

PILOT TRAINEE TRAINING PROGRAM SELECTION EXAMINATION HANDBOOK

General Information

This handbook is provided to assist applicants to the Pilot Trainee Training Program (Training Program) sponsored by the Board of Pilot Commissioners for the Bays of San Francisco, San Pablo, and Suisun (BOPC or Board) in preparing for the Training Program selection examination, which will be held the week of **June 12, 2017**. Training Program Applications are due no later than **April 15, 2017** (see page 2 for application submittal procedures).

The selection process is governed by state law, found in the California Code of Regulations (CCR), Title 7, § 213 as well as California Harbors and Navigation Code (HNC) § 1171. Copies of those laws can be found on the BOPC's website (www.bopc.ca.gov) under the "Resources" drop down menu, then "Links" tab. **In the event of a conflict between the information provided in this handbook and the law, current law controls.**

Successful completion of the Training Program is a prerequisite for licensure by the BOPC. There are other requirements that a trainee must meet to be licensed as a pilot, which are not covered by this handbook, but are set forth in Title 7, California Code of Regulations (7 CCR), §214. There are physical and mental fitness requirements that apply to trainees and pilots alike that may be more stringent than U.S. Coast Guard requirements. Any applicant with a waiver on his or her U.S. Coast Guard license based on a physical condition or who has a potentially disqualifying condition should consider that issue early in the application process.

San Francisco Bar Pilots membership requirements are also beyond the purview of this handbook and are not governed by State law. Nevertheless, an applicant to the Training Program would be well advised to familiarize him or herself with all the prerequisites to becoming a practicing State-licensed pilot.

The Training Program requires intense dedication over a prolonged period of time. While the statutory minimum is one year in the Training Program, most candidates require at least two years and up to three to complete the program. For many trainees, the stipend (currently \$6,000 per month) can be substantially less than what a candidate currently earns, and may impose a fiscal hardship during the training period.

Applicants who comply with all application requirements, and who have been determined to meet the Training Program minimum eligibility requirements outlined in 7 CCR, Division 2, Article 4, Subsection 213 (e), will be admitted to take the Training Program selection examination.

The Training program selection examination consists of a written examination component and a simulator exercise component. Only applicants achieving a passing score on the written examination component will be invited to take the simulator examination component.

The BOPC will create a list of eligible candidates for entry into the Trainee Program from those applicants who receive passing scores on both selection examination components. Applicant rank on the Trainee Program eligibility list will be determined by the combined scores of an applicant's experience points, written examination score and simulator exercise component score, with each score given equal weight and the highest scoring applicant listed first.

The Training Program eligibility list will have up to a three (3) year list life from the date the list is approved by the Board, unless the list is already exhausted. When the Board determines the need for new trainees, openings in the Training Program shall be offered to applicants in their order on the eligibility list. Applicants on the eligibility list must maintain all minimum eligibility requirements, including recency of experience, through the date of the applicant's acceptance of an opening in the Training Program.

Should there be any candidates remaining on a Training Program eligibility list upon the expiration date of the list, candidates on the list who were not accepted into the Trainee Program will need to take the next Trainee Program selection examination if they desire to continue to be considered for acceptance into the program.

APPLICATION PROCESS

Application Form

Applications can be found on the Board of Pilot Commissioners' web site at the following link:
<http://www.bopc.ca.gov/application/>.

Application Submittal Deadline

Completed applications with supporting documentation and payment of the application fee may be hand delivered or mailed to the BOPC.

Type of Delivery	Date/Time
Hand Delivery	DELIVERED: No later than 5:00 p.m., Friday April 14, 2017
Mail (can be U.S. Mail, or other mail carrier)	POSTMARKED: Mailed application package must be postmarked no later than Saturday April 15, 2017

Submit the completed application package along with the application fee to:

**Board of Pilot Commissioners for the Bays of
San Francisco, San Pablo, and Suisun
660 Davis Street
San Francisco, CA 94111
(415) 397-2253
bopc@ca.gov**

Application Fee

There is a \$1,000 fee for participation in the Training Program selection examination. The payment of this fee in the form of a check must accompany an application. This fee covers, in equal parts, costs to take the written examination component and the simulator exercise component.

