W9AY STUDY GUIDE · ELEMENT 6 · FREE SAMPLE

Advanced Radiotelegraph

Complete question pool, organised by section, with study notes and every answer.

50	614	10	2.7 h
EXAM QUESTIONS	IN THE POOL	SECTIONS	TO READ ONCE

This is one section, free. 6J, Topics 109–116: all 34 of its pool questions, each with its answer. Read the notes, then cover the answers and work through the questions, and watch how quickly the answers start to stick. The rest of the guide works the same way.

Get the full guide: w9ay.com/study/radiotelegraph. It adds all 10 sections and every one of the 614 pool questions. Pay through Stripe; your download link appears as soon as you pay and is emailed to you.

w9ay.com

Contents

50 questions on the exam, drawn from 614 in the pool.

SECTION	TOPIC	QUESTIONS	READING
6J	Topics 109–116	34	~13 min

Element 6J — Topics 109–116

Topic 109

Distress Traffic Format and Emergency Power

- Every distress-traffic radiotelegram includes: the **distress signal preceding the call** and repeated at the beginning.
- Emergency power supply continuous operation: at least **6 consecutive hours**.
- Principal US Pacific coast port for navigational warnings: **San Francisco**.
- Major US telecommunication center: **New York City**.
- A radiotelegraph and radiotelephone license cannot be held simultaneously: **no person may hold both**.

6A583

After a distress call has been transmitted, every distress-traffic radiotelegram shall contain what symbol in the preamble?

- A. SOS followed by the call signal
- B. The distress signal preceding the call and repeated at the beginning of the preamble
- C. All of the above
- D. None of the above

Answer: B

6A584

For how long a period of continuous operation should the emergency power supply of a compulsorily equipped ship station be capable of energizing the emergency radiotelegraph installation?

- A. At least 6 consecutive hours
- B. At least 12 hours
- C. At least 24 consecutive hours
- D. At least 48 consecutive hours

Answer: A

6A585

What is the principal port of the United States, on the Pacific coast, at which navigation lines terminate?

- A. Los Angeles
- B. San Francisco
- C. San Diego
- D. None of the above

Answer: B

6A586

In what city is the major telecommunication center of the United States located?

- A. Houston
- B. New York City
- C. Washington
- D. Chicago

Answer: B

6A587

Under what condition may an eligible person hold a radiotelegraph operator's license and a Marine Radio Operator permit?

- A. When the planned telegraphy operation will occur aboard ship in international waters and another vessel is licensed for operation on the inland waterways
- B. When the commercial radio operator is legally eligible for both foreign and domestic employment
- C. No person may hold any class of radiotelegraph operator's certificate and a Marine Radio Operator Permit
- D. Commercial radiotelegraphers are required to also hold a Marine Radio Operator Permit when the operation occurs on vessels of less than 1600 gross tons

Answer: C

Topic 110

License Renewal, Upgrade, and Posting

- First Class Radiotelegraph renewal: submit **Form 756**, current license copy, and fee to the FCC.
- Second Class upgrade to First Class: submit **Proof-of-Passing Certificates (PPC)** from a COLEM.
- First Class Radiotelegraph license term: **five years**, renewable indefinitely without reexamination.
- Commercial operator on duty: **original license or photocopy** must be posted or in operator's possession.

6A588 *(modified — acronym expanded)*

How does a First Class Radiotelegraph Operator renew an unexpired license?

- *A. Renewal document indicating license serial number must be forwarded to the Federal Communications Commission (FCC) during the last 90 days of the license term*
- B. Application is made to the nearest Commercial Operator Licensing Examination Manager (COLEM) during the final six months of the license term
- C. By submitting Form 756, current license copy, and appropriate fee to the FCC during the last year of the five year license term
- D. A current Radio telegraphy Proficiency Testimonial (RPT) obtained from the ship's master must be attached to the renewal application Form 739

Answer: C

6A589 *(modified — acronym expanded)*

How does an eligible Second Class Radiotelegraph Operator upgrade his license to First Class?

- A. By submitting the necessary Proof-of-Passing Certificates (PPC) from a COLEM along with the required fee and Form 756 to the FCC
- B. By fulfilling the Six Months Service Endorsement requirement
- C. By presenting a one year radiotelegraph experience certification to a commercial radio operator examination manager
- *D. By complying with the International Telecommunication Union (ITU) Provision "D" concerning telegraphy operation in the Maritime Service*

Answer: A

6A590

What is the license term of the First Class Radiotelegraph Operator License?

- A. The license is valid for the lifetime of the holder
- B. A license is valid for a period of ten years form the DOI (date of issuance)
- C. The five year term license is renewable by retaking updated exam Elements 1 and 3 during the last 90 days before expiration
- D. The license term is five years and may be renewed indefinitely without retesting

Answer: D

6A591

What is a requirement of every commercial operator on duty and in charge of a transmitting system?

