Aviation Electrician's Mate (AE)

NAVY

Aviation Electrician's Mates (AE) maintain electrical and instrument systems, including power generation, conversion, and distribution systems; aircraft batteries; interior and exterior lighting; electrical control of aircraft systems, including hydraulic, landing gear, flight control, utility, and power plant engine, flight and non-instrument-type indicating and warning systems; automatic flight control and stabilization systems; aircraft compass systems; attitude reference systems; and inertial navigation systems. Most of these technicians are trained in computers to support state-of-the-art equipment or on power generators and power distribution systems to support aircraft electrical systems.

Career Path After Recruit Training

Enlistees are taught the fundamentals of this rating through on-the-job training or formal Navy schooling. Additional training for specific aircraft or equipment is generally received before reporting to operational activities. Advanced technical and specific 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	Pensacola, FL	15 Weeks	Aviation basic theory and basic technical knowledge, aviation electrical systems, skills of electricity, and electronics theory.	Group instruction

School assignments vary with individuals. AEtechnicians may be assigned to naval air stations, squadrons, aircraft carriers or other aviation facilities in the United States or overseas. During a 20-year period in the Navy, they will spend about 60 percent of their time assigned to fleet units and 40 percent to shore stations.

What They Do

AE sailors attend common basic electronics training, after which they attend the Aviation Electrician (AE) rating "A" School.

The AE sailor will troubleshoot and repair some of the following complex electronic systems, employing the latest test equipment and procedures:

- digital computers
- fiber optics
- infrared detection
- radar systems
- electricity generation systems
- laser electronics
- navigation systems
- communications equipment
- electrical power distribution
- pressure indication systems
- electric transformers and circuits

Technicians may also perform the following functions:

- Testing aircraft instruments and systems such as automatic flight controls, inertial navigation, and compass systems;
- Performing micro-miniature module repair on computer circuit cards;
- Using a variety of electrical measuring and diagnostic equipment;
- Reading electrical system diagrams;
- Repairing and maintaining power generators and electric motors.

Credit Recommendations

AE: The American Council of Education (ACE) recommends that credit be awarded in the vocational certificate or a lower-division bachelor's/associate's degree category for courses taken on aircraft electrical maintenance in this rating.

Qualifications and Interests

Personnel in this field must be U.S. citizens eligible for a security clearance. Normal color perception is required.

Applicants in this career field will work on some of the most technologically advanced aircraft in the Navy. Applicants should have an interest in aviation and working with or around aircraft. They should have a high degree of manual dexterity with tools, equipment, and machines for detailed precision work. They should have a strong interest in electrical or computer systems and be ready to tackle a tough academic curriculum in electronics training. They should have a desire to be resourceful parts of a team effort. Helpful attributes include arithmetic knowledge, writing ability, speaking skills, good memory, and physical fitness.

Working Environment

Sailors in this career field will perform duties at sea and ashore around the world. At various times they could be working at a land-based aircraft squadron or onboard an aircraft carrier, either indoors or outdoors, in a shop environment or in office surroundings, and at a clean lab bench or in a garage-type situation. They work closely with others, require little supervision, and do mental and physical work of a technical nature.

Opportunities

Opportunities for placement in this career field are excellent for qualified personnel. About 13,000 men and women now work in this field.

Civilian Occupational Equivalents

To see Related Civilian Occupations for this rating:

AE - https://www.cool.navy.mil/enlisted/ae.htm

For more information on opportunities available for this rating, please visit Navy Credentialing Opportunities On-Line (COOL) at https://www.cool.navy.mil/index.htm

Since Navy programs and courses are revised at times, the information contained on this rating card is subject to change.

(Revised 10/12)