

FCC GENERAL RADIOTELEPHONE OPERATOR LICENSE (GROL) ELEMENT 1 PRACTICE TEST (SAMPLE)

STUDY GUIDE



SAMPLE STUDY GUIDE WITH LIMITED QUESTIONS

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THE FULL VERSION STUDY GUIDE

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Introduction

Preparing for a certification exam can feel overwhelming, but with the right tools, it becomes an opportunity to build confidence, sharpen your skills, and move one step closer to your goals. At Examzify, we believe that effective exam preparation isn't just about memorization, it's about understanding the material, identifying knowledge gaps, and building the test-taking strategies that lead to success.

This guide was designed to help you do exactly that.

Whether you're preparing for a licensing exam, professional certification, or entry-level qualification, this book offers structured practice to reinforce key concepts. You'll find a wide range of multiple-choice questions, each followed by clear explanations to help you understand not just the right answer, but why it's correct.

The content in this guide is based on real-world exam objectives and aligned with the types of questions and topics commonly found on official tests. It's ideal for learners who want to:

- Practice answering questions under realistic conditions,
- Improve accuracy and speed,
- Review explanations to strengthen weak areas, and
- Approach the exam with greater confidence.

We recommend using this book not as a stand-alone study tool, but alongside other resources like flashcards, textbooks, or hands-on training. For best results, we recommend working through each question, reflecting on the explanation provided, and revisiting the topics that challenge you most.

Remember: successful test preparation isn't about getting every question right the first time, it's about learning from your mistakes and improving over time. Stay focused, trust the process, and know that every page you turn brings you closer to success.

Let's begin.

How to Use This Guide

This guide is designed to help you study more effectively and approach your exam with confidence. Whether you're reviewing for the first time or doing a final refresh, here's how to get the most out of your Examzify study guide:

1. Start with a Diagnostic Review

Skim through the questions to get a sense of what you know and what you need to focus on. Your goal is to identify knowledge gaps early.

2. Study in Short, Focused Sessions

Break your study time into manageable blocks (e.g. 30 – 45 minutes). Review a handful of questions, reflect on the explanations.

3. Learn from the Explanations

After answering a question, always read the explanation, even if you got it right. It reinforces key points, corrects misunderstandings, and teaches subtle distinctions between similar answers.

4. Track Your Progress

Use bookmarks or notes (if reading digitally) to mark difficult questions. Revisit these regularly and track improvements over time.

5. Simulate the Real Exam

Once you're comfortable, try taking a full set of questions without pausing. Set a timer and simulate test-day conditions to build confidence and time management skills.

6. Repeat and Review

Don't just study once, repetition builds retention. Re-attempt questions after a few days and revisit explanations to reinforce learning. Pair this guide with other Examzify tools like flashcards, and digital practice tests to strengthen your preparation across formats.

There's no single right way to study, but consistent, thoughtful effort always wins. Use this guide flexibly, adapt the tips above to fit your pace and learning style. You've got this!

Questions

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1. VHF ship transmitters must have the capability of reducing carrier power to:
 - A. 1 watt.
 - B. 10 watts.
 - C. 25 watts.
 - D. 50 watts.
2. How can a SART's effective range be maximized?
 - A. The SART should be placed in water immediately upon activation.
 - B. The SART should be held as high as possible.
 - C. Switch the SART into the "high" power position.
 - D. If possible, the SART should be mounted horizontally so that its signal matches that of the searching RADAR signal.
3. Which statement is false?
 - A. All Safety communications received on VHF must be logged.
 - B. All required equipment tests must be logged.
 - C. The radio operator must log on and off watch.
 - D. The vessel's daily position must be entered in the log.
4. Under what circumstances may a coast station using telephony transmit a general call to a group of vessels?
 - A. Under no circumstances.
 - B. When announcing or preceding the transmission of Distress, Urgency, Safety or other important messages.
 - C. When the vessels are located in international waters beyond 12 miles.
 - D. When identical traffic is destined for multiple mobile stations within range.
5. In distress or disaster logs, retention is required for three years from the last date of entry unless notified by which entity?
 - A. FCC.
 - B. ITU.
 - C. Coast Guard.
 - D. Navy.

