

<p>Meeting Date:</p> <p>July 20, 2018</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 6</p>
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Committee Members Present:

Knute Michael Miller, Committee Chairman and Past Board President
 Brigadier General (Ret.) Chester L. Ward, MD
 Robert Kosnik, MD
 Captain Einar Nyborg, Commissioner and San Francisco Bar Pilot

Committee Members Absent:

None.

Staff Present:

Allen Garfinkle, Executive Director
 Dennis Eagan, Board Counsel
 Luis Cruz, Associate Governmental Program Analyst

Public Present:

Captain Joseph Long, San Francisco Bar Pilots (SFBP) President and Port Agent; Raymond Paetzold, SFBP Business Director and General Counsel; Mike Jacob, Pacific Merchant Shipping Association Vice President and General Counsel; Captain David McCloy, SFBP; Dr. Alan Hobbs, and Kevin Gregory, San Jose State University Research Foundation, and Dr. Erin Flynn-Evans, National Aeronautics and Space Administration (NASA).

OPEN MEETING

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

Chairman Miller called the meeting to order at 9:42 a.m. Associate Governmental Program Analyst Cruz called the roll and confirmed a quorum.

2. Approval of the minutes of Committee meeting held on December 5, 2017. (Chairman Miller)

Committee members were presented with the draft minutes from the Committee meeting held December 5, 2017. There were no comments or edits requested.

MOTION: Dr. Ward moved to approve the draft minutes of the meeting held on December 5, 2017. Commissioner Nyborg seconded the motion.

VOTE: Yes: Miller, Kosnik, Nyborg, and Ward.
 No: None.
 Abstain: None.

ACTION: The motion was approved.

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3. Receive, review and discuss the Pilot Fatigue Study produced by San Jose State University Research Foundation. Possible Committee action to recommend to the Board to accept the report. (Chairman Miller and Dr. Alan Hobbs)

Chairman Miller welcomed the San Jose State University Research Foundation researchers and thanked them for their meeting attendance. He announced that he had reviewed the *San Francisco Bar Pilot Fatigue Study*, conducted by researchers at the San Jose State University Research Foundation (SJSURF), in collaboration with Dr. Erin Flynn-Evans of the NASA Ames Research Center, and stated that he was pleased to learn that certain fatigue management practices currently implemented by the SFBP were validated to mitigate fatigue by the researchers.

Dr. Hobbs began his discussion by thanking all parties involved with the study. He described the SFBP work assignments as a rotating roster system, and that for the majority of pilots, the system is an effective work assignment method. He stated that due to pure chance and nature of the rotating roster system, researchers observed that occasionally a pilot was assigned a string of consecutive night assignments. He explained that too many consecutive, uninterrupted night assignments could negatively impact an individual's performance, that the individual themselves may not recognize this decrease in their job performance, and that sleeping during daylight hours is not as restorative as night-time sleep. Dr. Flynn-Evans noted that moving forward, the Board should evaluate each of the study's recommendations individually, and that implementation of new pilot fatigue mitigation rules could have unintended consequences due to the complex nature of Bar Pilots' work.

Dr. Hobbs and the researchers reviewed each of the study's recommendations and answered questions that arose from the Committee and members of the public.

Dr. Hobbs explained that further development of a formal "Fatigue Risk Management System" by the SFBP may help address fatigue-related issues. Dr. Flynn-Evans added that it is difficult to assess fatigue mitigation in real time.

Port Agent Long responded to an inquiry from Dr. Hobbs concerning pilots assigned consecutive night assignments and stated that the SFBP have been aware of this issue and that internal discussions have begun to better mitigate these occurrences. Dr. Hobbs explained that researchers intentionally did not introduce a recommendation with a hard cut-off limit on night work, stating that two consecutive nights is desirable, though may not be practical. Dr. Flynn-Evans cautioned the Board about implementing hard cut-off limits on night work, reiterating the possibility for unintended consequences.

Commissioner Nyborg explained that the study's first few recommendations are similar to fatigue mitigation issues the SFBP have internally discussed. He stated that these issues are difficult to address and that he appreciated the flexibility within the recommendations. He stated the flexibility allows the SFBP to set work rules that have less impact on efficiency.

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Dr. Flynn explained that “fatigue risk management systems” assist with recognition of problem areas, and require continual re-evaluation as circumstances change. She stated that even with regulation, fatigue risks have to be constantly evaluated.

The Committee briefly discussed recommendation #6, which reads, “The BOPC should consider whether a change to the minimum advance notice required when ordering pilot would help to increase the predictability of pilot schedules.” Dr. Kosnik noted that pilots rest or sleep in different locations which may affect the minimum advance notice time requirement to order a pilot. Port Agent Long noted that increasing the minimum night notice requirement time from four to eight hours made a significant improvement in fatigue management.

Dr. Hobbs mentioned the possibility of benefits provided by the further use of technology to predict ship arrivals. Commissioner Nyborg stated that the technology exists, and is used by the SFBP, though ship arrivals are far more predictable than ship departures. He stated that various factors can delay a ship from sailing at its scheduled time, and that such delays contribute to minimum rest period (MRP) exceptions.

The Committee briefly discussed advancing shift rotations (wherein each consecutive shift start time is earlier than the preceding one) Dr. Flynn-Evans explained that a nighttime advancing shift rotation may lead to greater disrupted sleep.

