

<p>Meeting Date: August 21, 2019</p>	<p>Board of Pilot Commissioners for the Bays of San Francisco, San Pablo, and Suisun 660 Davis Street, San Francisco, CA 94111</p> <p>PILOT FITNESS COMMITTEE MEETING MINUTES</p>	<p>Page 1 of 10</p>
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Committee Members Present:

Knute Michael Miller, Committee Chair and Past Board President
 Dave Connolly, Commissioner and Board President
 Robert Kosnik, MD
 Joanne Hayes-White, Commissioner
 Captain Einar Nyborg, Commissioner and San Francisco Bar Pilot
 Brigadier General (Ret.) Chester L. Ward, MD

Committee Members Absent:

None

Staff Present:

Allen Garfinkle, Executive Director
 Roma Cristia-Plant, Assistant Director
 Dennis Eagan, Board Counsel
 Luis Cruz, Associate Governmental Program Analyst
 Alethea Wong, Administrative Assistant II

Public Present:

Captain Joseph Long, San Francisco Bar Pilots (SFBP) President and Port Agent; Mike Jacob, Pacific Merchant Shipping Association (PMSA) Vice President and General Counsel; Captains David Corbett, David Cvitanovic, Cevan LeSieur, and Greg Tylawsky, SFBP.

OPEN MEETING

1. Call to order and roll call. (Chairman Miller)

Committee Chair Miller called the meeting to order at 9:15 a.m. Administrative Assistant II Wong called the roll and confirmed a quorum.

2. Approval of the minutes of Committee meeting held on February 26, 2019. (Chairman Miller)

Committee members were presented with the draft minutes from the Committee meeting held February 26, 2019. Commissioner Nyborg requested a minor non-substantive edit to the draft minutes. There were no further comments or edits requested.

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- MOTION:** Commissioner Connolly moved to approve the draft minutes of the meeting held on February 26, 2019, as amended. Commissioner Nyborg seconded the motion.
- VOTE:** Yes: Miller, Connolly, Kosnik, Nyborg, and Ward.
No: None.
Abstain: Hayes-White.
- ACTION:** The motion was approved.

(Note: Agenda item number 3 was erroneously omitted from the agenda.)

4. Continue the review and discussion of the July 2018 San Francisco Bar Pilot Fatigue Study produced by San Jose State University Research Foundation and the National Aeronautics and Space Administration, the identification of key recommendations appropriate for incorporation into regulations, and the development of a fatigue risk management policy. Possible recommendation to the Board to approve fatigue policy recommendations from the Committee from which fatigue regulations will be drafted, and to direct the Committee and Staff to commence draft regulation writing. (Committee members and staff)

Committee Chair Miller continued the review and discussion of the San Francisco Bar Pilot Fatigue Study (Study) recommendations, and the Committee’s preliminary policy recommendations to the Board with respect to pilot fatigue risk management.

Study Recommendation #1: Interventions intended to prevent or manage fatigue should be introduced as part of an overall Fatigue Risk Management System (FRMS), some elements of which are already in place.

The Committee continued the discussion that the Board, by way of regulations, would require the SFBP to submit an FRMS to the Board for review and approval, and for periodic subsequent re-approval whenever changes are made, but potentially no less frequently than every 24 months.

The Committee discussed a proposed 24-month FRMS review interval. Dr. Kosnik proposed that the Board review the FRMS after each modification and every subsequent 24 months. Port Agent Long commented that once in full operation, the initial FRMS will need constant periodic review to evaluate efficiency. He stated that over time, the work dictated by the FRMS will eventually stabilize, and at that time it may be worth the Board revisiting the FRMS on an as-needed basis. Committee Chair Miller stated that minor amendments should not need Board review and approval, only operational amendments.

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Commissioner Connolly stated that the development of an FRMS should not be burdensome. Dr. Kosnik concurred and stated that the Committee should focus now on fatigue management policies and concepts.

