

STAFF REPORT ON ASSESSING MENTAL HEALTH FITNESS

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1.0 SUMMARY

The Executive Director (ED) of the Board of Pilot Commissioners (Board) proposes adding an assessment of the mental health fitness of candidates for training. This staff report identifies the reasons for the proposal and how the ED proposes achieving this goal.

2.0 STATUTORY MANDATE

Harbors and Navigation Code (hereinafter referred to as the Code) 1101. (e) sets out that “The Legislature further finds and declares...the following: A program of pilot regulation and licensing is necessary in order to ascertain and guarantee the qualifications, fitness, and reliability of qualified personnel who can provide safe pilotage of vessels entering and using Monterey Bay and the Bays of San Francisco, San Pablo, and Suisun.”

Code 1171. (a) also confers on the Board the authority to set license qualifications: “The board shall have the sole authority to determine the qualifications for obtaining a license as a pilot pursuant to this division, determine who shall have the license, and issue the license.”

Code 1171.5. (a) goes on to specify that the standards for licensing be equal to or exceed the federal standards: “The board shall adopt, by regulation, licensing standards that equal or exceed standards for obtaining federal endorsements and that conform with and support the state policy specified in Sections 1100 and 1101.”

Code 1175. (b) also specifies that to be licensed the following qualifications be met: “The person is of good mental and physical health and good moral character.”

To achieve these goals, the legislature empowered the Board to choose the medical professionals to administer these programs. Code 1176. (a) sets that “The board shall appoint a physician or physicians

who are qualified to determine the suitability of a person to perform his or her duties as a pilot or a pilot trainee in accordance with subdivision (c).”

Finally, the Legislature has also conferred on the Board the duty of establishing what the standards are. As specified in Code 1176. (b): “An applicant for a pilot trainee position or for a pilot license, a pilot trainee, or a pilot seeking renewal of his or her license shall undergo a physical examination by a board-appointed physician in accordance with standards prescribed by the board.”

3.0 DEFINITIONS

While Code 1175. (b) confers upon the Board the responsibility to ensure that candidates for training are of good mental health prior to licensure, it refrains from offering any guidance on the concept of “mental health” and wisely leaves this to medical and psychological professionals. Although this report does not aim to provide a definitive medical or technical definition of the concept, a basic understanding may help create a common frame of reference among Board members and inform their deliberations.

Considering this, staff reviewed definitions from several different professional organizations with ties to the fields of mental health and psychology. For example, the American Psychological Association’s (APA) *Dictionary of Psychology* provides a simple yet straightforward definition of mental health as:

a state of mind characterized by emotional well-being, good behavioral adjustment, relative freedom from anxiety and disability symptoms, and a capacity to establish constructive relationships and cope with the ordinary demands and stresses of life.¹

Internationally, the World Health Organization (WHO) offers a comparable definition:

Mental health is a state of mental well-being that enables people to cope with the stresses of life, realize their abilities, learn well and work well, and contribute to their community. It is an integral component of health and well-being that underpins our individual and collective abilities to make decisions, build relationships and shape the world we live in.²

Within California, considerable time and resources have been spent developing pre-employment tools to assess the mental health of peace officers and other public safety professionals. As a result of these efforts, a definition of mental health has emerged in the Peace Officer Psychological Screening Manual (POSM) (Attachment 1). Building on themes from the APA’s definition of mental health, POSM emphasizes the importance of hiring individuals who are “psychologically capable of handling the pressures, stressors and job demands inherent in [their] occupation.”³

Although these definitions are sourced from international, national, and state organizations, the common thread is the idea that mental health is a state of psychological well-being. This state enables individuals

¹ *Dictionary of Psychology*. (n.d.). Mental health. In *Dictionary of Psychology*. Retrieved June 7, 2024, from <https://dictionary.apa.org/mental-health>

² World Health Organization. (n.d.). Mental health: Strengthening our response. In *World Health Organization*. Retrieved June 7, 2024, from <https://www.who.int/news-room/fact-sheets/detail/mental-health-strengthening-our-response>

³ Peace Officer Psychological Screening Manual (POSM), page 1

to learn well, build relationships, respond to environmental stresses and pressures, and make decisions – characteristics that a candidate for training needs to possess.

