

Navy Advancement Center

Web site: <http://www.advancement.cnet.navy.mil>

Advancement Handbook for Aviation Electrician's Mate (AE)

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PREFACE

The purpose of the Advancement Handbook is to help you focus your preparation for Navy-wide advancement-in-rating examinations. The bibliographies (BIBs) together with this handbook form a comprehensive examination study package. Since this handbook provides skill and knowledge components for each paygrade of the Aviation Electrician's Mate (AE) rating, it helps you concentrate your study on those areas that may be tested. This feature will help you get the most out of your study time.

Each page in Parts 1 through 4 of this Advancement Handbook presents general skill areas, specific skill areas, the knowledge factors associated with each skill area, the pertinent references that address each skill, and the subject areas that may be covered on the examination. The skill statements describe the skills you are expected to perform for each paygrade. The skill statements are cumulative; that is, you are responsible for the skills for the paygrade you are competing for, your present paygrade, and all paygrades below.

Although this handbook is very comprehensive, it cannot cover all the tasks performed in the rating. As a result, the advancement examinations may contain questions more detailed than described in the "*Exam Expectations*" section of the skill areas.

Remember that advancement competition is keen, so your keys to advancement include not only comprehensive advancement examination study but also sustained superior performance.

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Part 1

Advancement Handbook for AE3

Advancement Handbook for AE3

General AE <i>Skill Area</i>	Electrical Maintenance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Analyze waveform and signal measurement data
<i>Knowledge</i> you should have to perform this skill:	• Measuring current, resistance, and voltage • Analyzing signal data • Matter, energy, and electricity • Alternating and direct current • Ohm's law • Circuit control and protection devices • Test equipment • Wiring diagrams/schematics • Junction boxes
<i>References</i> you should study to gain the knowledge you need to perform this skill:	• Applicable Maintenance Instruction Manuals (MIMs) • Aviation Electrician's Mate 3 & 2, Chapter 2 (NAVEDTRA 14009) • Navy Electricity and Electronics Training Series, Module 1, Chapters 1 and 3 (NAVEDTRA 14173) • Navy Electricity and Electronics Training Series, Module 2, Chapter 1 (NAVEDTRA 14174) • Navy Electricity and Electronics Training Series, Module 3 (NAVEDTRA 14175) • Navy Electricity and Electronics Training Series, Module 16 (NAVEDTRA 14188)
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about matter, energy, electricity, magnetism, AC and DC circuits, Ohm's law, fuses, circuit breakers, switches, relay panels/relays, junction boxes, wiring diagrams/schematics, signal data and test equipment.