

NAVY ADVANCEMENT CENTER

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Advancement Handbook for Cryptologic Technician Interpretive (CTI)

This Advancement Handbook was developed in August 1999.

PREFACE

The purpose of the Advancement Handbook is to assist CTIs in preparing 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 CTI rating, it helps focus study on those areas that will be tested. This feature ensures Sailors will get the most out of their 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 required to perform each skill, and the types of subject areas you can expect on the examination. The skill statements describe the skills you are expected to perform for each paygrade. They are cumulative; that is, you are responsible for all the skills for the paygrade for which you are competing, your present paygrade, and all paygrades below.

Although this handbook is very comprehensive, it cannot cover all the tasks performed by CTIs. As a result, 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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THE UNITED STATES NAVY

GUARDIAN OF OUR COUNTRY

The United States Navy is responsible for maintaining control of the sea and is a ready force on watch at home and overseas, capable of strong action to preserve the peace or of instant offensive action to win in war.

It is upon the maintenance of this control that our country's glorious future depends; the United States Navy exists to make it so.

WE SERVE WITH HONOR

Tradition, valor, and victory are the Navy's heritage from the past. To these may be added dedication, discipline, and vigilance as the watchwords of the present and the future.

At home or on distant stations, we serve with pride, confident in the respect of our country, our shipmates, and our families.

Our responsibilities sober us; our adversities strengthen us.

Service to God and Country is our special privilege. We serve with honor.

THE FUTURE OF THE NAVY

The Navy will always employ new weapons, new techniques, and greater power to protect and defend the United States on the sea, under the sea, and in the air.

Now and in the future, control of the sea gives the United States her greatest advantage for the maintenance of peace and for victory in war.

Mobility, surprise, dispersal, and offensive power are the keynotes of the new Navy. The roots of the Navy lie in a strong belief in the future, in continued dedication to our tasks, and in reflection on our heritage from the past.

Never have our opportunities and our responsibilities been greater.

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Part 1

Advancement Handbook for CTI3

Advancement Handbook for CTI3

General CTI3 <i>Skill Area</i>	Information Systems (IS) Operations
<i>A skill</i> you are expected to perform from the General Skill Area above:	Identify computer systems hardware components. Manipulate computer peripheral equipment. Perform operating system manipulations and file maintenance procedures. Manipulate word processing software. Perform database management, electronic communications functions, and computer operations in an integrated software environment. Comply with computer systems functions in a local area network (LAN) and wide area network (WAN).
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Components of computer hardware (i.e., CPU, RAM, Modems, etc.) • Procedures for copying files within operating system parameters • General word processing functions • General electronic mail functions • LAN topology • WAN topology
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Joint DODIIS/Cryptologic SCI Information Systems Security Standards • NEETS Module 22 • NSGTP Module 5 • NSGTP Module 9 • NSGTP Module 11
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions about the individual elements of computer systems, network topologies, electronic mail functions, computer operating system functions, and general software-related information.

Advancement Handbook for CTI3

General CTI3 <i>Skill Area</i>	Security
<i>A skill</i> you are expected to perform from the General Skill Area above:	Mark and handle classified information. Perform emergency destruction procedures and routine destruction of classified material. Comply with ADP, cryptologic, national, information, operational, and physical security requirements.
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Classification marking guidelines • Classification authority criteria • Emergency destruction procedures • Routine destruction procedures • Security requirements relating to national, naval, operational, and physical security
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • Joint DODIIS/Cryptologic SCI Information Systems Security Standards • NSGTP Module 1 • NSGTP Module 11 • SECNAVINST 5510.30A • SECNAVINST 5510.36
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions relating to all aspects of security including clearance requirements, structure of national and naval cryptologic organizations, as well as all aspects of computer security including responsibilities of various levels of the chain of command