4.0 THE VALUE OF MENTAL HEALTH ASSESSMENT BEYOND THE STATUTORY

In addition to fulfilling the requirements of Code 1175. (b) and screening for mental health issues, the proposed testing would also yield information relevant to the candidate's suitability to be a licensee of the Board. For example, the assessment process would be designed to measure the following characteristics, mental health indicators, which are deemed essential to a pilot's performance of their duties:

- Judgment
- Intelligence
- Flexibility
- Motivation
- Maturity
- Honesty & Integrity
- Team orientation
- Acceptance and recognition of danger
- Ability to cope with crisis situations, including judgment, stability, and intelligence
- Absence of significant racial or gender bias

The value of a mental health assessment program would also extend to all Board stakeholders, from industry to the public at large. Various studies have shown that:

[m]aritime pilotage is a demanding occupation where pilots are required to perform complex procedures in sometimes unfamiliar working environments. These psychological stressors, in addition to the physical demands associated with the role (e.g., reduced sleep, boarding, and departing vessels), **may over time have a damaging effect on pilots' physical and mental health** [emphasis added]."⁴

Pre-employment mental health assessments can be instrumental in identifying candidates for training who may be unsuitable to handle the psychological demands of a particular role. Implementing a mental health assessment program, especially for candidates for training, would lead to a more resilient and capable workforce. This workforce would be better equipped to manage both the day-to-day responsibilities of the pilot's role and the high-stress emergency situations that arise from time to time.

5.0 MENTAL HEALTH ASSESSMENT IN OTHER PUBLIC SAFETY PROFESSIONS

Mental health assessments have been widely employed by California state public safety agencies since the introduction of POSM in 1980s. Developed by the Commission on Peace Officer Standards and Training (POST), POSM was designed to:

⁴ Main, L. C., & Chambers, T. P. (2015). Factors affecting maritime pilots' health and well-being: A systematic review. *International Maritime Health*, 66(4), 220-232.
<https://doi.org/10.5603/IMH.2015.0043>

assist ... in the challenging task of screening out peace officer candidates who lack the requisite psychological competencies to be a safe and effective peace officer and are at risk of succumbing to the pressures and stressors of the job, and do so in a manner that avoids unnecessary or unlawful infringement on candidate employment rights.⁵

Since its introduction, POSM has been regularly updated with input from a variety of stakeholder groups, including law enforcement, legal experts, and a steering committee of “blue ribbon psychologists.” Portions of POSM have also been adopted by other states, notably Texas and Washington.

While there are differences between the role of a peace officer and the role of a pilot, there are also many public safety parallels. Both are very public safety-oriented jobs with great responsibility. Both are subject to heavy consequences for errors made on the job. Both act somewhat autonomously on the job and experience constant and direct interaction with strangers. Both must work well with the public and others to accomplish their jobs. And finally, both face stress and danger while performing their jobs. POSM describes the psychological evaluation as “an assessment of the influence of personality traits—both normal and abnormal—on job-related behaviors.”⁶

Some of the attributes peace officers were found to score high on are also desirable qualities for a Board licensee. These are:

- Agreeableness
- Assertiveness/Extroversion
- Conscientiousness/Responsibility/Dependability
- Emotional toughness (freedom from anxiety, hostility and psychological distress)
- Flexibility/Adaptability
- Independence/Achievement orientation
- Integrity
- Intellectual efficiency
- Self-discipline/Self-control
- Social confidence/Self-assuredness
- Social sensitivity
- Tolerance
- Well-being

Correspondingly, a considerable amount of psychological research has focused on identification of indicators of dysfunctional behaviors. “Many different counterproductive work behaviors (CWBs) have been targeted in these studies, including but not limited to excessive force, sexual misconduct, sexual harassment, substance abuse, insubordination or other supervisory problems, embezzlement, deceitfulness, multiple motor vehicle violations, inappropriate verbal conduct, blackmail, bribery, theft, lying, kickbacks, personal violence, revenge, discrimination, and fraud.”⁷

The POSM also identifies categories of counter-productive behavior. The Table 1.0 below lists 11 categories of counterproductive work behavior.

