

## FREQUENTLY ASKED QUESTIONS

### HOW DOES AN ASW CERTIFICATE HELP ME?

Completion of the ASW Certificate program provides you with a practical skill set that can be employed immediately in your professional career.

Credit from courses completed through the ASW Certificate Program can be applied toward a masters degree in the USW program. In most cases, students qualify for one quarter of credit toward a masters degree.

### WHAT ARE THE PREREQUISITES?

Students pursuing the ASW certificate need a working knowledge of single-variable calculus, probability and MATLAB.

Prerequisite courses may be available as distance-learning courses through the NPS Office of Continuous Learning. Prerequisite courses include:

- MA1113 - Single Variable Calculus
- OS2100 - Probability and Statistics
- OC2020 - MATLAB Programming

### IS THERE A SERVICE COMMITMENT?

There is no service commitment associated with the ASW certificate program.

### WHAT WILL IT COST ME?

Students will be expected to purchase relevant textbooks and incidental supplies.

### WHO IS ELIGIBLE?

Naval officers (Active Duty or Reserve), government laboratory engineers, Navy civilians (afloat and ashore staff), and Navy enlisted with an ASW background are all eligible to enroll in the ASW certificate program.

## FOR MORE INFORMATION OR TO APPLY PLEASE CONTACT:

[ASW-CERTIFICATE@NPS.EDU](mailto:ASW-CERTIFICATE@NPS.EDU)

CDR John Joseph, USN  
Program Officer  
Undersea Warfare Program  
(831) 656-2044  
DSN 756-2044  
jejoseph@nps.edu

Dr. Don Brutzman  
Chair, USW Academic Committee  
(831) 656-2149  
brutzman@nps.edu

Roger F. Bacon, Vice Admiral, USN (ret.)  
Chair, Professor of Undersea Warfare  
(831) 656-2488  
DSN 756-2488

Tom Hazard  
Director  
NPS Office of Continuous Learning  
(831) 656-3580  
DSN 756-3580

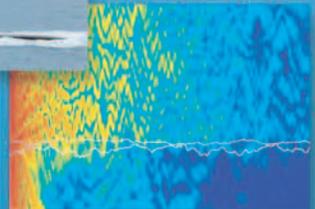


[HTTP://WWW.NPS.EDU/DL/NPSO](http://www.nps.edu/dl/nps)

Office of Continuous Learning  
411 Dyer Road, Knox 102  
Monterey, CA 93943, USA

May 2004

# ASW CERTIFICATE IN ANTI-SUBMARINE WARFARE



"ASW is Job One in  
the Pacific theatre."

Admiral Walter F. Doran  
United States Navy  
Commander,  
U.S. Pacific Fleet

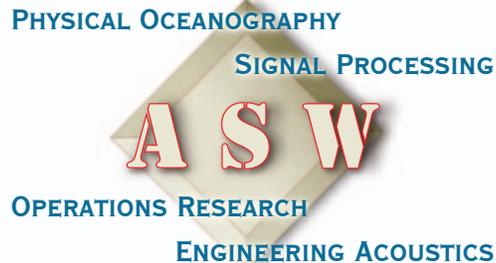


Naval Postgraduate School

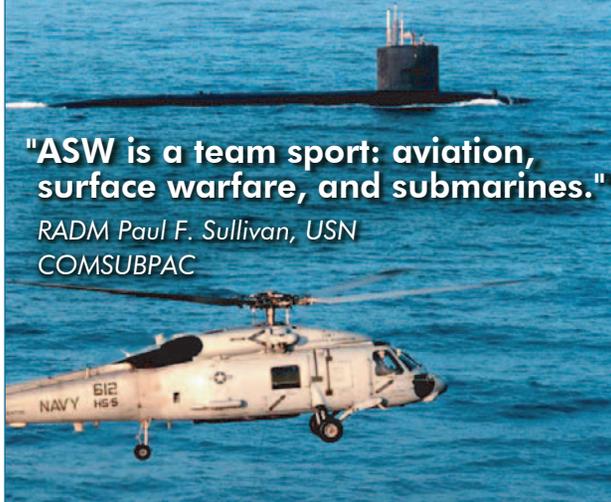
## THE ASW CERTIFICATE PROGRAM

The curriculum for the Anti-Submarine Warfare (ASW) Certificate Program supports the needs of the Navy in ASW, and complements existing warfare ASW training and qualification.

The ASW Certificate Program provides a science and engineering foundation which covers fundamental concepts in four areas:



These subjects are the educational cornerstone for this highly interdisciplinary certificate program.



**"ASW is a team sport: aviation, surface warfare, and submarines."**

*RADM Paul F. Sullivan, USN  
COMSUBPAC*

## THE ASW CERTIFICATE CURRICULUM

Anti-Submarine Warfare encompasses multiple disciplines. The ASW Certificate is a distance learning curriculum that consists of four fully accredited courses delivered by multiple modes of instruction. Offered over a one-year period, these courses develop critical analytic skills and understanding of fundamental principles applied in ASW.

**"ASW is a Navy-unique core competency which we must further develop to ensure our undersea supremacy."**

*RADM John J. Waickwicz, USN  
Commander, Fleet Anti-Submarine  
Warfare Command*

### PH2401 — INTRODUCTION TO SONAR EQUATIONS

A discussion of each term of the sonar equations, with application to the detection, localization, and classification of underwater targets.  
(No prerequisites)

### OA3602 — SEARCH THEORY & DETECTION

Search and detection as stochastic processes.  
(Prerequisite: probability)

### EC2450 — REVIEW OF SIGNALS AND SYSTEMS

Fundamentals of discrete-time and continuous-time signals and systems. (Prerequisites: single-variable calculus, basic MATLAB programming skills)

### OC2930 — INTRODUCTION TO OCEANOGRAPHY FOR UNDERSEA WARFARE

An introduction to ocean processes and phenomena with applications to Undersea

## THE USW CURRICULUM AT NPS

Students with an ASW Certificate are well positioned to continue their education and professional development by pursuing a masters degree through the Undersea Warfare (USW) curriculum at the Naval Postgraduate School (NPS). This highly interdisciplinary program focuses on engineering fundamentals, physical principles, operations research, and systems analysis that contribute to USW, ASW and Mine Warfare (MIW) operational employment.

Students can choose from one of five accredited disciplines:

- Operations Research
- Physical Oceanography
- Electrical Engineering
- Engineering Acoustics
- Applied Science



**"A robust and integrated Anti-Submarine Warfare architecture, more capable force structure and a committed investment in future technologies are essential to counter the growing submarine threat."**

*ADM Thomas B Fargo, USN  
Commander, U.S. Pacific Command*

For a more in-depth description of these certificate courses please visit:  
<http://www.nps.navy.mil/ofcinst/courses.htm>

For information regarding masters degrees in the NPS USW curriculum, please visit:  
<http://www.nps.navy.mil/usw>