Advancement Handbook for CTI3

General CTI3 <i>Skill</i> Area	Cryptologic Operations
<p>A <i>skill</i> you are expected to perform from the General Skill Area above:</p>	<p>Plot lines of bearing and determine fix. Calculate time zone conversions. Perform manual and automated signals search, initial signal analysis, and identification. Identify essential elements of information, meaconing, interference, jamming, and intrusion. Recognize and report CRITIC information. Translate and transcribe foreign language materials. Perform initial analysis of target operations, initiate KLIEGLIGHT reporting, and prepare messages for transmission in special intelligence format.</p>
<p><i>Knowledge</i> you should have to perform this skill:</p>	<ul style="list-style-type: none"> • Time zone conversion • Basic map reading • Various receiver and recording equipment components and operating principles • Target order of battle and mission essential elements of information • Foreign language transcription techniques • Basic KLIEGLIGHT format, CRITIC format, and their reporting process
<p><i>References</i> you should study to gain the knowledge you need to perform this skill:</p>	<ul style="list-style-type: none"> • CTTS Module 23 • NCS TA-103 • NEETS Module 10 • NEETS Module 17 • NEETS Module 23 • NSGTP Module 5 • NSGTP Module 11 • NSGTP Module 15 • USSID 2, 101, 110, 300, 301, 369

Advancement Handbook for CTI3

Continued

General CTI3 <i>Skill Area</i>	Cryptologic Operations
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions relating to various time zone conversions, basic traffic analysis and reporting procedures, and collection and processing procedures including related equipments.

Advancement Handbook for CTI3

General CTI3 <i>Skill</i> Area	Technical Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Reference United States Signals Intelligence Directives (USSIDs). Perform cryptologic administrative functions.
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • USSID numbering sequence • Basic administrative procedures
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • NSGTP Module 11 • USSID 2
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions relating to the USSID numbering system and general administrative procedures.

Part 2

Advancement Handbook for CTI2

Advancement Handbook for CTI2

General CTI2 <i>Skill</i> Area	Cryptologic Operations
<p><i>A skill</i> you are expected to perform from the General Skill Area above:</p>	<p>Perform analysis of foreign language target materials. Perform analysis of target operations conducted in foreign languages. Update technical databases. Select communications systems for Special Intelligence (SI) and General Service (GENSER) reporting. Use advisory reports to adjust Direct Support operations. Monitor the effects of environmental and atmospheric conditions on collection operations. Implement CRITIC reporting procedures. Diagram communications nets.</p>
<p><i>Knowledge</i> you should have to perform this skill:</p>	<ul style="list-style-type: none"> • Knowledge of a foreign language • Knowledge of target operations • Communications reporting formats for SI, GENSER, and Advisory Reports • Knowledge of radio propagation theory and equipment • CRITIC reporting procedures • Basic traffic analysis
<p><i>References</i> you should study to gain the knowledge you need to perform this skill:</p>	<ul style="list-style-type: none"> • NEETS Module 10 • NEETS Module 17 • NSGTP Module 5 • NSGTP Module 11 • USSID 300 • USSID 301
<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 pertaining to radio wave modulation and signal multiplexing, radio communications equipment to include antennas and transmission lines, CRITIC and serialized report formats and criteria, KLIEGLIGHT/TACREP formats and criteria, basic traffic analysis terms, and general cryptologic application to analysis.</p>

Advancement Handbook for CTI2

General CTI2 <i>Skill</i> Area	Quality Assurance
A <i>skill</i> you are expected to perform from the General Skill Area above:	Validate foreign language translations and transcripts.
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Knowledge of a foreign language • Transcription skills and procedures
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • USSID 101 • USSID 110
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions pertaining to transcription procedures and skills.

Advancement Handbook for CTI2

General CTI2 <i>Skill</i> Area	Technical Administration
A <i>skill</i> you are expected to perform from the General Skill Area above:	Prepare cryptologic technical reports. Provide inputs for intelligence reports. Use tasking messages to adjust collections.
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Knowledge of technical reporting formats as relating to cryptologic information • Knowledge of various intelligence reports and content • Advisory tasking methodologies and collection operations
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • USSID 101 • USSID 110 • USSID 150 • USSID 300 • USSID 369
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions pertaining to technical reporting as it applies to cryptologic operations, collection operations procedures, and adjustments to collection tasking and objectives.

