

March 29, 2019

24498.0106

Chair Sheri Tonn  
Board of Pilotage Commissioners  
2091 Third Ave. Suite 500  
Seattle, Washington 98121

Re: Fatigue Management Committee Member Questions for NASA and NASA's Scope of Work

Dear Chair Tonn,

On behalf of the Puget Sound Pilot Association ("PSP"), I am writing to address the questions posed by members of the Fatigue Management Committee ("FMC") to NASA, through PSP in relation to the upcoming process for setting the number of pilots pursuant to WAC 363-116-065 (the "065 hearing") and with respect to inquiries about NASA's scope of work.

As you know, the FMC has been examining the recommendations of Dr. Charles A. Czeisler, PhD, MD made to the Board of Pilotage Commissioners ("BPC") on December 7, 2017 for many months. As a result of Dr. Czeisler's recommendations, the FMC proposed revisions to RCW 88.16.013 to revise the interval of rest required following vessel assignments for pilots. In an August 10, 2018 letter, you set out a number of data analyses the BPC felt would be necessary in order to move forward with agency-request legislation. In response to that letter, knowing that the relevant stakeholders lacked the expertise to examine PSP's relevant workload data, PSP engaged a research group consisting of scientists from the Fatigue Countermeasures Laboratory at NASA's Ames Research Center and the San Jose State University Research Foundation (collectively "NASA"). In addition to their expertise and studies of the relationship between sleep loss, circadian deyschrony, cognitive function, and alertness, the research group also had familiarity with fatigue countermeasures for marine pilots based on their study of the San Francisco Bar Pilots fatigue commissioned by the state of California.

Since the time PSP engaged NASA to analyze pilot workload data, PSP has been transparent regarding the work NASA was asked to perform. For example, PSP asked NASA's Fatigue Countermeasures Laboratory Director, Dr. Erin Flynn-Evans, PhD, and Senior Researcher for San Jose State University Research Foundation, Kevin Gregory, to attend a meeting of the FMC in February to answer questions about their work. PSP has also been open about the fact that NASA has been asked as part of its analysis to recommend a proposed number of pilots necessary to comply with Dr. Czeisler's recommended fatigue countermeasures. Ultimately, we expect that recommendation to come in the form of a written report addressing the impacts of fatigue countermeasures on pilot workloads and therefore the number of pilots needed to safely perform the anticipated workload in the coming year, which will be submitted as part of the process by which the BPC sets the number of pilots.

Despite PSP's efforts at transparency, industry members have persistently complained about not being provided the scope of work for which NASA was engaged. Those complaints are highlighted in the numerous questions posed by FMC members to NASA through question compilation first circulated on February 26, 2019 and updated with additional questions on March 25, 2019.

For a number of reasons that need not be fully addressed here, but which include preserving privacy for its members and the unilateral and unfair burden placed on the pilots to constantly provide additional internal operating data, PSP declines to provide a full copy of its engagement with NASA. However, to put to rest questions regarding what research and analysis NASA has been asked to perform, I am providing a verbatim copy of the pertinent sections of the Fatigue Management Program Data Analysis Project in the attached Addendum A. It is my hope that by providing this description of the work being performed by NASA, the FMC can continue its work without resorting to the type of combative and cumulative questions that were included in the February 26 and March 25 compilations.

As noted, I am also writing to address PSP's intentions for addressing the questions posed by members of the FMC. PSP's intentions here are best understood in the context of the due process concerns raised by me and Dave Wiley with respect to the 065 hearing process. As you know, Dave Wiley and I spoke with Albert Wang prior to the February meeting of the BPC in an attempt to outline a process for the BPC that would provide a semblance of the due process and fairness that the BPC owes to relevant stakeholders, including PSP and industry. We were advised that the BPC has no procedural rules which would permit discovery, cross-examination or testimony as part of the 065 hearing process. However, it was generally agreed that through simultaneous submissions, with opportunity for response (and rebuttal if an out-of-sequence submission was permitted), oral presentation, and questions by the Commissioners to the submitting parties, the process would be sufficiently fair and transparent under the circumstances.

Two documents setting forth somewhat similar processes resembling what was previously discussed were then introduced at the BPC meeting on February 21, 2019. The Commissioners voted to approve one version of the process, which, like the other, did not include opportunity for discovery or cross-examination to or from any Interested Party, but did provide "Q&A" sessions following formal written submissions.