Board Counsel Eagan stated that the Committee could consider a more general approach to reviewing an FRMS, and include language in the Committee’s policy document such as “periodic review at intervals” rather than specify now a static Board FRMS review interval. Assistant Director Cristia-Plant stated that other State Boards typically have defined review periods for major policies. She stated that even if there are no proposed changes to an approved policy, a defined policy review period is useful to members of the Board who may not have been on the board when the policy was last approved, to the public and to stakeholders who are made aware of the policy.

Mr. Jacob commented that the most critical topic before the Committee is development of the FRMS. He noted that including the “SFBP” in regulatory language could be troublesome as the Board typically does not direct mandates to the SFBP association. He suggested the use of “BOPC-licensees.”

The Committee agreed to amend the draft policy recommendation for the Study recommendation #1 to require the development of an FRMS, and that the Board “periodically review” the FRMS at prescribed intervals thereafter.

Study Recommendation #2: A limit on the duration of work periods is advisable. The current Bar Pilot Association policy (a limit of 12 hours) appears to be appropriate

The Committee discussed that the Board would amend its regulations to require that pilots be limited to a maximum work period duration of 14 hours, and to provide the Port Agent the authority to extend a work period duration to a maximum of 16 hours if safety considerations require it, and any Port Agent-authorized extension of a work period beyond 14 hours would require reporting the Executive Director.

Executive Director Garfinkle and Commissioner Nyborg questioned the value of the Port Agent reporting work period durations of greater than 14 hours to the Board’s Executive Director. The Committee agreed that the Port Agent’s monthly report to the Board is an appropriate place to report extension of work period durations greater than 14 hours.

The Committee also discussed the option of allowing the pilots to adopt stricter hours of service standards. Mr. Jacob commented that exercising this option would allow the pilots to amend the “hard stop” on work periods, and that the Board should review and approve any changes to the “hard stop” on work periods. Chair Miller and Board Counsel Eagan commented that

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the Board should be establishing a policy that sets the outside work limits for pilots. The Committee agreed to require the Port Agent to report monthly to the Board work periods between 12 and 14 hours and work periods in excess of 14 hours, and to delete the draft directive to authorize the pilots to establish a stricter hours of service standards.

Study Recommendation #3: The maximum duration of a night work period without a rest opportunity should be less than the allowable duration of a daytime work period.

The Committee discussed including a limitation on night work periods policy within the FRMS. Commissioner Nyborg stated that the SFBP proposes to define night work zone as the time period between 0001 and 0559. He stated that not every night job is equivalent, and that a pilot should be limited to 10-hour maximum work period if any portion of a job occurs during the night work zone period. Port Agent Long stated that the pilots define night work as between midnight and 6:00 a.m.

Commissioner Nyborg stated that a maximum night work period of 10 hours would mitigate fatigue on a pilot performing bay moves, in which there is minimal opportunity to rest. He stated an exception to the 10-hour maximum work period rule could be a pilot sailing out to sea to cover an arrival, but only in an instance where the pilot was able to properly rest aboard the station boat between jobs.

The Committee agreed to amend the proposed Board regulation to change the night work period hours to 0001 through 0559, and to delete the draft provision to allow the pilots to adopt stricter night work period hours of service standards in an FRMS.

Study Recommendation #4: A limit to the number of consecutive night shifts is advisable. A limit of two consecutive night shifts would be most desirable; however, a limit of three consecutive night shifts may be more practical.

The Committee discussed limiting the number of consecutive night shifts a pilot is assigned to a maximum of three, and providing the Port Agent the authority to increase the number of consecutive night shifts to four, should safety considerations require it.

Commissioner Nyborg stated that the issue with limiting consecutive night work shifts is that not every night job assignment is the same. He proposed that the FRMS limit a pilot to 18 night hours worked in a 72-hour period, with the intent to account for accumulated sleep debt. Port Agent Long added that if the FRMS defines a limit of night hours a pilot is able to work within a period, it provides the Board the opportunity to adjust the hourly limit as necessary. Mr. Jacob proposed changing from 72 hours to a 96-hour timeframe, and that under no circumstance should a pilot be assigned a fifth night shift.