- A. A copy of the Proof-of-Passing Certificate (PPC) must be on display at the transmitter location
- B. The original license or a photocopy must be posted or in the operator's personal possession and available for inspection
- C. The FCC Form 756 certifying the operator's qualifications must be readily available at the transmitting system site
- D. A copy of the operator's license must be supplied to the radio station's supervisor as evidence of technical qualification

Answer: B

Topic 111

Radiotelegraph License Qualification Requirements

- First Class Radiotelegrapher experience: background of **sending or receiving radiotelegraph messages** in practice.
- Second Class requirements: pass Elements **1, 5, and 6** on basic radio and advanced radiotelegraph.
- Third Class qualification: pass written exams and receive **code by ear** at required speed.
- Amateur Extra Class exam credit: commercial telegraphy **Elements 1 and 2**.
- Code portion of radiotelegraph exam must contain: **all alphabet letters, all numerals, period, comma, question mark, slash, and other standard characters**.

6A592

What is the experience requirement of a First Class Radiotelegrapher?

- A. The applicant must have been employed as a radio operator on board a United States ship for at least six months
- B. The operator must have held a Second Class Radiotelegraph Operator's Certificate for at least six months
- C. The applicant must have a background of sending or receiving radiotelegraph messages for one year
- D. Both A & B

Answer: C

6A593

What examination requirements are necessary to obtain a Second Class Radiotelegraph Operator's Certificate?

- A. Written Element 1 (radio law), Element 3 (electronic fundamentals), Element 5 (radiotelegraph operations) and sending/receiving 16/20 words per minute
- B. Telegraphy Element 1 (sending/receiving 16 code groups per minute) and Telegraphy Element 2 (16 code groups and 20 words per minute text.)
- C. Successful completion of written test Elements 1, 5 and 6 on basic radio law and operating practices plus telegraphy Elements 1 and 2
- D. Successful completion of written test Elements 1, 3, 5 and 6 on basic radio law and operating practices plus telegraphy Elements 1 and B

Answer: C

6A594

How does an applicant qualify for a Third Class Radiotelegraph Operator's Certificate?

- A. By passing the appropriate written examinations and receiving by ear code groups and plain text for a period of one minute without error at the appropriate speed
- B. Applicant must send and receive radiotelegraphy at the prescribed speed and be at least 21 years old
- C. By the successful completion of radiotelegraphy Elements 1 and 2 plus written examinations on radio law, telegraphy practices and transmitter maintenance
- D. By passing a written examination on radio law, electronic fundamentals and radiotelegraph practices plus a telegraphy receiving examination

Answer: A

6A595

What examination credit is accorded Amateur Extra Class operators?

- A. 20 code groups and 25 text words per minute
- B. Amateur radio operators are not eligible for commercial radio operator examination credit
- C. Commercial radio operator telegraphy Elements 1 and 2
- D. Written Element 1, basic radio law and operating practices

Answer: C

6A596

What must every examination for the code portion of a radiotelegraph license contain?

- A. Applicants for Commercial Radiotelegraph licenses must be examined using a message format that they are likely to receive aboard ship
- B. Both a telegraphy sending and a receiving distress signals
- C. The proper transmission of radiotelegraph distress signals
- D. All alphabet letters, all numerals, period, comma, question mark, slant mark and prosigns AR, BT, and SK

Answer: D

Topic 112

Exam Format, Equipment Type Acceptance, License Rules

- Commercial radiotelegraph exam answer format: examinees **receive international Morse code messages by ear** and write them down.
- US vessel transmitting apparatus: must be **FCC type accepted for Part 80 operation**.
- When a higher-grade license is obtained: the **lower grade is canceled** — only one unexpired radiotelegraph certificate at a time.
- Ship station using telegraphy: must be capable of **automatically changing from telegraphy to telephony** mode.

6A597

What answer format is accepted on commercial radiotelegraph license contain?

- A. The examiner may use any answer format which ascertains that the examinee can comprehend the message transmitted
- B. Any of the following: one minute solid copy, answering seven out of ten question, fill-in-the-blank, or multiple choice questions
- C. Examinees are required to receive international Morse code messages by ear for a period of one minute without error
- D. Examinees must obtain a passing mark of 75% or higher on questions concerning the transmitted telegraphy message

Answer: C

6A598

What is a requirement of all transmitting apparatus used aboard United States vessels?