⁵ POSM, page 1

⁶ POSM, page 2

⁷ POSM, page 50

Table 1.0: Categories of Counterproductive Work Behavior⁸

Category	Behaviors
Theft and Related Behavior	Theft of cash or property, giving away goods/services, misuse of employee discount
Destruction of Property	Deface, damage, or destroy property, sabotage property
Misuse of Information	Reveal confidential information, falsify records
Misuse of Time and Resources	Waste time, alter timecard, conduct personal business during work time
Unsafe Behavior	Failure to follow safety procedures, failure to learn safety procedures
Poor Attendance	Unexcused absence or tardiness, misuse of sick leave
Poor Quality of Work	Intentionally slow or sloppy work
Alcohol Use	Alcohol use on the job, coming to work under the influence of alcohol
Drug Use	Possess, use, or sell drugs at work
Inappropriate Verbal Actions	Argue with customers, verbally harass coworkers
Inappropriate Physical Actions	Physically attack coworkers, sexual advances towards coworkers

In general, relative to non-problem officers, problem officers exhibit more of the following characteristics⁹:

- Aggressiveness, argumentativeness, and antagonism
- Antisocial tendencies
- Disregard for societal rules and laws
- Egocentricity
- Emotional instability/anxiety
- Hostility
- Immaturity
- Impulsiveness
- Insensitivity or oversensitivity
- Intolerance
- Irresponsibility/unreliability
- Lack of empathy
- Overconfidence
- Paranoia
- Pessimism
- Poor decision-making
- Proneness to alcohol abuse
- Rebelliousness
- Social introversion
- Suspiciousness, cynicism and distrustfulness

The study of psychological behavior has resulted in a common lexicon for classifying personality attributes. The are called “The Big Five,” as they are organized into five broad categories: Conscientiousness, Agreeableness, Emotional Stability/Neuroticism, Extraversion and Openness to Experience. More thorough descriptions of these categories are contained in Table 2.0.

⁸ All tables, including this one, are sourced from POSM.

⁹ POSM, page 51

Table 2.0: Five Big Personality Traits

Trait	Description
Conscientiousness	Refers to the cluster of traits relating to prudence, achievement, dependability, persistence, and impulse control. Sometimes referred to as Conformity or Dependability (carefulness, thoroughness, responsibility, organization, efficiency). Typical behaviors characterizing individuals high on this personality trait include careful planning, delaying gratification, following rules and norms, being organized, working hard, and persisting in goal-directed behavior. Individuals scoring low are often disorganized, irresponsible, careless, negligent, undependable, and sometimes hedonistic and impulsive (as opposed to harm avoiding).
Emotional Stability	Refers to an individual’s tendency to become emotionally upset. Emotionally stable individuals are relaxed, self-assured, even-tempered and calm. Individuals scoring low on this personality trait are described as moody, anxious, worrying, insecure and tense.
Extraversion	Encompasses traits relating to sociability, dominance, energy and positive affect. Individuals scoring high on this dimension are described as energetic, active, vigorous, talkative, assertive, fun-loving, gregarious, persuasive and positive. Individuals scoring low are described as introverted, silent, submissive, passive, unenergetic, reserved, or being a loner.
Openness to Experience	The most controversial of the Big Five. Traits commonly associated with this dimension include imagination, curiosity, originality, broadmindedness and intelligence. Individuals scoring high are described as having wide interests, being imaginative, curious, creative and insightful. Low scoring individuals are described as shallow, conventional, un-analytical, down-to-earth and lacking in imagination.
Agreeableness	Includes such characteristics as likeability, kindness, courteousness, politeness, and nurturance. Individuals scoring high are described as amicable, cooperative, popular, easy to live with, affectionate, sensitive, caring, kind and tender-hearted. Those who score low are described as uncooperative, disagreeable, unfriendly, selfish and hostile.

6.0 MENTAL HEALTH EVALUATION METHODS

There are a battery of tests identified as part of the POSM. In addition, we also reviewed the “Scope of Services” issued by The Institute for Forensic Psychology (IFP) which has provided similar mental screening to the Sandy Hook Pilots in New York State (Attachment 2).

To the extent possible, the tests should be objectively scorable and there should be data supporting their validity. The goal is to identify potential problem personnel as well as those who are apt to function well in public safety positions.

The POSM identifies twenty distinct written assessment instruments commonly used to screen peace officer candidates. The Board would have to rely on psychological professionals to determine which assessment instruments would be most applicable to our needs. Table 3.0 below lists those assessment instruments and explanations for each can be found in the POSM.

