**CIVIL SERVICE DEPARTMENT**
**2026 PROPOSED EXAMINATION BIBLIOGRAPHY FOR FIREBOAT PILOT**

PROPOSED: Feb 2, 2026

The written examination for Fireboat Pilot will be held on Monday, June 2, 2026 at location to be determined.

The proposed bibliography of study materials on which the written examination, charting exercise(s), and/or practical will be based on is outlined below. Interested parties have 30 days from the date of this notice to review the proposed bibliography and submit comments by 1000 on March 4, 2026. Please submit comments to the Fire & Police Exams Unit via email to: yoshiko.gracematsui@seattle.gov.

Candidates who pass the written examination (including subcomponents) will be scheduled for the practical examination, tentatively scheduled for August 24 – 28, 2026 (times and locations to be announced). Candidates must attend more than one day during this period. The practical examination exercises will be based on the 1) skills and abilities identified by the job analysis as critical for successful job performance as a Fireboat Pilot, 2) information from the Promotion Development Committee who serve as subject matter experts, and 3) reading materials in the bibliography.
Therefore, the assessment center topics are not limited to materials on the bibliography.

Please contact the Civil Service Department Public Safety Exams Unit at Yoshiko.gracematsui@seattle.gov or (206) 615-0581 if you have any questions on the bibliography or the exam process.

Please view the Classification Specification for the Fireboat Pilot for the general scope of job duties and required knowledge, skills, and abilities.

**GENERAL SCOPE**: Boat handling, piloting, seamanship, standard and electronic navigation, bridge resource management, local knowledge, fireboat equipment, electronics, marine radios and their usage, emergency operations including search and rescue operations, marine firefighting, and salvage. Verbal and written communication, supervision of fireboat crew, interaction with personnel and members of the public, and compliance with Citywide policies. Maritime rules and regulations. Vessel characteristics of the SFD fireboats.

A bibliography of study material on which the written examination will be based includes the following:

| Source Title | Contents |
|---|---|
| Bridge Resource Management for Small Ships, Daniel S. Parrot, 2011 | All |
| Chapman Piloting and Seamanship, 68th Edition | All (Excluding chapters 2, 3, 4, 5, 19, 21, 24, 25) |
| Detroit Diesel Marine Electronic Controls Operating Instructions | All |

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|---|---|
| Dutton's Nautical Navigation, Naval Institute Press, 15th Edition | Chapters 1 – 14, 17, 23, 36 |
| Fireboat 1 and Fireboat 2 C188 Engine Duty Cycles Seattle Fire | All |
| Fire Service Discrimination & Harassment Toolkit by National Volunteer Fire Council, Women in Fire, 2023 | All |
| Furuno Operator's Guide #FA-150 | All |
| Furuno Operator's Manual #FA-150 | Pages iii - xiii and Chapter 1-Operation |
| Furuno Operator's Manual, FAR2127, 2107-BB | All |
| Furuno Operator's Manual, NavNet3D MFDBB | All |
| Furuno User's Manual, NavNet3D MFDBB | All |
| Hamilton Jet HJ364 MECS Control Manual R1A5 | Chapter 3, System Operation |
| Hamilton Jet HJ364 Product Manual | Section 2 |
| Introduction to Electronic Chart Navigation: With an Annotated ECDIS Chart No. 1 by David Burch. Starpath Publications, Aug. 2022 | All |
| L3 Protec - M AIS Installation and Operation Manual | Section 1- Introduction, Section 3-Operation, Appendix A – STEDS Functionality |
| A Leaders Guide to Unconscious Bias: How To Reframe Bias, Cultivate Connection, and Create High Performing Teams<br>Pamela Fuller, Mark Murphy, Anne Chow, Simon & Schuster (2020) | Chapters 1-8 |
| Marine Firefighting for Land-Based Firefighters, IFSTA, 3rd Edition 2019 | All |
| NOAA Charts:<br>Publisher's Note: These charts are NOT updated weekly and do NOT include all the latest Notice to Mariners corrections. | #18447, 30th Ed., Sept 2012<br>#18449, 21st Ed., Nov 2019<br>#18450, 20th Ed., Jan 2017<br>#18473, 10th Ed., Apr 2020<br>#18474, 11th Ed., Dec 2015 |
| Northwest Marine Weather, by Jeff Renner, 1993 | All |
| Policies and Operating Guidelines, SFD (REVISED November 2025, pdf only ) | All Operating Guidelines listed below and all Policies that relate to them. |
| | P 1007 -Code of Conduct (Policy only)<br>3003 – EEO<br>3004 – Ethics<br>3017 – Race and Social Justice Initiative |
| Puget Sound Harbor Safety Plan, Marine Exchange – January 2023anuary 2 | All |
| Radar Observer Manual, 7th Edition, MET 2024 | All |
| SOGS | Marine Fire (11-18-2025)<br>PPT - Marine Fire – Operations v14<br>Rescue – Water (1-17-2022)<br>SOGRD – Rescue – Water (1-17-2022) |
| Seattle Municipal Code | Harbor Code Title 16 - All |
| The Ship Handler's Guide, Capt. R. W. Rowe, 1998 | All (Excluding chapter 12) |