- A. Equipment must be approved by the U.S. Coast Guard for maritime mobile use
- B. Certification is required by the International Maritime Organization (IMO)
- C. Only equipment that has been type accepted by the FCC for Part 80 operations is authorized
- D. Programming of all maritime channels must be performed by a licensed Marine Radio Operator

Answer: C

6A599

What happens to a lower grade of Commercial Radiotelegraph License when a licensee qualifies for a higher grade?

- A. The lower grade is allowed to expire and may not be renewed
- B. The Second or Third Class Radiotelegraph license is modified to a higher class
- C. The lower grade is canceled. Only one unexpired radiotelegraph operator's certificate may be held at the same time
- D. Licensees are permitted to hold any number of radiotelegraph operator certificates at the same time

Answer: C

6A600

What is an operating control requirement of a ship station using telegraphy?

- A. The ship station must be capable of automatically changing from telegraphy transmission to telegraph reception
- B. A ship station control operator must stand watch on emergency channels at all times
- C. Only a licensed First Class Radiotelegraph Operator may operate a ship station
- D. The ship station must be capable of changing from one radio channel to another within five seconds

Answer: A

Topic 113

Radiotelegraph Operating Procedures

- Routine call: station called **not more than twice**, followed by "DE" and caller's call sign not more than twice.
- Equipment test: send **"VVV"** followed by the testing station's call sign.
- Call sign transmission interval during continuous transmission: every **20 minutes**.
- HF NBDP by public coast station: only when the **radio station license reflects authority** for this type.
- Equipment adjustments at maritime stations using telegraphy: only holders of **first or second class radiotelegraph** or GROL.

6A601

How does a radiotelegraph operator transmit a routine call to another station?

- A. The letters "CQ" are followed by the call sign of the station called and the call sign of the originating s t a t i on
- B. The station is called not more than twice, followed by the word "DE" and the call sign of the calling station not more than twice
- C. The originating station must obtain permission from the nearest public coast station
- D. Routine calls are initiated by using the appropriate service abbreviation

Answer: B

6A602

What is the proper procedure to conduct a radiotelegraph equipment test?

- A. By transmitting "EI" on the test frequency as a warning that a test transmission is about to be made
- B. Sending a series of "VVV" followed by the call sign of the testing station at about 10 words-per- minute
- C. The test transmission may not proceed until all stations on frequency have signalled their consent
- D. The nearest public or private coast station must be notified of an impending test

Answer: B

6A603

How often must a radiotelegraph station transmit its call sign when a transmission is maintained for more than 20 minutes in the band 405-525 kHz?

- A. At 20 minute intervals
- B. At least every 10 minutes
- C. At 15 minute intervals unless public correspondence is in progress
- D. At the beginning and end of each communication with any other station

Answer: A

6A604

When may a public coast station authorized to use high frequency narrow-band direct-printing (NB-DP) establish contact with a ship station using telegraphy?

- A. Never. Contact may only be established using NB-DP circuits
- B. When the ship is in excess of 300 gross tons
- C. When the radio station license reflects authority for this type of operation and harmful interference is avoided
- D. When it is known that the vessel does not have a selective ringing or calling device

Answer: C

6A605

Which operator is authorized to make equipment adjustments at maritime radio stations which may affect transmitter operation?

- A. The holder of a marine radio operator permit or higher class license
- B. The holder of a restricted radiotelephone operator permit when the radiated power is less than 100 watts
- C. Only the holders of a first or second class radiotelegraph of the general radiotelephone operator's license
- D. The holder of a GMDSS radio operator or higher class radiotelephone license

Answer: C

Topic 114

Installation Authority, Bandwidth, and Power Limits

- Install/maintain radiotelephone transmitters under 500W: anyone under **immediate supervision of a qualified person**.
- Programming frequencies into maritime transmitter: only **first or second class radiotelegraph** holders.
- Maximum authorized HF radiotelegraphy bandwidth: **0.4 kHz**.
- Maximum ship station power for radiotelegraphy: **3 kW**.

6A606

Who may install, maintain or adjust radiotelephone transmitters which radiate less than 50 watts carrier power?

- A. Anyone under the immediate supervision and responsibility of a person holding a first of second class radiotelegraph or general radiotelephone operator license
- B. Only a properly licensed radiotelephone operator
- C. Any holder of a marine radio operator permit or higher
- D. Only persons holding an operator certificate containing a ship radar endorsement

Answer: A

6A607

Who may program authorized frequency channels into a transmitter or transceiver used in the maritime service?

- A. Any person who has the authorization of the station licensee or ship's master
- B. A licensed marine radio operator or higher
- C. A person holding a restricted radiotelephone operator permit or higher
- D. Only persons holding a first or second class radiotelegraph operator's certificate or a general radiotelephone operator's license

Answer: D

6A608

What is the maximum authorized bandwidth of a high frequency radiotelegraphy signal, emission A1A, in the maritime service?