Table 3.0: Written Assessment Instruments Commonly Used to Screen Peace Officer Candidates

Test	Category	Abnormal or Normal	Number of Items	Validity Scales	Substantive Scales	Average Amount of Time to Complete
16PF	Omnibus	Normal	185	3	21	25-35 min.
16PF PSR	Adapted Omnibus	Normal	185	3	25	25-35 min.
16PF/PEPQ PSR Plus	Adapted Omnibus	Normal & Abnormal	325	3	32	35-45 min.
CPI	Omnibus	Normal	434	3	34	45-60 min.
CPI Police & Public Safety Selection Report	Adapted Omnibus	Normal	434	3	42	45-60 min.
HBI-R	Omnibus (limited range)	Abnormal	309	1	9	35-45 min.
HDS	Omnibus (limited range)	Normal	168	0	11	15-20 min.
HLAP	Omnibus	Abnormal	114	1	12	15-20 min.
IPI-2	Specialized	Abnormal	202	1	16	30-40 min.
MMPI-3	Omnibus	Abnormal	335	10	42	35-50 min.
MMPI-3 PCIR Police Candidate Interpretive Report	Adapted Omnibus	Abnormal	335	10	42	35-50 min.
MMPI-3 CCIR Correctional Candidate Interpretive Report	Adapted Omnibus	Abnormal	335	10	42	35-50 min.
MMPI-2-RF	Omnibus	Abnormal	338	9	42	35-50 min.
MMPI-2-RF PCIR Police Candidate Interpretive Report	Adapted Omnibus	Abnormal	338	9	42	35-50 min.
MMPI-2 Revised Personnel System, 3 rd Edition	Adapted Omnibus	Abnormal	567	8	100+	60-90 min.
MMPI-2	Omnibus	Abnormal	567	8	117+	60-90 min.
MPQ	Omnibus	Normal	256	3	14	30 min.
MPQ Police Preemployment Interpretive Report	Omnibus	Normal	256	3	14	30 min.
M-PULSE	Specialized	Normal	455	2	22	60-90 min.

Test	Category	Abnormal or Normal	Number of Items	Validity Scales	Substantive Scales	Average Amount of Time to Complete
NEOPI-R	Omnibus	Normal	240	0	30	30-40 min.
PAI	Omnibus	Abnormal	344	4	18	50 min.
PAI Police & Public Safety Selection Report	Adapted Omnibus	Abnormal	344	4	25	50 min.

7.0 MENTAL HEALTH ASSESSMENT PROGRAM ADMINISTRATION

Following the POSM model, the California Department of Human Resources administers a Psychological Screening Program (established in 1985) (Attachment 3) that screens approximately 6,000 candidates a year for various public safety related positions within the state. California law mandates that all candidates for peace officer positions be certified free from psychological conditions and factors that might pose a risk to the safe and effective performance of their duties. While the CalHR program might be appropriate to our needs, the Board may also be able to conduct this assessment in conjunction with our UCSF partners.

8.0 CONCLUSIONS AND STAFF RECOMMENDATION

The Board and the shipping industry invest considerable resources in selecting and training skilled mariners to be licensees of the Board. The average cost of training a licensee is approximately \$180,000 in stipend alone, not including the time and resources invested by the Pilot Evaluation Committee and the San Francisco Bar Pilots.

In addition to the costs of training, during the life cycle of that licensee, they are entrusted with a high degree of public safety obligations, and the consequences of a safety-related misstep can result in catastrophic consequences to the environment and economy.

The Legislature has mandated that we assure the mental as well as physical health of our licensees. Currently the Board regulations do not specifically identify any medical assessment components aimed at assuring mental health. While there might be considerable push back to using these assessment methods on existing licensees, it aligns with the law enforcement protocol of using these tests as pre-employment tools, to test candidates prior to entering the training program.

Beginning this assessment prior to training protects the Board’s significant investment of resources in training a licensee. At this stage, the training candidate is far enough along in the process to affirm that their interest in the program is serious, yet not so far along that the Board has invested in their training beyond the marginal cost of the exam.

The staff recommends that the Board initiate a study to determine the validity of psychological testing to meet the Legislature’s mandate to assure good mental health, to identify and recommend recognized psychological testing methods to meet those goals, and to promulgate regulations to implement those recommendations.

REPORT ATTACHMENTS

Attachment 1: *Peace Officer Psychological Screening Manual (POSM)*

Attachment 2: *The Institute for Forensic Psychology Scope of Services brochure*

Attachment 3: *CalHR Psychological Screening Program brochure*