The BOPC will refund the full application fee to applicants who do not take the written examination. Following the scoring of the written examination component, those applicants who are not successful in passing the written examination will receive a refund of one-half of the application fee (\$500).

Application Review and Notification of Minimum Eligibility Requirements and Experience Points

All applications will be reviewed by BOPC staff for completeness and supporting documentation may be independently verified for accuracy. Applicants who meet minimum eligibility requirements will have their applications reviewed to assess experience pursuant the point criteria described in 7 CCR § 213(f). To document experience, applicants must submit either (1) certificates of discharge or (2) declarations containing a penalty of perjury statement complying with the Code of Civil Procedures § 2015.5 of both the applicant and the person verifying the experience.

Applicants will be notified no later than Friday, **May 19, 2017**, if the minimum application requirements have been met to participate in the Training Program selection examination, and will also be notified of the experience point determination by this date.

Applicants who are deemed ineligible to participate in the Training Program selection examination will have an opportunity to appeal the application ineligibility determination to a Board Committee.

Applicants who have submitted a completed application and have not received written eligibility notification by May 19, 2017 should contact the BOPC.

EXAMINATION OBJECTIVES

1. The purpose of this Training Program examination is to objectively measure the essential knowledge, skills, and abilities required to of a pilot trainee.
2. The examination will include the following content areas:
 - a. Pre-transit Planning
 1. Environmental conditions
 2. Geographic conditions
 3. Vessel capabilities
 4. Transit planning
 - b. Master/Pilot Transition
 1. Leadership/supervision and management
 2. Bridge and vessel equipment
 3. Communication
 4. Vessel characteristics
 - c. Route Piloting
 1. Technical
 2. Shiphandling
 3. Traffic management
 4. Situational awareness
 - d. Docking, Undocking and Anchorage
 1. Docking and undocking
 2. Anchorage
3. The written examination component consists of 150 multiple-choice questions. To be counted, answers must be properly marked on the answer sheet provided. Answers written in the test booklet or scratch paper will not be graded. There is only one correct answer per question.
4. Unless otherwise specified, stated, or implied in the simulator exercise examination component questions, assume that:
 - a. Questions will deal with typical merchant vessels, i.e. full-bodied and relatively low power/tonnage ratios.
 - b. There is ample time and sea room to make whatever maneuver is called for by the situation.
 - c. Vessels are presumed to be in sight of each other unless they are stated to be in reduced or restricted visibility.

- d. All vessels are power-driven and are considered fully functional with no maneuvering restrictions.
- e. Any lights referred to are displayed at night and any shapes referred to are displayed during the day.
- f. Lights shown or referred to are the minimum lights required by the rules for their size, class, condition, etc.
- g. Use of “requires,” “displays,” or “shows” with regard to navigational lights indicates that you can see those lights but the vessel may also display additional lights when presenting another aspect.
- h. Use of “requires only,” “displays only,” or “shows only” indicates these are the only navigational lights on the vessel, regardless of aspect.
- i. Towed vessels are not inconspicuous or partly submerged.
- j. Vessels are in compliance with the rules applicable to the waters upon which they are operating at the time.
- k. Inland rules of the road apply.

WRITTEN EXAMINATION COMPONENT

Date, Time and Location of the Written Examination Component

The Training Program written examination component will be held at 9:00 a.m. on Monday, **June 12, 2017**, at the:

**California State University Maritime Academy
200 Maritime Academy Drive
Vallejo, CA 94590**

Written Examination Registration and Admission

Registration for the written examination will take place on the morning of June 12, 2017, beginning at 8:00 a.m. until commencement of the examination at 9:00 a.m. The notice informing an applicant that s/he has met all minimum qualifications will include directions to the location on campus where the written examination will be administered.

Candidates are encouraged to report to the test location at least thirty (30) minutes prior to the 9:00 a.m. registration cutoff.