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The Committee discussed a limit of three consecutive night shifts, with the Port Agent authorized to increase that to four consecutive night shifts. In addition, the Board, by regulation, would require SFBP to include in its FRMS a limit on the number of consecutive night-time hours in any 72-hour period. The Port Agent would be required to report monthly on the number of consecutive night shifts in excess of three and the circumstances requiring a pilot to work a fourth consecutive night shift.

Study Recommendation #5: The BOPC should explore the reasons for the early morning peak in arrivals and consider options to distribute arrivals more evenly throughout the 24-hour day.

The Committee did not identify options for the Board to implement that would distribute ship arrivals more evenly throughout the 24-hour day. The Committee recommends no regulatory action for this Study recommendation.

Study Recommendation #6: The BOPC should consider whether a change to the minimum advance notice required when ordering a pilot would help to increase the predictability of pilot schedules.

The Committee decided to recommend to the Board that the SFBP be required to include in its FRMS minimum advance notice requirements for the assignment of a pilots.

Study Recommendation #7: The BOPC should consider whether technological solutions (such as software applications) could enable the timing of piloting assignments to be predicted with greater accuracy.

The Committee could not identify technological solutions that would improve the timing of pilot assignments, and agreed to recommend no regulatory action on this Study recommendation.

Study Recommendation #8: The BOPC should consider whether pilots who are on-call for 14 days should be provided with a rest break at or around the mid-point of the 14-day period. A midpoint break of at least 24 hours may be appropriate. If such a break does not occur naturally due to the movement of the board, it may be feasible to delay the pilot's BoB [bottom of the board] time to achieve this.

Chair Miller commented that each pilot, ship and situation is different, and that he did not want to craft a policy recommendation to the Board that would inadvertently short the pilot assignment board. Both Chair Miller and Commissioner Nyborg discussed that a 15-day period would be an appropriate period of time to require a midpoint break for pilots who work on-call for a two-week period, instead of being on-call for a one-week period. Port Agent Long stated that with all the other FRMS rules, this issue would likely go away. Commissioner Nyborg confirmed for Commissioner Connolly that approximately a third of the pilots are

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working a 14-day shift. Mr. Jacob commented that the Board does not regulate duty shifts but should be regulating hours worked.

The Committee agreed to modify this recommendation to include a recommendation to the Board to amend Board regulations to limit pilots to a maximum of 15 consecutive days of on-call service, that the Port Agent would be authorized to extend the consecutive work days up to but no longer than 17 days if safety considerations required it, and that the Port Agent would be required to report monthly to the Board if he granted an extension beyond the 15 days. The Committee also agreed that the need for a mid-point rest break should remain the subject of further review, and therefore should be included as an item for discussion in subsequent renewals of the FRMS.

Study Recommendation #9: The BOPC should consider ways to minimize advancing shift rotation. An advancing shift rotation occurs when each work period in a series has a start time earlier than that of the preceding work period.

Port Agent Long commented that advancing shift rotations are sometimes preferable. Commissioner Nyborg recommended that the Committee recommend no regulatory action on this Study recommendation and include education materials be distributed to pilots within the FRMS. The Committee agreed to recommend to the Board to require that the FRMS include a plan to educate pilots concerning the possible effects fatigue of advancing shift rotation.

Study Recommendation #10: There should be a Minimum Rest Period (MRP) between work periods. The current Bar Pilot Association policy (12-hour MRP) appears to be appropriate.

The Committee agreed to recommend to the Board that the FRMS require a minimum rest period between work periods of not less than 10 hours, with the Port Agent authorized to reduce the minimum rest period to 8 hours between work periods if safety considerations required it. The Port Agent would be required to report rest periods of less than 10 hours.

Study Recommendation #11: Minimum Rest Period (MRP) exceptions should be monitored to ensure that no individual pilot is disproportionately burdened with MRP exceptions.

The Committee agreed to recommend to the Board that there be no regulatory action on this Study recommendation because it believes that MRP situation occurs relatively infrequently, and that the Port Agent already has inherent authority to remedy the situation.