- 6. Upon discovering a false EPIRB alarm, the recommended action is to immediately contact which authority?**
- A. Local weather office
 - B. Coast Guard or rescue coordination center
 - C. Ship's master
 - D. Radio operator on VHF channel 16
- 7. What transmitting equipment is authorized for use by a station in the maritime services?**
- A. Transmitters certified by the manufacturer for maritime use.
 - B. Unless specifically excepted, only transmitters certified by the FCC for Part 80 operations.
 - C. Equipment inspected and approved by the U.S. Coast Guard.
 - D. Transceivers and transmitters that meet all ITU specifications for use in maritime mobile service.
- 8. For a ship station using VHF bridge-to-bridge Channel 13, which form of identification may be used?**
- A. The call sign along with the country of origin.
 - B. Identification is not required within 100 miles from shore.
 - C. The vessel's name may be used in lieu of a call sign.
 - D. The call sign and the vessel's name.
- 9. If a ship sinks, what device is designed to float free, activate automatically, and transmit a distress signal?**
- A. EPIRB on 2182 kHz and 405.025 kHz.
 - B. An emergency position indicating radio beacon.
 - C. Bridge-to-bridge transmitter on 2182 kHz.
 - D. Auto alarm keyer on any frequency.
- 10. Small passenger vessels that sail 20 to 150 nautical miles from the nearest land must have what additional equipment?**
- A. Inmarsat-B terminal.
 - B. Inmarsat-C terminal.
 - C. Aircraft Transceiver with 121.5 MHz.
 - D. MF-HF SSB Transceiver.

Answers

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1. A
2. B
3. A
4. B
5. A
6. B
7. B
8. C
9. B
10. D

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Explanations

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1. VHF ship transmitters must have the capability of reducing carrier power to:

- A. 1 watt.**
- B. 10 watts.
- C. 25 watts.
- D. 50 watts.

Having the ability to drop the transmitter to a very low power is essential for safe testing and alignment of a VHF ship transmitter. When performing maintenance, calibration, or field tests, you don't want to flood nearby receivers or cause interference with other vessels or shore stations. A one-watt output provides a minimal, controlled signal that lets you verify transmitter operation and alignment without affecting the surrounding radio traffic. The higher power settings would create unnecessary interference during these tests, so the required capability is to reduce carrier power to one watt.

2. How can a SART's effective range be maximized?

- A. The SART should be placed in water immediately upon activation.
- B. The SART should be held as high as possible.**
- C. Switch the SART into the "high" power position.
- D. If possible, the SART should be mounted horizontally so that its signal matches that of the searching RADAR signal.

Raising the SART increases its line-of-sight to approaching radars. When the beacon is held as high as possible, there are fewer obstructions from waves, deck structures, or other nearby objects, so distant radars can detect the beacon more reliably. The SART's signal is designed to be received over a wide area when its antenna has a clear, elevated view, which translates to a greater effective range. Placing the SART in water reduces detectability because the antenna becomes submerged, attenuating the signal and limiting the radar's ability to pick it up. Switching to a higher power mode isn't a practical option on typical SARTs and wouldn't reliably extend range—the battery would drain quickly and the design usually fixes transmit power. Mounting the unit horizontally misaligns the antenna with the radar's polarization, reducing the cross-section and making detection less likely. Keeping the SART high and properly oriented gives the best chance that radar searchers will notice it as far away as possible.

3. Which statement is false?

- A. All Safety communications received on VHF must be logged.**
- B. All required equipment tests must be logged.
- C. The radio operator must log on and off watch.
- D. The vessel's daily position must be entered in the log.

Logging on a ship's radio system records the actions and events that matter for safety and regulatory compliance. The log includes when the operator is on or off watch, when required equipment tests are performed, and the vessel's daily position to maintain a navigational record. However, not every safety communication received on VHF must be logged. Distress, urgency, and safety calls are critical and may be actioned immediately, but logging every safety message would be overly broad and isn't how the log's purpose is framed in regulations. So the statement that all safety communications received on VHF must be logged is not correct.

4. Under what circumstances may a coast station using telephony transmit a general call to a group of vessels?

- A. Under no circumstances.
- B. When announcing or preceding the transmission of Distress, Urgency, Safety or other important messages.**
- C. When the vessels are located in international waters beyond 12 miles.
- D. When identical traffic is destined for multiple mobile stations within range.

A coast station may use a telephony general call to reach a group of vessels only when it is about to send or announce Distress, Urgency, Safety, or other important messages. This lets all listening vessels know that a critical transmission is coming and ensures they pay attention to the following safety-related traffic. General calls are reserved for these urgent situations, rather than routine or non-safety communications, so the other options don't fit: distance or routine traffic isn't the controlling factor, and calling multiple vessels for identical traffic isn't the intended use of a general call.

5. In distress or disaster logs, retention is required for three years from the last date of entry unless notified by which entity?

- A. FCC.**
- B. ITU.
- C. Coast Guard.
- D. Navy.

Distress or disaster logs must be kept for three years from the last entry date unless you receive a notification from the FCC. The FCC is the U.S. regulator for radiocommunications and holds authority over recordkeeping for licensees and operations; its notification overrides the standard retention period. The other entities don't issue this specific retention directive to individuals or licensees in this context: ITU sets international standards but not U.S. retention rules, the Coast Guard may oversee maritime safety but does not control this particular logging requirement, and the Navy is a military organization not responsible for civilian radio log retention directives.