Candidates must provide proof of identification in the form of a government issued identification containing a photograph (e.g., driver's license, TWIC, passport, etc.) before being allowed to sit for the examination. Candidates will be issued a candidate identification number upon verification of identification.

Note the following:

- ***Candidates who fail to provide acceptable identification will not be allowed to participate in the written examination.***
- ***Candidates who arrive after the 9:00 a.m. registration cutoff time for the written examination component will not be allowed to participate in the examination.***
- ***There is no make-up written examination.***

Rules For The Written Examination

1. TO ANSWER WRITTEN EXAMINATION QUESTIONS:
 - a. Unless otherwise specified, written examination questions are all multiple choice.
 - b. Read the question carefully, select the correct answer and fill in the corresponding number/letter on the provided answer sheet using a #2 pencil (pencils will be provided or you can bring your own). ***Only the answers provided on the answer sheet will be graded. No marks in examination book or on scratch paper provided will be considered.***
 - c. Any question with more than one answer marked on the answer sheet will be counted as incorrect.
 - d. Do not make any marks on the answer sheet other than as directed.
 - e. Ensure that each circle on the answer sheet you mark is completely filled in.
 - f. Any question left blank will be counted as incorrect.
2. DO NOT:
 - a. Bring any of the following into the examination room: cell phone, camera, tape recorder, programmable calculator, computer, electronic transmitting device, watches or other activated alarms, reference material or notes, scratch paper, spelling aids, briefcases, purses, or backpacks.

- b. Attempt to take any examination material from the room. Materials are all coded and must be returned and checked prior to an applicant being released from the written examination.
- c. Bring food or beverages other than water into the examination room.

Directions Upon Completion Of The Written Examination

- 1. At the end of the written examination, candidates will be directed to return their answer sheets and all test materials to the exit proctor.
- 2. Candidates should retain their identification number as it will be referenced in all future grade notifications. Applicant names will not be released except as required by law.
- 3. The BOPC will establish a written examination cut-off score to determine which applicants will participate in the simulator exercise examination component after the written examination has been scored and combined with each applicant's experience points.

Notification of Written Examination Component Results

The BOPC will notify applicants who participated in the written examination component of their examination results by no later than Tuesday, **June 13, 2017**. Only applicants receiving a passing score on the written examination component will be invited to participate in the simulator exercise examination component.

SAMPLE QUESTIONS—WRITTEN EXAMINATION COMPONENT

- 1. A rigidly connected composite unit would be lighted as if it were what type of vessel or combination of vessels?
 - a. A power-driven vessel
 - b. A tug proceeding without a tow
 - c. A tug with a tow alongside
 - d. A tug with a tow being pushed ahead
- 2. A combination pilot ladder/accommodation ladder is required when the distance from the water to the top of the ladder exceeds what distance?
 - a. 5 meters
 - b. 7 ½ meters
 - c. 9 meters
 - d. 12 meters

3. A one-knot current exerts the same force on a given surface area as how many knots of wind?
- a. 10
 - b. 20
 - c. 30
 - d. 40

ANSWERS: 1. A; 2. C; 3. C

SIMULATOR EXERCISE EXAMINATION COMPONENT

Date, Time and Location of the Simulator Exercise Examination Component

The Training Program simulator exercise examination component will be held on at scheduled times on **June 15, 16 and 17, 2017**, with the number of testing days determined by the number of candidates to be tested, at the:

**California State University Maritime Academy
200 Maritime Academy Drive
Vallejo, CA 94590**

Applicants participating in the simulator exercise examination component will receive an orientation to the simulator exercise on Wednesday, **June 14, 2017**. During the orientation, applicants will receive instructions and a demonstration of the bridge simulator, and be provided study materials for the simulation that will be loaned to eligible candidates to take home after the orientation. The study materials will include a DVD that reviews information provided during the orientation and simulator demonstration. Applicants are required to provide their own equipment suitable for playing the DVD. All simulator study materials provided to an applicant to prepare for the simulator exercise shall not be copied, and must be returned to BOPC staff prior to participation in the simulator exercise examination component.