Study Recommendation #12: The Committee should consider whether an extended rest period is needed following an MRP exception.

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The Committee agreed to recommend to the Board its previously drafted policy of no regulatory action on this Study recommendation regarding whether or not an extended rest period is needed following an MRP since the Port Agent has inherent authority to adjust a pilot's rest period when on-call.

Study Recommendation #13: Recalls of pilots from an off-call period should be managed to minimize disruption of their recovery rest prior to the start of their next on-call.

The Committee agreed to recommend to the Board that the FRMS be required to include a plan to minimize disruption of off-call pilots who are recalled prior to the start of their on-call period.

Study Recommendation #14: Pilots should receive an appropriate recovery period after awakening, before boarding a ship. A longer recovery period will be needed when the awakening occurs during the circadian low, or when the pilot has been asleep for more than 30 minutes.

The Committee agreed to recommend to the Board that the FRMS be required to include information for pilots, dispatchers, and pilot vessel crews with respect to an appropriate recovery period after awakening.

Study Recommendation #15: The BOPC should receive information on the number of Bar Pilots available on the Board.

Committee Chair Miller stated that he thought the BOPC receiving information of the number of Bar Pilots available on the Board could be helpful. Port Agent Long stated he could include the average number of pilots available for the previous month within the Port Agent's monthly report to the Board. The Committee agreed that it recommend to the Board to amend its regulations to require that the average number of pilots on the board be reported in the annual report under section 237(d) of the regulations.

Study Recommendation #16: Implement solutions to increase the number of Bar Pilots available on the board at any given time. Approaches could include reducing the amount of "other duties" performed by Bar Pilots, or increasing the number of Bar Pilot Licensees.

Dr. Kosnik noted that the number of BOPC-licensees is a BOPC issue and that the availability of pilots is a Port Agent issue. Mr. Jacob commented that the Board could increase the number of authorized pilots. Board Counsel Eagan noted that this Study recommendation is referring to maximizing the number of available pilots.

The Committee agreed to recommend to the Board that the FRMS be required to include a plan to increase the number of pilots available on the board at any given time, and that the

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Committee notes the Board has the authority, following a hearing, to adjust the number of authorized pilot licenses under its jurisdiction.

Study Recommendation #17: Implement a system to enable pilots to report fatigue and remove themselves from the roster without consequences when they are significantly fatigued. It will be necessary to address the cultural barriers that could prevent such a system from working.

The Committee agreed to recommend to the Board that the FRMS include a plan to enable pilots to report fatigue and to remove themselves from the board without consequences when they are significantly fatigued, along with references to the Harbors and Navigation Code §1146 that allows a pilot to refuse an assignment when physically or mentally fatigued and the pilot has a reason to believe that the assignment cannot be carried out in a competent and safe manner. Commissioner Connolly noted that having such an opt-out-of-work mechanism due to fatigue is important.

Study Recommendation #18: Provide pilots with educational material on the effective use of caffeine, and other aspects of good sleep hygiene.

Study Recommendation #19: Provide advice to pilots on how to improve their home sleeping environments. This could include educational material for families on how they can contribute to Bar Pilot rest and alertness.

The Committee agreed to recommend to the Board that it require existing handouts on these topics to be provided to pilots and that the FRMS also include a plan for distribution of this or similar material to pilots each year.

The Committee then discussed three additional fatigue mitigation recommendations it intends to make to the Board outside of the Study recommendations.

Additional Recommendation #20. Pilot Trainees should, when handling vessels, be subject to the same duration of service and other limitations as those imposed on serving pilots.

The Committee discussed the role of the trainee and fatigue mitigation. Assistant Director Cristia-Plant noted that trainees work hard and are encouraged to maintain a certain jobs per month average while in the training program. Port Agent Long stated that there is a difference between a licensee and trainee, noting that a licensee is subject to the rotating roster dispatch system, where a trainee is not. Captain LeSieur stated that most pilots will recognize when a trainee is fatigued. Dr. Kosnik stated that “hard stops” should apply to trainees. Board Counsel Eagan stated it would be wise to address trainees within the fatigue mitigation rules.

