

2022 - 2024 6402 CORE SKILL REQUIREMENTS
Oceanography Operational Sciences
Curriculum 374/375/440/443

Billet subspecialty coding is to be based on the minimum education/training/experience level required for optimum performance. The Oceanography Operational Sciences (6402) subspecialty coding is justified when, in addition to the general criteria stated in NAVPERS 15839 series (Manual of Navy Officer Manpower and Personnel Classification) Part B, the following specific criteria are satisfied:

1. **Description of Core Skill Requirements (CSR) Competencies.** The listed CSRs are a set of quantifiable skills, traits and experiences that a subspecialist must possess to perform acceptably in a coded billet for the Oceanography Operational Sciences (6402) subspecialty. The billet requires the incumbent apply, instruct, manage programs for, or perform studies/evaluations involving one or more of the following disciplines: tactical environmental analysis: physical, chemical, geological oceanography; air-sea interaction, ocean acoustics, electromagnetic and electro-optic propagation in the ocean; remote sensing; or environmental data management, or predicting the effects of the maritime environment on weapons, systems and platforms, providing for the safety of the fleet and the shore establishment, and supporting strategy and tactics through the application of oceanic sciences. Specific CSRs are listed below:

a. CSR-1: Forecast and assess oceanic conditions in support of all aspects of naval warfare, with primary emphasis on the tactical impact of environmental parameters which influence weapons, sensors, and communications systems in open ocean and coastal operations of the naval service.

b. CSR-2: Evaluate and implement technical studies on the effects of environmental parameters regarding the design, development, and operations of manned and unmanned platforms, weapons, and/or sensor systems.

c. CSR-3: Evaluate and compare environmental measures of effectiveness on alternative operational and tactical decisions.

d. CSR-4: Teach, instruct, and develop/assess curricula for apprentice to graduate level courses in oceanography.

e. CSR-5: Apply a master's level facility of oceanography including a thorough understanding of statistical principles and evaluation to the solution of oceanographic problems at the staff and operational levels.

f. CSR-6: Independently evaluate spatial and temporal accuracy and relevance of operational environmental support products furnished to the Fleet, including charts, atlases, overlays, and technical publications, and make recommendations for required improvements.

g. CSR-7: Independently perform duties involving oceanographic and/or geophysical support to Fleet staffs.

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h. CSR-8: Interface with the scientific and/or research and development community to provide inputs to research, development, testing and evaluation offices on the effects of the environment on the design, development, and test and evaluation of platforms, sensors, and/or weapon systems, and have the ability to communicate with research scientists on an advanced level.

i. CSR-9: Plan, direct, and assess the employment and evaluation of in-situ and remote sensing systems and collected data for the purpose of accurate assessment of the physical environment and validation of numerical predictions.

j. CSR-10: Translate operational Fleet environmental requirements into statements suitable for developmental investigation and introduction into the requirements process.

k. CSR-11: Understand and utilize machine learning, data-driven decision-making, and the data processing of operational environmental products, including shore-based and on-scene systems and have the ability to evaluate numerical models and understand their limitations.

l. CSR-12: Development of or operational experience with Unmanned Marine Vehicles and their capabilities in order to conduct operations in dynamic oceanographic environments with precise navigation, autonomy, endurance, modular payloads, and manned platform/distributed network interfaces.

2. Applicable Officer Designator(s):

- a. 111X, 112X, 131X, 132X;
- b. 180X.

3. Applicable Billet Designator:

- a. 111X, 112X, 131X, 132X;
- b. 180X.

4. Educational and Significant Experience Criteria. Coded billets are authorized when the functions of the billet include the CSR competencies listed above (in paragraph 1). For additional clarification regarding definition of suffixes, refer to the NAVPERS 15839I, Vol 1. Note: "Proven" requires at least 18-month experience tour in subspecialty coded billet or billet using the CSR of a related subspecialty.

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Subspecialty Code Suffixes Authorized				
Billet	Officer	Suffix	Definition	Notes
	X	C	Proven Doctor of Philosophy	
X	X	D	Doctor of Philosophy	1
		F	Proven Master's Degree that does not meet all ESRs	
	X	G	Master's Degree that does not meet all ESRs	
X		H	Master's Degree desired, not required	
		L	Certificate degree at the Master's level	
		M	Proven Post Master's Degree graduate education	
		N	Post Master's Degree graduate education	
X	X	P	Master's Degree in approved Navy subspecialty	
X	X	Q	Proven Master's Degree	
		R	Proven Significant Experience	
	X	S	Significant Experience obtained through OJT	2

Note 1: Doctorate Criteria

a. Oceanography Operational Sciences (6402) D-coded billets are justified when, in addition to the requirements for the P-coded billets:

(1) The billet requires the incumbent to conceptualize or evaluate studies in oceanographic phenomena, ocean fluid dynamics, ocean physical properties, ocean modeling, or ocean remote sensing.

(2) The billet requires the incumbent have the ability to perform one or more of the following:

(a) Have doctoral-level facility in one or more of the following disciplines: oceanography, statistical evaluation of measurement in random media, probability distributions and density functions, random variables and functions, harmonic analysis or random functions, or time series analysis (covariance, convolution, density, and cross spectra).

(b) Direct graduate level courses in oceanography and provide direct supervision for courses leading to advanced degrees, or the billet requires the incumbent to exert technical supervision over education in oceanography or exercise technical supervision over military and/or civilian personnel who possess doctorate education in oceanography.

(c) Coordinate the development of dynamic environmental modeling utilizing advanced numerical techniques.

(d) Facility in the extension of prognostic techniques relating to the physical interaction of environmental prediction schemes.

(e) Conceptualize studies of environmental parameters on the design, development and operation of weapon or sensor systems.

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(f) Conceptualize studies on effects of Naval operations on the maritime ecosystem. Meet or work on a routine basis with counterparts in various organizations both military and civilian, who possess a Doctorate level degree.

(g) Manage Navy and Department of Defense programs concerning Positioning, Navigation and Timing.

b. Oceanography Operational Sciences (6402) D-coded officers are justified when the officer completes Oceanography Sciences PhD (440) ESRs.

Note 2: Oceanography Operational Sciences (6402) S-coded officers are justified when:

a. The Officer has filled a P- or Q-coded billet for more than 18 months and has no subspecialty code in this field.

b. Fitness Report which justifies the officer has performed the 6402 billet requirement indicated for more than 18 months.

c. Commanding Officer recommendation is based on significant experience in oceanography gained in a non-6402 billet.

5. Major Area Sponsor and Subject Matter Experts.

a. Major Area Sponsor: VADM Jeffrey E. Trussler, Deputy Chief of Naval Operations for Information Warfare (OPNAV N2N6).

b. Subject Matter Expert: RDML Ron J. Piret, Oceanographer and Navigator of the U.S. Navy (OPNAV N2N6E).

c. Action Officer SME: Frank Baker, OPNAV N2N6EDB, frank.w.baker4.civ@us.navy.mil.

APPROVED

Major Area Sponsor

12 Aug 2023
[DATE]

APPROVED

Director, OPNAV N7

27-Feb-24
[DATE]

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