Dr. Flynn-Evans responded to a question by Chairman Miller concerning MRP exceptions, and stated that researchers do not know the amount of recovery time needed following a MRP exception.

Dr. Hobbs explained that sleep inertia, a physiological state of impaired cognitive and sensory-motor performance that is present immediately after awakening, is dependent on numerous factors. He stated sleep inertia impairs performance, and that individuals who are likely to experience sleep inertia require time to recover from it after awaking. He stated that sleep inertia may be problematic for a pilot who wakes up and has to perform a task such as climbing a ladder boarding a ship. Dr. Flynn-Evans noted that individual’s sleep inertia recovery times varies. Commissioner Nyborg explained that while sleeping on the pilot station boat, he provides the ship crew a specific time to wake him that accounts for sleep inertia recovery time.

The Committee briefly discussed the glossary section of the study. Port Agent Long clarified that “return time” is the estimated time between pilots disembarking of a ship and arriving at the Pier 9 office.

Commissioner Nyborg inquired who prepares fatigue risk management systems. Dr. Flynn-Evans explained that most fatigue risk management systems are produced internally, and are tailored to the specific industry or company.

Mr. Jacob thanked the researchers for their study, stated that the study was thorough and well put together. He took note of the incidence of rotations consisting of two weeks on/two weeks off, and that indicates that there is nothing sacred about the practice of the seven days

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on/seven days off work rotation. He stated that for future rulemaking, the Board’s goal should be for optimizing rest, but allowing for flexibility, although recognizing that the Board may have to draw a “line in the sand” beyond which work is unacceptable due to fatigue risk. Dr. Flynn-Evans noted that in other industries, MRP exceptions are measured on a day-by-day basis.

There was a brief discussion concerning container ship departures, and the MRP exceptions that can occur during ship departures. Captain Nyborg stated that the situation could be improved through cooperation between various stakeholders, including pilots, ports, and longshore workers. Mr. Jacob responded that time at the berth is quite controversial currently due to air quality concerns and the high cost of pollution mitigation.

MOTION: Dr. Ward moved that the Committee report to the Board that the Committee examined the San Francisco Bar Pilot Fatigue Study prepared by researchers at the San Jose State University Research Foundation and the National Aeronautics and Space Administration, and the Committee recommends the Board receive and consider the report, and the Committee requests the Board to refer the study back to the Pilot Fitness Committee for potential fatigue mitigation regulation development.

VOTE: Yes: Miller, Kosnik, Nyborg, and Ward.
No: None.
Abstain: None.

ACTION: The motion was approved.

Chairman Miller called for a short recess

RECESS BEGAN: 12:05 P.M.
RETURN TO OPEN SESSION: 12:22 P.M.

4. 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)

Executive Director Garfinkle reported that on May 15, 2018, he attended a meeting with the Board’s physicians at the University of California, San Francisco Occupational Health and Environmental Medicine Campus (UCSF). He stated that a significant portion of the meeting revolved around the process of pilots reporting changes in medical conditions or medication changes, and that there was a consensus among the group that many of the delays in obtaining physician approval to return to work stemmed from pilots submitting insufficient documentation to the physicians. He stated that Board staff could do a better job of educating pilots about the documentation and forms required under these circumstances. He stated that overall the pilot and trainee medical assessment process is working well, and that the meeting was helpful to all parties.

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Commissioner Nyborg inquired if there was a list of over-the-counter medications identifying what drugs pilots are allowed or not allowed to take. He stated he has received multiple inquiries concerning this issue from pilots. Dr. Kosnik noted that there is a difference between prescribed and over-the-counter medications, and that when a toxicology test is positive for certain drugs or medications, it is used for information purposes, and the physician will consult with the pilot to make his recommendation. Dr. Ward stated his concern as a physician would be inquiring into the reasons why a pilot would be taking an over-the-counter medication, and shared his opinion that a positive result for any of the various drugs tested may indicate a condition the physician is unaware of, and may open the door to further inquiries and insight into the patient's medical condition.

Executive Director Garfinkle stated that there are no prohibitions on over-the-counter medications in the Board's fitness regulations, and that the pilots should be aware of the effects of over-the-counter medications and practice personal risk management. Dr. Ward noted that a physician should evaluate each medication on a case-by-case basis.

Dr. Kosnik stated that he agreed with Executive Director Garfinkle's assessment of issues discussed at the meeting with the physicians. He also stated that UCSF does not use a drug screening panel test specifically tailored for the SFBP, but uses a drug test that best fits the requirements of the Board's regulations.

5. Public comments on matters not on the agenda.

There were no comments from the public.

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

Commissioner Nyborg requested this issue of over-the-counter medications be included as a discussion item on the Committee's next meeting agenda.

The Committee agreed to hold the next meeting in late August 2018, assuming the Board referred the San Francisco Bar Pilot Fatigue Study back to the Committee.

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7. Adjournment.

- MOTION:** Chairman Miller moved to adjourn the meeting. Dr. Ward seconded the motion.
- VOTE:** Yes: Miller, Kosnik, Nyborg, and Ward.
No: None.
Abstain: None.
- ACTION:** The motion was approved and the meeting adjourned 12:51 p.m.

Submitted by:



Allen Garfinkle, Executive Director

DRAFT