- A. 0.4 kHz
- B. 0.2 kHz
- C. Minimum necessary to complete necessary communications
- D. 1 kHz

Answer: A

6A609

What is the maximum transmitter power that a ship station may radiate using radiotelegraphy emissions on frequencies below 27500 kHz?

- A. 400 W
- B. 2 kW, unless a passenger ship 5000 gross tons and over
- C. 3 kW
- D. 1 kW

Answer: C

Topic 115

Ship Station Logs, Inspections, Survival Craft Antenna

- Ship station logs kept during voyage: at **principal radiotelephone or radiotelegraph operating position**.
- Compulsory radiotelegraph inspection on passenger vessels: at least **once every 12 months**.
- Survival craft non-portable radio antenna: **single-wire inverted-L type** of maximum practicable length.
- Document after radio inspection on large non-passenger ship: **cargo ship safety radiotelegraphy or radiotelephony certificate**.
- Chief radio officer on US passenger ships: minimum **First Class Radiotelegraph Operator Certificate**.

6A610

Where must ship station logs be kept during a voyage?

- A. They must be secured in the vessel's strongbox for safekeeping
- B. In the personal custody of the licensed commercial radio operator
- C. At the principal radiotelephone operating position or radiotelegraph operating room
- D. All logs are turned over to the ship's master when the radio operator goes off duty

Answer: C

6A611

How often must compulsory radiotelegraph installations on passenger vessels be inspected?

- A. When the vessel is placed in service and every 2 years thereafter
- B. At least every 3 years when the ship is within 75 miles of an FCC field office
- C. The ship's master is responsible for completion of the Annual Equipment Verification Report
- D. Equipment inspections are required at least once every 12 months

Answer: D

6A612 *(modified — acronym expanded)*

What is the antenna requirement aboard a survival craft equipped with a non-portable radiotelegraph installation?

- *A. The minimum lifeboat antenna requirement is an High Frequency (HF) half-wave dipole capable of efficiently tuning distress frequencies*
- B. The antenna must be single wire inverted L type of maximum practicable length and height above the waterline
- C. The antenna must be tested at least once during each voyage and a minimum of once a week on longer voyages
- D. The antenna must be located a minimum of 8 meters above the waterline to insure the safety of passengers

Answer: B

6A613

What document is issued after a radio station inspection aboard a large ship that is not a passenger vessel?

- A. Great Lakes Radio Agreement surety authorization
- B. International Maritime Organization safety permit
- C. Cargo ship safety radiotelegraphy or radiotelephony certificate
- D. Safety Convention radio certification

Answer: C

6A614

What is the minimum radio operator license requirement of a chief radio officer on U.S. passenger ships?

- A. First or Second Class Radiotelegraph Operator Certificate with six month endorsement
- B. First Class Radiotelegraph Operator Certificate
- C. General Radiotelephone Operator License
- D. Marine Radio Operator Permit

Answer: B

Topic 116

Communication Priority and Pre-Transmission

- Priority of radiotelegraph communications: **distress first**, then urgency, safety, and routine.
- Before making a transmission: **determine that the frequency is not in use** (except for distress calls).

6A615

What is the order of priority of radiotelegraph communications in the maritime services?

- A. Alarm, radio-direction finding, and health and welfare communications
- B. Navigation hazards, meteorological warnings, priority traffic
- C. Distress calls, and signals, followed by communications preceded by urgency and safety signals
- D. Government precedence, messages concerning safety of life and protection of property and traffic concerning grave imminent danger

Answer: C

6A616

What should a station operator do before making a transmission?

- A. Check transmitting equipment to be certain it is properly calibrated
- B. Except for the transmission of distress calls, determine that the frequency is not in use by monitoring the frequency before transmitting
- C. Ask if the frequency is in use
- D. Transmit a general notification that the operator wishes to utilize the channel

Answer: B

Want the rest?

Get the full guide

The complete Advanced Radiotelegraph guide is one PDF: all 10 sections and every one of the 614 pool questions, each with its answer.

1. Go to **w9ay.com/study/radiotelegraph**.
2. Press **Buy the PDF** and pay through Stripe.
3. Your download link appears as soon as you pay, and it is emailed to you.

What the full guide covers

SECTION	TOPIC	QUESTIONS	WHERE
6A	Topics 1–12	70	full guide
6B	Topics 13–24	67	full guide
6C	Topics 25–36	68	full guide
6D	Topics 37–48	69	full guide
6E	Topics 49–60	63	full guide
6F	Topics 61–72	60	full guide
6G	Topics 73–84	61	full guide
6H	Topics 85–96	61	full guide
6I	Topics 97–108	61	full guide
6J	Topics 109–116	34	in this sample