The simulator exercise tests a candidate's performance in conducting the navigation of a ship in piloting waters under a variety of environmental and traffic conditions. The simulator exercise provides an opportunity to evaluate each candidate's demonstrated situational awareness, understanding of relative motion, ability to accurately filter and prioritize available information, selection and execution of appropriate response (including timeliness of communications, engine orders, rudder commands, and orders to the bridge team), demonstrated ability to respond effectively under emergency or non-routine conditions, ability to communicate effectively on the bridge and over the radio using proper terminology, commanding bridge presence, fundamental ship handling knowledge, proper use of personnel and equipment resources provided during the exercise, and proper application of the navigational rules of the road.

Performance in the simulator exercise will be evaluated by three evaluators – one pilot licensed by the BOPC, one pilot licensed by another state jurisdiction, and one current or former master of deep draft vessels.

Notification of Simulator Exercise Examination Component Results

The BOPC will notify applicants who participated in the simulator exercise examination component of their examination results by no later than Tuesday, **June 20, 2017**.

ELIGIBILITY LIST

After the completion of the simulator exercise examination component, the BOPC will create a Training Program eligibility list for Board review and approval at a publically-noticed Board meeting that includes applicants who received passing scores on both the written examination component and the simulator exercise component.

Candidate placement on the Trainee Program eligibility list will be determined by the combined score of an applicant's experience points, written examination component score and simulator exercise component score, with each score given equal weight. Candidates will be ranked on the eligibility list in order from highest to lowest scores.

The Board will receive the eligibility list for review and approval, possibly as early the July 2017 monthly Board meeting. Openings in the Training Program will be offered to candidates in order of their ranking on the eligibility list. The list is valid for three years following its acceptance by the Board. Assuming there are openings in Training Program, the highest scoring successful candidate(s) could begin training as early as August or September, 2017.

Applicants entering the Training Program must pass a fitness for duty determination by the BOPC's physicians prior to entry into the Training Program, and also meet requirements set forth in 7 CCR §214.

SECURITY CONSIDERATIONS/CONDUCT DURING THE EXAMINATION

A great deal of effort has gone into the development of the Training Program written examination and simulation exercise components. Applicants taking the selection examination and participating in the exercise will have access to information that, if provided to other candidates, could give that candidate an unfair advantage. If an applicant is discovered subverting any part of the selection examination, the BOPC will not hesitate to disqualify him or her from the current and future participation in the Training Program and the selection examination process.

The following State laws apply to both the written examination and simulator exercise portion of the Trainee selection process:

*CALIFORNIA BUSINESS AND PROFESSIONS CODE, Division 1, Chapter 1,
SECTION 123*

It is a misdemeanor for any person to engage in any conduct which subverts or attempts to subvert any licensing examination or the administration of an examination, including, but not limited to:

(a) Conduct which violates the security of the examination materials; removing from the examination room any examination materials without authorization; the unauthorized reproduction by any means of any portion of the actual licensing examination; aiding by any means the unauthorized reproduction of any portion of the actual licensing examination; paying or using professional or paid examination-takers for the purpose of reconstructing any portion of the licensing examination; obtaining examination questions or other examination material, except by specific authorization either before, during, or after an examination; or using or purporting to use any examination questions or materials which were improperly removed or taken from any examination for the purpose of instructing or preparing any applicant for examination; or selling, distributing, buying, receiving, or having unauthorized possession of any portion of a future, current, or previously administered licensing examination.

(b) Communicating with any other examinee during the administration of a licensing examination; copying answers from another examinee or permitting one's answers to be copied by another examinee; having in one's possession during the administration of the licensing examination any books, equipment, notes, written or printed materials, or data of any kind, other than the examination materials distributed, or otherwise authorized to be in one's possession during the examination; or impersonating any examinee or having an impersonator take the licensing examination on one's behalf.

Nothing in this section shall preclude prosecution under the authority provided for in any other provision of law.

In addition to any other penalties, a person found guilty of violating this section, shall be liable for the actual damages sustained by the agency administering the examination not to exceed ten thousand dollars (\$10,000) and the costs of litigation.