| | |
|---|---|
| U.S. Coast Guard Light List, Volume VI, 42024– | Cover through xxxix (PDF page number 1-49), 95pages 146-151, 159-165 |
| U.S. Coast Guard Navigation Rules Handbook - International, Corrected through LNM Week 10/2410/24 | All |
| U.S. Coast Guard Search and Rescue: A Guide for Boat Coxswains 01 October 2006 1st edition | All |
| U.S. Coast Guard VTS Puget Sound, User's Manual – UPDATE 2024 | All (Excluding Section 4) |
| U.S. Coast Guard 10: 2025 (6th ed, without weekly LNM corrections) | Chapter 1 - All<br>Chapter 2 subpart 117.1 through 117.41 and 117.1041, 117.1051 Exclude Subpart C, Exclude Part 161 - VTS manual, Exclude Part 164.<br>Chapter 8 Pages 311 through 318 |
| Vessel Characteristics, Seattle Fireboats<br>--This is the list of characteristics that test questions are drawn from, not other documents. | All, attached |
| ZF 3000 Marine Gear Operating Instructions | Sec. 5.2 Shift Procedure, Sec. 5.3 Trailing Operation, Sec. 6.1 Trolling |
| ZF BW 460 Series Marine Gear Operating Instructions | Sec. 7.1 Normal Operation, Sec. 7.2 Trailing Operation, Sec. 9 - 9.12 Trolling |
| Zip Wake, Series E, Operator's Manual | All |

Please contact the at 615-0581 or yoshiko.gracematsui@seattle.gov if you have any questions on the bibliography or the exam process.

**Seattle Fireboats - Vessel Characteristics**

| | LESCHI | CHIEF SEATTLE | FB1 | FB2 |
|---|---|---|---|---|
| Overall length | 108’ | 96’-6” | 50’ | 50’ |
| Beam | 27’ | 23’ | 16’-6” | 16’-9” |
| Height (Air Draft, ft) | 50’ mast up / 39’-6” down | 30’-4” | 20’ | 21’-4 1/2” |
| Draft | 10’ | 7’ | 30” | 30” |
| Speed kts | 14 | 22 | 30 | 42 |
| Fuel gal | 20,940 | 1508 | 486 | 600 |
| Water gal | 1200 | 2 @ 50 | 42 | 45 |
| Foam gal | 6000 | 950 | 204 | 200 |
| Hull type | Displacement | Semi-displacement | Planing hull | Planing hull |
| Weight tons | 303 | 208 | 23.8 | 23.8 |
| Propulsion | Twin Screw | Twin Screw | 2 - 364 Hamilton jet | 2 - 364 Hamilton jet |
| Engine model | MTU 8V 4000, M71 | MTU 10V 2000, M93 | Cat C-18 | Cat C-18 |
| Engine HP | 1556 | 1500 | 715 | 1001 |
| RPM rating | 2000 | 2450 | 2300 | 2300 |
| Transmission | ZF 4610 | ZF 3000 | ZF 350 | ZF 500 |
| Prop Size | 72”, 4 blade | 42”, 5 blade | | |
| Thruster type | Key Power Hydraulic | Key Power Hydraulic | | |
| Thruster power | Bow – 200 hp, Stern – 100 hp | 2 – 50 hp | | |
| Alternator amps | | | 2 – 270 A | 2 – 105 A |
| Generator type | Northern Lights | Northern Lights | Northern Lights | Northern Lights |
| Generator | 2 – 99 kw | 2 – 65 kw | 1 – 10kw | 1 – 9kw |
| Generator power | 480V AC 3 phase | 480V AC 3 phase | | |
| Pump Engine type | 2 – MTU 8V 4000, M71 | 2 – Cat C18 | Hale BG8 centrifugal. off front main engines | Hale BG8 centrifugal. off front main engines |
| Pump Engine HP | 1556 | 715 | | |
| Pump Engine RPM | 2000 | 2100 | | |
| Pump Capacity GPM | 4 – 5000 | 4 – 2500 | 2 – 3000 | 2 - 3000 |
| Monitors | 8 | 6 | 2 – 2000 | 2 - 2000 |
| 4” Ports | 12 | 10 | 4 | 4 |
| 2 ½” Ports | 4 | | 4 | 4 |
| Foam Monitors | 8 | 5 | Bow/fwd dschrg | Bow/fwd dschrg |
| CBRNE | Yes | No | Yes | Yes |
| Deconn | Yes | Yes | Yes | No |

UPDATED 3/6/2025

# FB1 & FB2 C18 ENGINE DUTY CYCLES

| | Fireboat 1 (C-Rated) | Fireboat 2 (E-Rated) |
|---|---|---|
| **Horse Power** | **715 HP** | **1001 HP, Detuned to 927 HP** |
| **Max Rated RPM** | **2100** | **2300** |
| **Max Full Throttle Time** | 50% of the time | 5% - 8% of the time |
| **Max Load Factor** | 80% | 30% |
| **Warm Up Time** | 3 - 5 Minutes @ Idle | 3 - 5 Minutes @ Idle |
| **Additional Warm Up** | Increase to ½ max rated RPM until the engine reaches temp. - 140 degrees F. | Increase to ½ max rated RPM until the engine reaches temp. - 140 degrees F. |
| **Load Operation** | To maintain engine efficiency and performance, apply between 30% & 70% load to the engine on an hourly basis. | To maintain engine efficiency and performance, apply between 30% & 70% load to the engine on an hourly basis. |
| **Stopping the Engine** | 1. Reduce the engine rpm to low idle. Shift the marine transmission to the NEUTRAL position and secure the vessel.<br>2. Increase the engine rpm to no more than 50 percent of the rated rpm for three to five minutes in order to cool the engine. Reduce the engine rpm to low idle. | 1. Reduce the engine rpm to low idle. Shift the marine transmission to the NEUTRAL position and secure the vessel.<br>2. Increase the engine rpm to no more than 50 percent of the rated rpm for three to five minutes in order to cool the engine. Reduce the engine rpm to low idle. |