



Aviation Machinist's Mates are aircraft engine mechanics. They inspect, adjust, test, repair and overhaul aircraft engines and propellers. ADs also perform routine maintenance, prepare aircraft for flight and assist in handling aircraft on the ground.

These technicians may also volunteer to fly as Naval aircrew. Aircrew performs numerous in-flight duties and operates aircraft systems in turbojet, helicopter, or propeller aircraft. Aircrew earns additional pay for flying. (See the Aircrew Program for details.)

## What They Do

The duties performed by ADs include:

- maintaining and servicing aircraft engine, fuel and lubrication systems;
- handling and servicing aircraft ashore or aboard ship;
- performing complete aircraft turboshaft/turboprop engine repair;
- determining reasons for engine degradation via spectrometric oil analysis tests;
- evaluating jet engine performance, using jet test cells for fixed turbojet engines;
- performing helicopter maintenance, installing and maintaining engines, drive accessories and gear boxes;
- performing propeller repairs;
- Possibly functioning as aircrewman in various types of aircraft.

## Credit Recommendations

The American Council on Education recommends that 3 semester hour credits be awarded in the lower division baccalaureate's/associate's degree category in turbine engine theory. Credits may also be earned for other follow-on training ("C" school) throughout your career.

## Qualifications

People in this rating should be able to express themselves clearly in speaking and writing. They should have no speech impediment, and they must pass hearing and color perception tests.

ADs need good memories and the ability to do repetitive tasks, perform detailed work and keep accurate records. Manual dexterity and teamwork are also vital. **Normal hearing and color perception is required for this rating.**

## Career Path After Recruit Training

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

School	Present Location	Approximate Training Time	Subjects	Training Methods
AD Core and Strand "A" School	Pensacola, FL Lemoore, CA, Virginia Beach/Norfolk, VA, San Diego, CA, Whidbey Island, WA, Jacksonville, FL, Tinker, OK,	4 weeks (core) 2 weeks (strand)	Aviation basic theory and basic skills required for rating	Group instruction in classroom and shop

After completion of AD Core "A" school, aviation machinist's mates attend one of three strands: Helo, Turbojet or Turboprop for two weeks before being assigned to aviation squadrons, aircraft carriers or to other Navy ships carrying aircraft, to Naval Air Stations or other aviation shore facilities in the United States or overseas. Additionally, you will likely attend an advanced technical school ("C" school) enroute to your first duty station. In the "C" school, you will specialize in the aircraft at your ultimate duty station, for example, the F/A-18 Hornet or EA-6B Prowler. During a 20-year period in the Navy, ADs spend about 50 percent of their time assigned to fleet units and 50 percent to shore stations.

## Working Environment

Aviation Machinist's Mate may be assigned to sea or shore duty any place in the world, so their working environment varies considerably. They may work in hangars or hangar decks, outside on flight decks or flight lines at air stations.

They may work in clean or dirty areas, but they are almost always working in noisy environments.

They work closely with others, do mostly physical work and require little supervision. ADs also serve as flight engineers aboard certain aircraft.

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

**(Revised 10/12)**

## Opportunities

Opportunities are excellent for qualified applicants to enter the AD rating. About 6,100 men and women now work in this rating.

## Civilian Occupational Equivalents

**To see Related Civilian Occupations for this rating:**

**AD -** <https://www.cool.navy.mil/enlisted/ad.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>