(c) If any provision of this section or the application thereof to any person or circumstances is held invalid, that invalidity shall not affect other provisions or applications of the section that can be given effect without the invalid provision or application, and to this end the provisions of this section are severable.

SECTION 123.5.

Whenever any person has engaged, or is about to engage, in any acts or practices which constitute, or will constitute, a violation of Section 123, the superior court in and for the county wherein the acts or practices take place, or are about to take place, may issue an

*injunction, or other appropriate order, restraining such conduct on application of a board, the Attorney General or the district attorney of the county.
The proceedings under this section shall be governed by Chapter 3 (commencing with Section 525) of Title 7 of Part 2 of the Code of Civil Procedure.
The remedy provided for by this section shall be in addition to, and not a limitation on, the authority provided for in any other provision of law.*

SECTION 496.

A board may deny, suspend, revoke, or otherwise restrict a license on the ground that an applicant or licensee has violated Section 123 pertaining to subversion of licensing examinations.

REFERENCE LIST FOR THE WRITTEN EXAMINATION

**2017 Pilot Trainee Training Program Selection Examination
Final Reference List
(as of January 24, 2017)**

1. *The American Practical Navigator*, Bowditch, Pub. No. 9, 2002 Bicentennial Edition, prepared and published by the National Imagery and Mapping Agency, Bethesda, Maryland, ISBN 978-0-939837-54-0.
2. *Shiphandling For The Mariner*, Daniel H. MacElrevey and Daniel E. MacElrevey, Fourth Edition 2004, Cornell Maritime Press, Centreville, Maryland, ISBN 0-87033-558-8.
3. *Tug Use Offshore in Bays and Rivers: The Towmaster's Manual*, George H. Livingstone, Grant H. Livingstone, 2006, published by the Nautical Institute, London, ISBN 870077741.
4. *Merchant Marine Officers Handbook, Based on the original edition by Edward A. Turpin and William A. MacEwen, Master Mariners*, Editor William B. Hayler, Master Mariner, Fifth Edition 1989, Cornell Maritime Press, Centreville, Maryland, ISBN 0-87033-379-8.
5. *Ship Handling*, Herve Baudu, 1st Edition, 2014, DOKMAR Maritime Publishers BV, ISBN 978-90-71500-27-5.
6. *Behavior And Handling Of Ships*, Henry Hooyer, 1983, Cornell Maritime Press, Centreville, Maryland, ISBN 0-87033-306-4.
7. *Ship Handling: Theory and Practice*, David J. House, 2007, Publisher: Routledge, ISBN 13: 978-0750685306.
8. *Bridge Procedures Guide*, International Chamber of Shipping, Fifth Edition 2016, Includes a CD version, Published by Marisec Publications, London.

9. *The Master-Pilot Information Exchange: A Best Practices Summary*, The American Pilots' Association,
http://www.americanpilots.org/document_center/Activities/Master_Pilot_Exchange_Best_Practices_10_8_97.pdf.
10. *Radar Navigation and Maneuvering Board Manual*, Ernest B. Brown, Pub. 1310, Seventh Edition 2001, prepared by the National Imagery and Mapping Agency, Lighthouse Press, a division of ProStar Publications, Inc., Annapolis, Maryland, ISBN 1-57785-248-6.
11. *Shiphandling With Tugs*, Jeff Slesinger, Second Edition 2008, Cornell Maritime Press, Centreville, Maryland, ISBN 978-0-87033-598-3.
12. *Navigation Rules, International—Inland*, presented by the USCG, Paradise Cay Publications, Inc., Arcata, California, December 12, 2015, ISBN 978-1-937196-23-3.
13. *Ship Manoeuvring Principles and Pilotage*, Capt. R. Williamson, 1st Edition, 2001, Witherby & Co. LTD, ISBN 1-856090210 0.
14. *United States Coast Pilot 7—Pacific Coast: California, Oregon, Washington, Hawaii and Pacific Coast*, U. S. Dept. of Commerce NOAA, 49th Edition, 2017, Published by ProStar Publications, Inc.