-22 and the need for the UTC in its ratesetting capacity to adopt a tariff  
17 adjustment mechanism that facilitates as rapid a reduction as possible in the unsafe levels of  
18 callback assignments currently being experienced by off watch PSP pilots. My rebuttal  
19 testimony also responds to the PMSA position that pilotage grounds throughout the United States  
20 should not be viewed as comparable for regulatory purposes.

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23 **Q: Based on your experience with fatigue risk management in the transportation**  
24 **industry and in particular marine pilotage, do you have an opinion regarding the**  
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1 **appropriateness of pilot group regulators throughout the United States treating the work of**  
2 **those pilot groups as highly comparable?**

3 A: Yes. Over the last 19 years, I have gained substantial experience working with US pilot  
4 groups on fatigue risk management best practices. My pilotage experience includes work for or  
5 presentations to the Columbia River Bar Pilots, San Francisco Bar Pilots, Washington Board of  
6 Pilotage Commissioners and Puget Sound Pilots. In my opinion, there is no question that the  
7 work of state-licensed pilots who are organized into pilot associations throughout the United  
8 States is highly comparable. All of these highly specialized transportation-critical marine pilots  
9 perform all of their work in extremely challenging conditions, which include the unpredictable  
10 nature of assignments during a pilot's on-watch interval and the high prevalence of night work  
11 throughout that interval, and do so within a unique maritime industry work calendar that involves  
12 equal amounts of time on and time off.

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15 **Q: Why do you disagree with Capt. Moore's position that your testimony "is likely of**  
16 **little relevance to this rate case" and the PMSA's argument that the UTC has no role when**  
17 **it comes to the assignment levels of PSP pilots?**

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19 A: To establish rates and the revenue requirement for the existing tariff, the UTC had to  
20 utilize some sort of assignment level, which it designated in Order 09 as the historical average of  
21 the assignments for PSP over five years, which was referred to in Order 09 as the Average  
22 Assignment Level. While there is no question that the number of authorized pilots and the Target  
23 Assignment Level or TAL are matters reserved for decision by the Washington Board of Pilotage  
24 Commissioners, the ratesetting reality for the UTC is that it must assess the evidence in this case  
25 regarding the existing workload of the Puget Sound Pilots and the intersection between that  
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workload and sound fatigue risk management in a safety critical transportation profession. While  
1 the evidence before the UTC in my original testimony demonstrates that the extreme levels of  
2 callbacks being experienced by PSP in 2018, 2019 and again in the post-Covid years of 2021-22  
3 and to date are "unsafe from a fatigue risk management standpoint," it is my opinion that the  
4 UTC must bear this now unrebutted testimony in mind in its consideration of PMSA's arguments  
5 that PSP pilots are both inefficient and not working enough while they are on watch and are  
6 improperly refusing to accept unsafe levels of callbacks on a regular basis.  
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9 **Q: Have you had the opportunity to review the rebuttal testimony of Captain Ivan  
10 Carlson?**  
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12 A: Yes. I reviewed the first three major sections of his testimony dealing with the  
13 comparability of US pilotage grounds, the efficiency, workload, ship delay and callback issues  
14 and the importance of an automatic tariff adjuster for new licensee/retirees.  
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16 **Q: Based on your work with PSP over more than one year in considering and  
17 developing multiple efficiency measures adopted by PSP in 2021-22, how would you  
18 describe the scope and effectiveness of that work effort?**  
19

20 A: As I stated in my original testimony, I would characterize PSP's effort in 2021-22 to  
21 implement multiple efficiency measures, which included significant collaboration with me and  
22 my colleagues at BWPO, was clearly done in good faith, and the data assembled by Captain  
23 Carlson now shows that these measures are having significant positive impacts in the form of a  
24 5% increase in on-watch productivity in 2022 compared to 2019, the closest prior year with a  
25 similar level of vessel traffic.  
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1 **Q: What is your opinion regarding the PMSA testimony that PSP pilots should be**  
2 **taking more callbacks in order to eliminate ship delays?**

3 A: In my opinion, it would be reckless and unsafe for the UTC to adopt the proposal set out  
4 in Captain Moore's testimony to require PSP to create economic incentives for its member pilots  
5 to take on as many callback jobs as necessary to eliminate ship delays. As I stated in my original  
6 testimony, given the nature of a pilot's work on the Puget Sound pilotage ground during his or  
7 her on-watch work cycle, it is important that the off-watch period be used for what is referred to  
8 as "respite" by PSP pilots. As I stated in response to a PMSA Data Request, a PSP pilot must use  
9 the off-watch respite period appropriately, meaning that sufficient time is taken off in order to  
10 recharge. In my judgment, the pilot groups in the United States that are staffed at a level to  
11 maintain callback jobs below 5% of total assignments are in a position where the off-watch  
12 respite period can be used appropriately by an individual pilot to recharge. The PMSA proposal,  
13 which is clearly designed to keep pilot numbers low and keep callback levels in the range of 15%  
14 to 20%, is not only unsafe in my judgment, but clearly inconsistent with the best practice utilized  
15 by other pilot groups and their regulators throughout the U.S.  
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19 **Q: Why, in your opinion, is it critically important for the UTC to adopt a tariff**  
20 **adjustment mechanism that increases or decreases the tariff for new licensees or new**  
21 **retirees?**

22 A: I understand from the efficiency, workload and other evidence that I have reviewed in  
23 this case that PSP will not be able to reduce its level of callback jobs to 5% or below without a  
24 pilot corps that includes a number of licensees above the currently authorized 56 full-time  
25 equivalent pilots. At this point, I do not have the data to be in a position to opine on what the  
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1 authorized FTE should be in order to achieve a 5% or below level of callbacks, but there is no  
2 question that just three additional pilots above the current complement of 53 licensees will not be  
3 sufficient to move callbacks down to that 5% level or below. I know that PSP understands the  
4 same basic fact and plans to petition the Board of Pilotage Commissioners for an increase in the  
5 authorized number of pilot FTEs later in 2023, following the conclusion of this rate case. I also  
6 understand that PSP is seeking an automatic adjuster to the tariff that would adjust the tariff up  
7 or down with the licensure of a new pilot or the retirement of an existing licensee. Because  
8 important safety considerations underlie the need for additional pilots in order to reduce callback  
9 jobs to a reasonable level, the UTC should adopt PSP's proposed new licensee/retiree tariff  
10 adjuster in order to eliminate the significant regulatory lag that will occur if no such adjuster  
11 were approved in this rate case. If no such adjuster were approved, PSP would be in the  
12 unfortunate position of having to file a new general rate case to secure funding for whatever new  
13 level of licensees is approved by the BPC. This would be unnecessary and unfortunate because it  
14 would delay for at least one year the implementation of the BPC's considered solution to the  
15 safety issues that have been raised in this proceeding.  
16

17 With respect to PSP's proposed automatic tariff adjuster for new licensee/retirees, another  
18 safety-related factor is worthy of consideration. During my work with US pilot groups  
19 concerning fatigue risk management practices, one of the tensions that can exist within some  
20 groups is the incentive to work with fewer pilots in order to maximize income. If carried to an  
21 extreme, this can negatively affect the ability of the group to comply with work/rest best  
22 practices. One of the benefits of an automatically adjusting tariff tied to the authorized number of  
23 pilots that the pilot commission determines is necessary for a safe and efficient pilotage system  
24 would be that tariff funding would automatically adjust up or down with the approved number of  
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licensees. This removes any incentive for the pilot group to "work short" in terms of the number  
1 of pilots in order to maximize pilot income.  
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5 **III. CONCLUSION.**

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

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8 **A: Yes.**  
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