

**Navy Advancement Center**  
Web site: <http://www.advancement.cnet.navy.mil>

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**Advancement  
Handbook  
for Gas Turbine  
Systems Technician  
(Mechanical)**

**This Advancement Handbook was last revised on: July 1998**

## **PREFACE**

The purpose of the Advancement Handbook is to help you focus your preparation for Navywide 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 Gas Turbine Systems Technician (Mechanical) 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 GSM3

## Advancement Handbook for GSM3

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| <p>General GSM <i>Skill Area</i></p>  | <p><b>Gas Turbine Engines</b></p>  |
| <p>A <i>skill</i> you are expected to perform from the General Skill Area above:</p>                                  | <p><b>Operate gas turbine engines locally</b></p>  |
| <p><i>Knowledge</i> you should have to perform this skill:</p>  | <p>Gas turbine engine starting and stopping procedures</p> <ul style="list-style-type: none"> <li>• EOSS procedures</li> <li>• Parameters</li> <li>• Starting sequence</li> <li>• Stopping sequence</li> <li>• Types of starts</li> <li>• Types of stops</li> <li>• Recognize casualties during starting or stopping</li> </ul>  |
| <p><i>References</i> you should study to gain the knowledge you need to perform this skill:</p>                       | <ul style="list-style-type: none"> <li>• EOSS procedures</li> <li>• LM2500 Propulsion Gas Turbine Engine Module Description, Operation, and Installation; Chapter 3 (S9234-AD-MMO-010-090/LM2500)</li> <li>• Propulsion Plant Manuals for FFG-7, DD-963, CG-47, DDG-51, and AOE-6 Class Ships; Volume 4</li> <li>• Operation and Maintenance Manual for Landing Craft Air Cushion (LCAC) Main Propulsion Engine (Model TF40B) (S9234-ES-MMA-010)</li> <li>• NSTM, Chapter 234</li> </ul> |
| <p><i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:</p> | <p>You can expect questions about the preparation of the engines for starting, the starting procedures, cautions and parameters to be observed during the start/stop procedures, and casualty control actions required during the procedures.</p>  |

## Advancement Handbook for GSM3

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| General GSM <i>Skill Area</i>  | <b>Gas Turbine Engines</b>  |
| A <i>skill</i> you are expected to perform from the General Skill Area above:            | <b>Operate gas turbine generators locally</b>   |
| <i>Knowledge</i> you should have to perform this skill:                                  | <p>Gas turbine generator starting and stopping procedures</p> <ul style="list-style-type: none"> <li>• EOSS procedures</li> <li>• Parameters</li> <li>• Starting sequence</li> <li>• Stopping sequence</li> <li>• Types of starts</li> <li>• Types of stops</li> <li>• Recognize casualties during starting or stopping</li> </ul>  |
| <i>References</i> you should study to gain the knowledge you need to perform this skill: | <ul style="list-style-type: none"> <li>• EOSS procedures</li> <li>• Description, Operation, and Installation Technical Manual for Model 104 GTGS (S9234-BC-MMO-010-050/MOD 104 GTGS, Chapter 3)</li> <li>• Description, Operation, and Installation Technical Manual for Model 139 GTGS (S9234-B3-MMO-010-040/MOD 139 GTGS, Chapter 3)</li> <li>• Description, Operation, and Installation Technical Manual for Model AG9130 GTGS (S9311-AQ-MMO-010-060/MOD AG9130 GTGS, Chapter 2)</li> <li>• Operation and Maintenance Manual for Landing Craft Air Cushion (LCAC) Auxiliary Power Unit (APU) System/Installation (S9311-A3-MMA-010, Chapter 3)</li> <li>• Propulsion Plant Manuals for DD-963, CG-47, and DDG-51 Class Ships; Volume 2</li> <li>• NSTM, Chapter 234</li> </ul> |