Executive Director Garfinkle read the Washington State regulations and noted that the fatigue regulations apply to trainees. Captain Corbett stated that he believes that the Board’s pilot training

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program provides a trainee enough leeway to mitigate fatigue, and that trainees are given a high workload but, that the workload can be well managed. He cautioned the Committee with applying fatigue rules to trainees as it may unduly burden future trainees in the training program.

Board Counsel Eagan stated that he prefers work limits for trainees, but maybe the limits can be more flexible, and potentially there should be more responsibility for trainee fatigue oversight since trainees are not on-call like pilots, and trainees can self-select their assignments.

Commissioner Nyborg stated that he discussed the issue of trainees and fatigue with Pilot Evaluation Committee Chair Captain Teague, and that both agreed the that the Puget Sound trainee fatigue model should be used as a good example. He also stated that the Pilot Evaluation Committee should be required to provide trainees with training on fatigue issues.

The Committee agreed to recommend that trainees be educated on fatigue issues, that trainees should also be educated concerning their right not to proceed with an assignment if they believe they are impaired by fatigue, and that this educational responsibility falls upon the Board's Pilot Evaluation Committee.

Additional Recommendation #21. To ensure that pilots traveling to or from mandated training at facilities distant from the waters under the jurisdiction of BOPC arrive able to pursue their studies or their piloting duties upon return in rested and alert condition, pilots traveling in excess of eight hours and at BOPC expense for training mandated by statutes, regulation, or BOPC action, would be required to travel in a transportation mode that allowed for 180-degree horizontal seating.

The Committee discussed pilot airline travel arrangements to and from mandated manned model training facilities. Committee Chair Miller opined that Board should consider allowing for 180-degree horizontal seating when BOPC-licensees travel by air in excess of eight hours, and that the Study addressed this issue on page 77. He stated that BOPC-licensees are not state employees, and that while 180-degree horizontal seating does not solve circadian rhythm disruption, it would increase the amount of rest to and from training when a pilot travels overseas for training.

Assistant Director Cristia-Plant stated that currently the Board pays under contract with the SFBP for the training course tuition and the economy air fare rate for pilots to attend manned model training in France.

Mr. Jacob stated that the shipping industry does not feel obligated to pay business class travel for BOPC-licensees even if the Board approves a regulation that required business class travel, and that future fatigue mitigation regulations should not impact the Board's surcharges. Commissioner Nyborg also expressed a concern about the cost of air fare for pilots to travel to attend training.

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Commissioner Connolly stated that the payment of air fare and Pilot Continuing Education Surcharge rates was beyond the scope of the Committee, and should be considered by the Board's Finance Committee.

The Committee agreed to require pilots traveling in excess of eight hours to attend training mandated by statute, regulation or BOPC action be required to travel in a transportation mode that allowed for 180-degree horizontal seating, and that there is Federal Aviation Administration research in support of this recommendation.

Additional Recommendation #22. Incident Review Committee assessment of whether fatigue contributed to an incident.

The Committee agreed to recommend to the Board that the regulations be amended to require the Incident Review Committee (IRC) to assess whether fatigue contributed to an incident and include that assessment in future IRC investigation reports.

5. Report on the pilot and trainee fitness determination process involving the Division of Occupational & Environmental Medicine at the University of California, San Francisco Campus. (Executive Director Garfinkle)

This agenda item was not discussed.

6. Public comments on matters not on the agenda.

There were no comments from the public on matters not on the agenda.

7. Schedule the next Committee meeting, and proposals for the next Committee meeting agenda.

There was no discussion of this agenda item.

8. Adjournment.

At 1:16 p.m., Committee Chair Miller noted that not all of the agenda items were discussed at the meeting. He then called for a recess and to continue the meeting on August 30, 2019, at 10:30 a.m. (**Note:** The continuation meeting was subsequently cancelled due to a lack of a quorum.)

Submitted by:



Allen Garfinkle, Executive Director