It is our understanding that a meeting of the FMC took place the following day, on February 22, 2019, and at that meeting, Captain von Brandenfels invited written questions to be posed to NASA. It is our further understanding that this invitation was made so that NASA could be prepared to provide responses to fatigue management-related questions, rather than providing on-the-spot answers without time for preparation.

Despite the nature of Captain von Brandenfels' invitation, rather than providing written fatigue-management related questions to assist NASA, FMC members instead submitted questions to PSP on February 26 that appear to be nothing more than discovery and/or cross-examination of PSP and the NASA scientists on matters relating solely to the future PSP written submission for the 065 hearing. This characterization seems to equally apply to most of the additional questions circulated on March 25.

On March 21, 2019, the BPC voted to adopt a new schedule for the WAC 363-116-065 process to accommodate PSP's request for additional time. Like the schedule approved on February 21, the current schedule calls for simultaneous submissions, permits subsequent "Q&A" sessions, but does not permit discovery or cross-examination. In accordance with the process that was approved by the BPC and which applies to all Interested Parties, rather than attempting to answer obvious discovery requests, PSP declines to provide answers to the numerous questions compiled and circulated by the FMC in advance of its written submission in the 065 hearing process. PSP further declines to be bound to provide formal written responses of the nature that would be required of all Interested Parties, including industry, if discovery were authorized by the BPC with attendant due process protections. Instead, PSP has provided the questions to NASA and plans to engage in the three Q&A sessions following the formal submission deadline on May 6, 2019. By that time, we expect the attached description of the scope of work and the substance of NASA's written report will combine to narrow the scope and subject matter of the questions the Commissioners seek to have answered in assisting their decision making process.

We trust this letter puts to rest any questions regarding PSP's intentions as we move closer to the May 6 submission deadline. We look forward to submitting on May 6 and advancing this process in a way that is comprehensive but fair to the pilots in the Puget Sound Pilotage District.

Best regards,



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cc: Albert Wang



## **Fatigue Management Program Data Analysis Project**

### **Puget Sound Pilots Background**

The Puget Sound Pilots (PSP) mission is to ensure against the loss of lives, loss of or damage to property and vessels, and to protect the marine environment by maintaining efficient and competent pilotage service on our State's inland waters within the Puget Sound Pilotage District. In executing this mission, PSP provides ship pilotage services on behalf of Washington state, as required. Currently, 52 pilots are authorized by the Washington Board of Pilotage Commissioners (BPC) to service the 7,000+ sq mi Puget Sound Pilotage District (PSPD) which includes 14 major ports. To accomplish this, PSP operates from two dispatch hubs, the Port Angeles Pilot Station (PAPS), which operates much like a fire station, and the Seattle office where PSP dispatch, executive and administrative staff operate from.

### **FMP Data Analysis Project**

PSP established a Fatigue Management Program (FMP) subsequent to the NTSB report on the Eagle Etome incident that was a catalyst for increased awareness of the affects of fatigue in the marine pilotage industry. This led to further research and education in sleep science, circadian rhythm and misalignment, cumulative affect of fatigue on individuals and ultimately PSPs own FMP. In addition, the BPC Fatigue Management Committee (FMC) is addressing 4 measures recommended by Dr. Czeisler, a Harvard a sleep science and fatigue management expert. During the next year or two I expect other recommendations will be on the table. In an on-going effort to better manage and mitigate pilot fatigue, PSP is seeking more in depth analysis by enlisting a consultant to model a number of measures for possible impact and implications, using proprietary operations data and other information.

### **Scope of Work**

1. Source data will be provided from PSP operating system (Coe System) in csv/excel format.
2. Consultant to review and fully understand rules and regulations related to current PSP dispatch rules, including pilot repositioning (repos) and fatigue management.
3. Consultant to develop a database, based on PSP original data and subsequent updates to data, with modeling capability that can be readily and easily accessed and updated by PSP members and/or employees, as designated by PSP.
4. Capability to import/upload PSP monthly data files (Coe system and possible others) into the consultant database/model to incorporate most current data into the model and produce the updated information we need.
5. Model should enable ongoing data processing capability to adapt to additional or modified fatigue management measures and/or changes to other rules and regulations.
6. Capability to model changes in the target assignment level (TAL) and number of pilots.

## **APPENDIX A**