



EA – Engineering Aid

Engineering Aids assist construction engineers in developing final construction plans. They conduct land surveys; prepare maps, sketches, drawings and blueprints; estimate costs; perform quality assurance tests on common construction materials such as soils, concrete and asphalt; and perform other engineering technician functions. This is a 5 year enlistment program.

What They Do

- conducting location surveys for roads, airfields, pipelines, ditches, buildings, drainage structures and waterfront construction;
- preparing hydrographic, topographic and triangulation drawings and maps;
- computing the volume of bulk materials (concrete, bituminous mixtures and earthwork) from drawings and specifications;
- laying out all types of construction work;
- operating and maintaining various types of precision surveying and laboratory test instruments and equipment;
- preparing architectural, mechanical, electrical, and civil drawings and sketches;
- designing grading and drainage systems;
- conducting concrete, soil and asphalt tests;
- conducting quality control inspections for all types of construction projects;
- prepare network analyses, charts and graphs.
- Reading and interpreting blueprints and preparing sketches for projects;
- making estimates of material, labor, and equipment requirements.

Working Environment

EAs may work in a variety of conditions, independently or as members of a large team. Their many different duties may be performed in climates ranging from tropical to arctic.

Opportunities

Opportunities to enter the EA rating are excellent for highly qualified applicants. About 300 men and women work as Engineering Aids in the Navy.

Qualifications and Interests

Important qualifications include, high level math and record keeping skills; the ability to do detailed work and perform repetitive tasks; an orientation toward tools, equipment and machines; manual dexterity; curiosity and resourcefulness; a talent for expressing ideas in writing; and a good memory. **The prospective EA must have satisfactorily completed a high school or college course in trigonometry with a minimum grade of "C."** Some college level training in engineering subjects is beneficial but not required. Helpful characteristics include speaking and writing skills and good physical condition. Normal hearing is required.

Earn College Credit



The American Council on Education recommends that semester hour credits be awarded in the vocational certificate and lower-division bachelor's/associate's degree categories for courses taken in this rating on office machines and general clerical procedures. To see the college credits available via a **Joint Service Transcript** for this rating:

EA

https://www.cool.navy.mil/usn/jst/ea_jst.pdf

Career Path After Recruit Training

Enlistees are taught the fundamentals of this rating through on-the-job training or formal Navy schooling. Advanced technical and operational training is available in this rating during later stages of career development.

School	Present Location	Approximate Training Time	Subjects	Training Methods
Class "A" Technical School	Fort Leonard Wood, MO	Approximately 15 Weeks	Basic construction skills and theories required in the EA rating and basic combat skills	Group and individual instruction

Following completion of basic technical training, graduates can expect assignments to a Naval Mobile Construction Battalion (NMCB) in Port Hueneme, CA or Gulfport, MS, or to an Amphibious Construction Battalion (ACB) in San Diego, CA or Little Creek, VA. NMCBs operate on a rotating basis between homeport and overseas locations such as Spain, Okinawa or Guam. Seabees receive additional specialized combat and construction skills training during home port duty. Seabees construct buildings, roadways, utility systems and other shore facilities to support the Navy and Marine Corps operational and expeditionary forces worldwide.



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Earn Department of Labor (DOL) Nationally Recognized Apprenticeships



USMAP

The United Services Military Apprenticeship Program (USMAP) is a formal military training program that provides active duty and Full Time Support (FTS) Service members the opportunity to improve their job skills and to complete their civilian apprenticeship requirements while they are on active duty. The U.S. Department of Labor (DOL) provides the nationally recognized "Certificate of Completion" upon program completion. Visit United Services Military Apprenticeship Program (USMAP) for LS apprenticeships.

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<https://usmap.netc.navy.mil/usmapss/static/navyRates.htm>

Earn Industry Recognized Credentials



Navy Credentialing Opportunities On-Line (Navy COOL) Navy COOL catalogs and defines comprehensive information on occupational credentials - including certifications, licenses, and apprenticeships - correlating with every Navy rating and some collateral duties. It provides "how to" instructions for pursuing these credentials, links to credentialing organizations, and cross-references to programs that help Sailors pay for credentialing fees. Shortly following the initial rating technical training (Class "A" technical school), Sailors may be able to take advantage of earning civilian/industry certifications & licenses (credentials), funded through Navy COOL. Visit the Navy COOL website to view these opportunities. See the link below.

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<https://www.cool.navy.mil/usn/enlisted/ea.htm>

Manage a Navy Career with Navy LaDR (Learning and Development Roadmap)



To see the Navy LaDR (Learning and Development Roadmap) for this rating:

EA

https://www.cool.navy.mil/usn/LaDR/ea_e1_e9.pdf

Earn Skill Sets Towards Civilian Related Occupations



The skill sets for this rating crosswalk to civilian related occupations listed by the U.S. Department of Labor. To see Related Civilian, Federal, and Military Sealift Command Occupations for this rating, see the link below.

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<https://www.cool.navy.mil/usn/enlisted/ea.htm>

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