6. Upon discovering a false EPIRB alarm, the recommended action is to immediately contact which authority?

- A. Local weather office
- B. Coast Guard or rescue coordination center**
- C. Ship's master
- D. Radio operator on VHF channel 16

An EPIRB indicates a distress situation, so any alarm must be treated as urgent and processed through the official SAR channel. The Coast Guard or Rescue Coordination Center is the authority responsible for coordinating search-and-rescue operations and for canceling false alerts. Notifying them promptly ensures the beacon is deactivated and avoids unnecessary SAR responses. Local weather offices don't handle distress alerts, and while the ship's master may oversee operations, the formal action is to contact the Coast Guard or RCC. Reporting to a radio operator on VHF channel 16 can reach the Coast Guard, but the required action is to contact the Coast Guard or Rescue Coordination Center directly.

7. What transmitting equipment is authorized for use by a station in the maritime services?

- A. Transmitters certified by the manufacturer for maritime use.
- B. Unless specifically excepted, only transmitters certified by the FCC for Part 80 operations.**
- C. Equipment inspected and approved by the U.S. Coast Guard.
- D. Transceivers and transmitters that meet all ITU specifications for use in maritime mobile service.

Transmitting equipment used in the maritime services must have FCC certification for Part 80 operations. This certification confirms the transmitter meets the specific emission, frequency stability, and safety requirements established for maritime mobile use in the United States. Relying on manufacturer certification alone doesn't satisfy regulatory requirements, since only the FCC's official certification grants the legal authority to operate the equipment on ships and stations under Part 80. Coast Guard approval isn't the controlling factor for transmitter certification, though they play a role in safety and regulatory compliance. ITU specifications provide international guidance, but they do not substitute for FCC certification for US maritime operation.

8. For a ship station using VHF bridge-to-bridge Channel 13, which form of identification may be used?

- A. The call sign along with the country of origin.
- B. Identification is not required within 100 miles from shore.
- C. The vessel's name may be used in lieu of a call sign.**
- D. The call sign and the vessel's name.

Identification on VHF ship-to-ship communications is normally by the vessel's call sign, but on the bridge-to-bridge inter-ship channel you may use the vessel's name in place of the call sign. This channel is used for quick, practical exchanges between nearby ships, and using the vessel's name helps others recognize which vessel is calling without needing to parse a longer call sign. The official identity still exists as the call sign, and you should provide it if requested or if you're operating on a different channel, but for routine inter-ship chatter on Channel 13 the vessel's name alone is acceptable for identification.

9. If a ship sinks, what device is designed to float free, activate automatically, and transmit a distress signal?

- A. EPIRB on 2182 kHz and 405.025 kHz.
- B. An emergency position indicating radio beacon.**
- C. Bridge-to-bridge transmitter on 2182 kHz.
- D. Auto alarm keyer on any frequency.

An emergency position indicating radiobeacon is the device designed to float free, activate automatically, and transmit a distress signal. These beacons are fitted to ships and aircraft and are released automatically if the vessel sinks or is submerged, thanks to a hydrostatic release mechanism. Once activated, they broadcast a distress signal to search-and-rescue authorities via the COSPAS-SARSAT satellite system, typically on a primary 406 MHz channel with a 121.5 MHz homing signal to help rescuers locate the beacon. This rapid location and signaling are what enable rescue teams to pinpoint the vessel's position even if the crew cannot communicate. The other options describe different equipment: a bridge-to-bridge transmitter is for ship-to-ship communications and isn't designed to float free or automatically activate in a sinking scenario; one item isn't a recognized distress device; and specifying particular frequencies is more about how the beacon communicates than what it is. The core concept is the radiobeacon that provides automatic distress signaling and location information, so that is the correct choice.

10. Small passenger vessels that sail 20 to 150 nautical miles from the nearest land must have what additional equipment?

- A. Inmarsat-B terminal.
- B. Inmarsat-C terminal.
- C. Aircraft Transceiver with 121.5 MHz.
- D. MF-HF SSB Transceiver.**

When a vessel operates 20 to 150 nautical miles from land, VHF alone isn't sufficient for reliable long-range communication. Long-range safety and coordination require a radio capable of reaching shore stations and other ships beyond line-of-sight. An MF/HF SSB transceiver provides that capability because MF/HF bands can carry communications over much greater distances, using both ground-wave and sky-wave propagation, and SSB makes long-distance voice transmissions efficient. This meets the needs of near-coastal operations where you're outside the practical range of VHF. Inmarsat terminals offer satellite communication, which is useful but not the specific minimum requirement for this operating range. An aviation 121.5 MHz transceiver is not intended for marine communications and does not replace proper marine channels.

Next Steps

Congratulations on reaching the final section of this guide. You've taken a meaningful step toward passing your certification exam and advancing your career.

As you continue preparing, remember that consistent practice, review, and self-reflection are key to success. Make time to revisit difficult topics, simulate exam conditions, and track your progress along the way.

If you need help, have suggestions, or want to share feedback, we'd love to hear from you. Reach out to our team at hello@examzify.com.

Or visit your dedicated course page for more study tools and resources:

<https://fccgrolement1.examzify.com>

We wish you the very best on your exam journey. You've got this!

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