Part 3

Advancement Handbook for CTI1

Advancement Handbook for CTI1

<i>General CTI1 Skill Area</i>	Cryptologic Operations
<i>A skill</i> you are expected to perform from the General Skill Area above:	Implement Alert Conditions (LERTCONS). Perform advanced analysis of foreign language materials. Coordinate input for intelligence reporting. Prepare analytical support documents. Prepare Signals Intelligence (SIGINT) products. Design coverage plans. Draft cryptologic activity summary reports.
<i>Knowledge</i> you should have to perform this skill:	<ul style="list-style-type: none"> • Knowledge of LERTCONS • Foreign language skills • Knowledge of advanced analysis techniques • Intelligence reporting formats and content • Technical reporting formats • Target operations in order to design and adjust coverage plans • Summary reporting format and content subjects
<i>References</i> you should study to gain the knowledge you need to perform this skill:	<ul style="list-style-type: none"> • USSID 300 • USSID 301
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions pertaining to various reporting formats, advanced traffic analysis techniques, SIGINT reporting vehicles and formats, and time requirements.

Advancement Handbook for CTI1

<i>General CTI1 Skill Area</i>	Management and Supervision
<i>A skill you are expected to perform from the General Skill Area above:</i>	Direct security and emergency destruction procedures. Direct nationally tasked cryptologic operations. Direct cryptologic fleet support operations. Direct joint cryptologic operations.
<i>Knowledge you should have to perform this skill:</i>	<ul style="list-style-type: none"> • Knowledge of security requirements and emergency destruction procedures • Tasking operations as they relate to assigned mission
<i>References you should study to gain the knowledge you need to perform this skill:</i>	<ul style="list-style-type: none"> • NSGTP Module 11 • SECNAVINST 5510.30A • SECNAVINST 5510.36
<i>Exam Expectations.</i> These are subject areas you should know to help you answer exam questions correctly:	You can expect questions pertaining to emergency destruction priorities, emergency action plans, and criteria for establishing and promulgating both.

Part 4

Guidance for CTIC Candidates

GUIDANCE FOR CTIC CANDIDATES

CTIC candidates need to study all references relating to CTI3, CTI2, and CTI1 as well as all applicable local training requirements in order to prepare for the advancement-in-rate examination.

Appendix 1

References Used in This Advancement Handbook

CTTS Module 23

Time Conversion, NAVEDTRA A95-23-00-92

Joint DODIIS/Cryptologic SCI Information Systems Security Standards

NCS TA-103

National Cryptologic School – Basic Traffic Analysis

NEETS Module 10

Introduction to Wave Propagation, Transmission Lines and Antennas,
NAVEDTRA B72-10-00-93

NEETS Module 17

Radio Frequency Communications Principles, NAVEDTRA 172-17-00-84

NEETS Module 23

Magnetic Recording, NAVEDTRA B72-23-00-91

NSG Module 1

Naval Cryptology in National Security, NSGTP 683-01-00-97

NSG Module 2

Fleet Operations: Command and Control Warfare and Electronic Warfare Systems,
NSGTP 683-02-00-99

NSG Module 4

Cryptologic Operators Manual for ELINT Operations, NSGTP 683-04-44-94

NSG Module 5

Communications Signals Collection Operator, NSGTP 683-05-00-96

NSG Module 9

Cryptologic Collection Equipments, NSGTP 683-09-00-96

NSG Module 11

SCI Security and Emergency Destruction, NSGTP 683-11-00-98

NSG Module 15

SIGINT Reporting, NSGTP 683-15-00-98

NSG Module 22
Fleet Operations: Orientation, NSGTP 683-22-00-97

SECNAVINST 5510.30A
Department of the Navy Personnel Security Program

SECNAVINST 5510.36
Department of the Navy (DON) Information Security Program (ISP) Regulation

USSID 2

USSID 18

USSID 101

USSID 110

USSID 150

USSID 301

USSID 305

USSID 369

USSID 406

USSID 501

USSID 503